

HOUSING MARKET REPORT



'Using our skills, we may be able to build stairs out of the stones which block our way.'

Count István Széchenyi



HOUSING MARKET REPORT

(November 2023)

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The housing market is of key importance for both economic agents (households, financial institutions) and the broader national economy. Housing market trends correlate closely with financial stability issues and are fundamental determinants of the short-term and long-term cyclical outlook. Overall, one can say that the housing market is integrally linked to all areas of the national economy. Housing market trends – in particular fluctuations in house prices – shape the savings and consumption decisions of households through their effect on their financial situation; they also impact the portfolios, profitability and lending activity of financial institutions via the collaterals of mortgage loans.

The Housing Market Report offers a comprehensive overview of current trends on the Hungarian housing market, identifying and describing the macroeconomic processes that influence the demand and supply sides of the housing market. Every six months, the Magyar Nemzeti Bank provides an overview of the developments on the housing market in Hungary in this publication.

Within its primary duties, the Magyar Nemzeti Bank views the property market and therein the housing market as priority areas in terms of inflation, the economic cycle and financial stability. The development of property market supply has a direct impact on growth, and oversupply and inadequate supply can both have serious consequences for financial stability. House price appreciation increases the wealth of households and encourages them to boost their consumption, which in turn impacts economic growth and inflation. Price appreciation also increases the lending capacity of financial institutions while reducing their expected losses, which has a stimulating effect on the economy via an increased supply of credit. The interconnection between the residential mortgage loan market and house prices demands special attention, as a self-reinforcing interaction can develop between bank lending and house prices over the course of economic cycles.

Using a complex, multifaceted set of data, the Housing Market Report facilitates deeper understanding of the factors behind market trends and provides insight into the interconnections among individual market participants. Nowadays, the housing market is included in the publications of central banks, both in Hungary and internationally, but typically only from the perspective of the main subject of the particular publication. In this context, the MNB's Housing Market Report is an internationally unique central bank publication, given the synthesis it offers in terms of the various macroeconomic and financial stability aspects of the real estate market. The following sets of information have been used for this publication:

- The description of the macroeconomic environment shaping the housing market is based on information presented in the MNB's Inflation Report. The statistical variables most relevant to the housing market include changes in gross added value volumes, real incomes, unemployment and the yield environment.
- Our analysis of current trends on the housing market relies primarily on information supplied by the Central Statistical Office, the National Tax and Customs Authority and property agencies. Information on housing market turnover and house price trends can be subdivided according to the differences between the new-build and pre-owned segments of the housing market. Data on the regional heterogeneity of the housing market have also been used.
- With the help of the Housing and Real Estate Market Advisory Board (hereinafter: LITT), the findings and recommendations of market and governmental actors have been incorporated, in order to present housing market trends in the widest possible perspective.
- Our analysis of the residential mortgage loan market relies primarily on balance sheet data and interest rate statistics collected from credit institutions by the MNB, and we also use the information we collect in the Lending Survey 2 on qualitative features in lending processes.

¹ Magyar Nemzeti Bank, Inflation Report: http://www.mnb.hu/kiadvanyok/jelentesek/inflacios-jelentes

² Magyar Nemzeti Bank, Lending Survey: https://www.mnb.hu/penzugyi-stabilitas/publikaciok-tanulmanyok/hitelezesi-felmeres

Contents

1 Executive summary	7
2 Housing market demand and house prices	8
2.1 With a tight labour market, other factors determining demand are adverse	8
2.2 Over the last twelve months, house prices have been characterised by stagnation	
at the national level and significant falls in villages	11
2.3 The Hungarian housing market is characterised by a decreasing number of sales and increasing	
potential for negotiating a discount	18
2.4 Rents have risen at a slowing rate, but nevertheless exceeded the rate of change in house prices	20
3 Housing loans and housing subsidies	2 3
3.1 Housing affordability in Budapest has improved slightly from a low level	23
4 Supply of new homes	29
4.1 Several factors represent serious obstacles for the construction industry	29
4.2 New home building is at a low level	32
4.3 Developers have adjusted the number of newly launched projects to the decline in demand	33
List of boxes	
Box 1: Spatial heterogeneity of house prices in Budapest	15
Box 2: Impact of changes in family and housing subsidies in 2024 on the loan and housing markets	26

1 Executive summary

A year-on-year fall in economic output, the uncertain outlook and high inflation posed a number of challenges for the Hungarian housing market in 2023 H1. Employment in the national economy is historically strong, and regular average salaries and wages rose by 18 per cent in the second quarter. However, the fall in real wages due to high inflation and the low consumer confidence reduced demand on the housing market substantially. From 2024 on, further progress in disinflation may return housing market activity to a gradual trajectory of growth through higher real household incomes and the expected more favourable credit conditions, as well as support from the newly announced housing subsidy programmes.

House prices fell 0.8 per cent year on year in 2023 Q2. A year-on-year decline in prices had not been seen in the last nine years, but house prices may have risen slightly again in the third quarter. Looking at the types of municipalities, a significant year-on-year decline of 8.1 per cent in nominal terms was observed in villages in the second quarter, while house prices in Budapest and other cities and towns appreciated by 4.9 and 1.1 per cent, respectively, year on year. The overvaluation of house prices compared to macroeconomic fundamentals has eased substantially since 2022 H2, but its level remains high compared to previous years. As real wages are expected to start rising again in late 2023, an improvement in fundamentals is expected, reducing the risk of further declines in nominal house prices.

The number of housing market transactions in 2023 Q3 was 11 per cent lower year on year, but rose by 10 per cent compared to the previous quarter. Subdued activity has driven down asking prices and resulted in greater bargaining potential on the market. The available supply of rental properties has been stagnant year on year. In contrast to house prices, rents continued to rise, but at a lower annual rate of 13 per cent.

In 2023 Q3, banks experienced a rise in demand for housing loans, and looking ahead the vast majority of them expect this upturn to continue, although the volume of new loan contracts still remained 41 per cent below the same period of the previous year. Similarly to unsubsidised housing loans, the volumes of housing subsidies and the related subsidised loans have also dropped. The termination of Home Purchase Subsidy Scheme for Families (HPS) in cities and the more stringent eligibility conditions for the prenatal baby support loan will have the effect of reducing housing loan demand from 2024, but this effect may be offset by the HPS Plus programme, which was announced in late October and will allow couples committing to have children to access preferential-rate loans from 2024 onwards. For the rest of this year, eligible buyers may delay their purchases as a result of the introduction of HPS Plus in 2024 and the increase in rural HPS subsidy amounts next year. In Budapest, households with two children have seen improvements in their chances to buy a new home with a mortgage over the course of 2023, while in rural areas, although at a more favourable level, the ability to buy new homes with a loan has deteriorated. For households not committing to have children, the affordability of new homes has remained low in Budapest and the countryside.

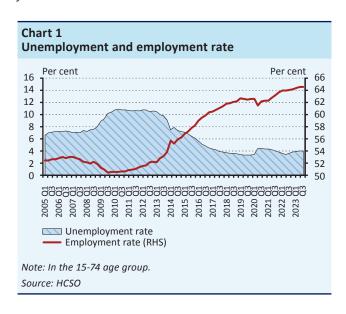
The main obstacle to production in the domestic construction industry is still insufficient demand. Housing construction costs continued to rise, albeit at a slower rate, while employment numbers in the construction industry remain at historic highs and maintaining this level is a serious challenge for the sector. In the first three quarters of 2023, the issuance of home occupancy permits fell by one fifth versus the same prior-year period, and the number of new home completions in Budapest dropped by 29 per cent during the same period. In 2023 Q3, the number of flats in condominium projects under development in Budapest increased by 14 per cent year on year, including an 11-per cent fall in the number of flats for sale. Within new housing projects in the capital, the number of projects that already have construction permits but have not yet entered the construction and sales phases has increased, and this may serve as a growth reserve when demand starts to rise. In Budapest, the number of new homes sold remained low in the third quarter, as 41 per cent fewer were sold compared to the same quarter last year. The average price of new homes in the capital was 8 per cent higher year on year, rising to HUF 1.46 million per square metre by the end of the third quarter, and even higher square-metre prices were observed in new construction projects around Lake Balaton.

2 Housing market demand and house prices

In 2023 Q2, Hungarian economic output continued to fall in year-on-year terms. Employment in the national economy is at a historically strong level, and the unemployment rate of 3.9 per cent is low even in an international comparison. The tight labour market and inflation expectations drove up regular average wages by 17.7 per cent year on year in the second quarter. Real wages, however, which are key to the housing market, fell in this period. From the end of the year, as inflation declines, real household wages may return to a growth trajectory along with consumption, fostering stronger housing market activity.

In 2023 Q2, house prices fell by 0.8 per cent nationally in year-on-year terms, marking the first time that a year-on-year decline in prices was seen in the last nine years. In real terms, house prices decreased by 18.5 per cent. Prices rose year on year by 4.9 per cent in Budapest and 1.1 per cent in towns and cities across the country, while villages saw house prices fall by 8.1 per cent. Although the overvaluation of house prices compared to macroeconomic fundamentals eased substantially starting in 2022 H2, prices have remained high in comparison to previous years. Nevertheless, as real wages are expected to start rising again in late 2023, an improvement in fundamentals is expected, reducing the risk of further nominal depreciation in house prices. Buying a 75-square-metre residential property in Budapest required 16.9 years of average national income in 2023 Q3, earning the city seventh place in the Europe-wide list of the least affordable capitals.

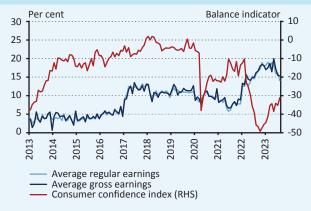
The number of housing market transactions in 2023 Q3 fell 11 per cent in year-on-year terms, but growth of 10 per cent was recorded versus the previous quarter. Asking prices are adjusting to low demand, as an increasing number of sellers are lowering the price in their property listings, and the opportunity to negotiate a discount is now greater. The available supply of rental properties has been stagnant over the year, and as demand has fallen, the rise in rents has decelerated. As rents rose more steeply than house prices, the house price-to-rent ratio fell by approximately 10 per cent in 2023 Q3 both in Budapest and nation-wide; this has improved yields from residential rental incomes but weakened the affordability for tenants.



2.1 WITH A TIGHT LABOUR MARKET, OTHER FACTORS DETERMINING DEMAND ARE ADVERSE

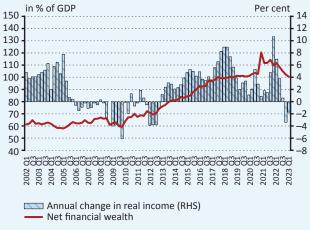
The number of employees in the national economy was at historic highs, and the unemployment rate can be considered low even in an international comparison. In 2023 Q3, the average number of employed persons aged 15-74 was 4,737,000, reflecting an increase of 25,000 compared to the same period of the previous year. In September 2023, the figure stood at 4,759,000, which was higher than in the previous month. According to figures published by the HCSO, the rate of unemployment was 3.9 per cent in September 2023 (Chart 1), low even by international standards. The unemployment rate may fall gradually for the rest of this year and in 2024, in line with economic recovery, to reach pre-pandemic levels by 2025. The tightness of the labour market is approaching precrisis highs and the number of newly advertised vacancies continued to rise in the third quarter. At the same time, in its employment outlook survey in October, ESI found that most companies in the construction industry expect to cut staff in the next three months, while in October

Chart 2
Annual dynamics of average wages in the private sector and changes in the consumer confidence index



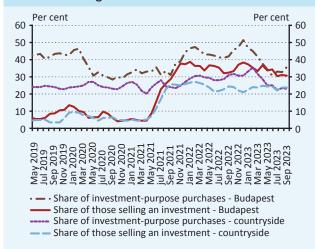
Note: Based on seasonally adjusted data. Source: HCSO, European Commission

Chart 3
Changes in households' financial assets, liabilities and real income



Source: HCSO, MNB

Chart 4
Share of house purchases for investment purposes and those selling their investment



Note: Three-month moving averages.

Source: Duna House

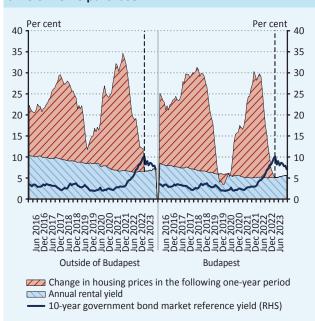
the number of companies in the manufacturing industry expecting a decrease in staff was on par with the number of respondents expecting an increase.

Nominal wage dynamics for 2023 as a whole may be at a similarly high level as in the previous year. Average gross earnings in the private sector increased by 17.9 per cent year on year in 2023 Q2, whereas regular average wages rose by 17.7 per cent compared to the same quarter of the previous year (Chart 2). Average wage growth in most private sector industries was above 15 per cent in the second quarter. In the first half of the year, wage developments were driven by the tight labour market and significant increases in the statutory minimum wage and guaranteed minimum wage at the beginning of the year, as well as inflation expectations. Higher wage growth in the first six months was also supported by bonus payments above the historical average. Disinflationary trends and a return to growth in real wages may reduce wage growth in the latter half of the year, offsetting the higher wage dynamics from the first two quarters overall. We forecast annual wage growth in the private sector to range between 15.6 and 15.9 per cent in 2023, 9.5 and 10.5 per cent in 2024, and 6.9 and 8.1 per cent in 2025.

Real wages contracted at a year-on-year rate of 1.7 per cent in 2023 Q2. The ratio of net financial assets to GDP has been falling since 2021 Q1 and may continue to drop this year. Following a decline of 3.4 per cent in 2023 Q1, real wages fell 1.7 per cent year on year in the second quarter (Chart 3). The deterioration in income is mainly attributable to high inflation, resulting in the declining purchasing power of wages. The fall in income is partly mitigated by an increase in the income of sole traders and household interest income. From the end of the year, as inflation moderates, real household income may also increase along with consumption, supporting growth in housing market demand.

Investor demand fell on the housing market. As measured by property agency network Duna House, the proportion of buy-to-let buyers of real estate has dropped substantially in 2023: in the third quarter, 36 per cent of all buyers were investors in Budapest and 23 per cent outside the capital, versus 42 and 32 per cent, respectively, in the first quarter (Chart 4). In Budapest, the proportion of investors among property sellers fell from 33 per cent to 31 per cent over the same period, and remained unchanged at 24 per cent outside the capital. As a combined result of the above, the presence of investors was balanced on the demand side versus the supply side of the housing market, which may have contributed to the weaker house price dynamics, as, temporarily, the accumulation of real estate did not exert upward pressure on prices.

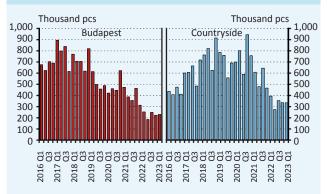
Chart 5
One-year forward-looking housing investment yield outside of Budapest and in Budapest according to the time of home purchase



Note: Gross yield without deducting taxes and costs, calculated as the ratio of the annual gross rental revenue to the purchase price. The housing rent and price data used for the calculations refer to a flat with a floorspace of 60 square meters. The dashed line in the figure indicates that for purchase dates after September 2022, one-year forward-looking housing price change data is not yet available, only rental yield.

Source: MNB calculation based on the KSH-ingatlan.com rent index and the MNB housing price index

Chart 6 Demand for apartments and houses for sale at ingatlan.com



Note: Based on the number of disclosed phone numbers and calls initiated through mobile application.

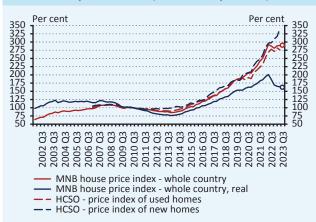
Source: Ingatlan.com

Stagnating house prices and rising rents are driving up rental yields, while the government securities market continues to offer investors a more favourable alternative. In a break from the downtrend seen over the last seven years, the twelve-month forward-looking rental yield achievable from buy-to-let transactions has been increasing since 2022 H2 (Chart 5). This is due to the fact that, as house prices grew and then stagnated in the year up to the end of June 2023, residential rents increased by an average of 14 to 15 per cent both nationally and in Budapest. Whereas in early 2022 the average annual gross rental yield achievable was 6.5 per cent outside Budapest and 5 per cent in Budapest, these figures rose to 7 and 5.5 per cent, respectively, by June 2023. By contrast, the value increase component of yields has contracted, as house prices are stagnating at the moment, whereas recent years have been characterised by dynamic annual house price increases ranging from 10 to 25 per cent.

Housing market demand dropped further in 2023 Q3.

According to information from the property listings portal ingatlan.com, demand for residential properties for sale was 9 per cent lower in Budapest and 15 per cent lower in the countryside in 2023 Q3 compared to the already very low level in the same period last year (Chart 6). No recovery was seen in the number of housing market enquiries on a quarterly basis. Reasons for depressed demand may include the fall in households' real incomes, the resulting uncertain economic outlook and the decline in the number of buy-to-let investors.

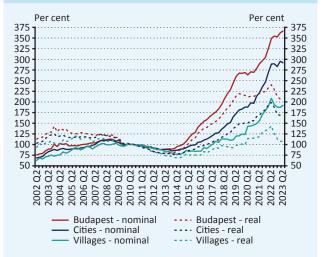
Chart 7 Nominal and real MNB house price index and the HCSO house price indices (2010 = 100 per cent)



Note: Real price index deflated by the consumer price index. Third quarter of 2023 based on data from real estate agents.

Source: MNB. HCSO

Chart 8 Nominal and real MNB house price index by settlement type (2010 = 100 per cent)



Note: The real price index deflated by the consumer price index. Source: MNB

2.2 OVER THE LAST TWELVE MONTHS, HOUSE PRICES HAVE BEEN CHARACTERISED BY STAGNATION AT THE NATIONAL LEVEL AND SIGNIFICANT FALLS IN VILLAGES

For the first time in nine years, nominal house prices fell, to a small extent, in year-on-year terms at the national level. National average house prices decreased in 2022 H2 and then rose in 2023 Q1 and Q2 by 2.6 and 0.5 per cent, respectively, on a quarterly basis (Chart 7), but this positive correction did not completely offset last year's drop. As a result, annual nominal house price growth fell into negative territory for the first time since mid-2014, reaching -0.8 per cent in 2023 Q2. In real terms, house prices decreased significantly, declining by 18.5 per cent over the same period. Indices published by the Central Statistical Office (HCSO) monitoring price changes of preowned and new homes show that the price of pre-owned homes fell by 3.0 per cent in the second quarter, while that of new homes increased by 7.0 per cent in a quarter-onquarter comparison. According to the preliminary MNB house price index calculated on the basis of property agency transactions, house prices rose by 0.4 per cent in 2023 Q3 on a quarterly basis, and accordingly the annual growth rate may have also returned to positive territory.

Only smaller settlements recorded a significant year-on-year fall in house prices. Nominal house prices rose by 4.9 per cent year on year in Budapest and by 1.1 per cent in other cities and towns, but dropped by 8.1 per cent in villages in 2023 Q2 (Chart 8). In a quarter-on-quarter comparison, however, the decline in house prices that was measured consistently over three quarters has now ended, with house prices rising by as much as 2.5 per cent in the second quarter in these small settlements. Over the same period, house prices decreased by 1.0 per cent quarter on quarter in rural towns and rose by 1.1 per cent in Budapest, although the house price index based on preliminary property agency transaction figures suggests that there may has been a small decrease in the capital as well in 2023 Q3.

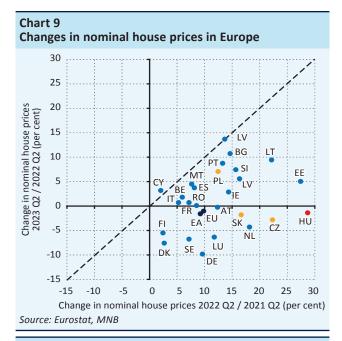
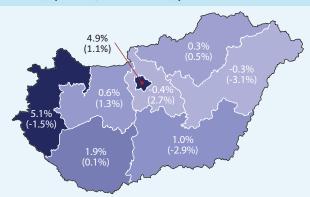


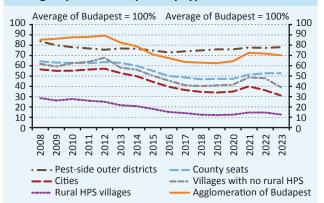
Chart 10 Changes in urban house prices between 2022 Q2 and 2023 Q2 (2023 Q1 and 2023 Q2)



Note: The index of the Pest region was prepared at the time when only a very small subset of the 2023 Q2 data had been processed and it is therefore possible that the index values may be revised significantly later.

Source: MNB

Chart 11 Average square metre price by type of settlement



Note: Pest-side outer districts: IV, XV, XVI, XVII, XVIII, XXI, XXIII.

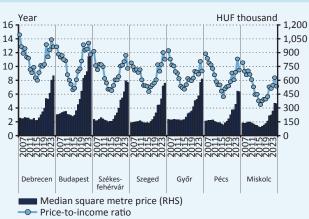
Source: NTCA, MNB

With significant price corrections seen in several countries, the growth rate of nominal house prices has decreased over the last year in Europe. With the exception of Cyprus and Croatia, the rise in nominal house prices decelerated between 2022 Q2 and 2023 Q2 on a yearly basis, and in fact, nearly half of the countries experienced declines in house prices in a year-on-year comparison (Chart 9). In 2023 Q2, EU-wide average house price growth was -1.1 per cent, down from 9.8 per cent in the same prior-year period, while on a quarterly basis residential property prices rose by 0.3 per cent on average. As of the end of 2023 Q2, the steepest annual nominal house price declines were measured in Germany and Denmark, with decreases of 10 and 8 per cent, respectively. Looking at the Visegrád countries, in Czechia and Slovakia house prices first decelerated substantially and then declined, whereas Poland experienced a modest slowdown, reporting an annual growth rate of 7 per cent. Due to the high inflation, real prices fell in most EU member states over the last year.

In most regions in Hungary, the annual price dynamics of homes in urban areas slowed to near stagnation. In 2023 Q2, towns in the Northern Great Plain and Pest regions recorded minor declines in house prices, of 0.3 and 0.4 per cent, respectively, on a yearly basis. In most regions, however, house prices still increased slightly, rising between 0.3 and 1.9 per cent in the period under review, and only the towns and cities of Western Transdanubia reached a higher house price increase of 5.1 per cent in year-on-year terms (Chart 10). On a quarterly basis, all regions other than Pest county experienced a positive correction of between 3 and 6 per cent in 2023 Q1 after the decline in house prices at the end of 2022. In the second quarter, however, the two Great Plain regions recorded another decline in housing prices, of around 3 per cent, while a fall of 1.5 per cent was seen in Western Transdanubia.

In 2023, the price gap between Budapest and smaller countryside settlements continued to widen. Based on the average price per square metre, the gap between Budapest and settlements in the countryside remained unchanged in 2023 for the county seats, while the price gap of other towns compared to Budapest fell from 36 per cent last year to 31 per cent, that of villages not eligible for village HPS fell from 48 per cent to 39 per cent and that of villages eligible for village HPS fell from 15 per cent to 13 per cent as a result of the house price declines measured in small settlements (Chart 11). By contrast, the price gap increased only slightly in the metropolitan area; within Budapest, the outer Pest districts even managed to reduce their relative shortfall from the average prices of the capital. In Box 1, we discuss the geographical heterogeneity of price developments in the different neighbourhoods of the city.

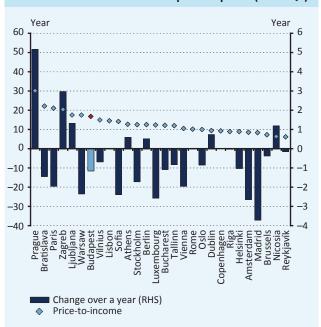




Note: The price-to-income ratio is the ratio between the price of a 75-square metre median real property (new and used total) and average annual net income of the households. Average incomes are county-level data.

Source: HCSO, MNB

Chart 13 Price-to-income ratios in European capitals (2023 Q3)



Note: The price-to-income ratio is the ratio of the average house prices outside the city centre to the national average wage. Calculations based on 75-square metre homes. Change between 2022 Q3 and 2023 Q3. Budapest is marked with a different colour.

Source: Eurostat, numbeo.com

The ratio of house prices to local wages has fallen across the country. Owing to a significant reduction in house price dynamics and the continued steep rise in nominal wages, the ratio of median house prices in Hungarian regional centres to the average wages in the local county has decreased in 2023. In 2023 Q2, in both Debrecen and Szeged, 1.0 year less of net average pay was required to buy a 75-square-metre flat at the median square-metre price versus the same period last year (Chart 12). In the other regional centres, the affordability of house prices compared to local incomes improved even more: the ratio improved most, by about one sixth, in Székesfehérvár, where it fell from 11.6 years to 9.7 years. In a historical comparison, the ratio remains high everywhere and is mostly above the levels measured in 2019, prior to the temporary fall triggered by the pandemic. In this respect, the ratio improved substantially in Budapest, where house prices were equal to 11.7 years of net income in the capital in 2023, over one tenth less than the 13.1 years measured in 2019.

The ratio of house prices to incomes decreased in two thirds of all European capitals. Buying a 75-square-metre residential property in Budapest required 16.9 years of national average³ income in 2023 Q3, which is 1.1 years less than in the same period last year (Chart 13). Affordability is very low in Prague; in addition to that city, Paris and the other capitals in the region rank before Budapest. This placed the Hungarian capital seventh in the Europe-wide list of least affordable capitals. Disregarding mortgage market conditions, housing affordability has improved over the past year in two thirds of European capitals owing to a deceleration in the growth of house prices, which is now slower than the rise in wages. The capitals of the Visegrád countries were characterised by divergent trends: in Prague, affordability significantly worsened even further, so that a person with an average income required 30.5 years of income to buy an average priced 75-square-metre home, while in Bratislava the relevant figure was 22.4 years following a smaller decrease year on year, and in Warsaw it was 17.6 years following a significant improvement.

³ The difference between the Budapest house price/income ratios in Chart 12 versus Chart 13 is due to the fact that the former uses Budapest average wages, while the latter was calculated relying on national average wages to facilitate international comparison.

Chart 14
Deviation of house prices from the level justified by fundamentals, nationwide and in Budapest

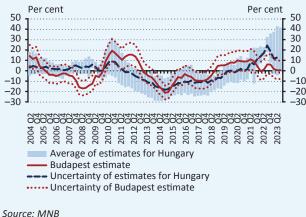
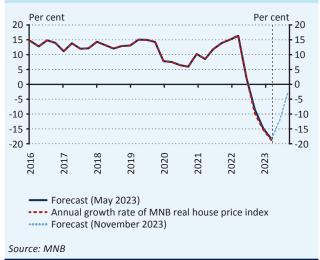


Chart 15
Forecast of aggregated real MNB house price index (annual change)



Although it decreased substantially in year-on-year terms, the overvaluation of house prices compared to fundamentals remains high. In 2022 H2, the overvaluation of house prices compared to macroeconomic fundamentals fell from its peak of 25 per cent to 12 per cent nationwide, but this decreasing trend did not carry on into this year (Chart 14). In 2023 Q2, the estimated overvaluation reached 13 per cent, which is still high compared to previous years. In the first half of the year, a decrease in overvaluation was prevented by the fall in the available real income of households. As real wages are expected to return to growth in late 2023, an improvement in fundamentals is predicted, reducing the risk of further nominal house price falls. In Budapest, there was no significant deviation in 2023 from the equilibrium level of house prices.

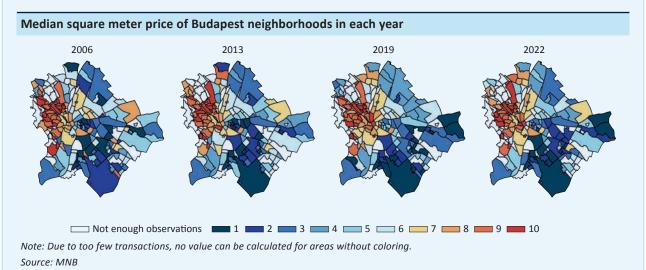
In 2023 H2, real house prices may decrease at a more moderate rate. In our estimate, real house prices may have fallen by 12.0 per cent year on year in 2023 Q3. In the fourth quarter, a more moderate real year-on-year decline of 2.6 per cent may be expected (6.0 per cent growth in nominal terms), in line with the macroeconomic trajectory in the September Inflation Report (Chart 15). The macroeconomic fundamentals determining housing market trends (unemployment, real incomes) may improve, which in turn would boost housing market demand. Nevertheless, in real terms further declines in household lending are expected in the second half of the year as well.

⁴ We use four methodologies to quantify the deviation of house prices from the level justified by fundamentals. In this Report, we publish the minimum, maximum and average results calculated using these methods. The four calculation methods are the following: 1) Per cent deviation of the ratio of real house prices versus real incomes from the ratio average calculated for the period from 2001 to 2022; 2) Estimation of the long-term equilibrium level of Hungarian house prices as determined by macroeconomic fundamentals in a vector error correction model (VECM). For details on this methodology, see Berki – Szendrei (2017): *The cyclical position of housing prices – a VECM approach for Hungary*, Magyar Nemzeti Bank, OP 126; 3) Estimation of the level of Hungarian house prices as determined by macroeconomic fundamentals in a dynamic OLS model; and 4) Deviation of Hungarian house prices from the equilibrium level using a house price forecasting structural model. For further details, see Magyar Nemzeti Bank, Housing Market Report, October 2016, Box 1. Deviation of Budapest house prices from the level justified by estimated fundamentals calculated in a dynamic OLS model; for a more detailed description of the methodology, see Magyar Nemzeti Bank, Financial Stability Report, May 2017, Box 2.

Box 1 Spatial heterogeneity of house prices in Budapest

Of all the factors determining property prices, the location of the property is key. One of the most widely used methods for analysing property prices is the hedonic regression model, which also forms the basis of the MNB's house price index (Banai et al., 2017)⁵ and attributes real estate prices to the varying characteristics of individual properties, such as their quality or location. The consideration of spatial characteristics captures important location fixed effects. This involves adding the location of the property as a categorical variable in the regression model equation. The coefficient estimated this way shows, on average, how much more expensive properties are for instance in a particular district compared to a benchmark district, assuming all other factors (relevant for property prices) are the same.⁶ Spaceless hedonic regressions, by contrast, use a uniform and abstract concept of space. In these models, individual properties – or, at higher levels of aggregation, individual neighbourhoods/districts – are assumed to be mutually independent observations. In this Box, we attempt to explore the heterogeneity inherent in Budapest house prices using a spatial econometrics method in order to obtain as detailed an understanding of house price changes as possible.

An analysis of Budapest house prices clearly demonstrates the geographical differences between the different neighbourhoods and how these differences slowly change over time. Categorisation by neighbourhood is a relatively close approximation of the cultural and economic environment of residential properties, which we have also observed in the concentration of prices. In the following part, we examine by neighbourhood the median squaremetre prices of Budapest real estate transactions, which can be categorised into 23 districts, 160 postcodes and 203 neighbourhoods, and are suitable for drawing a number of important conclusions.



Firstly, there appears to be significant spatial densification in both high and low house prices. Square metre prices are the highest in Inner Buda, the Buda Hills and the Pest Inner City neighbourhoods. The median square metre price is the lowest in the Southern and Southeastern outer Pest neighbourhoods. Secondly, the cross-sectional price difference pattern noted in the median square metre prices of the neighbourhoods barely changed over the period under review. Thirdly, there are individual neighbourhoods with exceptional price increases (Madárhegy, Corvin Quarter), which correlate with newly built residential projects involving neighbourhood rehabilitation.

⁵ Banai – Vágó – Winkler, The MNB's House Price Index Methodology, MNB Occasional Papers, 127, 2017 https://www.mnb.hu/letoltes/az-mnb-la-kasarindex-modszertana-mnb-tanulmanyok-127.pdf

⁶ The effect of different locations within Budapest on house prices has also been demonstrated by Hajnal et al. (2022). Source: Hajnal – Palicz – Winkler (2022): Az energetikai minősítés hatása a kínálati lakásárakra és hitelkamatokra (The Impact of Energy Certification on House Prices and Mortgage Interest Rates). Financial and Economic Review, Vol. 21 No. 4, December 2022, pp. 29–56. Available at: https://hitelintezetiszemle. mnb.hu/letoltes/hsz-21-4-t1-hajnal-palicz-winkler.pdf

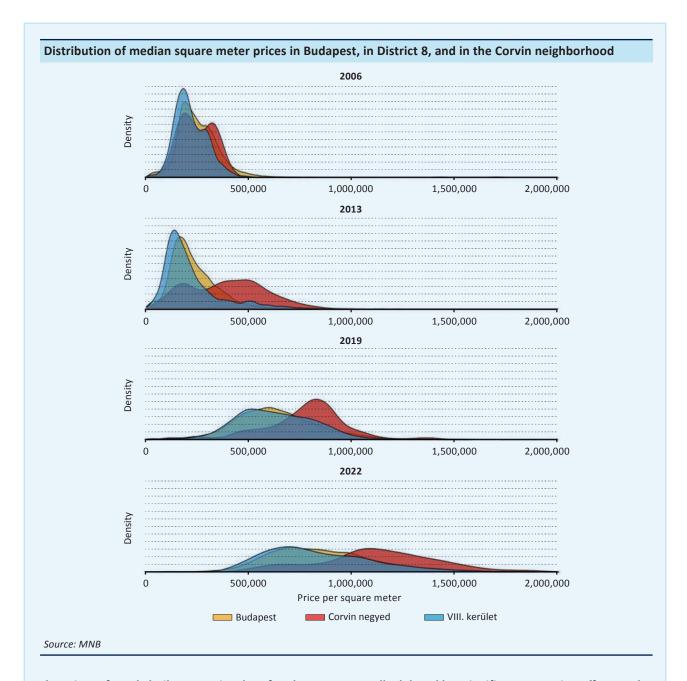
House prices are therefore not spatially mutually independent values, as the prices of adjacent homes and properties in the same street or neighbourhood have a significant impact on the price of real estate. It may be conducive to understanding the inherent spatial heterogeneity of housing market trends to examine this phenomenon using spatial econometric models. Spatial delayed variables are employed in order to capture the spatial effects disregarded in conventional econometric methods. These can be defined as the weighted averages of observations that are adjacent to the variable, such as adjacent neighbourhood, street or home. The spatial weights matrix defining the concept of 'adjacency' takes into account that observation units that are closer in terms of geographical space are more similar in some characteristics than those further away. For the purposes of modelling, the spatial weight may be in the dependent variable (spatial delayed model), the explanatory variable (spatial cross-regressive model) or the error term (spatial error model), or in combinations of the above. In practice, these (weighting) methods are used with a variety of different specifications, so that the use of different weight matrices also serves as a robustness test of the analyses.

In studying property prices, in most cases preliminary model expectations are empirically confirmed, whereby the square metre prices of homes located close to one another are similar and property prices are determined by neighbourhood to a much greater extent than by postcode or district. For our examination of median square metre prices by neighbourhood, the spatial delayed model presents itself as the best choice in terms of correspondence as well as the correctness of the specification. Our estimated model is thus the following:

$$y=\rho Wy+\alpha \iota + X\beta + u$$
,

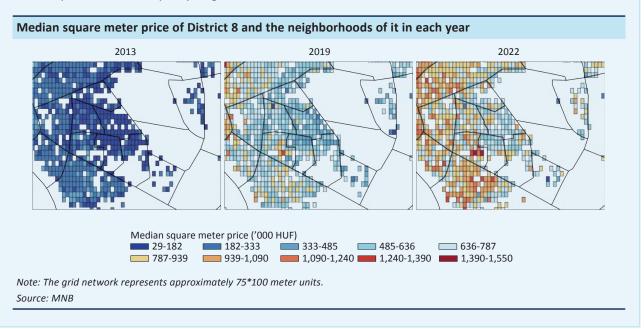
where the weight matrix capturing adjacency relations, the weight matrix parameter to be estimated, the vector of the explanatory variable, the parameter vector of the explanatory variables and, finally, the spatially not autocorrelated error term. In our estimates was a significant positive coefficient at 1 permille, which provided modelling confirmation for the mutual spatial interdependence of average and median square metre prices of neighbourhoods.

Spatial agglomeration is of special interest in the case of new homes, where new projects increase price variation across the neighbourhood when they are first announced but then, over time, these higher prices filter through to the prices of adjacent homes (as a diffuse impact). For an overview of temporal variations, we have selected the example of the Corvin Promenade, which is part of the Corvin Quarter neighbourhood and was one of the first and largest new housing development schemes in Budapest. Corvin Quarter figures from 2006 show a distribution in Budapest house prices with a slight extension to the right compared to the local district (VIII), while distribution within the Corvin Quarter neighbourhood itself is bimodal as a result of the off-plan sale of the future homes. By 2013 the relationship between Budapest and District VIII prices had barely changed, but variation had significantly increased in Corvin Quarter house prices: one peak of the distribution represents the prices of the remaining old properties in the neighbourhood, whereas the other peak captures the prices of the newly built homes on the Corvin Promenade. In alignment with the property market cycle, median prices in both Budapest and District VIII rose significantly up to 2019, resulting in a flatter price distribution. The formerly bimodal Corvin Quarter distribution had become unimodal, suggesting that the prices of older but adjacent homes caught up with new home prices over the course of the cycle and also that former old housing may have been replaced by additional newly built apartments in the later phases of the Corvin Promenade programme. By the end of the Covid-19 crisis in 2022 the divergence of Corvin Quarter prices from Budapest prices became even more evident and is clearly reflected in the distribution stretching significantly towards the right.

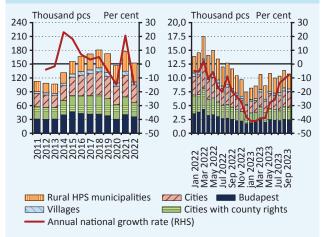


The prices of newly built properties therefore have a temporally delayed but significant contagion effect on the prices of adjacent properties. Following our analysis by neighbourhood, we divided District VIII of Budapest into a grid of 50 metres by 100 metres. In the individual cells of the grid we present the median square metre price of that cell, and show the four dates on a shared absolute scale. The reason for using median prices instead of average prices is that the median prices of the Corvin Quarter neighbourhood are not influenced by its single highly-priced promenade; there were no spill-over effects on prices. The median house prices of the Corvin Promenade are very noticeable downward outliers among the median prices in the district in 2013. In line with the property market cycle, prices had increased considerably in almost all parts of the district by 2019; it is important to note, however, that the highest median prices were no longer limited to the Corvin Promenade scheme, as prices across the entire Corvin Quarter neighbourhood were now above the prices of other neighbourhoods in the district. In addition to the price increase in the Corvin Quarter, the price adjustments in the Market Hall Quarter are also illustrative. It is clear that, by 2022, median prices had increased significantly in the Market Hall Quarter as well, due to the diffuse effects of price booms in both the Palace Quarter and Corvin Quarter. This happened in spite of the fact that there were only a few, isolated new residential buildings erected in the Market Hall Quarter in those years, but median prices are higher than elsewhere in the district and are catching up with Corvin Quarter prices.

By identifying the spatial correlations, our analysis may offer significant help in explaining house prices. Firstly, house prices are spatially concentrated, which justifies the use of spatial models in estimating the evolution of prices. Secondly, density patterns within Budapest have changed only slightly in spite of the property market cycle and dynamics. Concentration schemes may be impacted by the appearance of newbuild homes, typically higher in price, on the short term as well, while on the long term they may have significant contagion effects. The rehabilitation of a neighbourhood can therefore boost house prices not only in the given neighbourhood but, on the longer term, in the adjacent areas as well. It is therefore justified to analyse the evolution of house prices at as disaggregated levels as possible, for example by neighbourhood.







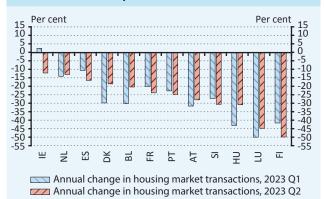
Note: Taking into account the ownership acquisitions of 50 and 100 per cent by individuals. Between January 2022 and March 2023, data in the National Tax and Customs Administration duty database were adjusted on the basis of the estimated level of processing by type of settlement. From April 2023, based on transactions and estimated market share of real estate agents. According to our estimate, real estate agent transactions accounted for 10.6 per cent and 13.1 per cent of the turnover in the national market and in Budapest, respectively, in September 2023.

Source: NTCA, MNB, housing agent database

2.3 THE HUNGARIAN HOUSING MARKET IS CHARACTERISED BY A DECREASING NUMBER OF SALES AND INCREASING POTENTIAL FOR NEGOTIATING A DISCOUNT

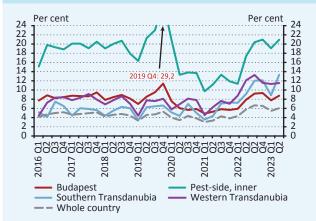
In 2023, housing market transaction volumes stabilised at a low level. 2022 saw a trend of continued decline in the number of housing market sales transactions, which reached an extremely low level by the end of the year. Transaction numbers have stabilised between 10,000 and 11,000 per month since the spring of 2023 (Chart 16). At the national level, sales transaction numbers were 28 per cent lower year on year in the period from January to September, and 11 per cent lower in the third quarter. In a quarter-on-quarter view, however, a minor increase of 10 per cent was measured in the third quarter. This represents a shift from the lowest point, but reflects housing market activity that remains muted and is comparable to what was observed in 2014. In September, transaction volumes in most types of settlements were on par with the levels from the corresponding 2022 period, and a significant, 23-per cent year-on-year decline was only seen in settlements eligible for village HPS; nevertheless, this

Chart 17
Changes in the number of housing market transactions in Europe



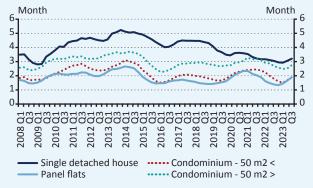
Note: Data for Hungary is based on MNB calculations. Source: Eurostat, MNB

Chart 18
Ratio of foreign buyers in some priority regions' housing markets



Note: Pest-side, inner districts: V, VI, VII, VIII, IX. Source: NTCA, MNB

Chart 19
Median time to sell residential property by type of property



Note: Time from the start of advertising to sale. Annual rolling averages.

Source: MNB, housing agents' database

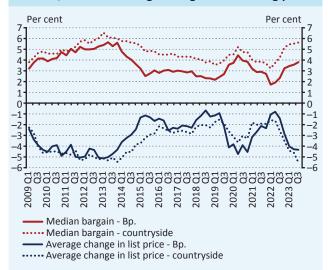
may have been partly due to an interruption in demand, since the village HPS subsidy amounts announced by the Government will increase substantially in 2024.

In 2023 H1, housing market activity continued to weaken in Europe. For the twelve countries that supply Eurostat with statistics on the number of housing market sales transactions, the year-on-year median change in the number of transactions amounted to -28 per cent in 2023 Q1 and -24 per cent in 2023 Q2 (Chart 17). As in neighbouring Austria and Slovenia, where housing market transaction counts fell by 28 and 31 per cent, respectively, a year-on-year contraction of a similar magnitude was recorded in Hungary in the second quarter. Of the countries examined, sales transaction numbers decreased most steeply in the second quarter in Finland, where they fell by around 50 per cent, while Ireland reported the lowest drop, at 12 per cent.

The proportion of foreign home buyers continued to increase year on year in 2023 H1. The proportion of foreign buyers on the Hungarian housing market remained sizeable in 2023, increasing to 6.0 per cent nationally in the second quarter from 5.8 per cent in the same prior-year period (Chart 18). In the most attractive Pest inner city districts, foreign buyers accounted for 20.9 per cent in 2023 Q2; as a result, the proportion of foreign buyers in Budapest as a whole rose from 7.8 per cent to 8.7 per cent year on year. Outside Budapest, their proportion increased most steeply in the Southern Transdanubia region, specifically in Somogy county, which may be due to the fact that demand by foreign buyers did not decrease in the settlements close to Lake Balaton. The number of foreign buyers has fallen everywhere in year-on-year terms, but declined to a lesser extent than the number of Hungarian buyers.

The time required to sell a property rose from a historically low level over the course of 2023. The annual rolling average of the median time needed to sell a residential property rose from 2.3 months in the first quarter to 2.6 months in 2023 Q3. Over the course of six months, the median time to sell increased by 8 days to 3.1 months for detached houses, by 12 days to 1.9 months for condominium flats larger than 50 square metres, by 8 days to 2.8 months for condominium flats smaller than 50 square metres, and by 14 days to 1.9 months for panel flats (Chart 19). The typical period of time required to sell has thus started to lengthen from the historically low levels, reflecting the lower demand and sales transaction numbers since early 2022.

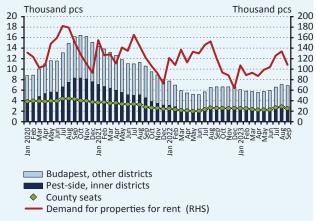
Chart 20
Median bargain in the Budapest and rural housing markets, with the average change to the asking price



Note: Bargain: percentage of drop in the transaction price compared to the last listed price. Change to list price: percentage change applied to the list price during the advertising period.

Source: MNB, housing agents' database

Chart 21
Supply of residential properties to let at ingatlan.com on the last day of the given month and demand for properties for rent in that month



Note: Demand: number of telephone number disclosures and phone calls initiated from mobile application on the ingatlan.com advertising site. Pest-side, inner districts: V, VI, VII, IX.

Source: Ingatlan.com

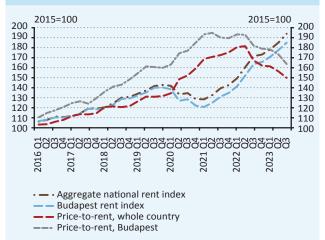
Typical negotiated discounts are high, and sellers are cutting the asking price of their listed properties more aggressively. The median negotiated discount on the market has been rising constantly since bottoming out in 2022 Q1. In Budapest, the median negotiated discount was 3.8 per cent in 2023 Q3, compared to 2.4 per cent a year before, while in the countryside it increased from 4.3 per cent to 5.7 per cent over the same period, indicating that demand is weakening in comparison to supply (Chart 20). Asking prices are also increasingly being reduced in the listings; in Budapest and in the countryside asking prices fell during the period of listing by an average of 4.3 and 5.5 per cent, respectively, which significantly exceeds the figures of 1.4 per cent and 2.6 per cent registered for the same period of last year. Asking prices are falling at a slightly higher rate than even the degree measured at the time of the 2013 turning point in the housing market cycle. All this indicates that opportunities for sellers of homes are extremely limited due to persistently low demand.

2.4 RENTS HAVE RISEN AT A SLOWING RATE, BUT NEVERTHELESS EXCEEDED THE RATE OF CHANGE IN HOUSE PRICES

The supply of available rental properties stagnated in yearon-year terms, rising only in the Pest inner city districts.

According to data from ingatlan.com, available rental supply in the county seats amounted to 2,500 properties as of the end of September 2023, identical to the same period last year (Chart 21). In Budapest 2,400 dwellings were offered for rent in the Pest inner city districts at the end of September, which represents a 10-per cent increase year on year; by contrast, in the outer and the intermediate districts supply stagnated, with 4,400 dwellings. Demand for rental property dropped by 12 per cent year on year in 2023 Q3, according to the number of times phone numbers were revealed on the ingatlan.com portal and phone calls were made from its mobile app. The fall in demand may continue to contribute to a deceleration in the rise of rents.

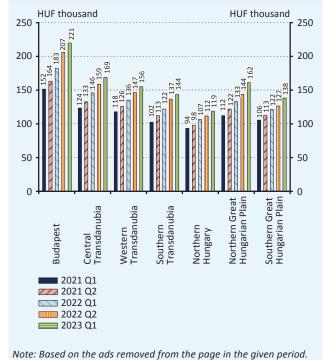
Chart 22
Development of rent indices and price-to-rent ratios nationwide and in Budapest (2015 = 100 per cent)



Note: The rent indices are based on the dwellings for rent in the offer of ingtalan.com. Development of price-to-rent ratios based on rent indices and MNB housing price indices, the last data point based on preliminary data.

Source: KSH-Ingatlan.com, MNB, housing agents' database

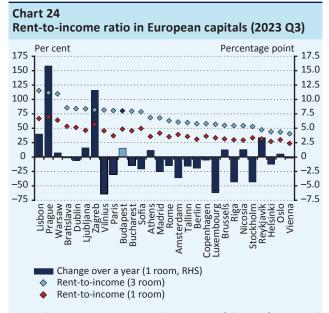
Chart 23
Average monthly rents based on flats to rent advertised on ingatlan.com



Source: KSH-ingatlan.com

In spite of the slower growth, the ratio of rents to house prices has decreased. The HCSO-ingatlan.com rental price index indicates that in Budapest the annual growth rate of rents fell from its record high of 24.6 per cent in the previous year to 13.1 per cent in 2023 Q3, while at the national level the average rate decreased from 22.9 per cent to 12.9 per cent in one year (Chart 22). The house price-to-rent ratio, which captures the profitability of rental properties and the affordability (using own funds) of various forms of housing grew 1.9 times in Budapest and 1.8 times nationally in the period between 2015 and 2022 Q2, but has been falling consistently since then as a result of stagnating house prices. In 2023 Q3, the ratio fell by around 10 per cent year on year in both Budapest and nationally.

Average rents rose significantly in the Northern Great Plain region. In 2023 H1, the Hungarian region recording exceptionally high average monthly rents was Budapest (HUF 221,000), while exceptionally low rents were recorded in Northern Hungary (HUF 119,000); the rest of the regions measured average rents within a narrower range, from HUF 138,000 to HUF 169,000 (Chart 23). Of all the regions outside the capital, the rate of growth in average rents over both a one-year and a two-year timeline was the highest in the Northern Great Plain, where the average rent level rose by HUF 17,000 (12 per cent) to reach HUF 162,000 in 2023 H1 and, as a result, it is now ahead of the rent levels in Western Transdanubia, even though that region has substantially higher per-capita incomes. The high rate of growth in the Northern Great Plain may be attributable to the fact that the rental market is concentrated in the most attractive employment areas of the region, where rental supply is unable to match demand at the required speed.



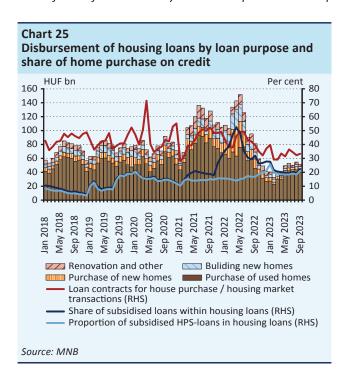
Note: The rent-to-income ratio is the quotient of the rent for a typical rental flat in the capital outside the city centre and the national monthly net average income. Change between 2022 and 2023 Q3. Budapest is marked with a different colour.

Source: Eurostat, numbeo.com

Affordability on the least affordable rental markets in Europe has deteriorated further. In 2023 Q3, the rent payable for a typical 3-room and a studio flat in Budapest was 80.4 per cent and 48.4 per cent, respectively, of the average net pay in Hungary (Chart 24). Rents rose faster than incomes in the case of studio flats and more slowly in the case of 3-room flats. Of the three least affordable European capitals, Lisbon and Warsaw experienced a slight deterioration, and Prague saw a significant further worsening of affordability on their rental markets. The capitals of the Visegrád countries are still among the least affordable cities in Europe: the rent-to-income ratio for a studio flat is 53.1 per cent in Bratislava, 64.2 per cent in Prague and 70.0 per cent in Warsaw. When examining, at purchasing power parity, the disposable income remaining with the tenant after paying the typical rent for a studio flat from their average wage, the ranking of the V4 countries changes slightly: calculated at purchasing power parity, the value is EUR 743 in Budapest, EUR 614 in Warsaw, EUR 543 in Bratislava and EUR 489 in Prague. By contrast, in Vienna the purchasing power of the income remaining after paying rent is close to EUR 2,000.

3 Housing loans and housing subsidies

In 2023 Q3, banks experienced a rise in demand for housing loans versus the previous quarter, although new loan contract volumes during the three months remained 41 per cent below the same period of the previous year. Similarly to unsubsidised housing loans, housing subsidy and related subsidised loan volumes also fell, and thus only one in three housing transactions involved a loan in September. Rising demand drove up average loan amounts and, accordingly, average terms as well, with seasonal effects and the shift in demand towards higher-income clients also possibly playing a role. The latter may have resulted in the fact that the average loan-to-value ratio of newly disbursed loans in Budapest had fallen to 38 per cent by the second quarter, while unsubsidised housing loan interest rates have stagnated at around 9 per cent since the beginning of the year and are also resulting in lower loan amounts as proportionate to the value of the collateral. Affordability has increased in Budapest in 2023; family subsidies, however, play a significant role in this favourable trend (as they do in the countryside). For households not committing to have children, the affordability of new homes remained low in Budapest and the countryside. As a result of the changes announced by the Government, purchases may be deferred to 2024 in settlements within the scope of rural HPS, while the termination of HPS in the cities and the more stringent eligibility conditions for the prenatal baby support loan have the effect of reducing housing loan demand from 2024 onwards. This effect may be offset by the HPS Plus programme, which was announced in late October and will allow couples committing to have children to access preferential-rate loans from 2024 onwards; this may also result in a deferral of demand this year. The 8.5-per cent APR cap committed to by the banks may also help to boost demand.

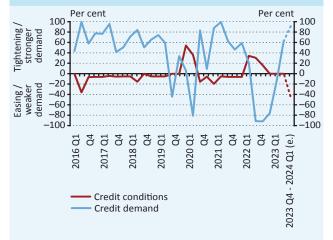


3.1 HOUSING AFFORDABILITY IN BUDAPEST HAS IMPROVED SLIGHTLY FROM A LOW LEVEL

The proportion of home purchases with a mortgage remains low. At HUF 156 billion, the total volume of housing loan contracts concluded in 2023 Q3 was 41 per cent lower than in the same period in the previous year, and a similar drop was measured in transaction numbers as well. Nearly 80 per cent of contracted volume was for the purchase of pre-owned homes, as compared to 60 per cent a year before. There was a 23-per cent drop in the volume lent for this purpose, although a 50-per cent rise was also measured compared to the lowest point in the first quarter (Chart 25). The steepest falls were still in lending to finance the construction or purchase of new homes, which were down 71 and 66 per cent, respectively, compared to the figures in 2022 Q3. This is partly due to the high base attributable to last year's FGS Green Homes Programme (GHP) boom, but the average price per square metre of new homes, the high construction costs, the uncertain economic outlook and higher loan interest rates have all had the effect of deferring demand. In the third quarter, banks disbursed 28 per cent less year on year in prenatal baby support loans, which tend to be used for housing purposes. The volume of housing loans requested for renovation and modernisation was 71 per cent lower than in the same period in the previous year, when the home renovation subsidy and the related interestsubsidised housing loan were still available. Whereas last year, in part due to significant GHP lending, the proportion



Chart 27
Changes in credit conditions and demand for housing loans



Note: Net ratio of the difference between tightening and easing and banks indicating stronger and weaker demand weighted by market share

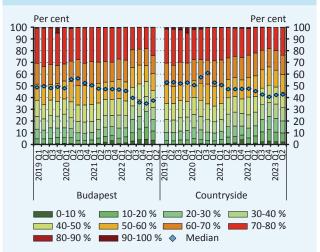
Source: MNB, based on banks' responses

of preferential-rate and subsidised loans reached 50 per cent, by September 2023 this fell to 22 per cent as a result of the termination of the home renovation subsidy at the beginning of the year and the substantial drop in HPS subsidies. 37 per cent of housing loans taken out in the third quarter were combined with the HPS subsidy. We estimate that 33 per cent of home purchases in September involved a mortgage, representing a year-on-year decrease of 6 percentage points.

The average contract amount of new housing loans began to increase in the second quarter. From its lowest point observed at the beginning of 2023 demand for housing loans recovered both as a result of seasonal effects and the expectations for real wages, which substantially determine the borrowing decisions of households. This also had an impact on average loan amounts: in September, loan applicants requested, on average, HUF 16 million for the construction or purchase of new homes, which is similar to the levels measured prior to the launch of the Green Homes Programme (Chart 26). The average amount of loans taken out for purchasing a pre-owned home rose to HUF 12 million by the end of the third quarter, returning to the level measured in September of last year. The correction in average loan amounts may have been partly attributable to the fact that higher earners represented a rising proportion of loan debtors in the second quarter (as demonstrated by the increase in the 90th per centile in terms of income distribution); in the third quarter, a rise in nominal wages and disinflationary trends boosted demand in the lowerincome segments as well.

In 2023 Q3, banks noted a rise in demand for housing loans and envisage continuing growth over the next six months as well. The responses to the Lending Survey reveal that the surveyed institutions left the terms and conditions of their housing loans unchanged in 2023 Q3; as for detailed terms and conditions, a net 16 per cent of the banks reported only one modification, that of relaxing margins. The respondents say that margins were cut due to competition in the market and improving funding opportunities. Looking forward to the next six months, net 44 per cent of the banks intend to ease their housing loan standards, and 86 per cent plan to ease their pricing conditions, which is connected to the introduction of the voluntary APR cap (Chart 27). In the third quarter, a net 63 per cent of the respondents detected a rise in demand for housing loans and, looking forward to the next six months, almost all of the banks anticipate a further increase in demand on the mortgage market, in which expectations of changes in housing subsidies may also have played a role.

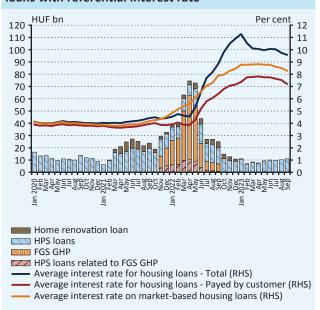
Chart 28
Distribution of new housing loan disbursement by LTV



Note: Volume-based distribution.

Source: MNB

Chart 29
Transaction and customer interest rates on newly disbursed housing loans and the volume of housing loans with referential interest rate



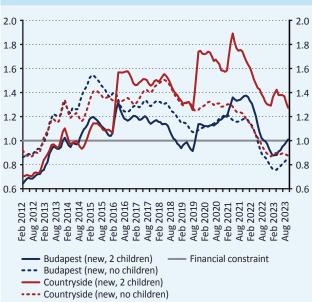
Note: Average interest rate weighed by contractual amount. Transaction and customer interest rates include all type of housing loans

Source: MNB

In Budapest, the average loan-to-value ratio of new loans declined sharply. Tightening pricing and other loan conditions resulted in a large drop in the average loan amount of newly granted housing loans from 2022 H2, coupled with a rise in the share of clients in the top income decile. As a combined result of all of the above, newly contracted housing loans saw their average LTV ratios fall substantially, amounting to 43 per cent in the countryside and 38 per cent in Budapest at the end of 2023 Q2 (Chart 28). In 2023 Q2, LTV was higher than 40 per cent in 68 per cent of all housing loans taken out in the capital, whereas in the same period in the previous year this applied to 75 per cent of loans. In the case of home purchases in the countryside, the ratio decreased from 72 per cent to 69 per cent in one year.

The average interest rate on market housing loans stagnated in the first half of the year and then started to decrease in July. The interest subsidy on government subsidised housing loans is tied to AKK yields, which have fallen considerably since the beginning of the year, whereas clients continue to pay at the 3-per cent interest rate set by law. With the termination of the FGS Green Homes Programme and home renovation subsidy, the interestsubsidised loan associated with HPS has remained the only major subsidised loan. Thus, with the role of subsidised loans declining, the average interest actually paid by the customer was at a rate of 7.2 per cent in September, compared to 7.8 per cent in the beginning of the year (Chart 29). Stagnating at 8.8 per cent until June, the average interest rate on newly contracted unsubsidised housing loan products fell to 8.3 per cent by September and, as a result of the voluntary interest rate cap announced by the Government, it may decrease further from October, with the APR of housing loans capped at 8.5 per cent.





Note: The HAI shows the number of times the income of a household with two average earners covers the income required for the financed purchase of an average home. If the value of the indicator is over 1, the family is able to buy a home on credit without overstretching its liquidity. However, if it is below 1, the purchase represents excessive risk and financial burden. Calculated for a flat of 45 square metres without a child, 65 square metres for two children. Parameters of the loan product, except for the interest rate, are constant. LTV = 70 per cent, PTI = 30 per cent, maturity = 15 years. Net wages used in the calculation of the indicator are seasonally adjusted.

Source: HCSO, NTCA, MNB

In Budapest, the affordability of newly built homes has improved from a low level over the past six months, but subsidies continue to play an important role. In the capital, wages have been rising substantially faster than house prices since February 2023 and housing loan interest rates have fallen slightly, resulting in an improvement in the affordability of housing purchased with a mortgage (compared to the very low level in the past) (Chart 30). Households of two earners with an average Budapest income and no children still need to stretch themselves financially to buy a new home in the capital, but couples with two children (or committing to having two children) are able to buy a new home in Budapest without overstretching themselves financially, thanks to the family subsidies. New home prices rose faster in the countryside in 2023, so that households with average incomes and no commitment to have children are able to buy a new home only at excessive risk. The gradual fall in the value of fixed-sum subsidies has worsened affordability for households with two children in the countryside, but buying a home on a mortgage is still a good opportunity for such households.

Box 2 impact of changes in family and housing subsidies in 2024 on the loan and housing markets

Of the housing measures currently in effect, the prenatal baby support loan and the family housing allowance (HPS) will undergo major changes from 1 January 2024, as announced by the Government. In addition, the Government has announced the HPS Plus preferential loan programme, which will be available from 2024 to families committing to having children. As housing subsidies play a key role in mortgage lending, we examine the impact of the modifications and announcements on the loan and housing markets.

The changes affect the maximum loan amount and the range of eligible borrowers in the case of prenatal baby support loans, and the subsidy amount and geographical scope in the case of HPS loans. The maximum amount of prenatal baby support loans will rise from HUF 10 million to HUF 11 million on 1 January 2024. Currently, the loan is available to married couples in which the woman is between 18 and 41 years of age. By contrast, from 1 January 2024, only married couples in which the woman is under 30 years of age will be able to take out the loan. As a transitional rule, in 2024, women aged between 30 and 40 will still be able to apply for a prenatal baby support loan if they can substantiate their pregnancy. Effective from 1 January 2024, the family housing allowance and the related VAT refund is no longer available in towns and cities, only in the preferred settlements with populations of less than 5,000 (village HPS). The rules for applying for village HPS will not change, but the HPS amount available in villages will rise significantly for both new-build purchases and the purchase or modernisation of a pre-owned home.

Although village HPS represents the highest volume of subsidies since HPS was first introduced, the constraints on the scheme have a significant impact on the loan market due to the high proportion of HPS-related housing loan contracts. Since its introduction in 2019, the village HPS subsidy amount available to the preferred small settlements represents the highest volume of any HPS subsidies, and accounted for around half of the total subsidy volume in the quarter. At the housing market peak in 2021, HPS-related loans (including unsubsidised loans with which clients also received an HPS subsidy) accounted for approximately 30 per cent of loan volumes, and this proportion rose to 34 per cent by early 2023 as housing lending dropped. City HPS loans with interest subsidy, which will be terminated as of 1 January 2024, accounted for 19 per cent of housing loans granted in 2023 Q1.

HPS and the related loans are used at a high rate in Pest county, mainly in settlements in the metropolitan area, and also the metropolitan areas of other major cities in the regions. In Pest county, 35 per cent of housing market transactions in 2021 involved HPS, while the rate of its utilisation was highest, at around 60 per cent, in the metropolitan areas of Győr and Kecskemét. In the metropolitan areas of Debrecen, Sopron, Székesfehérvár and Szombathely, the proportion of HPS and related loans to housing market transaction numbers was around 45 per cent; in the Szeged, Tatabánya and Veszprém metropolitan areas the figure was around 35 per cent. As a result, the termination of city HPS next year may mean that eligible recipients with children may bring forward to 2023 some demand on the housing markets of cities and metropolitan areas. By contrast, the higher village HPS subsidy amount in effect from next year may result in the deferral of demand to early 2024. According to one of our earlier questionnaire surveys⁷ around 75 per cent of recipients of prenatal baby support loans do in fact spend their loans on housing, so that restricting the prenatal baby support loan may result in demand for the product being brought

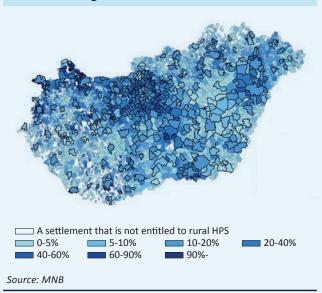
market from 2024 onwards.

Limiting the prenatal baby support loan to women below 30 years of age may substantially narrow borrower eligibility. Data from individual loan contracts indicate that, ever since the launch of the scheme in 2019, the client's age reached or exceeded 30 years in nearly 60 per cent of prenatal baby support loan agreements; the market of prenatal baby support loans may thus shrink by that rate. The proportion of women under 30 years old with a prenatal baby support loan is significantly lower in the capital than in the countryside, so an even larger decrease is likely in Budapest.

forward to 2023 and lower demand on the housing

The increase in the amount of the village HPS subsidy could lead to a moderate rise in the number of new home constructions in rural areas and boost house prices substantially. Only 8 per cent of the newly completed homes in 2021 and 2022, i.e. 1,600 dwellings per year, were built in settlements eligible

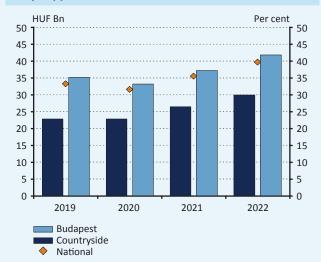
The ratio of HPS-related loan contracts to housing market transactions in 2021, highlighting settlements that are not eligible for rural HPS



for village HPS. For pre-owned homes sold in 2022, the purchase price of the property was below the amount of the non-refundable HPS subsidy (HUF 0.3, 1.3 or 5 million, depending on the number of children) in 3, 16 and 47 per cent of transactions, respectively. The increased subsidy amounts (HUF 0.5, 2 or 7.5 million), entering into force in 2024, would be sufficient to buy a pre-owned home without additional finance in 7, 24 and 59 per cent

⁷ For additional details on the main objectives of prenatal baby support loans, see Fellner – Marosi –Szabó (2021): The effects of prenatal baby support loans on the credit market and the real economy. Economic Review Vol. 68 Issue 2, pp. 150–177. Available at: http://www.kszemle.hu/tartalom/letoltes.php?id=1952

Proportion of women under 30 years among prenatal baby support loan debtors



Note: The rate is expressed in terms of the number of prenatal baby support contracts concluded in the given year for the given type of municipality (Budapest/countryside/national).

Source: MNB

of transactions, respectively, assuming no change in price distribution. However, the significant increase in subsidies may lead to higher house prices in small settlements.

From 1 January 2024, the Government will introduce an interest-subsidised housing loan offering a higher amount than the existing subsidised schemes plus a corresponding loan waiver, called HPS Plus, for couples who are planning to have another child. HPS Plus will be available in all settlements, i.e. also in settlements not eligible for village HPS, for the purchase or extension of a property, but will not be available for the purchase of land. The maximum loan amount is HUF 15, 30 or 50 million, taking into account the number of children committed to as well as the number of children the applicants already have. From the second child onwards, the state will waive HUF 10 million of the debt for each child born. With HPS Plus, there is no principal repayment in the first year, only interest payments, and a one-year moratorium can also be requested on the arrival of

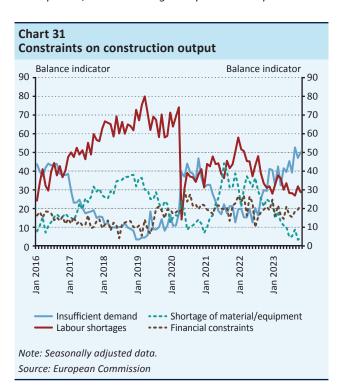
the first child. The client pays interest at a fixed rate of 3 per cent throughout the loan term, and maturities may range between 10 and 25 years.

Overall, the termination of the city HPS scheme and the more stringent eligibility conditions for the prenatal baby support loan will have the effect of reducing housing loan demand from 2024; this effect may be offset by the HPS Plus programme, which was announced in late October. This year, purchases may be delayed by eligible buyers as a result of the introduction of HPS Plus in 2024 and the increase in village HPS subsidy amounts next year.

4 Supply of new homes

As of the end of August 2023, construction firms' contract book volumes were 24 per cent lower than in the same period in the previous year, also reflecting the fact that insufficient demand is still the biggest constraint on domestic construction companies' output. Housing construction costs continued to rise at a slower rate, but employment numbers in the construction industry remain at historic highs and maintaining this level is a serious challenge for the sector. In 2023 Q1-Q3, the number of home occupancy permits issued was one fifth lower than in the same prior-year period, while the number of new homes completed in the capital fell by 29 per cent over the same period. Nearly 15,000 building permits were issued nationally in 2023 Q1-Q3, reflecting a 43-per cent decrease versus the same period in 2022, with a 39-per cent drop recorded in Budapest. One fifth of all banks taking part in the Lending Survey tightened their housing project standards in the third quarter, while 38 per cent reported falling demand for loans and expect further decreases looking forward.

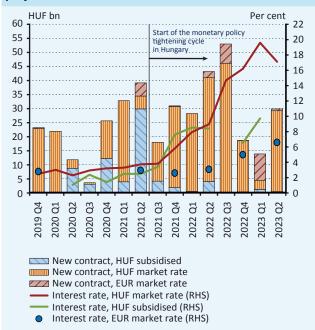
In 2023 Q3, the total number of flats in condominium projects under development in Budapest (45,000) increased by 14 per cent year on year and rose slightly versus the second quarter as well. Annual growth, however, was mostly connected to projects with building permits already obtained but construction not yet commenced; this may serve as a reserve for growth when demand recovers. Within the total number of new homes under construction, however, there was an 11-per cent year-on-year fall in the number of properties in the sales phase in the third quarter. The number of homes still available for purchase in the capital increased substantially year on year, and in the countryside more subdued sales also contributed to an increase in the available supply. The number of new homes sold in Budapest remains low, with only 665 new condominium flats sold in 2023 Q3, down by 41 per cent from the same quarter of the previous year. Overall, the repricing of new homes resulted in prices stagnating in the third quarter, adjusting to the change in demand. However, the average price per square metre in the capital was 8 per cent higher year on year, rising to HUF 1.46 million in the third quarter, while even higher square-metre prices were observed in new construction projects around Lake Balaton.



4.1 SEVERAL FACTORS REPRESENT SERIOUS OBSTACLES FOR THE CONSTRUCTION INDUSTRY

Insufficient demand is mostly responsible for hindering the production of construction companies. In recent months, construction companies have cited insufficient demand due to falling private and public investment as the main constraint on construction output, with the largest share, around 40-50 per cent, declaring this as a growing problem (Chart 31). Labour shortages were a problem for 25 to 35 per cent of the construction companies, while 15 to 25 per cent faced financial constraints. As supply chain frictions have eased in recent years, shortages of raw materials and equipment have become less of a problem, with output at less than 10 per cent of companies hampered by this factor in recent months. At the autumn meeting of the Housing and Real Estate Market Advisory Board (LITT), members stressed that it was crucial for the sector to preserve the construction capacity built up over the past years, to avoid the situation that developed in the years following the 2008

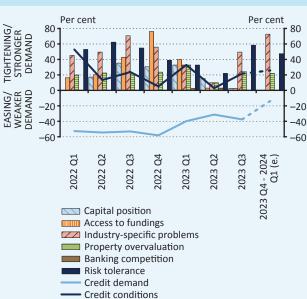
Chart 32
Housing project loan contracts of credit institutions and average transaction interest rates on new housing project loans



Note: Average transaction interest rate weighted by the contracted amount. Subsidised housing project loans fall under the following schemes: Funding for Growth Scheme, Széchenyi Investment Loan (Plus, Go!, Max). Where no average interest rate is indicated in the chart, the data supply for the period did not contain new loan agreements with interest rate information.

Source: MNB

Chart 33 Housing project loan conditions and changes in demand



Note: The net ratio is the difference between banks tightening and relaxing their terms, and between banks indicating stronger or weaker demand, weighted by market shares. The factors underlying credit conditions apply to commercial real estate loans overall.

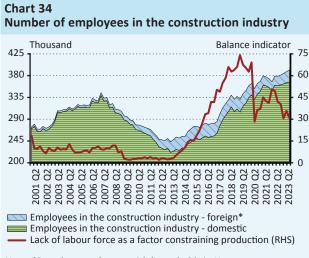
Source: MNB, based on banks' responses

crisis. At the same time, some market actors report that, rather than going abroad to work, construction workers now tend to switch careers, which makes it impossible to make them return later.

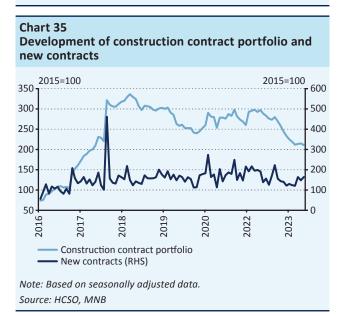
A turning point has been reached in the rise in housing project loan interest rates. In 2023 H1, credit institutions contracted for HUF 43.5 billion in housing project loans, which is 39 per cent less than the contract volume in 2022 H1 (Chart 32). Within the total project loan contract portfolio, subsidised loans accounted for 3 per cent, the same as in 2022, but significantly less than the 32 to 38 per cent share in 2020-2021, when the Funding for Growth Scheme was in operation. Since mid-2021, in parallel with tightening monetary conditions triggered by high inflation, interest rates on housing project loans rose significantly. The largest increase was registered in interest rates on HUFdenominated unsubsidised loan contracts, which amounted to 17.1 per cent on average in the case of new housing project loan contracts concluded in 2023 Q2. Owing to the MNB's rate cuts, loan interest rates are now falling from their high levels. The interest rate on euro loans, used less frequently by credit institutions in their housing project financing activity, rose from the 2.5 to 3 per cent levels measured at end-2021/early 2022 to 6.5 per cent by 2023 Q2. Reduced demand, the uncertain economic outlook and falling real wages are restricting housing development activity, and the high financing costs further aggravate this trend.

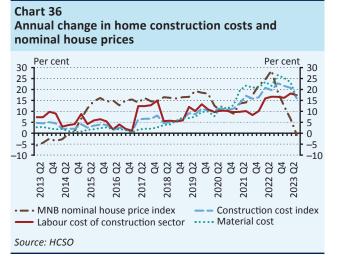
In 2023 Q3, banks tightened the standards of their housing project loans. Based on responses to the Lending Survey, a net 21 per cent of banks tightened the conditions of their housing project loans in 2023 Q3 (Chart 33). The changing risk tolerance of the banks was cited by the majority of respondents as a factor behind the tightening, and nearly half of them also pointed to challenges facing the industry. A net 26 per cent of the banks envisage further tightening in this segment in the period from 2023 Q4 to 2024 Q1. In the third quarter, a net 38 per cent of the banks reported a decline in demand for loans to finance housing projects, and 14 per cent of institutions expect a further decline looking forward to the next six months.

The number of employees in the construction industry rose slightly in 2023 Q2, reaching new historic highs. Following the 2008/2009 crisis, the number of employees in the construction industry fell sharply and a large number of construction workers went to work abroad. Employment in the construction sector in Hungary was slow to recover after that. In 2023 Q1 and Q2, the number of workers in the Hungarian construction industry increased year on year, reaching the high level of around 360,000 (Chart 34). The



Note: *Based on employees with households in Hungary.
Source: HCSO, MNB, European Commission





slight increase in the number of people employed in the construction industry may be attributable to the severe shortage of skilled workers in the sector for several years. In addition, companies are reluctant to make redundancies despite falling orders and rising costs, given the difficulty in finding workers.

Construction output and outstanding contracts both contracted in the period to August 2023. Construction output fell by 6.9 per cent on average in 2023 H1. After a slight increase in July, a 0.5-per cent decline was recorded in August. The contract book volume of construction companies at the end of August was 23.9 per cent lower than in the same period of the previous year (Chart 35). The volume of outstanding contracts for the construction of buildings increased by 4.9 per cent, while that of other structures declined by 40.6 per cent compared to August 2022. We expect the volume of public investment to decline substantially in both 2023 and 2024, but this could free up construction capacity for housing projects. In addition, on the supply side, the continuation of the preferential 5-per cent property tax on newbuild housing until the end of 2024 (including for projects where planning permission has been obtained by the end of 2024 and occupancy takes place by 2028) should continue to contribute to an expansion in housing construction once demand returns.

The growth rate of home construction costs tapered off in the second quarter, but its dynamics remained high in an EU-wide comparison. In Hungary, the annual growth rate of housing construction costs slowed down to 16.0 per cent in the second quarter, from 20.8 per cent in the first quarter (Chart 36). Within that, material costs rose by 16.2 per cent, while construction labour costs increased by 17.4 per cent year on year the second guarter. Based on the available data, the rise in home construction costs was the second highest in the EU. Home construction costs rose by an average of 2.9 per cent in the European Union and by an average of 2.4 per cent in the euro area (Chart 37). Looking forward, the slowdown in the construction industry is expected to further dampen the growth rate of construction costs in Hungary, in line with the opinion of LITT experts that the shrinking construction order book is opening up more and more room for bargaining on both prices and construction deadlines.8

⁸ See Box 2 in our October Commercial Real Estate Market Report: https://www.mnb.hu/letoltes/commercial-real-estate-market-report-october-2023.pdf

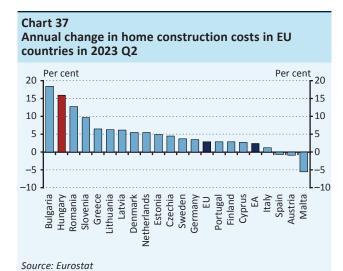


Chart 38 Distribution of new completions by location and developer

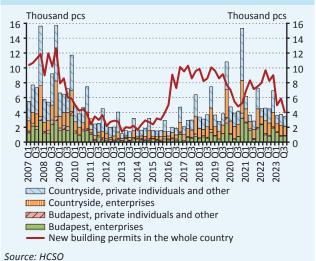
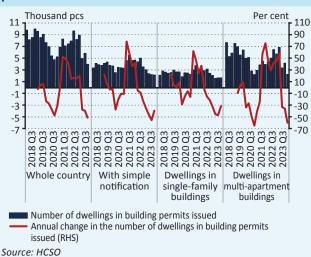


Chart 39
Number of dwellings included in residential building permits issued and annual change therein by type of permit



4.2 NEW HOME BUILDING IS AT A LOW LEVEL

In year-on-year terms, the number of home completions fell by nearly one third in the capital and by one sixth in the countryside in 2023 Q1-Q3. In 2023 Q1-Q3, 10,800 new residential properties were granted occupancy permits in Hungary, down 21 per cent on the same prior-year period (Chart 38). During the period under review, the number of home completions fell most strongly (29 per cent) in Budapest, with 90 per cent of this decrease linked to commercial housing projects. In settlements outside the capital, the number of homes delivered fell by 17 per cent in the first three quarters, with the number of residential properties built by contractors and by private individuals (detached houses) declining at practically the same rate.

The number of construction permits issued fell significantly in all settlement types. In 2023 Q1-Q3, building permits were issued for 14,900 new homes, a 43-per cent decrease compared to the same period in 2022 (Chart 39). The yearon-year decline in the number of building permits was 42 per cent for single-home buildings (detached houses) and 43 per cent for multi-apartment buildings. The number of planned residential property projects by simple notification fell by 48 per cent, even more than the number of singlehome building permits. In 2023 Q1-Q3, 5,100 new homes received a construction permit in the capital, down 39 per cent on the same period of the previous year. In terms of type of settlement, the number of homes for which a permit was issued fell the most, by 49 per cent, in villages, but there was also a 43-per cent drop in towns with no county status and a 39-per cent drop in towns with county status compared to the same period last year. The data on housing permits clearly point to a decline in housing construction activity, driven by housing market uncertainty, higher mortgage interest rates, falling real wages and the restructuring of the family subsidy system.

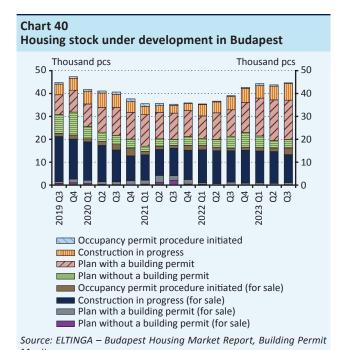
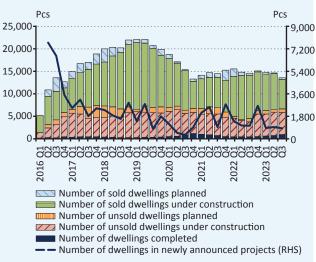


Chart 41

Chart 41 Availability of homes in new projects under development and sale in Budapest and the number of new announcements of dwellings



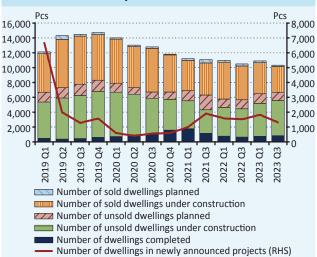
Note: Based on projects for at least four new dwellings in Budapest.
Source: ELTINGA – Budapest Housing Market Report

4.3 DEVELOPERS HAVE ADJUSTED THE NUMBER OF NEWLY LAUNCHED PROJECTS TO THE DECLINE IN DEMAND

There has been a modest increase in the number of dwellings under development in Budapest, although construction work has not started in many projects. In 2023 Q3, condominium projects with a total of 44,700 flats were under development (at least having started the building permit procedure) in Budapest, up 14 per cent year on year and also up slightly on the second quarter. 49 per cent of the flats under development are still in the planning phase, whereas 44 per cent are under construction (Chart 40). The number of projects where the building permits have already been obtained but construction has not started yet remains high year on year. This applies to 38 per cent of all homes under development. Developers are holding off on starting projects in the current uncertain economic environment, but the building permits they have obtained will allow the supply of new housing to respond more quickly as demand recovers in the future.

With an increasing concentration in the market of new homes, available supply continued to expand. In Budapest, 28 per cent of all projects under development, representing approximately 12,700 new homes, were in the sales phase in 2023 Q3, reflecting a decrease of 9 per cent quarter on quarter and 11 per cent year on year (Chart 41). The number of homes available for purchase in the capital rose slightly quarter on quarter and by almost 50 per cent year on year, bringing the total number of available new homes in Budapest to 6,617 in 2023 Q3. In the period under review, 822 new homes were put up for sale in Budapest, a decline by 10 per cent compared to the number of homes coming to market in the previous quarter and representing only 40 per cent of the average levels measured in 2021. Nearly 60 per cent of newbuild sales come from two larger projects with over 100 flats each.

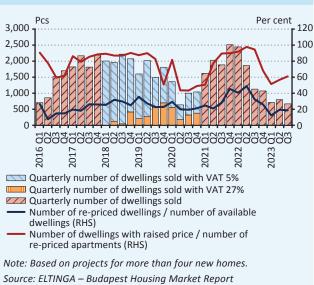
Chart 42 Number of dwellings in new condominium projects for sale in the countryside



 ${\it Note: Based on condominium developments comprising more than tendwellings.}$

Source: Eltinga – Countryside Housing Market Report

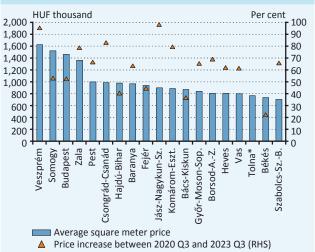
Chart 43
Number of new homes sold in Budapest, and ratio of repricing within the advertised new homes



Moderate sales of new homes increased the available supply in the countryside. In the countryside, there were 9,539 housing projects in the development or sales phase in 2023 Q3, representing a 4-per cent decrease compared to a year earlier. In 2023 Q2 and Q3, a total of 1,209 new condominium flats were sold in the countryside, down 36 per cent on a year earlier. As a result, available supply grew by 18 per cent per year to 6,648 homes in September 2023 (Chart 42). This was supported by the addition of 1,300 new homes to the market in the second and third quarters, slightly more than the number of homes sold. The largest number of dwellings under development is in projects in Somogy county, with around 1,834 homes, followed by projects in Győr-Moson-Sopron and Pest counties, with 1,375 and 1,333 homes, respectively.

Newbuild housing transactions completed during the quarter reflect a significant drop in demand. The number of new homes sold in Budapest remains low, with only 665 new condominium flats sold in 2023 Q3 (including both preliminary and final agreements), down by 41 per cent year on year and 17 per cent quarter on quarter. The only guarter with lower new home transactions was the first quarter of the pandemic. Tighter monetary conditions aimed at curbing inflation, falling real wages and the high unit prices of new housing have all contributed to the low number of sales transactions. In the quarter under review, as a result of falling demand, the share of repriced homes fell from 19.3 per cent in the previous quarter to 18.6 per cent of the total number of available homes, which is still very low compared to the levels measured previously (Chart 43). Within repriced homes, the proportion of homes with a raised price increased by 4 percentage points to 61 per cent over one quarter, while 477 flats saw prices decline. Overall, the repricing of new homes resulted in prices stagnating in the third quarter, adjusting to the change in demand.

Chart 44
Development of the average square meter price of new dwellings in 2023 Q3



Note: Based on condominium developments comprising more than ten dwellings in rural areas and more than four dwellings in Budapest. *Data for 2020 Q3 are not available in Tolna county.

Source: ELTINGA – Budapest Housing Market Report, Countryside Housing Market Report

The unit price of new properties around Lake Balaton is higher than in the capital. In 2023 Q3, the highest average price per square metre of new homes advertised in housing projects outside the capital was in Veszprém county (on the northern shore of Lake Balaton), where the average price per square metre was HUF 1.63 million. This price level corresponds to a 96-per cent increase over a 4-year period (Chart 44). Slightly lower price levels can be observed in Somogy county, which mostly includes projects around Lake Balaton, where advertisers set asking prices at an average of HUF 1.52 million per square metre. In addition to the HUF 1.46 million average price in the capital, new housing projects in Zala county are also priced at over HUF 1 million per square metre. Since 2020 Q3, all counties have experienced double-digit price increases in the newbuild housing market, with the highest price increase, of 98 per cent, measured in Jász-Nagykun-Szolnok county and the lowest price increase, of 22 per cent, in Békés county.

Count István Széchenyi

(21 September 1791 - 8 April 1860)

Politician, writer, economist, minister for transport in the Batthyány government whom Lajos Kossuth referred to as 'the greatest Hungarian'. His father, Count Ferenc Széchényi established the Hungarian National Museum and Library; his mother, Julianna Festetich was the daughter of Count György Festetich, the founder of Georgikon, an institution for the teaching of agricultural sciences.

With his ideas – whose message remains relevant even today – and his activities both as a writer and a politician, István Széchenyi laid the foundation for modern Hungary. He is one of the most eminent and significant figures in Hungarian politics whose name is associated with reforms in the Hungarian economy, transportation and sports. He is also known as the founder and eponym of numerous public benefit institutions, a traveller all across Europe and an explorer of England as well as the champion of economic and political development at the time. István Széchenyi recognised that Hungary needed reforms in order to rise, and considered paving the way for a Hungary set on the path of industrialisation and embourgeoisement to be his calling in life.

Published in 1830, his Credit outlined the embourgeoisement of Hungary and summarised its economic and social programme. Count Széchenyi intended this writing to make the nobility aware of the importance of the country's desperate need for a social and economic transformation. Another work of his, Stádium [Stage of Development] (1833) listed the cornerstones of his reform programme in 12 points, including the voluntary and compulsory liberation of serfs; the abrogation of avicitas (inalienable status of noble property); the right of possession for the peasantry; and the freedom of industry and commerce. This work of Széchenyi already conveyed the idea of equality before the law and the general and proportionate sharing of taxation.

After the revolution in 1848 István Széchenyi joined the Batthyány government and as minister embarked vigorously on implementing his transportation programme.

HOUSING MARKET REPORT November 2023

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