



HOUSING MARKET REPORT



2021
NOVEMBER

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

Count István Széchenyi



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(November 2021)

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The housing market represents a key area at the level of individual economic agents (households, financial institutions), as well as at the level of the national economy. Housing market developments are closely related to financial stability issues and fundamentally determine short- and long-term prospects for economic activity. Overall, it can be stated that the housing market is integrally linked to every area of the national economy. Housing market developments, in particular the volatility of housing prices, influence the savings and consumption decisions of the household sector via its financial position, and also influence the portfolio, profitability and lending activity of financial institutions via the stock of mortgage loan collateral.

The ‘Housing Market Report’ aims to provide a comprehensive view of current trends on the Hungarian housing market and to identify and present the macroeconomic processes that influence housing market supply and demand. With this publication, the Magyar Nemzeti Bank regularly presents the relevant developments on the Hungarian housing market on a semi-annual basis.

The property market, and within that the housing market, is of key importance for the Magyar Nemzeti Bank in relation to fulfilling its primary tasks, based on inflation and economic considerations as well as financial stability factors. The development of property market supply directly influences economic growth, while oversupply and inadequate supply can also have serious consequences for financial stability. Housing price appreciation improves the financial status of households, prompting them to increase consumption, which influences both economic growth and inflation. Price appreciation also boosts the lending capacity of financial institutions by reducing their expected losses, which again invigorates the economy through lending growth. The correlation between the mortgage loan market and housing prices deserves particular attention: during business cycles, a mutually reinforcing relationship can develop between bank lending and housing prices.

The ‘Housing Market Report’ provides deeper insight into the factors behind market developments and the system of interactions between individual market agents by presenting a complex, wide-ranging array of information. The housing market already features in the publications of central banks, both in Hungary and at the international level, but typically from the perspective of the main topic of the respective publication. Consequently, the ‘Housing Market Report’ represents a unique central bank publication at the international level as well, due to its integrated presentation of the macroeconomic and financial stability factors of the property market. The information used by the publication includes the following:

- The presentation of the macroeconomic environment influencing the housing market is based on the information contained in the MNB’s Inflation Report.¹ Key statistical variables relating to the housing market include changes in the volume of gross value added, and developments in real income and unemployment, as well as changes in the yield environment.*
- The analysis of current housing market developments primarily relies on information provided by the Hungarian Central Statistical Office, the National Tax and Customs Administration and real estate agents. Information on changes in housing market turnover and housing prices can be divided into the differences between new and used housing market developments. In addition to this, data on the regional heterogeneity of the housing market are also used.*
- The experiences and proposals of market participants and general government actors, with the contribution of the Housing and Real Estate Market Advisory Board (hereinafter: LITT), help shed light on the broader questions of housing market trends.*
- The analysis of the residential mortgage loan market primarily relies on the balance sheet data of credit institutions and the interest statistics collected by the MNB; information on the qualitative features of lending developments collected in the Lending Survey² is also used.*

¹ Magyar Nemzeti Bank, Inflation Report: <http://www.mnb.hu/en/publications/reports/inflation-report>

² Magyar Nemzeti Bank, Lending Survey: <https://www.mnb.hu/en/financial-stability/publications/lending-survey>

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1 Executive Summary

The Hungarian housing market started 2021 with a significant recovery. After the reopening of the economy, the labour market began to rebound rapidly, with employment advancing to an historic high in the summer months. In line with this, households' real income also grew in the second quarter. The new housing subsidies available from the beginning of the year made a major contribution to boosting housing demand.

Hungarian house prices rose further. Rural towns observed a sharp rise in prices, and – after one year of stagnation – house prices in Budapest also increased. The gap between prices in Budapest and the county seats narrowed in 2021. The annual growth rate of house prices accelerated to 13.3 per cent on a national average in the second quarter of 2021, while in the same period annual price dynamics rose to 9.1 per cent in Budapest and 18.2 per cent in rural towns. The risk of house price overvaluation relative to fundamentals increased on a national average, while in the capital it is once again approaching the levels seen in 2018–19. The price rise in the property market was not accompanied by the penetration of risky lending. However, the low supply of new homes compared to the level of demand is not sustainable in the long run.

In the second quarter of 2021, credit institutions concluded housing loan contracts with households in the amount of HUF 364 billion, exceeding the volume concluded in the same period of previous year – which was affected by the first wave of the pandemic – by 81 per cent. The new housing subsidies available from 2021 played a key role in the historically high level of disbursements. Credit demand is expected to grow further in the second half of 2021.

On 4 October 2021, the MNB launched the FGS Green Home Programme (GHP). Indirectly, the programme also encourages the supply side to build environmentally sustainable new residential properties. Members of the Housing and Real Estate Market Advisory Board (hereinafter: LITT) are of the opinion that demand for new homes expanded significantly as result of GHP. They welcomed the fact that energy efficiency appeared in the housing and funding market as a key criterion, as a result of launching the programme.

Demand and supply anomalies in connection with economic reopening led to sharp rises in construction material prices and shortages of materials at the global level. In Hungary, construction prices rose well above the EU average in recent years due to low capacity, competition and competitiveness problems. Continued, dynamic rises in home construction costs going forward would significantly deteriorate the situation of the housing market. On the one hand, fewer housing investments would be launched due to lower construction profit margins and, on the other, the quality of the stock of dwellings would also deteriorate due to the lack of improvements.

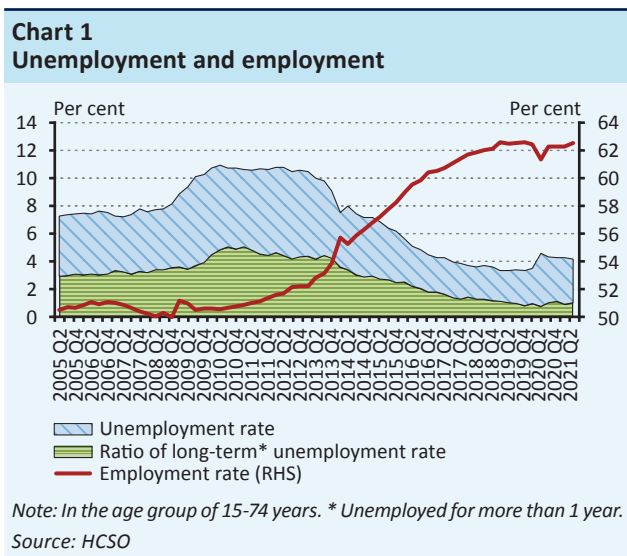
In the first three quarters of 2021, the number of new home completions dropped by 1.7 per cent in an annual comparison. In Budapest, the number of home completions rose significantly in this period due to projects originally planned for 2020, but postponed to 2021. At the same time, in the countryside the number of home completions dropped by 27.3 per cent in the first three quarters of 2021. As a result of the temporary reintroduction of the preferential VAT rate on housing in early 2021, propensity to build new homes rose again, based on the number of newly issued building permits. To further increase this, steps are needed that promote supply in a sustainable manner. The new home market has been characterised by significant price appreciation since the second quarter, which indicates low supply relative to demand. According to our estimate, new homes that are environmentally more sustainable are offered with a price premium of roughly 3.5 per cent. However, in the long run the higher price may be recovered due to the more efficient maintenance and more stable value, and the interest rate advantage provided by FGS GHP may offset the higher asking price.

2 Demand in the housing market and house prices

Economic conditions have been favourable for housing demand in 2021, with the Hungarian economy already reaching its pre-crisis performance in the second quarter of 2021, ahead of the EU average. In parallel with economic reopening, a fast recovery commenced in the labour market. Employment advanced to an historic high in the summer months, and the unemployment rate continued to decline. Based on economic activity indicators, employment prospects are positive looking ahead as well. Partly due to technical effects, wage growth has temporarily slowed, but the tightening labour market points to steadily rising real wages. In line with the favourable labour market trends, households' real income rose in the second quarter, and the level of net financial wealth as a percentage of GDP returned to its pre-crisis trend. Due to the uncertainty caused by the spread of the delta variant of the coronavirus, households' consumer confidence is still at a relatively low level. On the other hand, the government's housing subsidy schemes support housing market demand.

In the first quarter of 2021, the number of housing market transactions rose substantially, expanding by 28.9 per cent in year-on-year terms, in line with the demand-boosting effect of the new housing subsidies introduced from the start of the year. Based on preliminary estimates, the year-on-year number of transactions already declined slightly in the third quarter, while it shows growth of 6.2 per cent versus the same period of 2019. Housing market transactions are dominated by housing purposes, while investment purposes receded compared to earlier periods.

In the first half of 2021, house prices in Hungary rose further, with stronger price increases mainly seen in larger rural settlements. On a national average, the annual growth rate of house prices accelerated from 8.1 per cent in the fourth quarter of 2020 to 13.3 per cent in the second quarter of 2021, while in the same period the annual price dynamics increased from 0.5 per cent to 9.1 per cent in Budapest and from 7.4 per cent to 18.2 per cent in rural towns. In the first half of 2021, due to the more dynamic rise in house prices in the countryside, the price gap between the capital and the county seats declined further. In addition, the rise in house prices exceeded income growth in most provincial regional centres, thereby reducing housing affordability. On the whole, as a result of the recent housing market trends, the risk of house price overvaluation relative to fundamentals has increased on a national average.

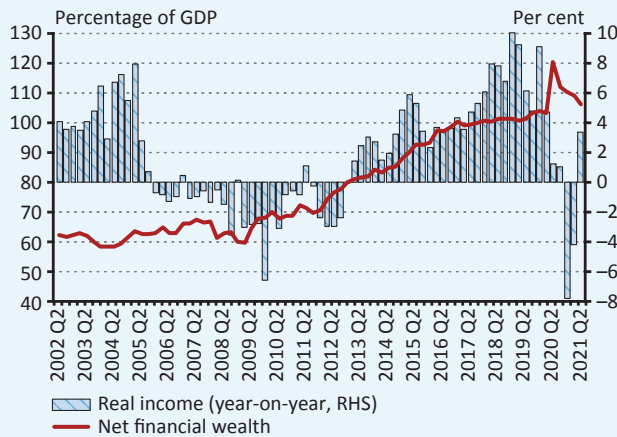


2.1 FAVOURABLE FUNDAMENTALS ON THE DEMAND SIDE OF THE HOUSING MARKET

Since the political transition, employment in Hungary has never been as high as in the summer of 2021. The labour market remained resilient during the pandemic as well, and after the reopening of the economy, it started to recover rapidly (Chart 1), which was also supported by central bank and government measures.³ The number of people in employment reached an historic high in the summer months, and thus the unemployment rate – which can be deemed low by international standards as well – continued to decline gradually. In the first half of the year, employment expanded primarily in the construction industry and in certain market services sectors (finance, information and

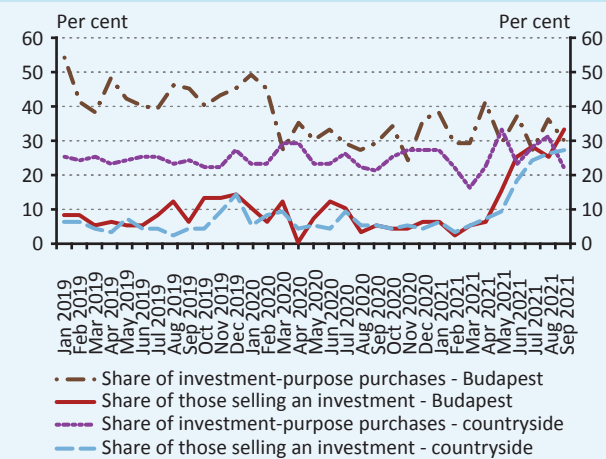
³ For detailed information, see: Drabancz – El-Meouch – Lang (2021): A koronavírus-járvány miatt bevezetett jegybanki és állami hitelprogramok hatása a magyar foglalkoztatásra (Impact of the central bank and government credit schemes introduced due to the coronavirus pandemic on Hungarian employment), *Közgazdasági Szemle (Economic Review)* Vol. 68, September 2021 (pp. 930–965).

Chart 2
Changes in households' financial assets and real income



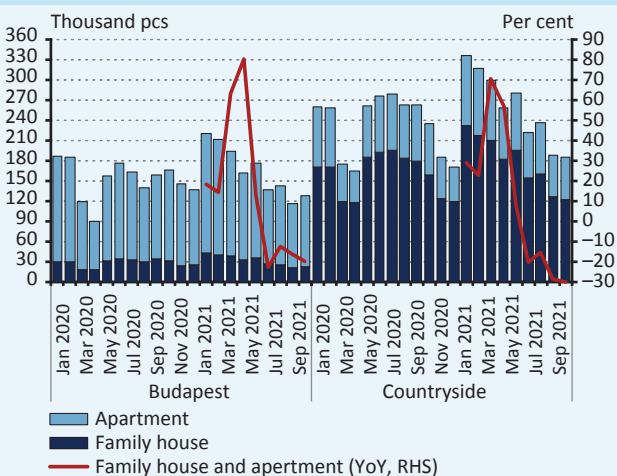
Source: HCSO, MNB

Chart 3
Share of house purchase for investment purposes and those selling their investment



Source: Duna House

Chart 4
Demand for properties for sale at ingatlan.com (based on the number of disclosed phone numbers and calls initiated through mobile application)



Source: Ingatlan.com

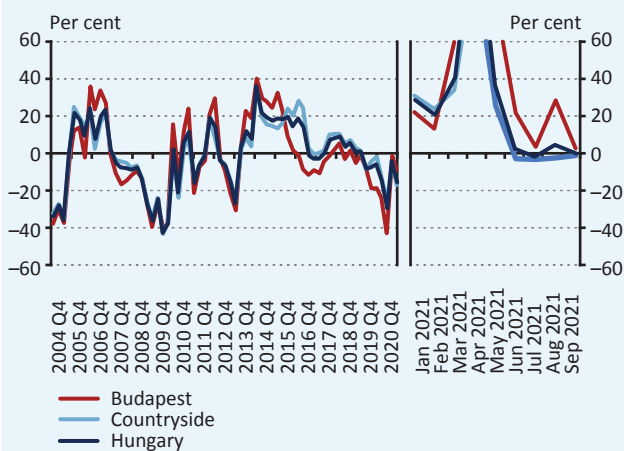
communication). Prospects are also favourable looking ahead: based on the survey of the European Commission, the employment expectations of Hungarian corporations are favourable, and respondents plan to increase headcount in all key sectors. Industrial labour demand already exceeds the pre-pandemic level. This year, the growth rate of private sector wages slowed temporarily due to statistical effects, but disregarding those we registered dynamic underlying wage-setting trends. Labour market tightness is once again on the rise, and competition for qualified labour results in increasing real wages. However, for the time being the degree of the increase falls short of that before the crisis.

Growth in household incomes is also supported by government measures, in addition to the favourable labour market trends. In the second quarter, households' disposable income increased already, while the level of net financial wealth as a percentage of GDP came significantly closer to its pre-crisis trend (Chart 2). Gradual reinstatement of the 13th month pension commenced in February 2021, and a large pension premium may also be paid out this year. Fiscal transfers will also raise disposable income in the economically active age group: the 2021 personal income tax will be reimbursed to families with children up to the amount of the average wage and from 2022 the income of employees below the age of 25 will be exempted from personal income tax up to the tax amount applicable to the average wage. According to the expectations, next year both the minimum wage and guaranteed wage minimum will increase significantly. According to our expectations household incomes will grow steadily, in line with the favourable underlying labour market and income trends. On the other hand – primarily due to the spread of the delta variant – household confidence indicators still lag behind their pre-crisis level.

Government programmes aimed at first-time homebuyers support housing market demand. In 2020, households' disposable income declined as a result of the negative economic impacts caused by the pandemic, but the volume of household investments still rose by almost 14 per cent. The key growth contributor was the more than 30-per cent rise in new home construction. In the first half of 2021, the majority of new home constructions were related to corporations; however, the home improvement subsidy available from the beginning of the year may foster further growth in household investments.

Since the start of the coronavirus pandemic, the ratio of homebuyers for investment purposes has fallen in Budapest. In March 2020, when the first wave of the coronavirus pandemic started to spread in Hungary, the ratio of people buying a home for investment purposes in Budapest dropped significantly – from the average of 43.4

Chart 5
Annual growth rate of housing market transactions between individuals



Note: Taking into account only the ownership acquisitions of 50 and 100 per cent. 2020 Q3 – 2020 Q4 are based on estimation, while 2021 is based on the transaction data of real estate agents. According to our estimations, real estate agents' transactions accounted for 13.3 per cent of national market sales and 16.5 per cent of sales in Budapest in the second quarter of 2021.

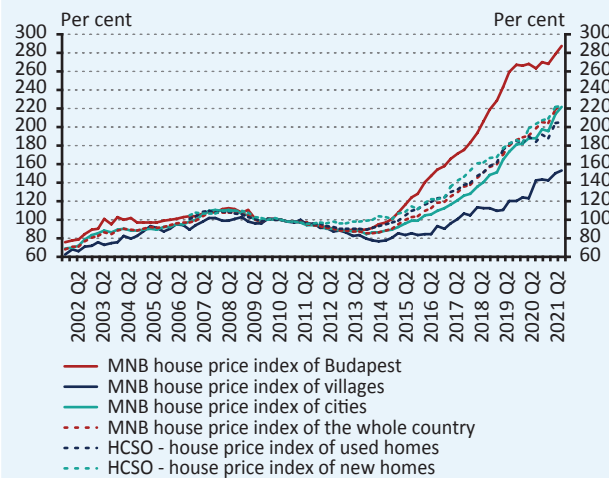
Source: NTCA, MNB, housing agent database

per cent typical in 2019 – to 27 per cent, and has remained at a steadily lower level since then. In the countryside, the ratio of those buying a home for investment purposes has not changed materially since the start of the pandemic. Compared to the years before 2020, based on the lower investment motivation and the demand-expanding effect of extended home purchase subsidies, housing purposes may now be present more strongly among those buying a home. In addition to the foregoing, in 2021 there was substantial growth in the number of people selling their investment in the housing market, both in Budapest and in the countryside (Chart 3), which may be connected to the lasting uncertainty surrounding short-term letting.

Demand peaked in early 2021. According to the data of the ingatlan.com advertising portal, in the first two months of 2021, housing market demand picked up significantly as a result of the new housing subsidies. Search data rose more strongly in the countryside than in Budapest, and accordingly demand for family houses also increased to a larger degree than for condominium properties. Following a sudden increase early in the year, demand declined on the whole in the months thereafter. In September 2021, demand for houses and flats for sale fell by 36 per cent and 32 per cent, respectively, in year-on-year terms (Chart 4). The decline was of similar degree in the countryside and in the capital (-38 and -34 per cent, respectively). However, the fall in demand is attributable to the high base caused by the pick-up in demand last summer, after the first wave of the coronavirus pandemic, and to the strong start of the year resulting from the housing subsidies introduced in early 2021.

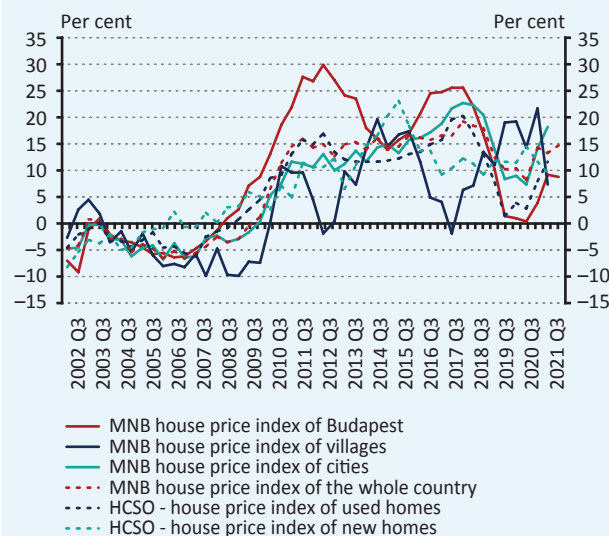
The number of housing market transactions rose in the first half of 2021, primarily due to the high number of sale and purchase transactions at the beginning of the year. Following the decline of 16.4 per cent registered in 2020, the number of transactions between private individuals in the Hungarian housing market increased significantly in the first half of 2021, rising by roughly 34.3 per cent in annual terms, based on agents' data. This growth is partly due to the significant – 28.9-per cent – rise in the first quarter, with a major contribution by the demand-increasing effect of the new housing subsidies launched from the beginning of the year, and partly to the significant growth in the second quarter resulting from the low base of 2020. On the whole, the number of transactions stagnated in the third quarter (with a moderate decline of 0.8 per cent in annual terms), while compared to the same quarter of 2019 a rise of 6.2 per cent was observed. In the third quarter, the number of sale and purchase transactions rose by 9.5 per cent on an annual basis in Budapest, while it declined slightly in rural settlements (Chart 5). According to our estimate based on

Chart 6
MNB nominal house price indices by type of settlement and the HCSO house price indices (2010 = 100%)



Source: MNB, HCSO

Chart 7
Annual growth rate of house price indices



Note: 2021 Q3 on the basis of preliminary housing price indices calculated on the data of housing agents. The preliminary national index has been calculated on a sample covering 13.3 per cent of market turnover, and the preliminary Budapest index on a sample covering 16.5 per cent of turnover in the capital.

Source: HCSO, Housing agent database, MNB calculations

the NTCA's data for the second quarter, the annual number of transactions was around 149,300, representing a minor shortfall compared to the long-term average of 164,300.

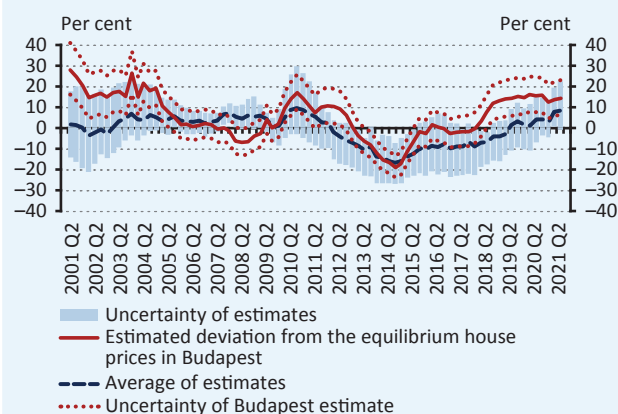
2.2 HOUSE PRICES CONTINUED TO RISE WITH INCREASED RISK OF OVERVALUATION

In the first half of 2021, house prices rose again, with the provincial towns registering the largest increase. The steady growth in domestic house prices continued – with the exception of the temporary pause at the end of 2020 – in the first half of 2021 as well. On a national average, based on the MNB housing price index, residential property prices rose to a larger degree in the first quarter, advancing by roughly 7.1 per cent on average, while in the second quarter they rose by 3.1 per cent (Chart 6). The degree of price appreciation varied distinctly by settlement type. In the first quarter, house prices rose to the largest degree, by about 9.3 per cent, in rural towns, while in villages and in Budapest, a price rise of 5.2 per cent and 4.0 per cent, respectively, was measured. In the second quarter as well, the largest price rise was registered by rural towns at 3.5 per cent, followed by Budapest with a rise of 3.2 per cent. Based on the housing price index of the Hungarian Central Statistical Office (HCSO), the prices of both new and used homes increased in the first half-year.

The annual growth rate of house prices accelerated in Budapest and in rural towns, while it slowed down in villages. In the first half of 2021, on a national average the annual growth rate of house prices rose from 8.1 per cent registered in the fourth quarter of 2020 to 13.3 per cent (Chart 7). Rural towns contributed to the acceleration in house price appreciation to the largest degree, where the annual growth rate of house prices rose to 18.2 per cent by the second quarter. Simultaneously with this, the annual growth rate of prices in Budapest also accelerated from 0.5 per cent in the fourth quarter of last year to 9.1 per cent. During the same period, the annual price dynamics in villages fell from 14.4 per cent to 7.3 per cent. According to the preliminary house price indices – estimated based on the data provided by real estate agents – house prices rose further in the third quarter. On the other hand, the annual rate of price appreciation in Budapest did not increase further and amounted to 8.9 per cent, while on a national average it may have advanced to 14.7 per cent.

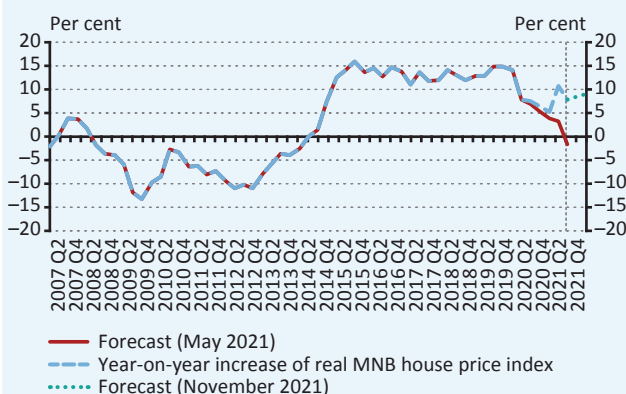
The risks of house price overvaluation rose moderately in Budapest and to a larger degree on a national average. Macroeconomic fundamentals determining the demand side of the housing market improved both nationally and in Budapest, while in the capital the unemployment rate

Chart 8
Deviation of house prices from the level justified by fundamentals, nationwide and in Budapest⁴



Source: MNB

Chart 9
Forecast of the MNB's aggregated real house price index (annual change)



Source: MNB

declined and households' disposable income also rose to a larger degree than the national average in the first half of 2021. By contrast, during the same period, house prices in the countryside rose to a larger degree than in Budapest. As a result of the foregoing, the overvaluation of house prices relative to the level justified by fundamentals rose only moderately in Budapest, standing at 14.7 per cent in the second quarter, i.e. a level slightly below the 2019 high. As a result of the trends in the countryside, on a national average the overvaluation of house prices relative to the level justified by the fundamentals rose from 2.8 per cent in 2020 Q4 to 8.4 per cent (Chart 8).

The dynamic increase in house prices may continue in the second half of 2021. In the first half of the year, the macroeconomic fundamentals determining the housing market were more favourable than previously expected, which – together with a significant increase in home construction costs and housing subsidies – contributed to acceleration in the annual growth dynamics of house prices. Looking ahead, labour market and income prospects remain favourable, and thus we expect house prices to rise further in the second half of the year. According to our expectations, real house prices may have appreciated by 8.4 per cent in the third quarter of 2021, while in the fourth quarter the annual rise may be 9.0 per cent, in line with the macroeconomic path in the September Inflation Report (Chart 9). However, looking ahead, the measures aimed at first-time homebuyers represent an upside risk due to the rising construction costs resulting from the stimulation of demand and the support for home improvements. Moreover, construction costs are also affected by global trends, as was also observed in the first half of the year.

⁴ The deviation of house prices from the level justified by fundamentals is quantified based on four methodologies. In the report, we publish the minimum, maximum and average values of the results delivered by the individual methodologies. The four calculation methods are as follows: 1) Percentage deviation of the ratio of real house prices to disposable real income from the average of the indicator calculated between 2001 and 2020. 2) Estimate of the long-term equilibrium of Hungarian house prices driven by macroeconomic fundamentals by means of a vector error correction model frame (VECM). For a detailed methodology, see: Berki – Szendrei (2017): The cyclical position of housing prices – a VECM approach for Hungary, Magyar Nemzeti Bank, OP 126. 3) Estimate of the level of Hungarian house prices driven by macroeconomic fundamentals by means of a dynamic OLS model frame. 4) Deviation of Hungarian house prices from the equilibrium by means of a structural model frame used for forecasting house prices. For more details, see: Magyar Nemzeti Bank: Housing Market Report, October 2016, Box 1. Deviation of housing prices in Budapest from the level justified by fundamentals is quantified by the dynamic OLS model framework; for more details on the methodology, see: Magyar Nemzeti Bank: Financial Stability Report, May 2017, Box 2.

Box 1**Summary messages from the October 2021 meeting of the Housing Market Section of the Housing and Real Estate Market Advisory Board (LITT)**

At a meeting held in October 2021, the Housing and Real Estate Market Advisory Board (LITT) discussed the current housing market situation and trends. The Board focused in particular on the evolution of construction costs, the impact of measures aimed at first-time homebuyers and the FGS Green Home Programme (GHP) launched by the MNB.

First-time home-buying

As a result of the housing measures in recent years, since 2015 families have had access to funding for housing purposes in the amount of almost HUF 1,400 billion, of which HPS-related loans, HPS and tax refunds accounted for 47 per cent, 45 per cent and 8 per cent, respectively. In addition to this, a substantial part of the prenatal baby subsidies (according to estimates about HUF 1,100 billion) were also used for housing purposes. HPS is the most frequently requested benefit, through which 200,000 families with children accessed subsidies to realise their housing objectives. Based on feedback from stakeholders, some of the detailed rules have been revised, as a result of which from end-September 2021 the availability of the First-time Home-buying Programme has been extended in several respects and – in view of the state of emergency – the deadline for meeting a number of conditions has been also extended. In 2020, the total fertility rate in Hungary was 1.56: this shows an increase compared to the rate of 1.49 registered in recent years as published by the statistical office (HCSO), which – in the opinion of the LITT members – is significantly attributable to the measures aimed at first-time homebuyers.

Construction costs and the construction industry

In 2021, the construction industry's order book increased, with orders entering the market in the amount of almost HUF 1,000 billion through public procurement procedures in the first half of the year, which exceeds the year-on-year public procurement orders by roughly HUF 200 billion. In the first half of 2021, nearly 200 more public procurement procedures were related to the construction sector than in the same period in 2020. In line with rising construction demand, prices of some construction materials rose sharply, with construction timber and lumber up 95 per cent, reinforcing steel and steel products up 62 per cent and mining products up 31 per cent compared to a year earlier. The sharp price rises and the associated shortages of building materials necessitated the implementation of government measures, including the introduction of an export registration procedure and an extra mining levy in the mining sector, with 90 per cent of the excess sales above a certain unit price level being taxable. There is a high degree of concentration in the domestic supply of construction materials in several product lines, which made it possible to increase prices to a larger degree than justified by market developments. With a view to preventing this, the government has set up a capital fund managed by the Hungarian Development Bank, to increase the share of domestic ownership in the building materials supply sector. Within this, the main objective is to create a situation that results in real competition in bricks, fibre insulation and mining products. The view was expressed that the efficiency of the construction industry is not improving sufficiently despite price increases, and that the wider adoption of BIM (Building Information Modelling) could help in this area, and that the use of BIM could help buildings to operate at lower overall costs throughout their life cycle.

Demand and the Green Home Programme

According to the LITT experts, in 2021 demand for newly built residential properties, and particularly for family houses, was strong. On the other hand, demand for used homes declined this year, which may also curb new home transactions, due to the fact that buyers usually move to newly built property after selling a used home. Experience has shown that in the summer of 2021, investment demand still dominated interest in new homes, but from October onwards, interest from those purchasing for their own purposes represented a higher weight and demand for larger homes also picked up. Experts anticipate increased demand in the housing market over the next one year, which – in addition to GHP – may be partly attributable to the announced one-off income transfers and tax refunds and

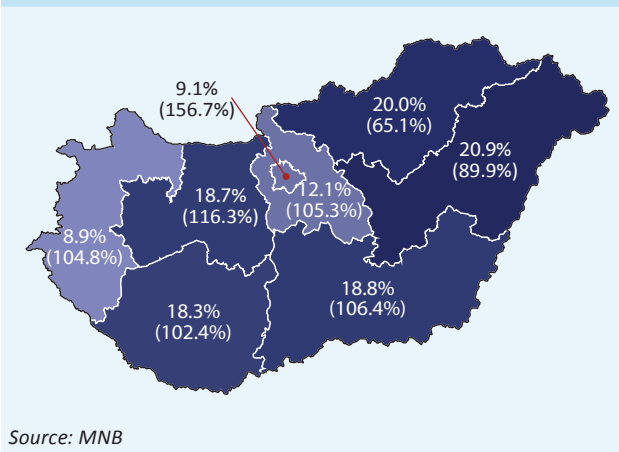
(based on currently available unofficial information) the expected phase-out of certain government programmes in 2022, by generating demand brought forward.

According to the unanimous opinion of the Board members, GHP generated significant demand for new homes. The experts regard it as a proper strategic measure that, as a result of launching the programme, energy efficiency also appeared in the housing and funding market as a criterion. According to some experiences, as a result of GHP, several projects that involve reconstruction have been launched, where residential property developments with an energy efficient rating of CC are being upgraded to meet the programme's stricter energy requirements. They regarded it as a positive development that the demand-side incentive programme was introduced in parallel with supply-side incentives (preferential VAT). Information available to the Banking Association also confirms keen interest in the programme. One half of the GHP loan applications were related to the financing of family houses and one half to flats, and looking ahead it was also mentioned that demand for family houses may be significant within GHP. On the whole, developers expect that the programme's global amount of HUF 200 billion may be exhausted as fast as in 10 months, by mid-2022.

Housing developments

In terms of home construction costs, some members had seen an increase of 3–5 per cent this year, while others observed increases of 15 per cent. It was mentioned that the cost correction effect of the government measures will be only temporary, and there could be strong cost-side pressures on the sector. For 2021 as a whole, market participants anticipate the completion of roughly 20,000 homes. Looking at the residential property completions to date in 2021, a shift can be identified from family houses to flats, with the latter reaching a share of 70 per cent. This is primarily attributable to the fact that at the end of 2020 a large number of family house constructions were completed due to the tightening of the energy regulations, originally expected from 2021. It was mentioned in connection with the developments that large developers were able to adapt to the higher costs better, and members saw a clear decline in the activity of smaller players. The members of the Board regard the breakthrough in brownfield area regulation as an important development, as a result of which zero per cent VAT appeared also in the market of new homes (in addition to the market of used homes). On the other hand, they believe that the expected volume of new brownfield area completions is more difficult to assess. Based on the available information, the distribution of the applications received by the competent government body is balanced between Budapest and rural areas, and the applications typically concern the development of a single property. The received applications are analysed considering principles of urbanism and town planning, where it is an important criterion that the developments should focus on locations well supplied with transport and public utility infrastructure, and with other services.

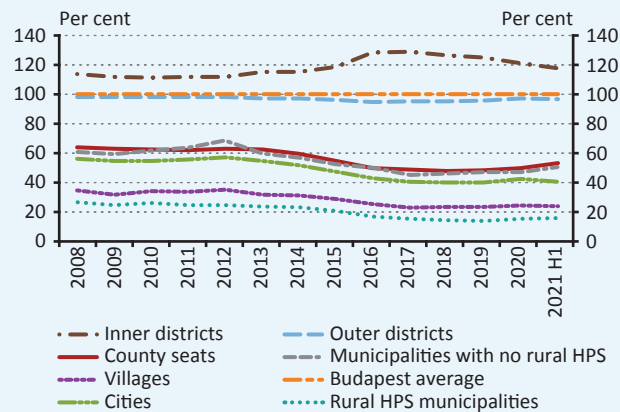
Chart 10
Development of urban house prices by region
between 2020 Q2 and 2021 Q2 (between 2008 Q4 and
2021 Q2)



2.3 HOUSE PRICES ROSE TO A LARGER DEGREE IN RURAL SETTLEMENTS

During the past year, rural towns saw outstanding growth in house prices. Between 2021 Q2 and 2020 Q2, house prices rose in all of Hungary's regions. In rural towns, house prices increased particularly sharply, appreciating by 18.2 per cent in the span of one year. The Northern Great Plain and Northern Hungary regions saw a price rise of over 20 per cent, followed by the towns of the Southern Great Plain (18.8 per cent), Central Transdanubia (18.7 per cent), Southern Transdanubia (18.3 per cent), Central Hungary (12.1 per cent) and Western Transdanubia (8.9 per cent) regions. Prices in the capital and in villages rose by 9.1 per cent and 7.3 per cent, respectively. A major part of the price rise observed in the past year took place in the first two quarters of 2021. In the past quarters, the rise in

Chart 11
Average square metre price by type of settlement
(average of Budapest = 100 per cent)

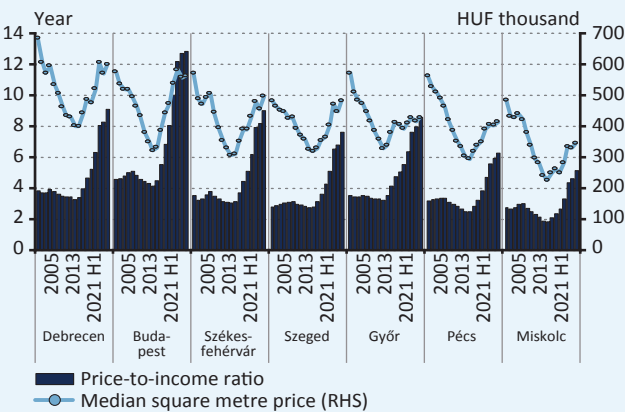


Source: NTCA, MNB

house prices in the countryside exceeded the rate of price increase in the capital. However, since the end of 2008, the cumulative price rise is still the highest in Budapest, with house prices in the capital exceeding their level registered back then by 156.7 per cent on average (Chart 10).

In the first half of 2021, the price gap between the county seats and the capital narrowed further. As a result of the price increase, which commenced in 2014, the difference in house prices increased substantially between Budapest and rural settlements, particularly smaller ones. While the average square metre prices in the county seats, provincial towns and municipalities amounted to 62.9 per cent, 55.4 per cent and 32.7 per cent, respectively, of the average in Budapest in 2013 due to the larger increase in the prices of residential properties in Budapest, the same ratios fell to 49.0 per cent, 40.7 per cent and 24.5 per cent, respectively, in 2019. However, since 2019 average square meter prices rose in the county seats by 16.6 per cent and in Budapest by merely 6.4 per cent, as a result of which the price gap between the county seats and the capital narrowed. The reason for this may be, among other things, that the high price level in Budapest is less and less affordable for home buyers, which reduces the rate of price increase. In addition, in the first half of 2021, in Budapest the price differential also decreased between the downtown and outer districts (Chart 11).

Chart 12
Price-to-income ratios in Hungary's regional centres

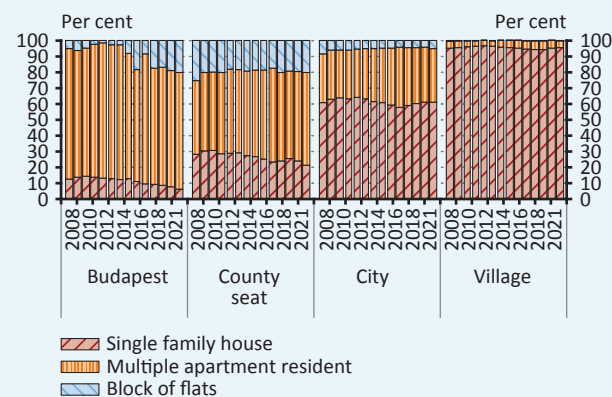


Note: The price-to-income ratio is the ratio between the price of a 75-square metre median real property and average annual net household income. Average incomes are county level data.

Source: HCSO, MNB

As a result of the rise in house prices characterising the entire country, housing affordability declined in all large Hungarian towns. At the end of the second quarter of 2021, the ratio of house prices to average net incomes was the highest in Budapest and Debrecen, where buying a 75-square metre home at median price required 11.3 and 12.0 years of local average income, respectively (Chart 12). Among regional centres in the country, housing affordability is the highest in Miskolc, where less than 7 years of average income will buy a 75-square metre home in the median price bracket, which is lower than the national level. In recent years, the increase in the value of this indicator has been the most dynamic in Budapest, where at the end of the second quarter of 2021 an additional 5 years of average income was required to buy a typical home compared to 2013. In the first half of 2021, as a combined result of the property market and income trends, the value of the indicator rose in all regional centres in Hungary compared to the end of 2020.

Chart 13
Distribution of housing market transactions by settlement and property type

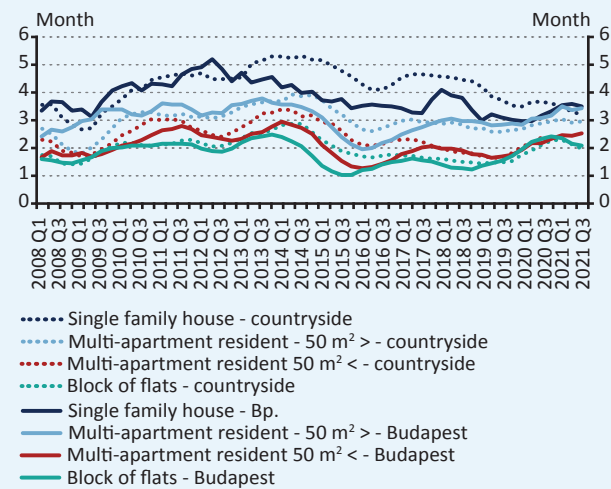


Note: The family house category also includes semi-detached and terraced houses. 2021 is based on the first half-year.

Source: NTCA, MNB

In larger towns, the ratio of family houses within housing market transactions has been declining since 2008. Up to 2021, the ratio of family houses within transactions in Hungarian villages and rural towns did not change significantly compared to 2008, while the share of family

Chart 14
Median time to sell residential property, broken down between Budapest and countryside, and by type of property



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

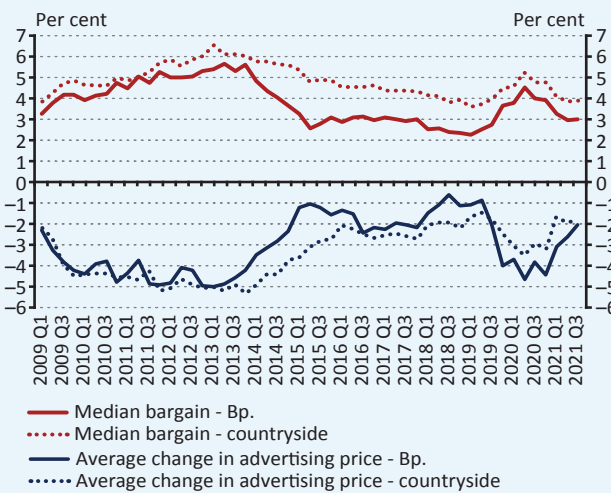
Source: MNB, housing agent database

houses in the sale and purchase transactions decreased from 28.0 per cent to 23.5 per cent in the county seats and from 12.0 per cent to 7.3 per cent in Budapest. In Budapest, the distribution of transaction numbers shifted towards panel flats, which is attributable, among other things, to the fact that while the median price of condominium flats rose by 208 per cent in the capital since 2014, the rise in the price of panel flats was substantially smaller, i.e. 141 per cent, and thus the high price level may have stimulated demand for cheaper flats in panel blocks (Chart 13). In recent years, the ratio of family houses within transactions increased in the rural towns.

The time to sell for family houses in the countryside declined further.

In 2021, on the whole the median time to sell for residential properties decreased from 3.1 months at the end of last year to 2.9 months, i.e. it typically took less time to sell homes in 2021 than in 2020 (Chart 14). In the third quarter of 2021, the median time to sell declined the most in the case of panel flats, from 2.3 to 2.0 months in the countryside and from 2.4 to 2.1 months in Budapest. The median time to sell family houses outside Budapest also declined significantly, by 0.4 month, which is in line with the data indicating higher demand for family houses, lasting since early 2020, with particularly high demand at the beginning of 2021. The median time to sell for flats smaller than 50 square meters in multi-apartment properties in the capital increased further during 2021.

Chart 15
Median bargain in the Budapest and rural housing markets, with the average change to the asking price



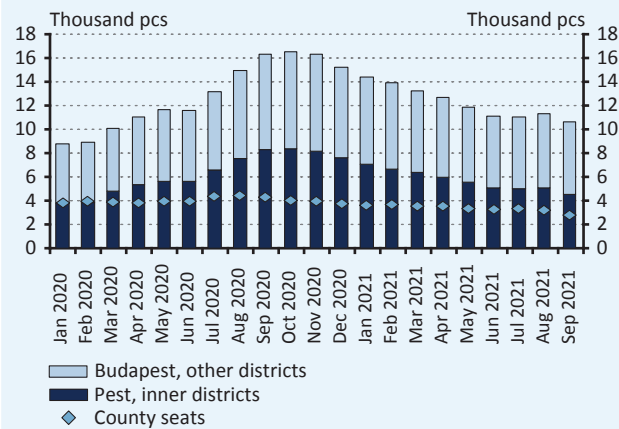
Note: Bargain: percentage shortfall of the transaction price compared to the last listed price. Change in asking price: percentage change applied to the asking price during the advertising period.

Source: MNB, housing agent database

In 2021, the degree of the typical bargain declined further both in the countryside and in the capital.

Compared to supply, housing market demand already contracted significantly in 2019, before the coronavirus pandemic, which was clearly reflected by the indicators describing market conditions. In the fourth quarter of 2019, the median bargain in the market increased substantially, and sellers also reduced the list price during the advertising period to a larger degree on average (Chart 15). This trend continued in the first half of 2020 as a result of the coronavirus pandemic. In the second quarter of 2020, the median bargain in the market rose to 4.5 per cent in Budapest and to 5.3 per cent in the countryside. From this high, however, the median bargain started to decline again from the third quarter of 2020, and after a larger decline in the first quarter of 2021, it reached 3.0 per cent in Budapest and 3.9 per cent in the countryside by the third quarter, both figures falling short of those registered at the end of 2019. In addition, during the advertising period, advertisers tended to reduce the asking price to a lesser degree on average, which is in line with the higher demand at the beginning of the year and the available new housing subsidies.

Chart 16
Supply of residential properties to let at ingatlan.com on the last day of the given month



Source: Ingatlan.com

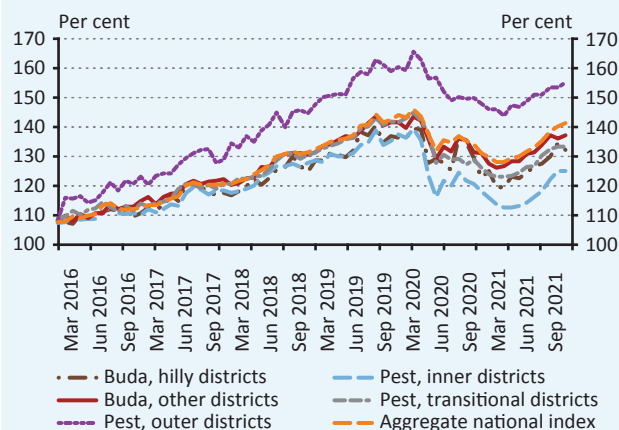
2.4 RENTS IN BUDAPEST ROSE IN PARALLEL WITH THE FALL IN THE SUPPLY OF RENTAL FLATS

In Budapest and the county seats, the supply of rental flats fell by more than one third in one year. As a result of the pandemic in Hungary, in 2020 the supply of flats to rent for the longer term rose significantly in Budapest; however, following the peak last autumn there was a sharp fall in the number of advertisements (Chart 16). Based on data from ingatlan.com, at the end of September 2021, there were 10,500 flats to rent in Budapest, representing a year-on-year decline of almost 35 per cent, and it no longer significantly exceeds its pre-pandemic level. Since the start of the pandemic, supply shrank to the largest degree in the Pest downtown districts, where in the period under review the number of flats for long-term rent fell by almost 46 per cent, which implies that landlords succeeded in letting those in large numbers for the longer term. Supply in the county seats also declined by 35 per cent in September, in year-on-year terms, and thus the number of advertisements fell below 3,000 for the first time since early 2020.

Contraction in supply caused rental prices to rise in the capital, but they fell short of their pre-pandemic level. As a result of the gradually narrowing supply, average rents started to rise in Budapest from early 2021 (Chart 17). Based on the HCSO – ingatlan.com rent index, in September 2021 the year-on-year growth in rents amounted to 3.9 per cent in the capital and 5.7 per cent on a national average. Thus, compared to their low in January 2021, the level of rents already rose by more than 10 per cent. On the other hand, the average rent level is still below the pre-pandemic high: In Budapest, the price of flats to rent was 7.8 per cent lower in September 2021 than in January 2020, while the national average was 3.3 per cent lower. Among Budapest's district groups, rents in the other districts of Buda have come closest to their pre-pandemic levels, with a lag of merely 4.7 per cent compared to the previous high. However, in the downtown districts of Pest, where rents have fallen the most in the wake of the pandemic, flats to rent are still 10.7 per cent cheaper than in January 2020. By contrast, rents in rural areas already reached a new historic high by September 2021.

In the county seats, average rents rose to a lesser degree than in the capital. As a result of the rental market trends observed last year, by the end of the third quarter of 2021 the gap between the rents of properties located in the capital and in the county seats increased significantly. In September 2020, the rent of an average rental flat in the capital was HUF 61,000 higher, while this September the difference in the rents rose to HUF 70,000. As regards the

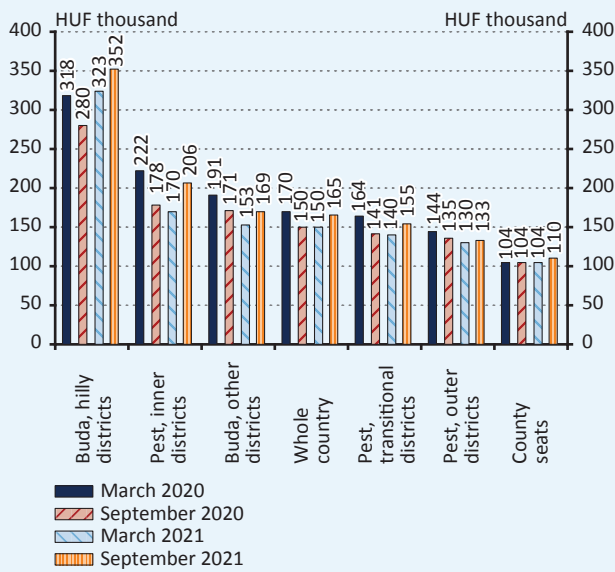
Chart 17
HCSO-ingatlan.com-rent index for Budapest and for the whole country (2015 = 100%)



Note: Buda, hilly districts: I., II., XII., Buda, other districts: III., XI., XXII., Pest, inner districts: V., VI., VII., VIII., IX., Pest, transitional districts: X., XIII., XIV., XIX., XX., Pest, outer districts: IV., XV., XVI., XVII., XVIII., XXI., XXIII.

Source: HCSO-Ingatlan.com

Chart 18
Average rents based on flats to rent advertised on ingatlan.com



Note: The square meter prices are weighted average values of the groups. Buda, hilly districts: I., II., XII., Buda, other districts: III., XI., XXII., Pest, inner districts: V., VI., VII., VIII., IX., Pest, transitional districts: X., XIII., XIV., XIX., XX., Pest, outer districts: IV., XV., XVI., XVII., XVIII., XXI., XXIII.

Source: HCSO-Ingatlan.com

rental market in the capital, at the end of September the highest rents were observed in the hilly districts of Buda, where the average monthly rent was HUF 352,000, which stands out from the average rents observed in other groups of districts (Chart 18). At present, in the inner districts of Pest, a property can be rented for HF 206,000 on average, followed by other districts of Buda, the transitional districts of Pest and the outer districts of Pest, with average rents of HUF 169,000, HUF 155,000 and HUF 133,000, respectively.

2.5 HOUSING AFFORDABILITY IN BUDAPEST IS UNFAVOURABLE

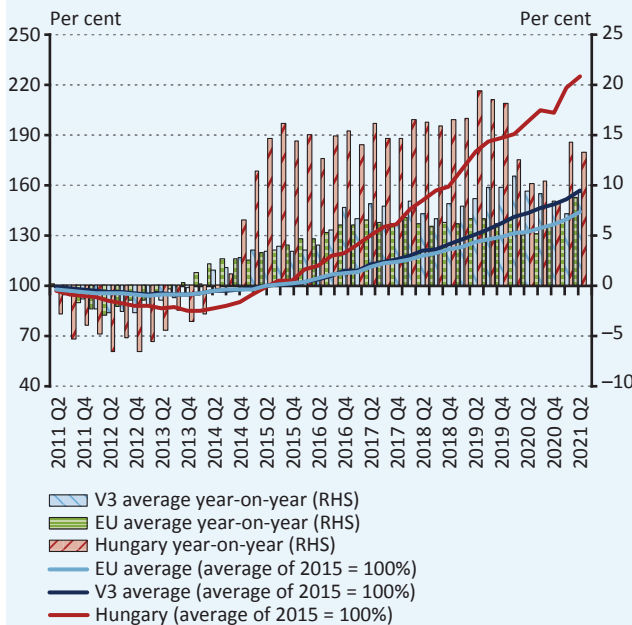
In the second quarter of 2021, Hungarian annual house price dynamics rose above the average of the region.

Based on the housing market price indices, showing the average of the EU Member States and of the Visegrád countries – without Hungary (V3) – in the second quarter of 2021 property prices in the EU and in the Visegrád countries exceeded their level registered at the end of 2015 by 44 and 57 per cent, respectively, on average (Chart 19). In the housing market cycle commencing in 2014, Hungary experienced a more dynamic increase in house prices compared to both Europe and the narrower region, and in line with that, prices rose to 224 per cent of their average level registered in 2015. In 2020, annual house price dynamics temporarily declined below the V3 average; however, in the second quarter of 2021 the price dynamics accelerated to 13.3 per cent and once again significantly exceed the average house price increase of 9.3 per cent that was registered in the other Visegrád countries.

Housing affordability in Budapest is still unfavourable compared to Europe.

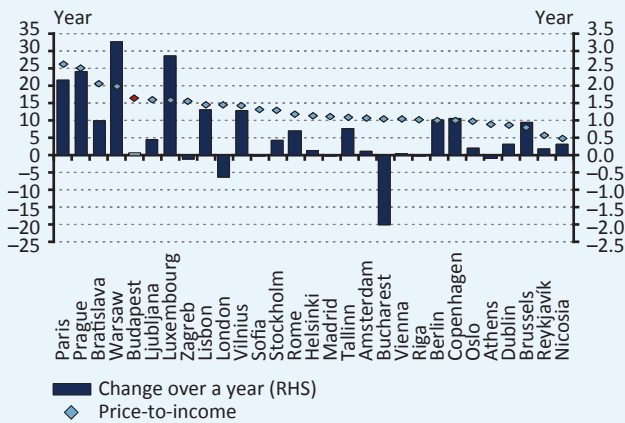
A year ago, Budapest was the fourth least affordable capital in Europe, while by the third quarter of 2021 the position of the Hungarian capital improved by one place. One year ago and this October, buying a 75-square metre residential property in Budapest required 16.2 and 16.3 years of national average income, respectively, i.e. affordability essentially has not changed (Chart 20). Affordability deteriorated in the capitals of the other Visegrád countries, with a property of 75 square metres of average price level requiring an average income of 24.8 years in Prague, 20.3 years in Bratislava and 19.6 years in Warsaw. The largest improvement took place in Bucharest last year, where the value of the indicator in question declined from 12.3 to 10.3 years.

Chart 19
Nominal house price developments in Europe



Source: Eurostat, MNB

Chart 20
Price-to-income ratios in European capitals (2021 Q3)

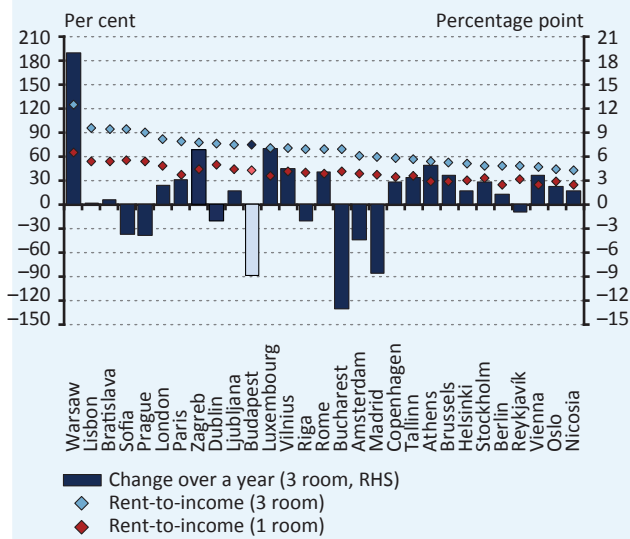


Note: The price-to-income ratio is the ratio of the average house prices outside the city centre to the national average wage. Calculations based on 75-square metre homes. Change between 2020 and 2021 Q3. Budapest is marked with a different colour.

Source: Eurostat, numbeo.com

Housing affordability improved in the rental market in Budapest. In Budapest, the average rent for a typical 3-bedroom home is 74.4 per cent of an average net wage in Hungary, which at present is the eleventh highest value among the European capitals (Chart 21). One year ago the value of the indicator was still at 83.2 per cent, i.e. rising incomes substantially improved housing affordability in the Budapest rental market. The capitals of the other Visegrád countries are among the less affordable cities: The value of the indicator in Prague, Bratislava and Warsaw is 89.5, 95.0 and 123.9 per cent, respectively, with this representing an increase of 18.9 per cent just in one year in the Polish capital. We get a similar picture of housing affordability when examining the disposable income at purchasing power parity remaining with the tenant after paying the typical rent for a three-bedroom flat from an average wage. In Budapest, Prague and Bratislava, it is EUR 336, EUR 143 and EUR 52, respectively, while in Warsaw the income is not sufficient to cover the full rent. By contrast, in the capitals of Germany, Austria, Norway and Iceland, the remaining income after rent exceeds EUR 1,200.

Chart 21
Price-to-rent ratios in European capitals (2021 Q3)



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 2020 Q1 and 2021 Q3. Budapest is marked with a different colour.

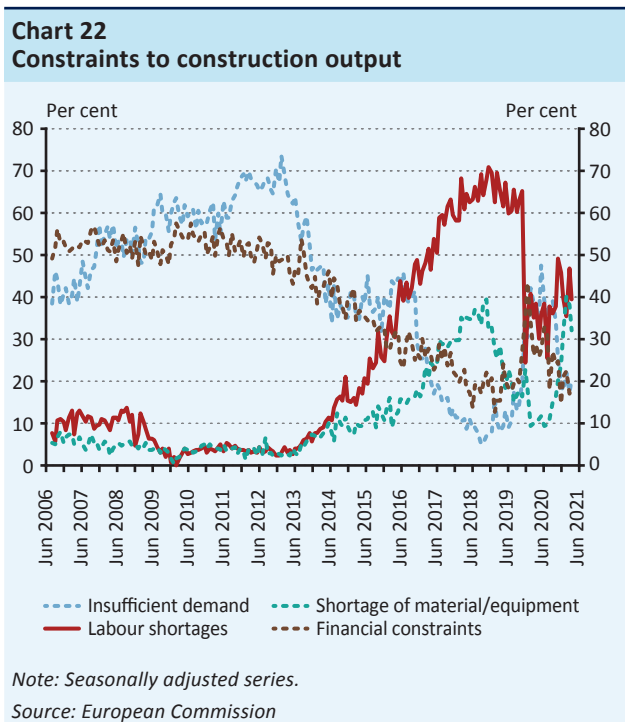
Source: Eurostat, numbeo.com

3 Supply of new homes

In parallel with the easing of the anti-pandemic restrictions and the broader range of housing subsidies from 2021, demand constraints eased in the construction industry, although material shortages are still curbing production. In line with the significant growth in the number construction employees, fewer companies reported labour shortage in the sector than in the pre-crisis years. Global demand and supply anomalies in connection with the reopening of the economies led to a significant rise in construction material prices and shortages of materials globally in the first half 2021. Following the rise in material prices, fuel prices also rose significantly, which may have a negative impact on construction performance. Construction prices have already risen well above the EU average in recent years due to low capacity and competitiveness problems, but looking ahead, potential further increases in material and energy prices may keep construction costs under pressure.

In the first three quarters of 2021, the number of new dwellings completed decreased by 1.7 per cent year-on-year. Due to condominium completions originally planned for 2020, but postponed to 2021, the number of housing constructions in the capital increased significantly in the first three quarters, but the number of housing constructions in rural areas fell by 27.3 per cent in the first three quarters. The number of building permits issued rose during the first three quarters as a result of the temporary reintroduction of the preferential VAT rate on housing from January 2021.

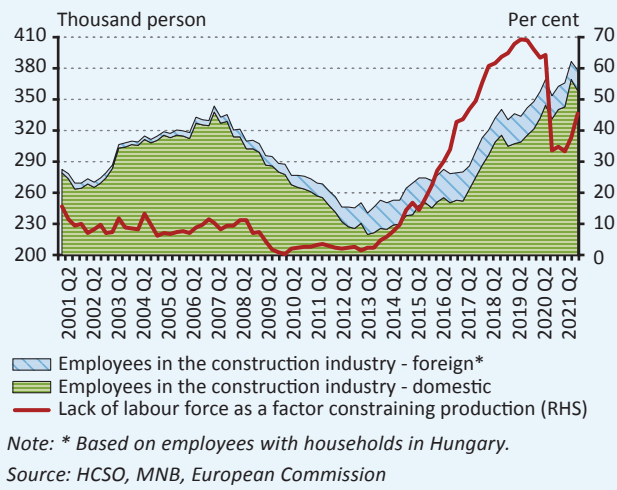
In the Budapest new home market, as a result of introducing the low VAT rate, the number of homes in announced condominium projects increased significantly in the first half-year, followed by a pause in the third quarter, which implies that the developments launched in the first half of the year were ones that had been prepared previously. As a result of the new housing subsidies in force from 2021, among other things, the number of new homes sold in Budapest rose significantly, while stronger demand resulted in higher prices. According to our estimates, environmentally more sustainable new homes are offered by developers with a price premium of roughly 3.5 per cent. Our simulation suggests that a further persistent, dynamic rise in home construction costs would significantly worsen the situation in the housing market. On the one hand, fewer investments would be launched as a result of the contraction in construction profit margins, and on the other hand, the quality of the stock of dwellings would deteriorate as a result of the unperformed improvements.



3.1 SIGNIFICANT RISE IN CONSTRUCTION COSTS HINDERS CONSTRUCTION

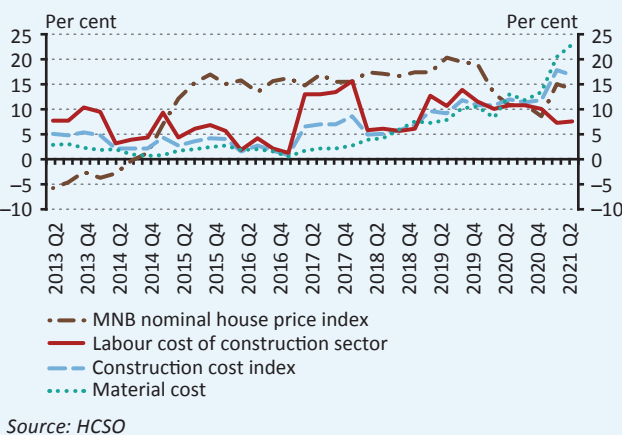
Material has become a bottleneck in construction. In a survey published by the European Commission, the respondent construction companies mostly regarded labour force as a bottleneck in the economic situation of recent years, which – as a combined result of the economic impacts of the coronavirus, the shrinking order book and returning workers – has eased somewhat. From the end of 2020, insufficient demand has been gradually decreasing as a factor hindering production, while financial constraints have now returned to their pre-crisis level. Global demand and supply anomalies in connection with the reopening of the economies led to a substantial rise in the prices of commodities also used in construction and to shortages of materials globally, including in Hungary (Chart 22).

Chart 23
Number of employees in the construction industry



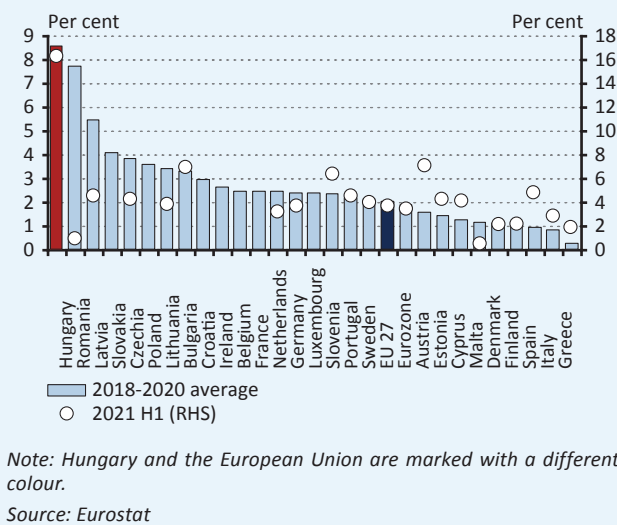
The number of construction employees is already above its pre-crisis peak from 2008. After the 2008–2009 global financial crisis, many construction workers started working abroad, which contributed to the increasing scarcity of capacity on the labour market for the construction sector in recent years. In 2020, as a result of the pandemic, part of the skilled construction workers returned from abroad and the number of those working abroad declined in the first half of 2021, which may have contributed to the significant increase in the number of employees in Hungary (Chart 23).

Chart 24
Annual change in home construction costs and nominal house prices



According to HCSO data, home construction costs rose significantly in the first half of the year. The rise in construction labour costs in recent years has typically exceeded the growth rate of material costs. However, in the first half of this year, the above mentioned demand and supply anomalies led to shortages of materials and sharp price rises in construction, as a result of which the material costs of home construction rose by over 20 per cent on an annual basis in the second quarter of 2021 (Chart 24). Looking ahead, thanks to the housing subsidies, buoyant demand in construction is likely to persist, while rising fuel prices may have a negative impact on the performance of the sector.

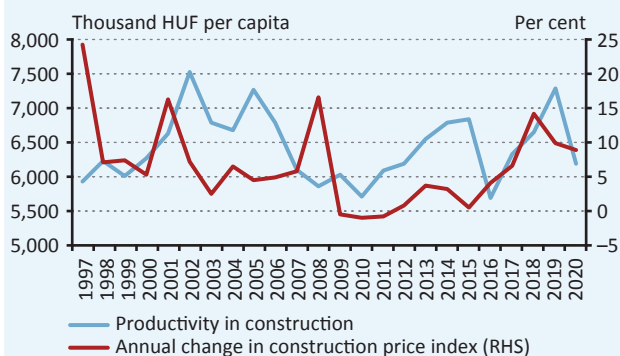
Chart 25
Annual changes in construction costs of residential buildings in EU countries



Global and domestic factors contribute equally to the rise in construction prices. Between 2018 and 2020, home construction costs in the EU rose to the largest degree in Hungary, increasing by almost 9 per cent annually on average (Chart 25). The underlying reasons for the rising construction costs include country-specific factors, in addition to global price rises. The price increase is also attributable to capacity problems. In the early 2000s, productivity growth was not accompanied by excessive price increases (Chart 26), and during this period the construction sector was affected by demand constraints. However, the 2008–2009 crisis was followed by a significant reduction in capacity, as a result of which from 2016 onwards, supply constraints (labour, materials) increasingly hampered production in the sector. When demand started to pick up again – partly as a result of public investment and housing measures – supply was unable to keep pace with demand, and prices started to rise. To avoid excessive price increases, it is important to foster competitiveness and supply-side developments in construction.⁵ In Box 2, we examine the impact of an assumed extreme home construction cost shock on market trends and the quality of the stock of dwellings.

⁵ For more details on the construction price developments, see Box 3-1 in the September Inflation Report.

Chart 26
Development of productivity and price index in construction



Source: HCSO

Box 2

Impact of a rise in home construction costs on the housing market based on an agent-based housing market model

For the purposes of modelling housing and credit market trends, analysing the impacts of the housing market regulatory measures and monitoring and analysing the build-up of related financial stability risks, the MNB developed an agent-based model (containing a large number of interacting heterogeneous actors, based on simulation).⁶ The model includes almost 4 million households and homes and thus provides a complete mapping of the Hungarian housing market. The demographic, income distribution and expected future trends of households, the distribution of loans disbursed, and the regional location and quality of housing are based on available empirical data and projections. Households in the model may start a family, consume, save, buy a home (including for investment) and may also take out a loan for this purpose. Those without a dwelling create demand in the rental market. The construction industry builds new housing and renovates part of the existing stock of dwellings. The main housing and credit market subsidies introduced by the government to encourage families to have children are also included in the model: the HPS available for the purchase of new and used homes, the rural HPS for house purchase and improvement as well as the prenatal baby support loan. The first two subsidies can be requested by couples every month between 2018 and 2024 for the entire time horizon of the simulation, while the rural HPS and the prenatal baby support loan can only be requested from June 2019. In addition, the currently known phase-out dates are also included in the model, i.e. the rural HPS and the prenatal baby support loan may be requested until June 2022 and December 2022, respectively.

Our analysis focused on the likely effect of a potentially permanent, sharp increase in construction costs on i) the construction industry, ii) the market of newly built homes, and iii) the used home and housing loan market, as a spillover effect. The initial, 2018 level of construction costs used in the model was determined based on the HCSO's relevant regional data.⁷ In the simulation, the growth rate of construction costs is identical in all regions, and until the first quarter of 2021 it also corresponds to the data published by the HCSO. We then examined the impact of a presumed home construction cost path where construction costs increase by 18 per cent in total by 2021 and then continue to increase at a lower, but still relatively high rate of 10 per cent over the next three years until 2024. We compared this "shock" scenario, assuming a lasting rise in construction costs, with a scenario in which construction costs are in line with the nominal GDP growth rate in all periods.⁸ In the following, we refer to this as the alternative scenario. As regards cost dynamics, the two scenarios are essentially the same in 2018–2019, while from 2020 the construction cost dynamics assumed in the shock scenario significantly exceeds the rate of nominal GDP growth every year, i.e. the assumed cost dynamics in the alternative scenario, and are roughly twice as high as that. In our simulation, we considered the difference in model runs in the two scenarios as the effect of higher construction costs.

⁶ For more details on the model, see the MNB's May 2021 Financial Stability Report or the following video: <https://www.youtube.com/watch?v=geFDESrr6u0>.

⁷ Source: https://www.ksh.hu/stadat_files/lak/hu/lak0023.html.

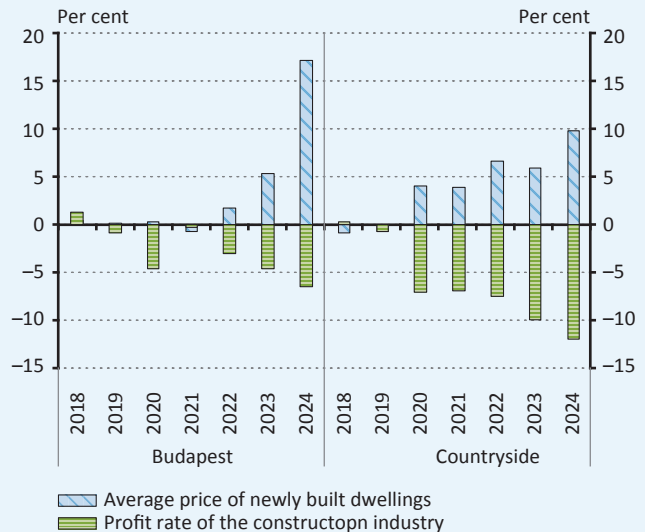
⁸ Nominal GDP is the exogenous variable in the model, i.e. the growth rate of the actual figures, and looking ahead it corresponds to the MNB's prevailing forecast, influencing households' income trends.

In our simulation, due to the higher cost ratio, profit margins decrease more strongly as a result of the shock in the countryside, and the prices of newly built homes rise significantly both in Budapest and in the countryside. According to available actual data and the estimates supplementing such, construction costs excluding plot costs accounted for only 30 per cent of the total purchase price of new homes in Budapest and around 45 per cent in the countryside in 2018. This is partly due to higher plot prices in Budapest and partly to more solvent demand in the capital, which allows for higher profit margins. Accordingly, construction cost increases due to higher cost ratios potentially affect construction in the countryside to a larger degree. Theoretically, the construction industry could pass on the full increase in construction costs to buyers in the price of newly built homes, but in this case, depending on the flexibility of demand, it should anticipate some decline in the number of transactions. If it did not pass on the cost increment at all, demand would remain unchanged, but profit margins would fall significantly. Our model shows that the construction industry is only able to pass on part of these costs: prices of newly built homes in both Budapest and the countryside rise significantly as a result of cost increases, with the price differential between the paths being continuous in the countryside, while it is larger in Budapest only in the last few years. In the countryside, the fall in profit margins is larger, partly because of greater flexibility of demand and partly due to the higher cost ratio of construction.

According to our simulation, sales of newly built homes fall drastically as result of the rising costs: the number of transactions in 2024 is already 40–50 per cent lower compared to the alternative scenario. In Budapest, in line with the declining demand, the number of home constructions commenced decreases. However, an even larger decline can be observed in the countryside, as the fall in profit margins is also larger. This implies that in the countryside the cost shock reduces not only demand but also supply, as due to the high costs fewer constructions will be profitable. The fall in the number of constructions commenced will be felt in the number of completed homes from 2022, and as time goes by the difference becomes increasingly large. The demand disappearing from the market of newly built homes will appear partly in the market of used homes, and thus, on the whole, the ratio of newly built homes (as well as the average quality of homes) will decrease. Overall, however, the number of transactions still declines, especially in Budapest, where newly built homes account for a larger part of transactions.

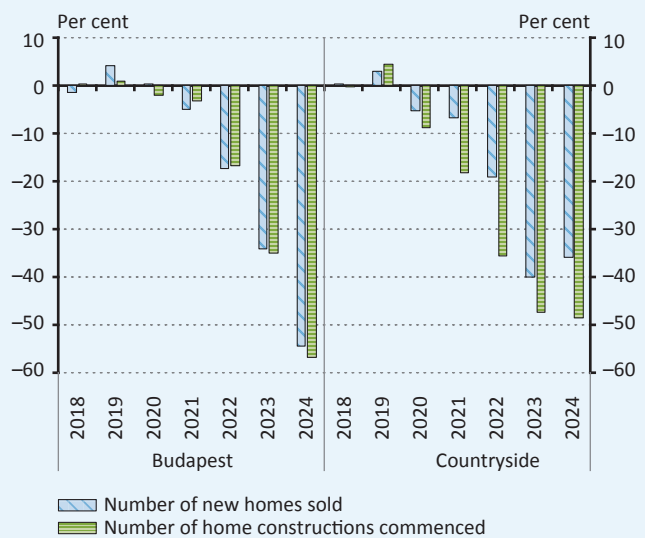
The impact of cost shocks leads to a deterioration in the quality of the housing stock due to unperformed improvement in real terms. In the model, home improvement costs rise at the same rate as construction costs. Therefore, despite the fact that, due to the higher costs, households in Budapest and in the countryside spend nominally

Impact of higher construction costs on the profit rate of the construction industry and the average price of newly built dwellings



Source: MNB.

Impact of higher construction costs on the number of home constructions commenced and the number of new homes sold



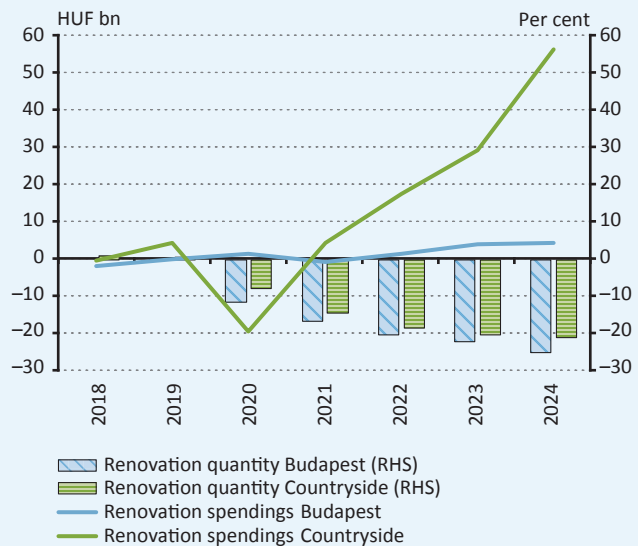
Source: MNB.

more on home improvement, in real terms the volume of home improvements would be 10–20 per cent lower each year.⁹ Thus, the average quality of the stock of dwellings deteriorates not only through lost developments, but also through the unperformed home improvements, to an increasing degree in parallel with the rise in construction costs.

As regards the effect on the credit market, the disbursement of new loans declines in line with the fall in housing market demand in the respective segments: the volume of loans for newly built homes falls significantly (by 28 per cent annually on average), despite the price increase. Overall, lending for home purchase decreases by an average of 3.3 per cent annually in Budapest, while there is no significant difference in the countryside, similarly to the number of transactions in the housing market. Fewer home improvements will reduce the volume of loans taken out for this purpose by 5.3 per cent annually on average.

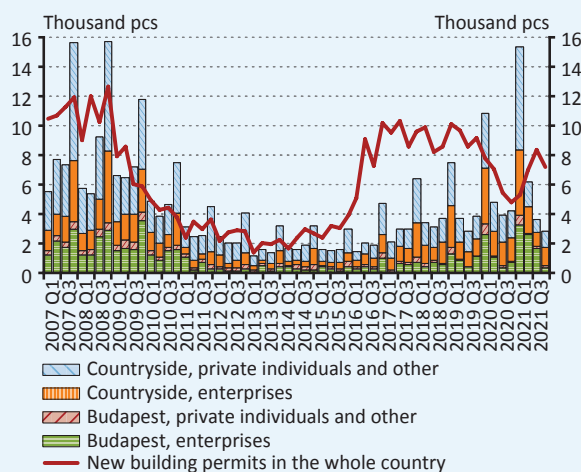
Overall, our simulation shows that due to the higher cost ratio of new home purchases in the countryside and the price sensitivity of demand, the effect of the rising costs on construction varies by regions: cost shocks appear more rapidly and profit margins fall more sharply for new homes in the countryside. Rising prices significantly reduce demand, and in the countryside the narrowing of profit margins curbs construction projects (also on the supply side). Cancelled purchases of new homes are only partially realised in the market of used homes, and the quality of the stock of dwellings deteriorates significantly, due to fewer new homes and unperformed home improvements. Outstanding loans for house purchase and for home improvement decline in parallel with the developments in demand in the housing market.

Impact of higher construction costs on renovation spendings and renovation quantity



Source: MNB.

Chart 27
Distribution of new completions by location and developer



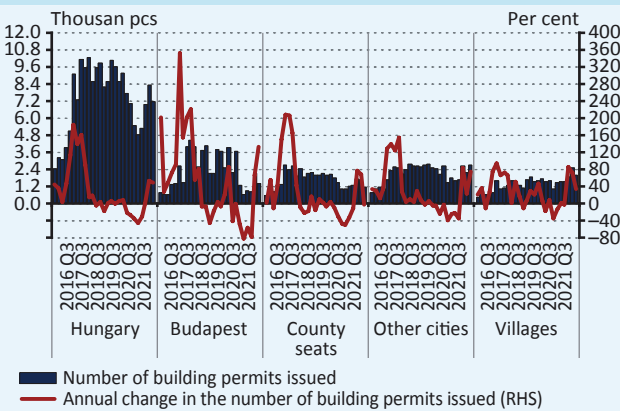
Source: HCSO

3.2 CONSTRUCTION OF NEW HOMES WAS CHARACTERISED BY DUAL TRENDS

In the first three quarters of 2021, the number of new completions decreased in year-on-year terms. In the first nine months, the number of newly built homes fell 1.7 per cent year-on-year. Completions still grew significantly in the first quarter, expanding by 28.9 per cent in annual terms, whereas in the second and third quarters the number of completed, newly built homes already declined by 6.9 and 31.9 per cent, respectively. The significant growth in completions in the first quarter is primarily attributable to the large number of dwellings built by companies in Budapest, reflecting annual growth of 145 per cent. The number of new homes built by companies also rose by roughly 7.1 per cent in the countryside in the first quarter, while the number of new residential properties built by natural persons (mostly

⁹ The model measures the condition of homes by a continuous variable, the value of which increases depending on the expenditure and cost of home improvement when households perform home improvement. The volume of home improvements is obtained by summing the improvement in the condition of all dwellings as a result of renovations.

Chart 28
Number of dwellings included in issued residential building permits and annual growth rate by type of settlement

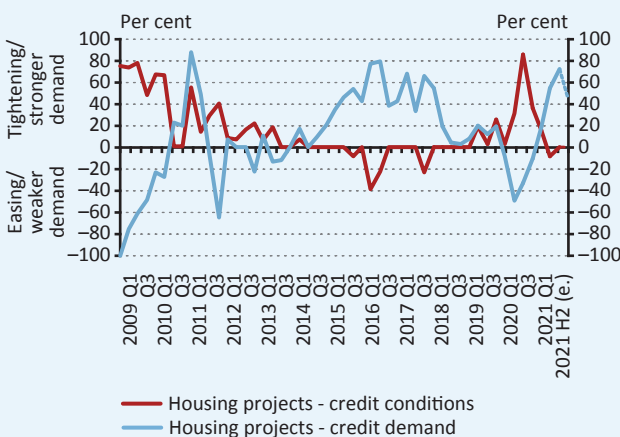


Source: HCSO

family houses) already declined significantly, dropping by 13.6 per cent. In the first three quarters, the number of new homes completed in Budapest still increased significantly, but in the countryside, it fell by 27.3 per cent year-on-year. In the first half-year, the large number of new homes in the capital presumably appeared due to the delay in the completion of condominium housing projects, originally planned by 2020, i.e. the deadline for the requirement regarding the nearly-zero energy buildings (Chart 27).

The number of new residential construction permits issued increased significantly in the first three quarters. In the first three quarters of 2021, construction permits were issued for 22,430 new homes in total, representing growth of 29.8 per cent in annual terms. This reversed the continuous downward trend in residential construction permits observed since 2019, reflecting the positive impact of the reintroduced preferential VAT rate on housing from 2021. Based on the current legislation, the preferential, 5-per cent VAT rate on housing may be used until 2026 as long as the construction permit for the home is issued by 31 December 2022. Due to this rule, in the next one year a large number of construction permit applications may still be submitted, depending on the number of housing projects that may be launched in this period. In the third quarter of 2021, willingness to start new construction rose dynamically in most settlement types. The number of new construction permits rose by 132 per cent in Budapest, by 74 per cent in the countryside cities and by 32 per cent in villages, while it declined by 5 per cent in county seats (Chart 28).

Chart 29
Changes in credit conditions of housing projects and changes in demand



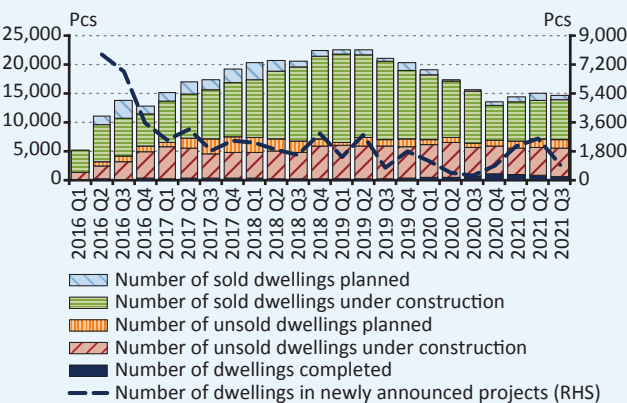
Note: Time series of lending conditions show the net ratio, i.e. the difference between banks tightening and easing, weighted by market share.

Source: MNB, based on banks' responses

3.3 NEW HOME MARKET IS CHARACTERISED BY RISING PRICES AND GROWING SALES

Banks perceived a recovery in demand for residential property project financing even under unchanged credit conditions. Based on the responses in the Lending Survey, banks left the conditions of residential property project financing unchanged in the second quarter of 2021. Although they noted a deterioration in risk tolerance, bank competition tended to prompt them to ease conditions. The respondent institutions also do not plan any change in the standards of housing project loans in the second half of 2021 (Chart 29). In the second quarter of 2021, 73 per cent of the banks – in net terms – reported a pick-up in credit demand in connection with housing projects, noting that this was also attributable to improved willingness to invest in property and normalisation of the commercial property market. Looking ahead to the second half of 2021, 45 per cent of banks – in net terms – anticipate further growth in credit demand related to housing projects, supported by the new housing subsidies available from 2021 and the Green Home Programme.

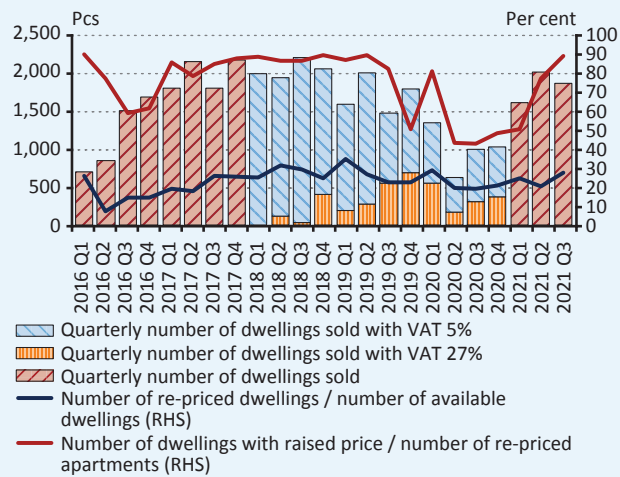
Chart 30
Availability of new homes under development in Budapest and volume of new announcements



Note: Based on projects for at least 4 new homes in Budapest.

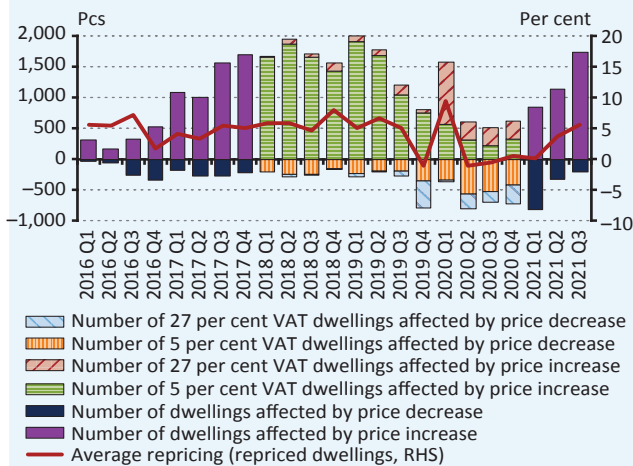
Source: ELTINGA – Housing Report

Chart 31
Number of new homes sold in Budapest, and ratio of repricing within the advertised new homes



Note: Based on projects for more than 4 new homes in Budapest.
 Source: ELTINGA – Housing Report

Chart 32
Repriced new homes in the condominium new home market in Budapest and the average rate of repricing



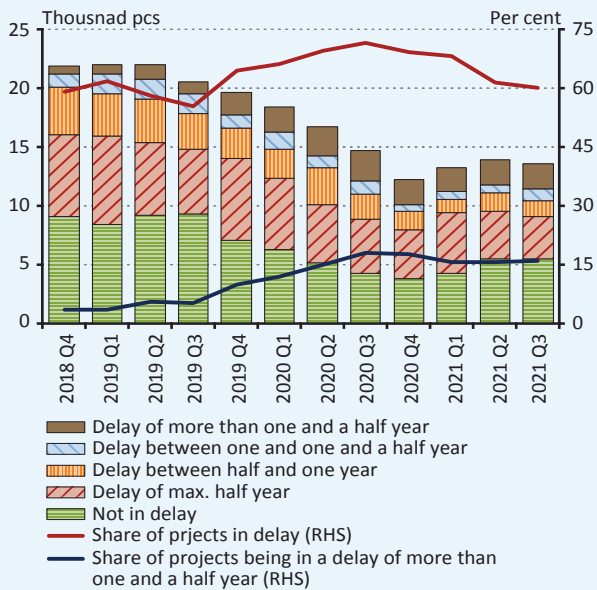
Note: Based on projects for more than 4 new homes in Budapest.
 Source: ELTINGA – Housing Report

In the third quarter of 2021, the number of apartments in newly announced projects declined. Since 2019, the number of new condominium flats under development and sale in Budapest has been declining continuously, with a low of roughly 12,200 flats in the fourth quarter of 2020. On the other hand, as a result of the reintroduction of the preferential, 5-per cent VAT rate on housing, in force from 2021, condominium development activity in Budapest increased in the first half of this year. The number of new homes under development and sale rose in the first and second quarter by 8.1 and 5.4 per cent, respectively. The number of apartments in newly announced projects (housing projects the sale of which has commenced) surged higher during this period. In 2020 – primarily due to raising the VAT rate on housing back to the original rate – the quarterly number of newly announced projects fell below 300, while in the first and second quarters of 2021 the number of new homes entering the market was 2,100 and 2,500, respectively. On the other hand, the growth in development activity seems to have halted in the third quarter, as developers announced 920 new homes in this period. The reason for the decline compared to the first half of the year may be that in the first half of 2021 developers announced already prepared projects that could be launched rapidly, while a further increase in supply requires more time. The ratio of homes planned but not yet under construction rose from 11.8 per cent in the fourth quarter of 2020 to 16.0 per cent, which suggests optimism in the market of new homes (Chart 30).

The number of new homes sold in Budapest increased significantly until the end of the third quarter of 2021.

In the first three quarters of 2021, 5,500 new homes were sold in total in the market of new homes in Budapest (mostly under a preliminary agreement), which exceeds the figure registered in the same period of 2020 by 85.1 per cent, and even that of 2019 by 8.4 per cent. The significant rise in activity on the new home market primarily reflects the demand-boosting effect of the new housing subsidies launched from 1 January 2021, which also led to a lower number of sales at end-2020, as agents waited for the subsidies. In parallel with the sharp rise in the number of homes sold, the ratio of homes affected by price appreciation within repriced new homes once again increased in the supply, from 48.9 per cent of the fourth quarter of 2020 to 89.8 per cent by the third quarter of 2021 (Chart 31). From the second quarter, the new home market in Budapest was once again characterised by price appreciation. In the first quarter of 2021, developers raised the price of unsold new homes in as many cases as they reduced it. However, from the second quarter the number of homes affected by price appreciation was significantly

Chart 33
New homes under development and sale in Budapest, broken down by the delays compared to the originally announced date of completion

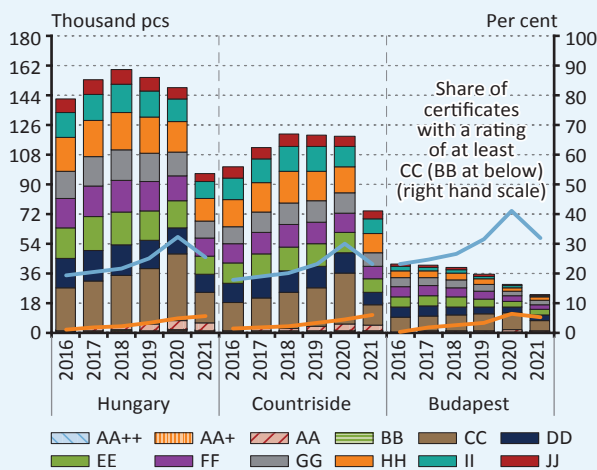


Note: Based on projects for more than 4 new homes in Budapest.
 Source: ELTINGA – Housing Report

higher, and due to this within the repriced homes the average price change gradually rose, standing at 3.7 and 5.6 per cent in the second and third quarters, respectively (Chart 32).

The ratio of delayed housing projects declined, but there are several construction projects that accumulated a significant lag. In the third quarter of 2021, in Budapest roughly 60 per cent of the new condominium flats under development and sale were delayed compared to the originally announced expected completion. The ratio of delayed home developments declined compared to 2020, when this indicator was at 71.3 per cent in the third quarter. In 2021, the declining ratio of projects delayed compared to the initially announced completion date is mostly attributable to the large number of newly announced developments. On the other hand, the ratio of constructions late by more than eighteen months was 16 per cent in the third quarter, a similarly high ratio as at the end of 2020. This is due to the fact that the number developments delayed for a long time increased (Chart 33).

Chart 34
Number of energy performance certificates issued for (used and new) residential and accommodation building by category, broken down to Budapest and the countryside

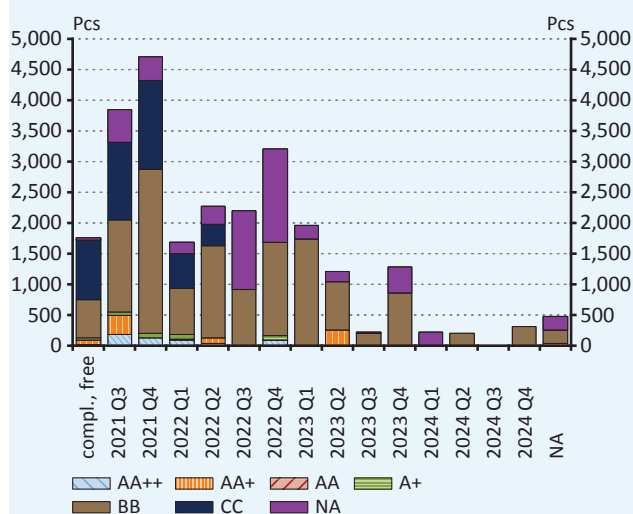


Note: In the case of multi-apartment residential properties the energy performance certificate is prepared separately for each flat. The figures contain the certificates issued before the occupancy permit of newly built properties as well as the certificates issued upon the sale and purchase of used homes. Based on data as of 06.09.2021.
 Source: <https://entan.e-epites.hu>

3.4 ENERGY EFFICIENCY OF THE STOCK OF RESIDENTIAL PROPERTIES IS POOR

According to the issued certificates, the energy efficiency of the stock of residential properties is low. Only 23.8 per cent of the energy performance certificates issued since 2016 (for new and used homes) received a CC, i.e. modern, or higher classification. From 1 July 2022 – after the original deadline of 1 January 2021 was extended several times – the regulations will be tightened for new residential buildings, and instead of CC, only dwellings of at least category BB, i.e. meeting the nearly-zero energy consumption requirement, may receive an occupancy permit. Only 2.9 per cent of the certificates issued since 2016 meet this energy level. Since 2016, there has been a gradual improvement in the distribution of certificates' category issued each year, mainly due to an increase in the number of newly built homes. However, the ratio of properties of category CC or higher in the total number of certified residential properties was still 32 per cent in 2020, while the ratio of properties of category BB or higher was only 4.8 per cent (Chart 34). In addition, in Budapest – due to the proportionally higher number of newly built homes – the ratio of properties of better classification was higher. On the whole, the energy attributes of the entire stock of dwellings may be even worse, considering the fact that the issued certificates cover all newly built homes and only part of the sold used homes.

Chart 35
New condominiums under development and sale nationwide by quarter of expected completion and estimated energy efficiency rating in 2021 Q3



Note: In Budapest based on condominiums comprising 4 or more apartments, in the countryside based on condominiums comprising 10 or more apartments. Estimated energy efficiency classifications: where the energy efficiency is unknown, we used category BB for renewable energy, and category CC for all other.

Source: ELTINGA – Housing Report, MNB

In the supply of condominium new homes, the ratio of homes of category CC energy certificates is gradually declining. According to the currently available data, at the national level, 32 per cent of the new condominium flats under development and sale in the third quarter of 2021 and expected to be completed by the end of the second quarter of 2022 or completed but yet unsold, will obtain a category CC energy classification, i.e. the current minimum requirement (Chart 35). This ratio in Budapest is somewhat lower, at 21 per cent, while in the countryside it is higher on the whole, i.e. 43 per cent. The new condominium flats of category A+ or higher energy classification account for a low ratio, i.e. 6.4 per cent, of the supply. The penetration of energy efficient new homes is important in terms environmental sustainability, while the construction of more state-of-the-art homes may also increase prices in the housing market (see Box 3).

Box 3

Impact of the energy certificate on the asking price of new homes

In light of the tightening regulation applicable to the energy certificate¹⁰ and the energy requirements of the FGS Green Home Programme, the impact of more efficient energy features – i.e. more favourable energy category – of new condominium flats on the asking price should be examined. The transition to a sustainable economy also entails additional costs for the construction of housing: stricter requirements for the installation of more modern heating systems increase the construction costs of new housing, which developers can pass on to consumers depending on market conditions. In light of this, it is worth examining how much more expensive new housing with more sustainable energy may be compared to housing with more obsolete energy systems, i.e. to what extent the “green” transition is reflected in higher house prices.

To answer this question, we used data from new condominium projects of 4 apartments or more for sale in Budapest between the first quarter of 2019 and the third quarter of 2021, and conducted a project-level regression analysis to examine the impact of different characteristics, including energy performance, on the average price per square metre of new housing projects. The data used for the estimation include 806 individual new housing projects (38,734 new flats), with around 4,991 observations, given that a project is typically sold by the developer continuously for several quarters. Of these, the energy certification category of the housing project is known for 2,875 observations, of which the average asking price per square metre of the unsold flats in the current quarter is available for 2,559 observations.

¹⁰ From 1 July 2022, the requirement for newly built homes will be a “nearly-zero energy” energy certificate, i.e. category BB, after the current requirement for a category CC, or “modern” energy certificate.

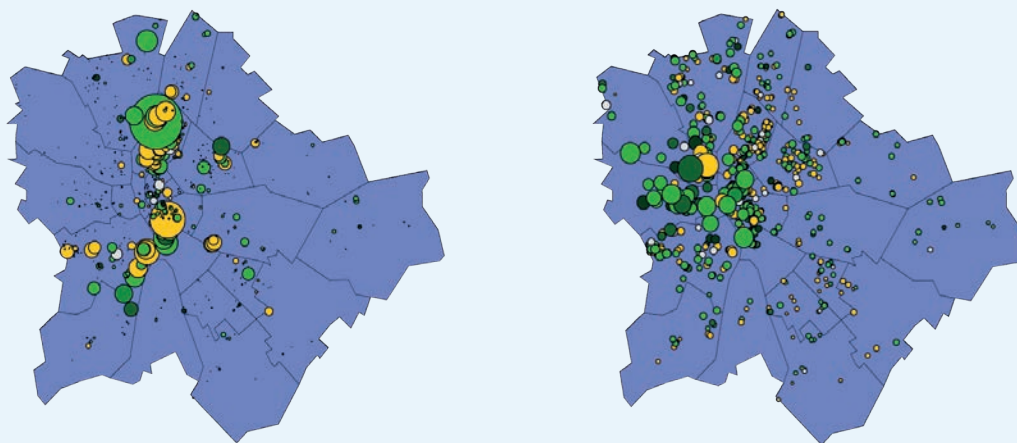
The outcome (dependent) variable considered in the regression analysis is the average square metre of unsold homes at the project level, which also varies over time within specific projects due to both the response to market conditions and the composition of the sold homes. The explanatory variables included in the regression include time with varying quarters, which capture the price changes in the housing market, the number of apartments in the project, the level of advance sale, the size of the developer, and the VAT on housing, in addition to variables capturing location and energetics. The location of housing projects was controlled for by dividing Budapest into 33 relatively homogeneous areas and by the distance to the nearest underground station. The 33 territorial units were delimited by postal codes using a regression method to ensure that each area was homogeneous in terms of, among other things, price and typical property type, and the postal codes constituting each area were close to each other. The energy characteristics of the housing projects were described in terms of energy certification or the use of renewable energy.

Between the first quarter of 2019 and the third quarter of 2021, the 13th district of Budapest has the highest number of new condominium apartments built or under construction, with around 10,800 apartments. This is followed by the 11th district with 5,100 and the 9th district with 4,400 new apartments. The ratio of new homes with energy certification of category BB or better is the highest in the 12th and 17th districts, exceeding 90 per cent. However, in the 13th and 11th districts, with the highest number of new homes, the proportion is significantly lower, at 37 and 38 per cent respectively. It is also clear that new dwellings in the downtown area, which are typically more expensive, tend to have more favourable energy certification.

Location and energy certification of new housing projects under sale in Budapest between the first quarter of 2019 and the third quarter of 2021

The size of the circles is proportional to the number of dwellings (the largest circle is 790 dwellings)

The size of the circles is proportional to the price per square metre of the flats (the largest circle is 3.8 million HUF /square metre)



NA CC BB AA AA+ AA++

Note: Where not known, based on estimated energy certificates; BB where the use of renewable energy is known, otherwise assuming category CC.

Source: ELTINGA – Housing report, MNB

The vast majority of the explanatory variables included in the regression have a significant effect on the asking price of new housing, and overall, according to our calculations, the use of more modern energy technologies significantly increases the asking price of new homes. According to our estimates, the price per square metre of new housing projects of category BB certification is significantly, by 3.5–3.7 per cent, higher compared to those of category CC. A category AA certificate increases the average price per square metre by 4.4–4.7 per cent compared to CC. However, the two highest category certificates, i.e. AA+ and AA++, do not significantly increase the price of apartments compared to AA, i.e. further improvement in energy efficiency is not enforced to a larger degree by developers in the asking prices of apartments. In addition to the foregoing, when examining the impact of the use

of renewable energy separately, its presence in a newly built condominium project increases the price per square metre of the flats by approximately 6.6 per cent. Our results with regard to the higher property price associated with a more modern energy classification are in line with the recent results of Ertl et al. (2021), who investigate the relationship between the price of family houses and their energy performance. The authors' findings suggest that family houses of higher energy category were sold at a significantly higher price. Family houses of category BB or higher energy classification are about 13 per cent more expensive than those of category CC energy classification.¹¹

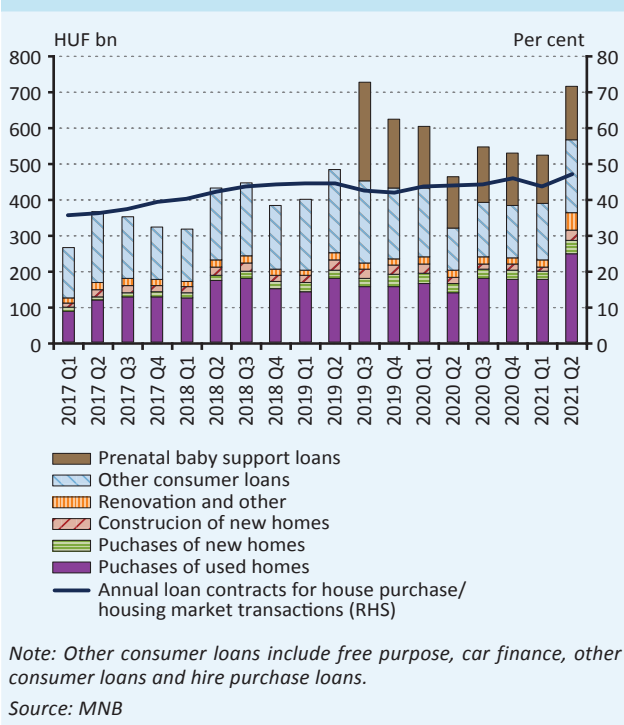
On the whole, the use of environmentally sustainable energy increases the costs of new homes and according to our calculations new homes with more modern energy attributes in the supply have a significantly higher price – considering the difference between category CC and BB – i.e. by roughly 3.5–3.7 per cent. On the other hand, these homes with more efficient energy features will preserve their value to a greater degree in the long run since demand may gradually “go green” in the future.

¹¹ For more details, see: Ertl et al. (2021): Az energetikai jellemzők és az ingatlanárak kapcsolata (Relationship between Energy Efficiency Attributes and House Price), Statisztikai Szemle (Hungarian Statistical Review), Volume 99, Issue 10, pp. 923–953.

4 Lending for housing and subsidies for first-time homebuyers

In the second quarter of 2021, credit institutions concluded housing loan contracts with households in the amount of HUF 364 billion, exceeding the volume concluded in the same period of previous year – which was affected by the first wave of the pandemic – by 81 per cent. The new housing subsidies available from 2021 played a substantial role in the historically high level of disbursements. The ratio of housing transactions realised by taking a housing loan rose by one percentage point to 47 per cent compared to December 2020. Borrowers still use almost 70 per cent of the housing loans for buying a used home, while the ratio of loans for improvement and modernisation rose from 10 per cent one year earlier to 14 per cent, in conjunction with a loan volume that was two and a half times higher. Average loan amounts of loans requested both for the purchase of new and used homes continued to rise, while maturity remained unchanged. 70 per cent of the housing loan contracts concluded in the quarter under review were taken for at least 10 years, with interest fixed until maturity. Based on the responses in the Lending Survey, banks did not change the conditions of housing loans during the quarter and also anticipate no change in the next half-year. Banks expect further growth in credit demand in the remaining part of the year. Despite the steady growth in property prices for years, the average ratio of the loan amount to the real estate collateral has not increased. A significant part of the new housing subsidies effective from January 2021 are connected to the Home Purchase Subsidy for Families, as a result of which the volume of HPS rose significantly, expanding by 68 per cent during the quarter, with Rural HPS remaining the housing subsidy with the highest disbursement, accounting for a quarterly volume of HUF 15 billion. The affordability of house purchase on credit is significantly improved by the programmes aimed at first-time homebuyers, primarily for families with children purchasing a new home.

Chart 36
New household loans in the credit institutions sector

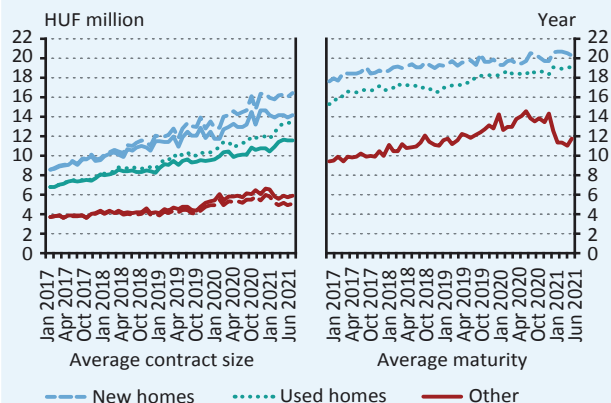


4.1 NEW HOUSING SUBSIDIES GENERATED A RECORD HIGH VOLUME OF LENDING FOR HOUSING PURPOSES

The disbursement of housing loans reached an historic high in the second quarter of 2021. During that period, credit institutions concluded housing loan contracts with households in the amount of HUF 364 billion, exceeding the same prior-year figure by 81 per cent. This unprecedented growth is attributable to both the new housing subsidies available from 2021 and the low base caused by the coronavirus pandemic. In addition, it was mentioned in the interviews with banks¹² that rising house prices, inflation concerns and demand brought forward due to the tightening cycle may have also triggered growth in new lending. 10 per cent of the clients who applied for a mortgage loan in the second quarter also drew down a prenatal baby support loan or personal loan at most half a year before taking the loan, which they may have used as an equity contribution when buying a home. Housing loan applications are still dominated by the purchase of used homes, accounting for almost 70 per cent of the disbursement of housing loans

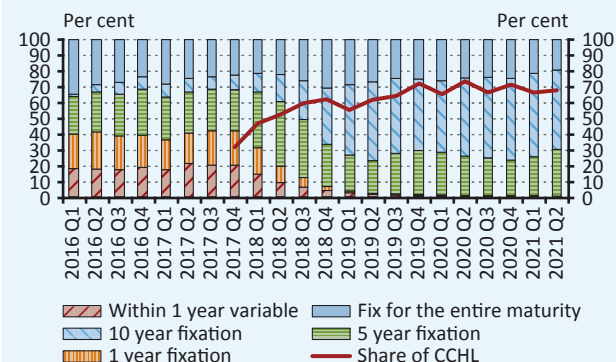
¹² The results of the interviews conducted in 2021 are summarised in Box 2 of the publication entitled Trends in Lending | September 2021.

Chart 37
Average contract size and maturity of new housing loans



Note: Maturities are averages weighted by the contracted amount. Average contract amounts deflated by CPI are shown as dotted lines. Source: MNB

Chart 38
New housing loans by interest rate fixation and the share of Certified Consumer-Friendly Housing Loans (CCHL)



Note: Share of CCHL products compared to new issues with at least 3 years of interest rate fixation (at least 5 years since Q4 2018) excluding disbursements by building societies. Source: MNB

(Chart 36). During the quarter, 8 and 10 per cent of the housing loans were used for the construction and purchase of new homes, respectively. The ratio of loans for home improvement and modernisation (HUF 51 billion) rose from 10 per cent a year earlier to 14 per cent. Up to June, banks disbursed subsidised home improvement mortgage loans in the total amount of HUF 24 billion.

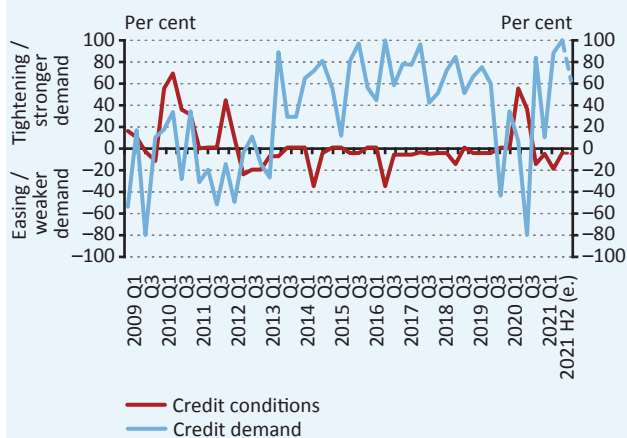
In the first half of 2021, the ratio of home purchase on credit rose moderately, but the penetration of housing loans remains low. While in the fourth quarter of 2020, 46 per cent of the housing transactions were realised by borrowing, in the second quarter of 2021 this ratio rose to 47 per cent, according to our estimates. When also considering the prenatal baby support loans used for home purchase,¹³ in the second quarter of 2021, the ratio of those buying on credit would have been 60 per cent. Based on the data of the National Tax and Customs Administration (NTCA), in recent years roughly 27–29 per cent of homebuyers applied for a reduction of the levy related to the sale of their previous home, i.e. this proportion of homebuyers used the price of a previous home for financing the transaction. Overall, even after more than seven years of housing market boom, the stock of housing loans as a percentage of GDP in the second quarter of 2021 is still the second lowest among EU countries at 8.5 per cent. Moreover, a European survey shows that the share of Hungarian households with a housing mortgage loan (15.8 per cent) is lower than the euro area average (20.5 per cent).¹⁴

The rise in the loan amounts drawn down to buy a home took place in conjunction with stagnating maturity in the first half of 2021. As a result of the new housing subsidies available from January 2021, the number of housing loan contracts increased substantially. Up to end-June, 52,000 home loan contracts were concluded during the year, exceeding the year-on-year figure by 23 per cent. The largest, 33-per cent, increase was observed for loans taken out for other housing purposes, which also include loans for improvement and expansion. Average loan amounts for the purchase of new and used homes rose further (also in real terms): In June 2021, the average loan amount requested for the construction and purchase of new housing and for the purchase of used homes was HUF 16.3 million and HUF 13.3 million, respectively, representing annual growth of 15

¹³ According to our questionnaire-based survey, 44 per cent of the prenatal baby support loans are also used for home purchase. We deducted the number of those loans that were followed within half a year by drawdown of a housing loan from the 44 per cent of prenatal baby support loans disbursed in the past one year. For more details on the use of prenatal baby support loans, see: Fellner – Marosi – Szabó (2021): A baba-váró kölcsön hitelpiaci és reálgazdasági hatásai (The effects of pre-natal baby-support loans on the credit market and the real economy), Közgazdasági Szemle (Economic Review) Vol. 68, February 2021 (pp. 150–177).

¹⁴ European Central Bank: The Household Finance and Consumption Survey, Wave 2017. Link: https://www.ecb.europa.eu/home/pdf/research/hfcn/HFCS_Statistical_Tables_Wave_2017_May2021.pdf?ca15e575b6b7765dad1147e7a3dba728

Chart 39
Changes in credit conditions and demand for housing loans



Note: Time series of lending conditions show the net ratio, i.e. the difference between banks tightening and easing, weighted by market share.

Source: MNB, based on banks' responses

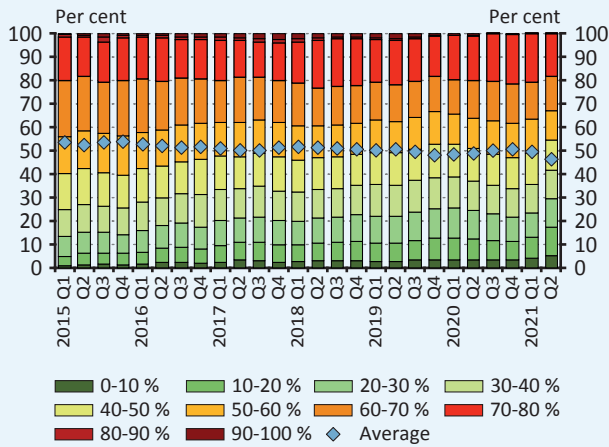
and 22 per cent, respectively. On the other hand, a decrease was observed in other purposes, including improvement and expansion, where the average loan amount fell from HUF 6.5 million at the end of the year to HUF 5.7 million by June (Chart 37). The average maturity of home improvement loans decreased by 15 per cent to 11.7 years as a result of the home improvement subsidy available from January. The average maturity of housing loans for new homes was 20 years, and 19 years for the purchase of used home in the summer of 2021, representing an increase of six months compared to the end of 2020. A further increase in the average maturity in parallel with the property prices may be curbed by banks' risk appetite.

70 per cent of the housing loan contracts concluded in the second quarter were taken for at least 10 years, with interest fixed until maturity. Half of the housing loan contracts concluded in the second quarter of 2021 were taken out with an interest rate fixation period of a minimum of 10 years, while the interest rate on a further 20 per cent of them is fixed until maturity (Chart 38). Since the beginning of 2021, the proportion of loans with interest rate fixed for 5 years rose moderately, which is due to the growing utilisation of the state-subsidised loans available with a 5-year interest period. On the other hand, in this case the 5-year interest period determines only the size of the state subsidy, while the customer pays a fixed interest of 3 per cent for the entire tenor. Certified Consumer-friendly Housing Loans, available only with longer, i.e. at least a 5-year interest period, contribute significantly to the decline in interest rate risk, as this product already accounted for two-thirds of quarterly housing loan disbursements during the past two years.

In 2021, banks anticipate further a pick-up in demand for housing loans. Based on the responses to the Lending Survey,¹⁵ in the second quarter of 2021 the respondent institutions did not significantly change the conditions of housing loans, while in terms of individual conditions, half of the banks anticipated the reduction of spreads, citing growing bank competition and market share objectives. Looking ahead to the second half of 2021, the respondent institutions plan no changes in the standards of housing loans; however, 35 per cent of them – in net terms – anticipated the raising of disbursement fees or the cancellation of previous allowances (Chart 39). All institutions reported increasing demand for housing loans during the quarter under review, and net 63 per cent of them also expect this in the second half of the year, in line with the government subsidies related to the housing

¹⁵ For the detailed results of the Lending Survey, see <https://www3.mnb.hu/penzugyi-stabilitas/publikaciok-tanulmanyok/hitelezesi-felmeres>

Chart 40
Distribution of mortgage loans outstanding at the end of Q2 2021 contracted since Q1 2015 by quarter of contract conclusion and initial LTV



Note: Distribution based on the number of transactions. The data refer to valid, non-renegotiated, non-restructured home mortgages. The loans in the figure account for 96 per cent of all current mortgages.

Source: MNB

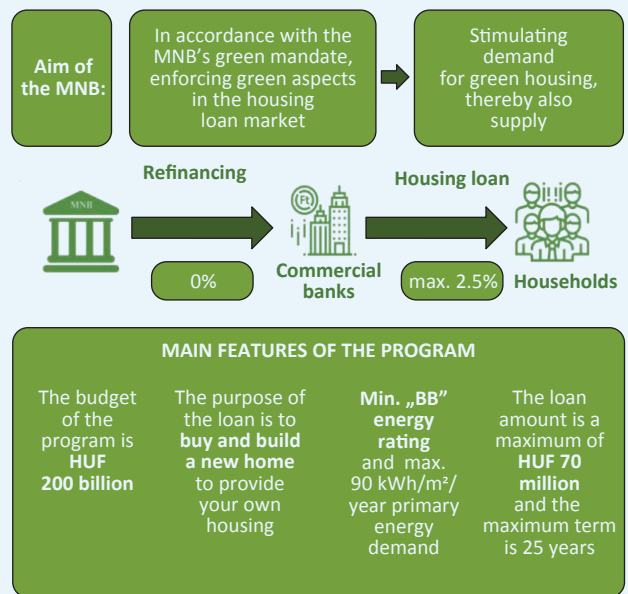
market, which were launched in 2021, and the FGS Green Home Programme launched by the MNB (see Box 4).

The loan-to-value ratio of newly drawn down mortgage loans did not increase, despite rising property prices. In the years after the 2008 crisis, borrowers of foreign currency loans were simultaneously faced with the higher amount to be repaid as a result of the exchange rate movement and the fall in the value of their property, as a combined result of which the loan-to-value ratio (LTV) often exceeded 100 per cent. The MNB’s debt cap rules, effective from 1 January 2015, prevented over-indebtedness and although house prices rose significantly in recent years, having examined the stock of mortgage loans outstanding in June 2021, we found that the loan amount relative to the value of the real estate collateral has not increased: While in the case of housing loan contracts concluded in the second quarter of 2015 the average LTV on the contract date was 53 per cent, in the second quarter of 2021 it was only 47 per cent (Chart 40). The ratio of home purchases with at least 50 per cent equity contribution rose from 40 per cent to 55 per cent in the past 6 years.

Box 4
Presentation of the FGS Green Home Programme

The MNB was the first bank in Europe to receive an environmental sustainability mandate, based on the decision of the National Assembly on 28 May 2021, and thus the central bank’s objectives now include dedicated support for government policy on environmental sustainability. According to the vision set out in the MNB’s strategy on the set of green instruments published in July 2021,¹⁶ Hungary’s sustainable convergence will be achieved through a green transition of the economy, which requires the development of a financial system in Hungary that takes into account and enforces environmental sustainability aspects, by the end of the decade at the latest. Climate risk also poses risks to monetary policy, price stability and the smooth functioning of the financial system, and thus the creation of an environmentally sustainable economy is in line with the other objectives of the central bank.

In Hungary, one-third of final energy consumption is attributable to residential properties.¹⁷ Hungary’s stock of dwellings is obsolete in terms of energy, and there is plenty of room for modernisation. By fostering the construction of more energy efficient new homes, significant improvement could be achieved in the energy consumption of the stock of dwellings, thereby facilitating a more favourable



¹⁶ See: Magyar Nemzeti Bank: Sustainability and central bank policy – green considerations in the MNB’s set of monetary policy instruments, July 2021. Link: <https://www.mnb.hu/letoltes/zold-eszkozta-strategia-publikacio-2021-hun-0706-2.pdf>

¹⁷ See: European Bank for Reconstruction and Development: Hungary: Modernisation of Public and Residential Buildings - Identification and Elaboration of Support Programmes, 30.11.2020. Link: <https://www.ebrd.com/news/2020/energy-efficiency-in-hungary-begins-at-home.html>

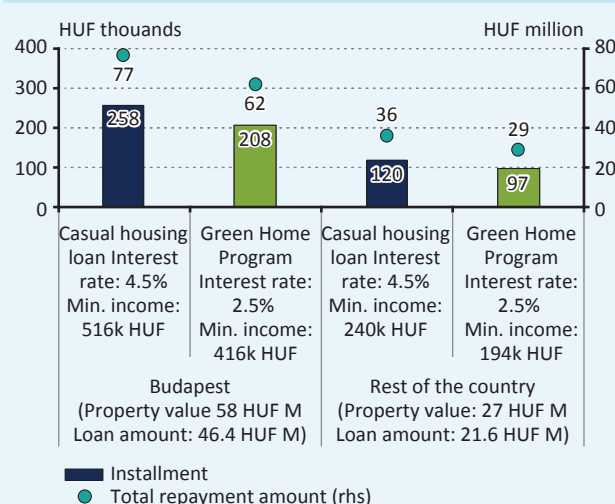
energy composition of the Hungarian stock of dwellings. To date, banks have not applied any discount based on green considerations when pricing housing loans in the Hungarian housing loan market. The MNB wanted to address this shortcoming of the market with a new targeted instrument, launched within the framework of its green instrument strategy, i.e. the FGS Green Home Programme (FGS GHP).¹⁸

Launched on 4 October 2021, the FGS GHP provides a low-cost loan with a fixed and predictable interest rate until maturity to help households buy and build energy-efficient new homes, and thus indirectly encouraging builders to build such environmentally sustainable new homes. As in the previous phases of FGS, which supported the SME sector's access to finance, the central bank will provide refinancing funds at 0 per cent interest to credit institutions, which will be able to lend it on to retail customers at a maximum interest rate of 2.5 per cent. The loan is therefore only available to natural persons for the purchase or construction of energy-efficient new flats and family houses (of energy category at least BB and a maximum primary energy demand of 90 kWh/m²/year) for own housing purposes. The maximum amount and maximum maturity of the loan available under the programme is HUF 70 million and 25 years, respectively. In view of the length of construction projects, there are 4 years to draw down the last tranche of the loan; however, the first disbursement (upon lump sum drawdown, the disbursement of the full amount) must take place within 3 years from concluding the contract. In connection with the housing objective, the borrower(s) – also becoming owners – must commit to living habitually in the residential property for at least 10 years (not all co-debtors must become owners and register their address in the property).

Similarly to the Certified Consumer-friendly Housing Loans, a number of consumer-friendly conditions have been integrated into FGS GHP in the interest of borrowers. In addition to the requirements on customer information and maximum assessment period, the range and level of charges that banks can charge is limited. In addition to interest, only disbursement fees (up to 0.75 per cent of the loan amount, but not more than HUF 100,000), early repayment fees (up to 1 per cent of the amount prepaid, but not more than HUF 30,000 per contract and per occasion) and third party charges (e.g. notary fees, valuation fees) may be charged.

The loans granted under the FGS Green Home Programme may encourage people to buy or build sustainable new homes due to the interest rate advantage they offer compared to market loans. Under the FGS GHP, the purchase of an average 60-square metre new home in Budapest with a loan assuming an LTV of 80 per cent, a maturity of 25 years and an interest rate of 2.5 per cent will result in a monthly instalment of HUF 208,000, which is 19 per cent lower than a typical market-based home loan currently offered, due to the 2-percentage point interest rate advantage of the FGS GHP compared to the aforementioned loans. In the countryside, the instalment required to purchase a new home of the same average price with the same floor area on credit would be HUF 97,000 under the FGS GHP instead of HUF 120,000 under the market-based schemes. The lower instalments available under the FGS GHP also mean that, in accordance with the payment-to-income ratio rule, a lower minimum income will be required to purchase an environmentally sustainable new home on credit than with a market-based loan.

The installments and the total repayment amount of casual housing loans and housing loans financed by the Green Home Program

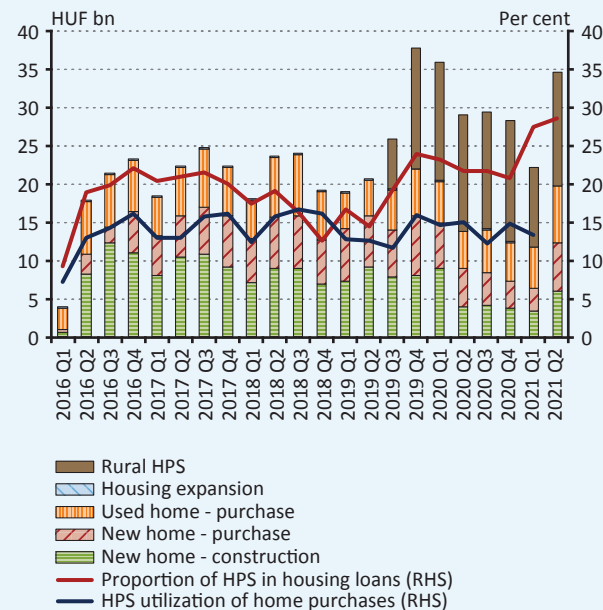


Note: Based on the average price of flats of 60 m², maturity 25 years. Based on October 2021 interest rates for Certified Consumer Friendly Housing Loans with a 5-10 year interest period.

Source: MNB

¹⁸ Central bank measures to issue green mortgage bonds also serve to encourage green mortgage lending. From 1 July 2021, in the MNB's regulations on the compliance ratio for mortgage loan financing (JMM), green mortgage-based funds may be taken into account with a discounted weighting when calculating the indicator. In August 2021, the central bank also launched its green mortgage bond purchase programme.

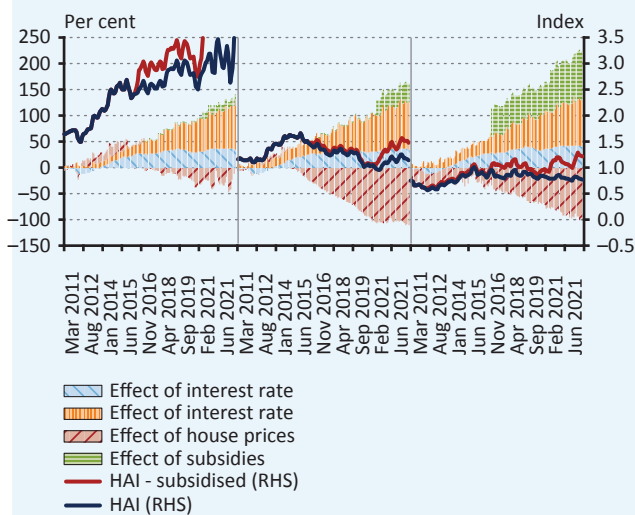
Chart 41
Volume of contracts in the Home Purchase Subsidy scheme by purpose



Note: The HPS utilisation of home purchases within housing transactions is the ratio of the sale and purchase of HPS eligible properties and the number of HPS contracts.

Source: MNB, Ministry of Finance

Chart 42
Housing Affordability Index (HAI)



Note: The HAI shows the number of times the income of a household with two average earnings covers the income required for the financed purchase of an average home. Calculating with a flat of 55 and 65 square metres for one child or two children, respectively. Parameters of the loan product, except for the interest rate, are constant until maturity. LTV = 70 per cent, PTI = 30 per cent, maturity = 15 years.

Source: NTCA, MNB

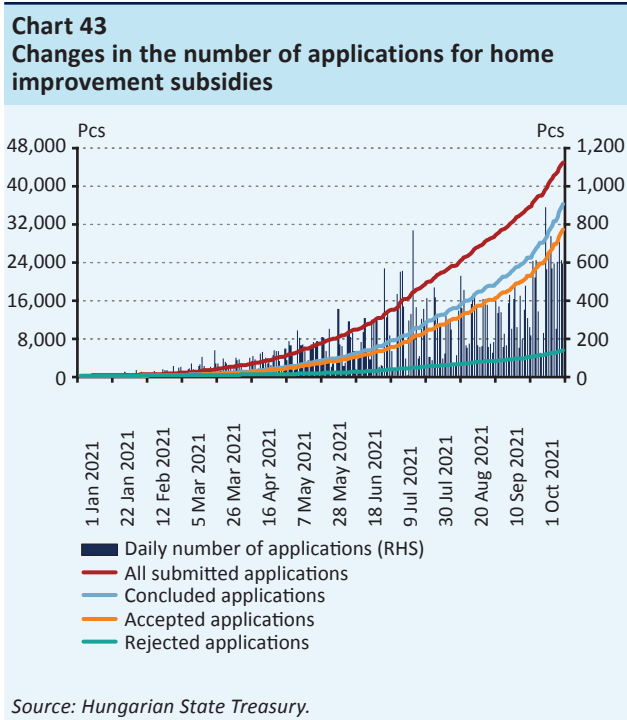
4.2 HOUSING SUBSIDIES SIGNIFICANTLY BOOST DEMAND

As a result of the new housing subsidies, housing market demand picked up and the volume of HPS also increased.

A major part of the new housing subsidies introduced from January 2021¹⁹ were connected to the Home Purchase Subsidy for Families. As a result of this, the amount of subsidies applied for under HPS in the second quarter rose by 68 per cent for all loan purposes: in the second quarter of 2021 subsidy contracts were concluded in the amount of HUF 6 billion for the construction and purchase of new homes, and in the amount of HUF 7 billion for the purchase of used homes (Chart 41). 28 per cent of the housing loan contracts concluded in the period under review, i.e. roughly HUF 104 billion, were connected to the Home Purchase Subsidy for Families, half of which were state-subsidised HPS loans and half of which were market-based loans connected to HPS. Demand for rural HPS, launched two years ago, was steadily high. 45 per cent of the subsidies contracted under HPS since the start of the scheme were used for properties located in favoured small regions. During the second quarter, almost 3,000 contracts were concluded under the scheme in the amount of roughly HUF 15 billion, three-quarters of which were used for the purchase and modernisation of property. According to our estimates, the home purchase subsidy is used for 13–14 per cent of the housing transactions where the property would satisfy the HPS criteria. On the other hand, when examining only the transactions related to newly built homes, the use of the state subsidy is as high as 40–50 per cent.

The housing subsidies support the affordability of buying a home on credit in the capital. As for the underlying trends disregarding the subsidies, it is clear that in Budapest the affordability of home purchases on credit deteriorated between 2015 and 2020. In the capital, this is attributable to the dynamic growth in house prices observed during the period, since in the same period the other two affordability factors – i.e. incomes and interest rate on loans – developed favourably for borrowers (Chart 42, middle panel). Affordability in the market of used homes in the countryside has continuously improved in recent years, which is attributable to the growth in incomes in excess of house prices (Chart 42, left panel). The housing subsidies improved the affordability of home purchases both in Budapest and in the countryside, particularly in the case of families with several children, buying newly-built property, since for them the subsidy amount is significantly higher (Chart 42, right panel). Nevertheless, these subsidies are

¹⁹ Reducing the VAT rate on new home to 5 per cent, VAT and duty exemption of new properties purchased under HPS, multi-generation HPS, Home improvement subsidy, Subsidised housing loan for home improvement.



not able to offset the higher price level of larger and better quality properties in full, and thus for them the purchase of larger property is less affordable compared to those buying used property.

After the stagnation observed in the summer months, utilisation of the home improvement subsidy is on the rise again. In order to improve the housing conditions of families with children, from January 2021 a non-refundable state subsidy of HUF 3 million may be applied for by families living with their children below the age of 25 years in their own property and improving their home. After the initial dynamic rise, utilisation of the home improvement subsidy started to stagnate from the middle of the summer; however, in September utilisation was once again outstanding. By end-September 2021, more than 45,000 applications were received in total for the subsidy, and the total amount of the received subsidy applications exceeded HUF 78 billion (Chart 43). On the whole, 50 per cent of the submitted applications were for improvements resulting in higher energy efficient (modernisation of heating and hot water systems, including the use of renewable energy sources, replacement or renovation of doors/windows or roofs, installation of solar panels, insulation of buildings).

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 Széchenyi 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.

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