

# PROPERTY MARKET REVIEW Housing markets in Austria and CESEE



Q3/22

Security through stability.

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.

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## Overview

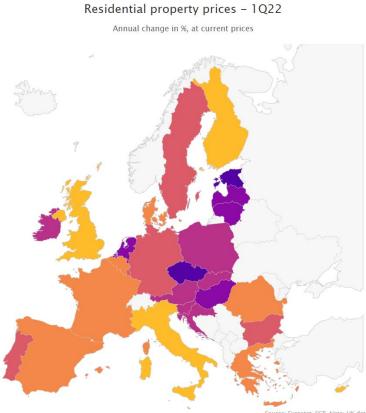
### Austria: two-digit growth in residential property prices seen since Q4 2020 persists

- Price growth remained above 10% year on year for the seventh quarter in a row both in Vienna and in the rest of Austria. In the second quarter of 2022, prices in Vienna and in Austria excluding Vienna rose by around 13% year on year. This meant that house price growth reached a new peak for Austria as a whole (13.1%, following around 12% at the beginning of the year).
- Growth of housing loans to Austrian households remained high in the first half of 2022, though interest
  rates for housing loans started to increase.

### CESEE: house prices continue to soar and housing markets are facing challenging times

- In Central, Eastern and Southeastern Europe (CESEE) house prices continued to soar in the fourth quarter of 2021 and first quarter of 2022. Buoyant price increases were largely bolstered by favorable economic fundamentals, government stimulus measures focusing on housing markets and rising construction costs. In the period under review, the affordability of housing has deteriorated in most CESEE countries because house price increases have outpaced wage increases.
- New challenges to CESEE housing markets have emerged with the outbreak of the war in Ukraine, and financial stability risks have intensified against the background of a long period of extraordinary house price increases, strong housing loan growth and household indebtedness.
- Households are likely to be financially more stretched owing to high inflation rates and rising interest
  rates. Elevated inflation is weighing on households' purchasing power, which may impair their ability to
  repay their housing loans. Rising interest rates are affecting the demand for new lending, but moreover,
  in the case of existing loans with variable interest rates, the costs of repayment are increasing, which
  might strain households' debt service capacity, particularly for households with a high debt service-toincome ratio.
- As regards housing supply, skyrocketing construction costs and the shortage of labor and construction materials are making the narrowing of the persistent gap between housing demand and housing supply even more challenging in CESEE countries.
- Macroprudential measures were discontinued in several CESEE countries, mostly in 2020 due to the
  expected impact of the COVID-19 pandemic on the economy in general and on residential property
  markets specifically. Lately, CESEE central banks have repeatedly warned about further adverse
  developments and several central banks have decided to apply stricter rules for housing finance.

## House price growth map





Source: Eurostat, ECB. Note: UK data reflect 3Q2020; the annual 2020 and 2021 figures include data up to 3Q2020

## Contents

Overview	2
House price growth map	3
Housing markets in Austria	5
Housing markets in CESEE	10
References	19
Annex	21

Cutoff date: September 12, 2022

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 Two-digit growth in residential property prices seen since Q4 2020 persists

Price growth remained above 10% year on year for the seventh quarter in a row - both in Vienna and in the rest of Austria. In the second quarter of 2022, prices in both regional aggregates rose by around 13% year on year. This meant that, for Austria as a whole, house price growth reached a new peak (13.1%, following around 12% at the beginning of the year).

## Clear uptrend continued for the seventh quarter in a row

The steep year-on-year upward trend in residential property prices in Austria observed since the second half of 2020 continued in the second quarter of 2022. However, when compared against the previous quarter, house price growth decreased slightly within all segments. After 3.7% in the first quarter of 2022, residential property prices in Austria increased by 3.2% in the second quarter (see table 1). For Austria's provinces excluding Vienna, growth came to 3.0% in the second quarter (after 3.7% in the first quarter).

## Residential property prices in Austria

	Q2 22	Q1 22	Q4 21	Q3 21	Q2 21	Q1 21	Q4 20	Q3 20	Q2 20	Q1 20	2021	2020
Annual change in %												
Austria	+13.1	+12.3	+12.6	+10.4	+11.7	+12.3	+10.0	+9.5	+5.2	+3.4	+11.8	+7.0
Austria excluding Vienna	+13.2	+12.9	+13.9	+10.6	+12.8	+14.0	+10.7	+9.7	+6.8	+2.8	+12.8	+7.5
Vienna	+13.0	+11.8	+11.3	+10.2	+10.7	+10.9	+9.4	+9.4	+4.1	+3.9	+10.8	+6.7
Quarterly change in %												
Austria	+3.2	+3.7	+3.2	+2.4	+2.4	+3.9	+1.3	+3.6	+3.0	+1.7	×	×
Austria excluding Vienna	+3.0	+3.7	+4.4	+1.5	+2.7	+4.6	+1.5	+3.5	+3.8	+1.5	×	×
Vienna	+3.3	+3.8	+2.1	+3.3	+2.2	+3.3	+1.1	+3.7	+2.4	+1.9	×	×
Index (2000=100)												
Austria	277.5	269.0	259.3	251.2	245.3	239.4	230.4	227.5	219.5	213.1	248.8	222.6
Austria excluding Vienna	264.3	256.5	247.4	236.9	233.3	227.3	217.2	214.1	206.9	199.3	236.2	209.4
Vienna	319.9	309.6	298.4	292.2	283.0	276.8	268.0	265.1	255.6	249.5	287.6	259.6

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

Note: x = no data available.

## Vienna: some deceleration but single-family house prices spiked again

In Vienna, quarter-on-quarter price increases slowed down a bit for all property categories except single-family homes. In comparison with the previous quarter, the prices for single-family homes increased by 3.3% in the second quarter (after 2.0% in the first quarter). Year on year, prices for new and resale condominiums in Vienna rose by 14.4% and 12.3%, respectively, in the second quarter of 2022, thus moving broadly in sync with the overall market. The growth in prices for detached single-family homes<sup>1</sup> accelerated to 12.7% year on year (after 11.6% in the first quarter).

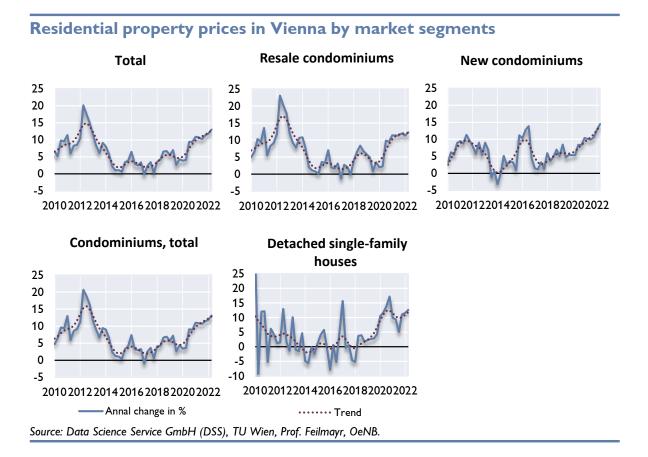
Table I

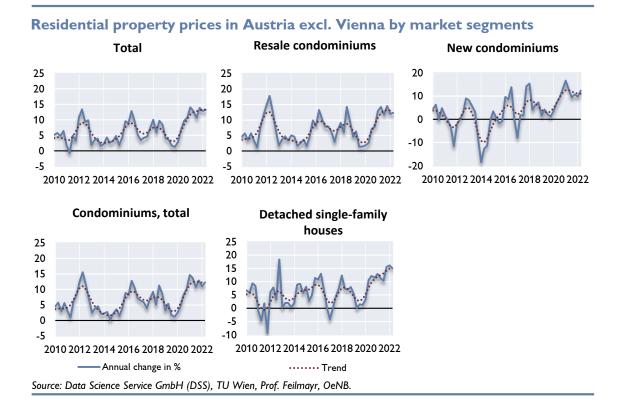
<sup>&</sup>lt;sup>1</sup> The marked decline in single-family house prices needs to be viewed against the fact that, in Vienna, this segment is small and marked by volatile price developments.

### Austria excluding Vienna: still highest price increases for single-family homes

In the other provinces, quarter-on-quarter single-family house price growth accelerated markedly at the end of 2021, rising to 5.6%. Then growth moderated somewhat, coming down to 4.1% in the first and 1.7% in the second quarter of 2022. Resale condominiums saw quarterly price increases of 3.8% in the second quarter of 2022, after 3.4% in the first quarter and 3.7% in the fourth quarter of 2021. Year-on-year increases of single-family house prices have accelerated markedly since mid-2021 – they remained the highest increases among all segments with 15% (after 16.1% in the first quarter).

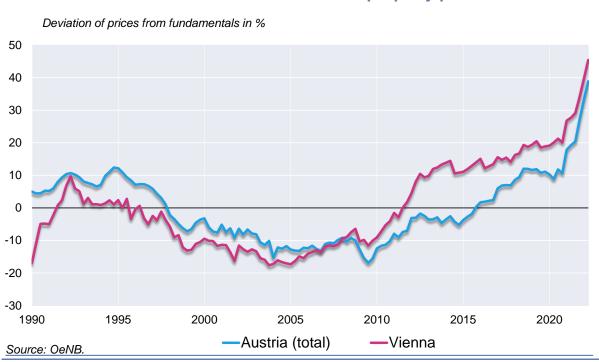
Chart I





## 2 OeNB fundamentals indicator<sup>2</sup> for residential property prices: Gap between prices and fundamentals still widening

Given the steep increase in prices, the OeNB's fundamentals indicator for residential property prices in Austria went up significantly in the second quarter of 2022. At 39%, the indicator was up 6 percentage points on the previous quarter. The indicator for Vienna even reached 45% in the fourth quarter of 2021, representing a rise of 6 percentage points against the third quarter (see chart 3). These indicator readings signal that the gap between residential property price growth and the factors captured by the OeNB's fundamentals indicator has been widening substantially in recent quarters, pointing to increasing signs of overheating in Austria's residential property market. Besides the sharp increase in prices, interest rate risk is also driving the indicator. The subindicator for interest rate risk compares the three-month interest rate for the euro area with an interest rate estimated from the current development of GDP and inflation according to a Taylor rule. Since the current interest rate is considerably below the Taylor interest rate, this signals a risk of rising interest rates in the OeNB's fundamentals indicator.



## **OeNB** fundamentals indicator for residential property prices

Chart 3

<sup>&</sup>lt;sup>2</sup> Schneider, M. 2013. Are Recent Increases of Residential Property Prices in Vienna and Austria Justified by Fundamentals? In: Monetary Policy & the Economy Q4/13. OeNB. 29–46.

## 3 Growth of housing loans to Austrian households remained buoyant

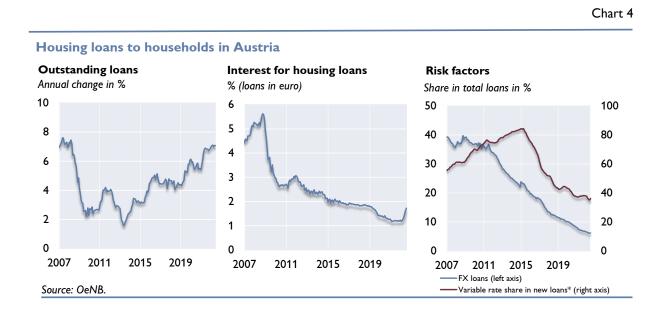
In July 2022, the annual growth rate of MFI loans to households for house purchase amounted to 6.9% (adjusted for reclassifications, valuation changes and exchange rate effects). Long-term loans (with a maturity of more than 5 years) continued to be the main driver of housing loan growth, accounting for more than 95% of outstanding loans at the end of July 2022, even if loans with medium-term maturities recorded stronger increases over the past few months.

### Borrowing costs for housing loans have started to rise

After a long period of falling interest rates for housing loans to households, conditions have reversed in recent months, reflecting higher reference rates, such as money market rates. In July 2022, interest rates on new housing loans in euro stood at 1.72%, up by 55 basis points against six months earlier. The annual percentage rate of charge for housing loans, which reflects total borrowing costs (interest rate component and related charges), remained virtually constant, rising by 2 basis points in the same period.

### Role of foreign currency lending has declined further

The share of foreign currency loans decreased further over the first half of 2022, to stand at 6.2% of all outstanding housing loans in July 2022, 1.0 percentage point lower than one year earlier. In the same period, the share of variable rate loans (with an initial rate fixation period of up to one year) in new housing loans fell slightly, by 1.5 percentage points, coming to 36.4% in July 2022.



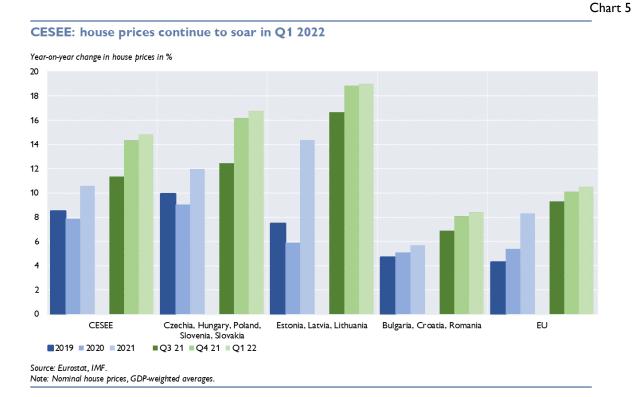
## Housing markets in CESEE

## 1 Housing market developments overshadowed by the war in Ukraine

Housing markets in Central, Eastern and Southeastern Europe (CESEE) have weathered the COVID-19 pandemic very well, and house price growth was striking in late 2021 and early 2022. Until the first quarter of 2022, buoyant price increases were largely bolstered by favorable economic fundamentals, government stimulus measures focusing on housing markets and rising construction costs. Now, the economic environment is overshadowed by the war in Ukraine, and CESEE housing markets are facing challenging times. On the demand side, for instance, borrowers may struggle with higher financing costs and stretched debt service capacity due to increased interest rates and lower purchasing power. Going forward, these factors may have a dampening effect on housing demand as well. As regards housing supply, skyrocketing construction costs and the shortage of labor and construction material are making the narrowing of the persistent gap between housing demand and housing supply in CESEE countries even more challenging.

## House prices in CESEE continued to increase steeply

In annual terms, house prices in the CESEE region (GDP-weighted average) accelerated by 14.4% and almost 15%, respectively, in the fourth quarter of 2021 and first quarter of 2022. For 2021 as a whole, house prices increased by 10.6% after below 8% in 2020 (chart 5).<sup>3</sup> The figures document the persistent upward trend in house prices in the CESEE region. Moreover, house price growth in CESEE continued to be higher than in the EU where, on average, annual house price growth rose to above 10% in the fourth quarter of 2021 and first quarter of 2022.



<sup>&</sup>lt;sup>3</sup> House price growth rates (in nominal and real terms) are provided in the annex for each country.

In the last two observation periods (fourth quarter of 2021 and first quarter of 2022), annual house price growth was strongest in Czechia with 25.8% and 24.7%, respectively. In other CESEE countries, annual house price growth exceeded 20% as well, namely in Estonia, Lithuania and Hungary. In all CESEE countries, growth dynamics picked up speed compared to full year 2021 – significantly so in some countries. The rise was highest in Czechia, Estonia, Latvia as well as Slovakia.

### Why did house prices increase so steeply?

The driving factors behind house price growth are, of course, varied. Some of these factors are relevant for all CESEE countries, while others are rather country specific. Overall, the favorable economic environment in CESEE and tight labor markets with low unemployment rates and rising wages continued to boost housing demand in all CESEE countries. Consumer sentiment was optimistic before the outbreak of the war but deteriorated thereafter.<sup>4</sup> Financing conditions were rather favorable despite tighter lending conditions in most CESEE countries. A (still) low interest rate environment possibly brought forward house purchases because households were expecting higher financing costs in the future considering rising inflation rates and monetary tightening by central banks. Moreover, the purchase of a house is generally assessed as a good store of value in times of high inflation which may have inspired households to buy residential property. Many CESEE countries, such as Hungary, Croatia or Romania, have put into place partly generous government stimulus measures to boost the acquisition of residential property, thus influencing housing market dynamics in the region. Moreover, a significant inflow of refugees from Ukraine also has pushed up demand for housing in several countries (particularly in the Baltic countries and Poland). On the supply side, extraordinarily high construction costs and the lack of labor and construction materials fueled prices or delayed the completion of new housing.

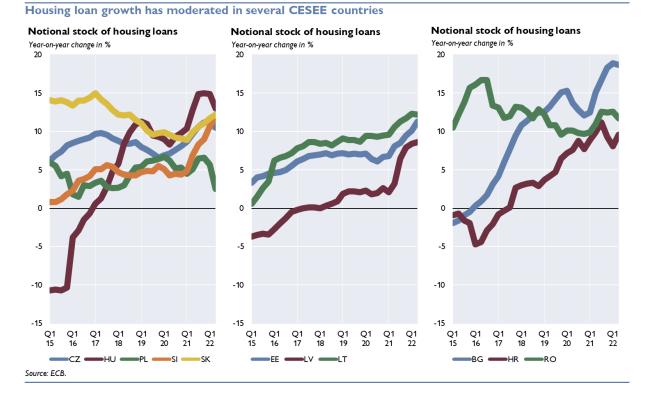
### Housing finance: interest rate turnaround in the first half of 2022

Over the last years, accelerating house prices came along with strong housing loan growth and low interest rates. In the first half of 2022, nominal housing loan growth remained strong in most CESEE countries and was highest in Bulgaria, with annual growth of almost 19%. Double-digit growth rates were registered in all CESEE countries except for Croatia, Latvia and Poland. In Poland, annual growth was weakest with 5.7% in the first quarter of 2022 and 2.5% in the second quarter of 2022 (chart 6). In terms of pure new lending for housing purposes, i.e. excluding renegotiated loans, there was a visible deterioration of lending activity in the CESEE countries. In Poland, for instance, annual growth of housing loans (new businesses) declined by around 14% in the first half of 2022 compared to an increase of almost 50% in 2021.<sup>5</sup>

<sup>&</sup>lt;sup>4</sup> See: OeNB. 2022. <u>Developments in selected CESEE countries</u>. In: Focus on European Economic Integration Q2/22. May 2022. OeNB. 7–17.

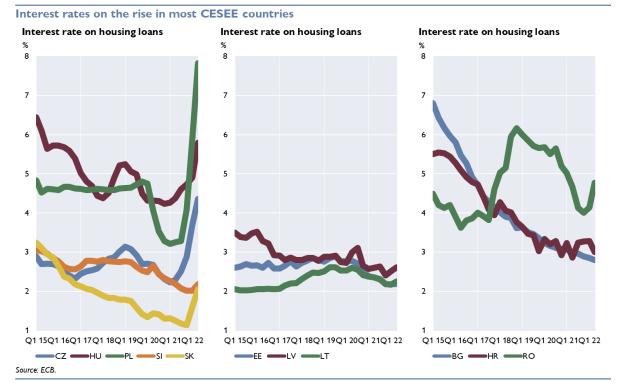
<sup>&</sup>lt;sup>5</sup> Growth rates for housing loans (new business) are provided in the annex.

#### Chart 6



Several CESEE countries faced rising lending rates for housing in the wake of further price acceleration with the outbreak of the war in Ukraine<sup>6</sup> (chart 7). Central banks in non-euro area CESEE countries that pursue inflation targets (namely Czechia, Hungary, Poland and Romania) continued their tightening cycles that had already started in 2021. In several steps, record-low key interest rates were raised, i.e. to 7% in Czechia, to 11.75% in Hungary, to 6.5% in Poland and to 5.5% in Romania. In the euro area CESEE countries (Estonia, Latvia, Lithuania, Slovenia, Slovakia) as well as in Bulgaria (which operates under a currency board) and Croatia (which is an exchange rate-targeting country) lending rates are linked to policy changes by the European Central Bank (ECB), which increased its key policy rates by 50 basis points for the first time in 11 years at the end of July 2022 and further by 75 basis points in September 2022.

<sup>&</sup>lt;sup>6</sup> In the second quarter of 2022, the annual change in the HICP was above or close to 20% in Bulgaria and the Baltic countries and reached double-digit rates in the remaining CESEE countries. In July 2022, the annual inflation rate accelerated further in all CESEE countries.



Against this background, lending rates for housing 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 (chart 7). However, interest rates remained rather low in most CESEE countries, which may explain, in part, why housing loan growth was still relatively strong in the first half of 2022. Favorable lending conditions were also supported by strong competition in the banking sector, for instance in Slovakia (Národná banka Slovenska, 2022a). Households' expectations are a new factor that may have driven housing loan demand: In anticipation of rising financing costs, households may have asked for housing loans in recent months. Additionally, financing needs for the purchase of a house household loans in many cases. However, high inflation is eroding real household income and purchasing power, which may be dampening the demand for housing loans. Moreover, the heightened uncertainty that households are currently facing (for instance concerning the development of energy prices) may cause them to postpone the purchase of a house.

### Many CESEE governments are subsidizing housing loans

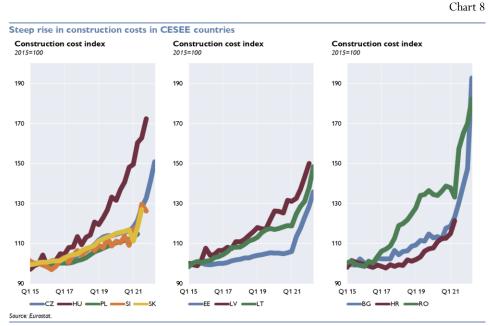
A striking feature of CESEE housing markets is the extent of government support. Many CESEE governments have put measures in place, some of them very generous, to facilitate households' efforts to purchase a house (or to make this possible in the first place). In Croatia, for example, subsidized housing loans continued to grow strongly in the first half of 2022 (Croatian National Bank, 2022). In Hungary, new housing subsidies were introduced in early 2021, which was reflected in strong housing loan increases as well (Magyar Nemzeti Bank, 2022a). Against the background of persistent growth of house prices and housing loans, however, the Estonian government tightened the eligibility criteria for housing loan guarantees and limited the

beneficiary group as well to make its support more targeted. For instance, families in rural areas with many children are now specifically targeted (Eesti Pank, 2022). Latvijas Banka (2022) has so far only proposed to make the government support program more targeted, also to enhance the efficiency of macroprudential policy.

The latest CESEE Bank Lending Survey (European Investment Bank, 2022) was conducted in March 2022, right after the outbreak of the war in Ukraine. Banks in CESEE reported that they expected negative spillovers both on credit demand and supply for the following months. More specifically, respondent banks said that they expected demand for housing loans to moderate in most CESEE countries due to a weakening of consumer confidence, higher financing costs and tighter macroprudential measures and housing markets to cool down overall. For the supply side, banks expected tighter conditions in an environment of elevated uncertainty.

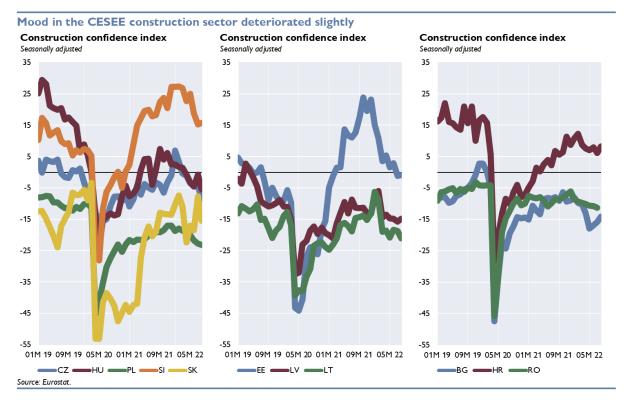
### Housing supply: under strain due to enormous construction cost increases

Already before the outbreak of the war in Ukraine construction costs surged in the CESEE countries, largely driven by strong global demand for and lack of building materials, supply disruptions chain labor and shortage. Lately, prices for



construction materials have increased particularly strongly in Bulgaria and Romania (chart 8). Globally rising prices have been feeding through to the construction sector. As it is very dependent on energy-intensive building materials (such as steel or cement), it has been facing intensified inflationary pressure. Moreover, the shortage of material as well as labor has become worse. Particularly in Poland, workers from Ukraine are essential for the construction sector and their war-related absence is delaying the completion of building projects (Narodowy Bank Polski, 2022). Skyrocketing construction costs are putting additional pressure on house prices and are intensifying the structural shortage of housing supply in CESEE countries. Narrowing the gap between housing supply and housing demand has become even more challenging due to delayed completion, postponement or even cancellation of (planned) projects.

#### Chart 9

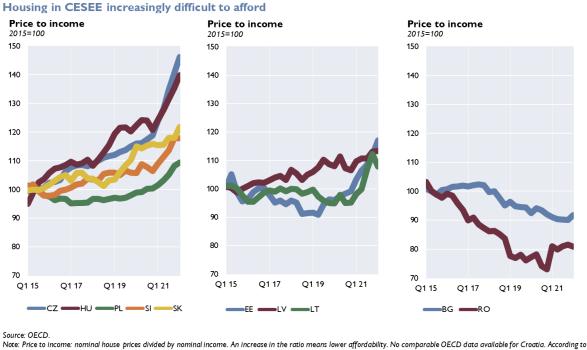


These challenges are also reflected in the confidence indicator for the construction sector (chart 9). Obviously, confidence slumped significantly after the outbreak of the COVID-19 pandemic in the first and second quarter of 2020 but recovered (at least partly) after the initial COVID-19 shock. Since the outbreak of the war in Ukraine, however, confidence in the construction sector has deteriorated again in most CESEE countries which is not only the result of higher costs but also related to an overall high degree of uncertainty.

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

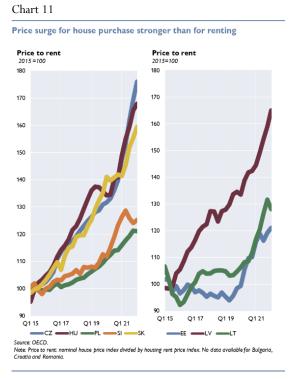
### Buying a house is less and less affordable for many households

The affordability of housing has deteriorated in most CESEE countries (chart 10) because house price increases have largely outpaced wage increases. In the period under review, housing affordability worsened particularly in Czechia and Hungary even though income increased robustly in both countries. However, as noted by Magyar Nemzeti Bank (2022b) many households benefited from housing subsidies that cushioned the worsening impact of house price increases significantly.



the Croatian National Bank (2022a), already low housing affordability declined further in 2021.

Generally speaking, it has become more difficult for households to afford housing as high inflation rates are eroding purchasing power, making the purchase of residential property even more unattainable for many households in CESEE.

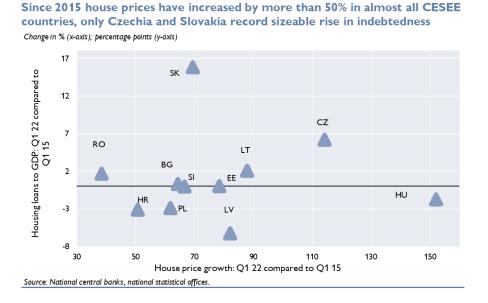


Another measure for evaluating house price developments is the price-to-rent ratio. This ratio indicates first signs of over- or undervaluation of house prices. Chart 10 shows that house prices have been accelerating much more strongly than rents in most CESEE countries, particularly in Czechia, Hungary and Latvia. Most CESEE central banks find house prices to be overvalued and that the deviation from economic fundamentals has accelerated even further. According to Magyar Nemzeti Bank (2022b), for example, house prices are overvalued by around 18% for the whole country and by 15% in Budapest. According to the Czech National Bank (2022) house prices are strongly overvalued but it is estimated that house price growth will be slowing down significantly in the second half of 2022. The Croatian National Bank (2022) also argues that there is the risk of reversal in the real estate market.

## Financial stability risks to CESEE housing markets have intensified with the outbreak of the war in the Ukraine

Already before the outbreak of the war in Ukraine, housing market risks were an issue in many CESEE countries. CESEE central banks and international institutions have repeatedly cited extraordinary house price increases, strong housing loan growth and household indebtedness (chart 12) as potential risk factors for financial stability in the region. The 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 in total, out of which four countries are in CESEE, namely Bulgaria, Croatia, Hungary and Slovakia. This means that current policies are not appropriate to address vulnerabilities that have been building up and financial stability risks related to residential property markets are increasing.

Chart 12



New risks to CESEE housing markets and new (macroprudential) policy challenges have clearly emerged with the outbreak of the war in Ukraine. Elevated inflation is weighing on households' purchasing power, which is likely to impair their ability to repay their loans. Rising interest rates are affecting the demand for new lending, but moreover, in case of existing loans with variable interest rates, the costs of repayment are increasing<sup>7</sup>, which might strain households' debt service capacity, particularly for households with a high debt service-to-income ratio.

Among the CESEE countries, Bulgaria, the Baltic countries and Poland have the highest share of variable interest rate housing loans. In Poland, for instance, 90% of loans are variable interest loans, i.e. most borrowers are affected by tighter financing conditions, and as can be seen in chart 7, interest rates increased most strongly in Poland among the CESEE countries (by about 4.5 percentage points from the third quarter of 2021 to the second quarter of 2022), implying a

<sup>&</sup>lt;sup>7</sup> For Croatia, the Croatian National Bank (2022) has calculated the impact of increasing interest rates on loan repayment costs. Accordingly, a 1 percentage point increase in the interest rate, for example, would increase loan repayment costs by more than 5% on average, a 2 percentage points increase by more than 11%.

significantly higher financial burden for many households. However, Narodowy Bank Polski (2022) assessed that, thanks to high wage growth, households' loan service capacities are generally sufficient to handle higher down payments – particularly for loans taken out before 2020 (around 75% of the loan portfolio). Borrowers that took out loans in 2021 or 2022 are potentially more at risk of repayment difficulties because they were granted during a time of historically low interest rates (therefore strongly accelerating interest rates have a stronger impact on repayment costs). Moreover, such households benefited from wage increases for a shorter time. To support households, however, the Polish government introduced a loan moratorium that started on August 1, 2022. Borrowers are allowed to freeze their loan repayment for up to eight months (for four months in 2022 and four months in 2023). Furthermore, in case of temporary difficulties to serve a credit, borrowers can also use the Borrowers' Support Fund under specific conditions.

In Hungary, measures to protect households against rising interest rates were already introduced in 2021. More specifically, there was an interest rate freezing period which started in October 2021. With its phasing out in 2022, repayment installments could significantly increase. Magyar Nemzeti Bank (2022a), however, says that risks are overall manageable particularly because the share of loans with variable interest rates has decreased over the past years and that transmission is occurring with a large delay.<sup>8</sup>

For loans taken out in the first quarter and second quarter of 2022, the share of variable interest loans declined compared to 2021, particularly in Poland: In 2021, more than 90% of new housing loans had an interest rate fixation period of only up to one year. In the first quarter of 2022, around 70% of newly granted loans had an interest rate fixation period of up to one year and in the second quarter of 2022 less than 60%.

Regarding Slovakia, the IMF (2022b) pointed out that more and more lending for housing is granted with maturities extending beyond borrowers' retirement age. This development is particularly worrying against the background of dynamic growth of household debt in Slovakia (chart 11) and a high share of households with DSTI ratios right below the regulatory limits.

Overall, several CESEE central banks reported more risky lending for housing purposes as reflected in higher debt service-to-income (DSTI), debt-to-income (DTI) and/or loan-to-value (LTV) ratios and/or longer maturities that are often close to the regulatory limits.<sup>9</sup> These developments make households more vulnerable to interest rate changes and to deteriorating purchasing power due to accelerating prices.

## How are CESEE central banks reacting?

Macroprudential measures were discontinued in several CESEE countries, mostly in 2020 due to the expected impact of the COVID-19 pandemic on the economy in general and on residential property markets specifically. The Czech National Bank, for instance, withdrew its recommendation for DSTI and DTI limits during the COVID-19 pandemic to stimulate the housing market. These days CESEE central banks are very vigilant and well aware of the financial

<sup>&</sup>lt;sup>8</sup> For subsidized loans, however, higher interest rates are only partly reflected in borrowers' interest rates (Magyar Nemzeti Bank, 2022a).

<sup>&</sup>lt;sup>9</sup> For a complete overview of macroprudential measures in CESEE, see ESRB: National macroprudential policy.

stability risks emanating from housing market imbalances. They have repeatedly warned about further adverse developments. Against the background of continued house price increases and rising indebtedness among households, several central banks have decided to apply stricter rules for housing finance.

In Czechia, stricter borrower-based measures have been in place since April 1, 2022. Generally, the following rules apply: the LTV limit is set at 80%, the upper limit of the DTI ratio (here: the upper limit of overall debt to annual income) at 8.5 times net annual income and the DSTI ratio at 45% of net monthly income. For loan applicants under 36 years of age, more relaxed limits are in place (LTV: 90%; DTI: 9.5 and DSTI: 50%). Since the end of 2021, these measures have been binding for banks. Before, the Czech National Bank had only been able to provide recommendations for borrower-based measures for the banking sector.

In Poland, the Financial Supervision Authority (UKNF) released new recommendations in order to reduce credit risks. For example, it is recommended that banks should assume an interest rate change of 5 percentage points compared to the current level when the creditworthiness of a household is assessed (Narodowy Bank Polski, 2022). In February 2022, the Bank of Lithuania already introduced a 70% LTV limit for the second and subsequent mortgage and, from July 1, 2022, a 2% sectoral systemic risk buffer is required for retail exposures secured by residential property. Similarly, the Bank of Slovenia also introduced a sectoral systemic risk buffer for housing loans secured by residential property (see also <u>ESRB: National macroprudential policy</u>).

In August 2022, Národná banka Slovenska (NBS, 2022b) decided to apply stricter DTI limits for loans maturing after borrowers reach retirement age. Regarding the new regulation, the NBS followed a recommendation by the IMF (2022b) and the ESRB (2022); both institutions had advised addressing maturities running beyond the retirement age. Also NBS detected such maturities as a significant risk factor, in particular because new lending for housing that matures after borrowers have reached retirement age has strongly increased since the beginning of 2021. NBS has decided that debt limits should become stricter as borrowers near retirement, more specifically the DTI limit is set at 8 for borrowers up to 40 years of age and declines to 3 for borrowers older than 60 years of age. With the new regulation, NBS aims to reduce risks related to financial difficulties encountered by retired persons. The new regulation is scheduled to become effective from January 1, 2023.

## References

Banka Slovenije. 2022. Financial Stability Review. May 2022.

Bulgarian National Bank. 2022. Economic Review 1/2022.

Croatian National Bank. 2022. Financial Stability 23. May 2022.

Czech National Bank. 2022. Financial Stability Report – Spring 2022. July 2022.

Eesti Pank. 2022. Financial Stability Review 2022/1.

European Investment Bank. 2022. CESEE Bank Lending Survey. Spring 2022.

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

IMF. 2022a. Republic of Latvia. IMF Country Report No. 22/277. August 2022.

IMF. 2022b. Slovak Republic. IMF Country Report No. 22/202. June 2022.

Latvijas Banka. 2022. Financial Stability Report 2022.

Lietuvos Bankas. 2022. Credit and Real Estate Market Review. June 2022.

Magyar Nemzeti Bank. 2022a. Financial Stability Report. May 2022.

Magyar Nemzeti Bank. 2022b. Housing Market Report. May 2022.

National Bank of Romania. 2022. Financial Stability Report. No 12 (22). June 2022.

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

Národná banka Slovenska. 2022b. Statement from the NBS Bank Board's 15th meeting of 2022. NBS Press Release. August 23, 2022.

Narodowy Bank Polski. 2022a. Financial Stability Report. June 2022.

## Annex

### 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	

	0		'				
	1Q22	4Q21	2021	2020	2019	2018	2017
EU	10.5	10.1	8.3	5.6	4.8	5.0	4.7
BE	6.4	6.0	7.1	4.2	4.0	2.9	3.6
BG	11.5	9.4	8.7	4.6	6.0	6.6	8.7
CZ	24.7	25.8	19.7	8.4	9.2	8.6	11.7
DK	6.7	6.7	11.7	5.1	2.3	4.4	4.5
DE	12.0	12.2	11.0	7.8	5.8	6.6	6.1
EE	21.0	20.4	15.0	6.0	7.0	5.9	5.5
IE	15.0	13.8	8.3	0.3	2.3	10.2	10.9
GR	8.6	9.5	7.4	4.5	7.2	1.8	-1.0
ES	8.5	6.3	3.7	2.2	5.2	6.7	6.2
FR	7.1	6.9	6.3	5.2	3.3	2.9	3.2
HR	13.5	9.1	7.3	7.7	9.0	6.1	3.8
IT	4.6	4.0	2.5	1.9	-0.1	-0.6	-1.1
CY	1.1	-5.2	-3.4		3.7	1.8	2.2
LV	17.3	16.1	10.9		9.0	9.6	8.8
LT	19.1	19.8	16.1	7.3	6.8	7.3	8.9
LU	10.5	12.1	13.9	14.5		7.1	5.6
ΗU	20.6	23.4	16.6	4.9		14.3	
MT	6.7	4.5	5.1	3.4	6.1	5.8	5.3
NL	19.5	18.8	15.0	7.6	7.3		7.5
AT	13.7	15.4	12.4	7.7	5.8	4.7	5.3
PL	13.6	12.1	9.2	10.5	8.7	6.6	3.9
PT	12.9	11.6	9.4	8.8	10.0	10.3	9.2
RO	6.4	7.5	4.4	4.7	3.4	5.6	6.0
SI	16.9	15.8	11.5	4.6	6.7	8.7	8.3
SK	14.2	10.7	6.4	9.6	9.1	7.4	5.9
FI	4.3	4.3	4.5	1.7	0.9		1.3
SE	10.3	11.1	10.2	4.2	2.5		6.6
UK					1.0	3.3	4.6

1Q22 |4Q21 |2021 |2020 |2019 |2018 |2017

-0.4	1.5	4.8	3.6	2.6	0.8	1.7
-1.1	-1.9	4.9	5.2	3.9	4.1	3.9
11.1	20.2	16.4	5.4	6.2	5.9	9.1
1.3	3.2	9.5	4.7	1.4	3.7	3.5
6.7	7.3	7.6	7.1	4.4	5.1	4.6
8.0	10.4	10.2	6.9	4.4	2.2	1.1
7.4	6.9	4.3	-0.2	0.3	8.1	9.8
		6.3	5.6	7.2	1.7	-1.4
2.2	2.0	1.7	2.2	4.1	5.2	4.6
4.1	4.5	4.7	4.1	2.5	1.2	2.3
6.5	4.4	4.5	7.3	7.8	4.6	2.9
0.1	1.0	0.9	2.1	-0.7	-1.5	-2.1
-4.1	-8.9	-5.4	0.7	2.6	0.5	1.2
7.6	9.1	7.2	2.7	5.8	6.3	5.3
5.2	10.5	11.0	6.4	4.6	4.5	5.2
5.2	7.9	11.2	13.8	8.3	5.1	3.3
9.5	14.6	9.7	1.6	11.8	10.7	8.6
3.2	2.4	3.8	2.2	4.2	5.0	4.3
13.4	13.5	11.2	6.2	4.6	7.1	6.1
7.8	12.1	9.9	6.2	4.0	2.6	3.4
3.6	3.2	3.5	6.9	6.1	4.8	1.8
9.0	9.1	8.1	8.0	9.0	8.6	7.6
-2.0	-0.2	-1.1	2.2	-1.9	1.7	3.3
8.1	7.8	7.5	5.2	5.3	6.6	6.6
2.8	4.7	3.0	7.2	6.2	4.9	4.4
0.3	1.4	2.7	1.2	-0.1	0.1	0.3
6.5	8.0	8.1	3.3	0.4	-3.3	4.8
			0.0	-0.4	0.9	2.5

#### Residential construction investment Annual change in % at constant prices

Number of residential building permits Annual change in %

Annua	Annuai change in %, at constant prices									Annuai change in %					
	2Q22	1Q22	2021	2020	2019	2018	2017		2Q22	1Q22	2021	2020	2019	2018	2017
EU	2.2	5.1	6.7	-3.0	2.3	3.6	4.7			12.8	15.9	-8.9	-0.6	5.6	9.0
BE			8.5	-7.2	4.7	2.6	0.8			-3.8	4.2	-1.2	-10.8	24.7	-2.0
BG	-8.1	-4.4	-11.0	0.7	6.6	-2.2	19.2		38.8	8.2	35.9	-10.2	-7.7	42.3	37.5
CZ	7.1	11.3	-1.6	3.8	2.0	5.2	10.6		-3.0	26.2	27.6	-8.5	19.8	3.4	18.0
DK	6.4	5.7	9.9	9.1	6.3	4.8	11.1			7.7	0.8	-9.1	-10.7	32.0	0.2
DE	-4.2	2.9	0.6	4.6	1.4	3.0	0.9		1.3	-2.6	3.8	2.4	3.2	2.0	-2.1
EE	19.3	-32.7	-2.5	14.0	10.3	2.3	11.1			-11.4	-0.7	10.1	14.8	-11.3	30.8
IE	28.4	36.2	2.2	-7.5	-0.3	20.4	21.7		2.0	21.5	1.5	10.2	32.9	39.3	30.2
GR	16.1	19.1	26.5	14.6	16.9	22.5	-7.0			18.3	48.6	18.6	33.3	42.0	19.8
ES	5.7	0.0	-5.3	-11.2	6.6	13.0	13.4			85.0	42.7	-42.0	0.7	34.2	10.3
FR	0.8	3.4	14.8	-12.2	2.5	3.2	6.1		5.7	26.5	20.1	-14.2	-3.2	-6.2	6.3
HR	8.5	12.4	1.1	-5.0	13.0	-0.3	-7.2		7.4	24.9	19.1	-8.2	30.9	-6.0	34.9
IT	14.3	19.9	25.9	-7.4	-0.8	1.1	1.1			8.4	21.9	-11.2	-0.6	6.8	17.6
CY	-5.8	-8.7	-2.6	-5.9	21.3	37.5	16.0		-12.4	4.4	13.1	-3.5	55.3	25.6	35.4
LV	-12.8	-7.9	-15.4	-1.9	3.8	26.3	-0.2		-5.4	70.0	16.8	13.0	0.8	20.8	16.1
LT	24.7	10.3	-1.4	4.1	14.7	5.9	-4.6		1.7	-18.8	29.7	0.1	-6.7	2.3	-4.5
LU		-1.4	3.0	-7.0	8.3	3.3	-8.8			-45.5	19.8	-5.5	-1.8	11.1	2.4
ΗU	10.2	0.4	-10.4	21.5	7.0	11.3	16.0		17.8	14.7	36.0	-38.1	-3.7	-3.2	21.5
MT	6.5	10.0	4.6	-21.3	0.1	20.3	36.4			59.6	-3.3	-37.2	-3.1	31.2	30.8
NL	2.7	-2.9	3.3	-0.6	3.4	9.3	12.3		-27.1	-7.7	12.6	15.6	-17.1	0.4	30.2
AT	-4.8	-2.3	5.2	1.6	3.9	2.0	6.3			-25.1	-9.4	-10.5	18.0	-16.9	15.8
PL	4.5	3.6	11.5	-0.3	4.3	-10.1	-2.6		7.5	-8.3	24.0	3.1	4.6	3.3	19.1
PT	0.6	13.6	8.9	-6.6	1.4	6.6	8.7		6.3	16.4	8.8	3.5	15.5	41.1	26.4
RO	10.4	9.1	5.6	6.6	23.7	-24.9	10.0		-5.6	-7.5	12.5	-2.0	4.3	11.4	9.2
SI	13.0	13.1	9.7	-0.2	8.4	1.9	5.3		-15.7	28.8	15.9	10.5	-10.3	16.6	7.0
SK	-8.2	3.9	3.4	9.7	2.9	9.4	0.0		0.8	0.7	20.3	-6.6	-0.9	11.3	-8.7
FI	7.4	23.0	5.8	-3.2	-4.2	4.7	4.1			-18.6	9.3	6.4		-10.1	20.3
SE	9.5	10.3	10.4	1.6	-6.5	-6.4	7.1			-2.2	23.8	17.6		-16.1	8.9
UK					0.1	5.1	9.2						-4.0	0.4	4.8
C C															

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 area 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.

Note: ", " indicates missing values.

### International property market data

Population growth												
Annua	al change	in %										
	2024	2020	2010	2040	2017							
	2021	2020	2019	2018	2017							
EU BE BG	-0.0 0.3 -0.5	0.2 0.6 -0.7	0.1 0.5 -0.7	0.2 0.4 -0.7	0.2 0.4 -0.7							
CZ DK	0.1 0.3	0.4 0.3	0.4 0.4	0.3 0.6	0.2 0.7							
DE EE IE	-0.0 0.1 0.8	0.2 0.3 1.2	0.3 0.4 1.5	0.3 0.3 1.0	0.4 -0.0 1.2							
ie GR ES	-0.4 0.1	-0.1 0.8	-0.2 0.6	-0.3 0.3	-0.1 0.2							
FR HR	0.5 -0.5	0.2 -0.4	0.0 -0.7	0.3 -1.2	0.2 -0.9							
IT	-0.7	-0.3	-1.1	-0.2	-0.1							
CY	0.9	1.4	1.3	1.1	0.8							
LV LT	-0.8 0.1	-0.6 -0.0	-0.7 -0.5	-0.8 -1.4	-1.0 -1.4							
LU	1.4	2.0	2.0	1.9	2.5							
HU	-0.4	-0.0	-0.1	-0.2	-0.3							
MT	0.3	4.3	3.8	3.3	2.2							
NL	0.4	0.7	0.6	0.6	0.6							
AT PL	0.4 -0.3	0.5 -0.0	0.4 -0.0	0.6 0.0	0.8 0.0							
PT	0.0	-0.0	-0.0	-0.2	-0.3							
RO	-0.7	-0.4	-0.6	-0.6	-0.6							
SI	0.6	0.7	0.7	0.0	0.1							
SK	0.0	0.1	0.1	0.1	0.2							
FI	0.2	0.1	0.1	0.2	0.3							
SE UK	0.5	1.0 0.6	1.1 0.6	1.3 0.7	1.5 0.7							
UK		0.0	0.0	0.7	0./							

	Homeownership ratio												
	Share o	f owners	hip in %										
	2021 2020 2019 2018 2017												
EU		70.0	69.8	69.9	70.0								
BE	71.3	71.1	71.3	72.3	72.4								
BG	84.9	84.3	84.1	83.6	82.9								
CZ	78.3	78.9	78.6	78.7	78.5								
DK	59.2	59.3	60.8	60.5	62.2								
DE FF	49.5	50.5	51.1	51.5	51.4								
	81.6	81.4	81.7	82.4	81.8								
IE GR	70.0	69.3 73.9	68.7 75.4	70.3 73.5	69.5 73.3								
ES	73.3 75.8	73.9	76.2	76.3	73.3								
ES FR	/5.8	63.6	76.2 64.1	76.3 65.1	64.4								
HR	90.5	63.6 91.3	64.1 89.7	90.1	64.4 90.5								
IT	73.7	75.1	72.4	72.4	90.5 72.4								
CY	69.8	68.6	67.9	70.1	72.4								
LV	83.2	81.2	80.2	81.6	81.5								
LT	03.2	88.6	90.2	89.9	89.7								
IU		68.4	70.9	71.2	74.7								
HU	91.7	91.3	91.7	86.0	85.2								
MT	21.7	81.9	79.8	81.6	81.3								
NI	70.1	69.1	68.9	68.9	69.4								
AT	54.2	55.3	55.2	55.4	55.0								
PI		85.6	84.2	84.0	84.2								
PT		77.3	73.9	74.5	74.7								
RO	95.3	96.1	95.8	96.4	96.8								
SI	76.1	74.6	74.8	75.1	75.6								
SK		92.3	90.9	91.3	90.1								
FI	70.3	70.7	71.1	71.6	71.4								
SE	64.9	64.5	63.6	64.1	65.2								
UK				65.2	65.0								

## Property price-to-income ratio

## Property price-to-rent ratio

	2Q22	1Q22	2021	2020	2019	2018	2017	2Q22	1Q22	2021	2020	2019	2018	2017
EU														
BE BG		107.0			100.9		100.2		119.1		110.8	109.2	106.1	
CZ		146.2		117.1	113.5		108.2		176.1		135.2	128.5		115.8
DK		120.8	118.9	109.6	104.4	104.8	102.6		132.7	128.4	116.4	111.8	109.9	106.2
DE		138.4	133.4	122.8	114.6	111.4	107.9		151.0	142.6	129.5	121.9	116.9	111.3
EE		114.6	105.3	97.8	93.3	93.4	95.9		121.1	117.6	106.2	95.8	96.0	96.7
IE		113.3	109.6	107.1	113.7	116.7	109.0		126.5	121.1	114.9	115.5	118.1	111.8
GR		109.3	106.4	106.8	99.6	97.2	97.0		133.6	128.3	119.6	114.5	106.7	101.5
ES		123.7	122.0	120.2	110.7	109.6	105.2		132.1	125.9	122.2		116.7	110.7
FR	112.8	113.4	109.8	106.1	101.4	100.9	100.4	128.8	127.5	122.3	115.6	110.0	106.9	103.4
HR														
IT CY		94.3	94.6	96.3	92.1				104.2		99.0		97.8	
LV		113.3		108.3	108.1	105.0	103.7		164.9	151.8	139.2	131.5		120.1
LT		107.8	104.3	95.7	97.0	99.3	99.4		128.1	123.9	108.7		104.8	103.3
LU		144.1	140.4	131.8	119.7	112.1	106.9		170.3	160.4		126.0	116.0	109.7
HU		140.0		122.8	120.7		109.5		167.8		137.5		127.7	
MT														
NL		146.8	133.9	122.1	117.0	113.9	108.5		160.6	144.6	128.0	122.2	116.7	108.7
AT		143.3	135.3	123.1	113.1	110.0	107.9		137.3	126.0	114.2	110.4	107.5	106.5
PL		109.3	104.5	99.6	97.3	96.6	95.3		121.0	118.5	112.9	107.8	104.0	101.4
ΡT		147.1	142.0	134.9	122.1	115.9	109.4		159.1	149.7	139.3	131.4	123.3	113.9
RO					•									
SI		117.7	113.0	107.2	105.8	104.5	102.0		125.6		117.3		107.0	104.5
SK		121.8	116.8	115.1	107.0	102.7	104.7		159.5	148.6	140.9	130.5	120.3	112.4
FI SE	•	99.0 117.5	98.7 114.3	96.7 108.3	95.7 103.7	97.6 104.7	99.1 109.3		102.6 131.6	100.6 125.5	97.0 115.4	96.7 112.4	97.8 111.4	98.3 113.5
SE UK	120.8		114.3			104.7	109.3		128.7	125.5		112.4		108.9
UK	120.0	121.5	110.2	107.0	100.0	100.1	109.0	150.1	120./	122.4	113.0	112.2	112.0	100.9

Source: Eurostat, OECD.

Note: EU-27 excluding the UK. Sources of international organizations are used in this area 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.

Note: ". " indicates missing values.

Table A2

2019 2018 2017 34.8 36.1

8.9 8.6 8.2

23.2 23.0 23.2

97.4 97.7 99.0

37.3 29.2 36.4 29.3 35.8 29.8

21.4 28.6 23.3 31.4 25.1 33.0

41.1 45.2 43.1 43.9 44.9 42.5

13.9 13.8 14.2

21.3 37.4 21.4 40.1 21.6 54.9

13.6 17.2 14.1 17.0 16.2 17.0

52.7 7.5 50.5 7.6 48.3 7.7

38.9 60.2 38.2 38.1

29.5 19.8 43.3

7.6 13.6 7.7 13.6 7.6 13.9

32.9 41.8 69.1 67.9 65.7 60.1 57.6 57.6

61.8 28.6 19.7 45.3

31.6 41.8 30.0 42.5

65.2

28.4 20.2 47.6

33.0

Table A3

#### International property market data

	<b>sing loa</b> al change									<b>ng loa</b> i f GDP in		
	2Q22	1Q22	2021	2020	2019	2018	2017		2Q22	1Q22	2021	2020
EU												
BE	8.5	7.8	7.9	10.7	7.6	9.0	5.6		40.5	40.4	40.8	41.9
BG	18.7	18.9	18.3	12.1	15.1	12.5	9.5		10.4	10.5	10.5	10.0
CZ	10.5	11.2	11.2	8.1	6.6	8.6	9.1		25.8	27.0	27.0	25.4
DK	2.4	2.9	3.2	2.0	2.4	1.7	1.2		89.7	92.5	94.5	99.1
DE	6.9	7.0	7.1	6.5	5.4	4.6	4.0		40.7	40.8	41.1	40.5
EE	11.3	10.1	9.5	6.7	7.0	7.1	6.9		29.2	29.5	30.1	31.5
IE	-6.8	-6.5	-4.1	-2.6	2.0	4.0	2.7		18.2	19.1	16.5	19.8
GR	-16.5		-16.3	-2.8	-5.5	-2.9	-3.1		15.2	15.9	16.7	27.7
ES	0.9	1.1	0.9	-1.1	-1.3	-1.4	-2.3		40.6	41.4	42.3	44.9
FR	6.0	6.6	6.6	7.1	6.1	6.3	5.7		49.8	49.9	50.2	51.0
HR	9.6	8.1	9.3	7.7	6.5	2.9	2.7		15.4	15.4	15.8	16.4
IT	5.0	4.9	4.7	2.2	1.1	1.7	2.1		22.9	23.0	23.1	23.6
CY	5.1	2.7	2.7	4.4	0.1	-0.7	-0.7		34.8	34.8	35.8	40.2
LV	8.6	8.4	7.9	2.6	2.1	0.9	0.1		13.0	13.3	13.7	14.2
LT	12.2	12.3	11.7	9.5	8.7	8.7	8.6		17.9	18.2	18.4	18.5
LU	8.1	8.9	9.1	9.8	8.4	8.4	8.4			53.4	54.1	56.6
ΗU	13.0	14.9	15.0	9.8	9.3	10.9	4.8		7.4	7.9	8.1	8.0
ΜT	10.6	11.1	10.9	7.0	10.1	8.7	7.6		43.6	44.0	44.0	44.5
NL	5.5	3.5	4.0	1.1	2.3	-1.7	3.4		60.6	60.4	60.2	62.2
AT	7.1	7.1	6.9	5.5	6.1	4.4	4.7		31.4	31.6	32.3	32.0
PL	2.5	5.7	6.6	5.3	6.4	5.3	2.6		18.1	18.8	19.7	20.1
ΡT	4.8	4.8	4.4	2.3	1.0	0.4	-1.2		44.4	45.1	45.9	47.5
RO	11.7	12.6	12.5	9.7	9.6	12.9	13.2		8.2	8.4	8.5	8.4
SI	11.7	10.7	9.0	4.4	5.5	4.3	5.4		14.3	14.3	14.3	14.6
SK	12.2	11.7	11.1	9.1	9.8	11.5	12.8		39.4	39.0	38.8	36.7
FI	2.8	3.5	4.1	3.3	2.7	1.6	2.2		41.3	42.0	42.8	43.5
SE	6.5	7.0	6.9	5.9	5.2	5.6	7.3		67.5	70.2	70.6	75.5
UK			4.7	3.0	3.5	3.4	4.3					

Housing loans<sup>1,4</sup> – new business (excluding renegotiated loans) Annual change in %

Share of variable rate housing loans<sup>1</sup> in new business<sup>5</sup>

	2022	1022	2021	2020	2019	2018	2017	2022	1022	2021	2020	2019	2018	2017
EU														
BE	-5.1	11.8	22.3	-15.6	18.9	3.7	-12.6	6.9	5.3	5.1	5.0	5.8	11.2	6.4
BG	24.8	39.3	48.2					98.2	98.3	98.2	97.9	99.1	98.7	98.9
CZ	-55.3	-13.4	63.9	31.7	-18.3	7.0	5.1	1.8	1.4	1.6	2.7	3.4	4.0	3.7
DK								40.3	29.6	23.8	23.5	19.4	33.2	35.4
DE	0.8	10.9	6.6	3.6	13.1	7.5	0.0	9.6	9.0	9.7	10.5	11.0	11.8	11.4
EE	15.3	2.6	59.5	-6.2	7.7	3.3	17.4	85.1	85.0	90.7	86.8	90.1	88.7	89.2
IE	17.2	1.7	15.6	-15.3	10.1	19.9	31.5	14.4	19.4	19.8	22.8	26.9	39.0	49.5
GR						7.0		46.6	48.5	54.2	66.4	81.8	95.3	92.1
ES	12.8	18.5	39.4	-2.1	2.3	13.2	17.4	20.0	22.5	25.1	34.0	35.5	36.3	42.4
FR	0.8	14.1	16.3	0.7	14.1	3.6	15.9	3.0	2.8	2.6	2.3	2.4	2.5	1.5
HR	-72.4	-56.4	-28.0	0.6	27.6	-28.5	-13.7	22.8	20.8	12.1	13.0	5.6	8.4	23.6
IT	-3.8	1.1	22.0	5.2	-3.8	0.3	-2.9	25.2	16.7	16.8	18.1	27.8	33.2	33.0
CY	-12.3	90.4	42.4	-9.6	0.6	19.9	33.1	94.8	99.6	98.0	92.5	93.2	95.8	98.1
LV	1.7	23.9	54.3	-3.2	-5.5	7.4	8.4	94.7	91.7	96.4	94.1	95.9	95.6	93.8
LT	4.9	17.6	43.0	4.4	2.5	9.7	12.1	94.6	96.8	97.6	97.3	98.4	97.4	91.1
LU	-10.1	1.1	7.2	16.9	5.6	7.9	17.9	41.9	34.6	34.9	33.9	38.6	46.9	42.3
HU	15.6	48.8	41.6	1.4	5.2	33.9	35.6	0.6	0.5	0.7	1.2	3.0	15.4	39.7
MT								65.7	65.8	65.9	83.4	40.1	62.7	69.1
NL	12.5	1.4	23.3	18.7	4.2	-0.7	16.3	9.7	9.6	11.8	14.7	18.5	16.2	13.5
AT	1.0	2.7	8.8	21.2	13.6	6.0	18.6	33.4	32.4	38.1	37.6	43.4	43.5	51.9
PL	-29.9	1.1	49.0	7.6	7.0	10.5	11.1	53.2	71.7	95.3	92.5	100.0	100.0	100.0
PT	8.4	25.5	34.0	8.1	10.3	19.6	41.4	67.2	64.8	68.9	67.8	70.7	65.1	60.2
RO	6.5	28.4	44.7	9.0	4.5	-12.0	34.8	54.2	63.2	73.2	70.7	77.4	74.1	79.9
SI	25.0	97.2	38.4	33.4	4.8	-4.2	5.7	7.3	10.0	21.5	51.7	52.9	47.9	45.3
SK	13.2	34.2	32.3	4.8	0.6	9.6	-6.2	2.6	1.4	2.1	2.3	1.7	1.7	2.0
FI	-14.8	-5.3	15.1	5.2	0.7	3.4	1.6	97.5	96.4	97.1	97.9	98.0	98.0	97.4
SE								66.7	57.1	55.2	60.7	66.7	77.0	72.5
UK										5.6	8.5	7.1	7.1	11.3

Source: ECB.

<sup>1</sup> Housing loans are defined as housing loans to the household sector.

<sup>2</sup> 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).

<sup>3</sup> 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. <sup>1</sup>Denominated in the respective national currency (growth rates are based on the averages of the monthly data available for the relevant years or <sup>1</sup>Denominated in the respective national currency (growth rates are based on the averages of the monthly data available for the relevant years or quarters).

<sup>5</sup> 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 area 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.

Note: ". " indicates missing values.

Table A4

Housing loans <sup>1</sup> in % of disposable income <sup>2</sup> %							Number of housing <sup>3</sup> transactions Per 1,000 inhabitants				
	2021	2020	2019	2018	2017		2021	2020	2019	2018	2017
EU						EU			9.2	8.9	10.2
BE		73.5	67.2	64.9	61.5	BE		10.6	13.1	11.4	10.9
BG					14.2	BG					
CZ	51.1	48.4	46.0	45.4	46.2	CZ					
DK	214.7	216.2	211.9	214.4	217.8	DK	16.8	15.9	13.9	13.7	13.9
DE	73.3	69.9	66.1	63.9	63.4	DE		6.8	6.9	6.5	6.5
EE		57.7	54.9	55.3	56.4	EE	24.2	19.5	20.3	19.7	19.7
IE		62.8	70.5	74.1	75.9	IE					
GR		41.6	46.2	52.1	54.7	GR		7.0	9.0	7.4	6.5
ES		71.2	68.3	72.8	75.4	ES					
FR		81.1	76.5	74.4	72.1	FR					14.5
HR		26.1	23.9	23.7	24.5	HR		0.8	0.8	0.7	0.6
IT	37.2	36.9	35.0	34.9	35.2	IT		9.4	10.1	9.6	9.0
CY		62.7	59.9	65.5	89.7	CY					
LV		23.6	24.3	25.1	28.6	LV	11.4	9.7	10.7	10.3	10.3
LT		29.0	29.0	29.2	28.7	LT	14.2	12.0	12.8	12.2	11.5
LU		151.0	145.0	140.8	135.3	LU	16.2	16.6	17.6	18.8	18.6
ΗU		14.4	13.7	13.9	14.2	HU		13.7	16.1	16.8	15.7
MT						MT	14.9	11.2	13.6	13.6	13.2
NL	125.7	127.6	130.6	134.2	141.5	NL					
AT		54.9	52.7	51.2	50.4	AT	9.6	8.9	8.9	8.9	8.4
PL		33.5	34.5	34.2	34.6	PL		5.4	5.6	5.6	5.0
ΡT	70.7	71.8	69.1	72.3	75.3	PT	16.1	13.4	15.1	14.7	12.6
RO						RO					
SI		24.6	24.5	24.7	25.1	SI		5.5	6.8	6.7	7.4
SK		60.6	56.7	54.2	53.3	SK					
FI	82.1	81.0	79.1	79.3	80.5	FI					
SE	149.2	154.9	142.8	140.2	136.0	SE			15.9	15.5	16.5
UK			95.5	91.0	92.0	UK					

## International property market data

Source: ECB, Eurostat.

<sup>1</sup> Housing loans are defined as housing loans to the household sector.

<sup>2</sup> 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 %.

<sup>3</sup> Property acquired by households.

Note: EU-28 including the UK. Sources of international organizations are used in this area 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.

Note: ". " indicates missing values.