HOUSING MARKET REPORT

2018
MAY

‘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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(May 2018)

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The housing market is a key area both at the level of individual economic agents (households, financial institutions) and the national economy. Not only are housing market developments closely related to financial stability issues, they also fundamentally determine the short- and long-term prospects for economic activity. Overall, it can be stated that the housing market is integrally related to all areas of the national economy. Housing market developments – in particular the volatility of housing prices – influence the savings and consumption decisions of households via their financial position and also influence the portfolio, profitability and lending activity of financial institutions via the stock of mortgage loan collateral.

The publication '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 which 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 real estate 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 aspects. The development of supply on the real estate market directly influences economic growth, while oversupply and inadequate supply can also have serious financial stability consequences. Housing price appreciation improves the financial position 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 set of information. The housing market already features in central banks' publications, both in Hungary and at the international level, but typically from the point of view 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 aspects of the real estate market. The set of 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, developments in real income and unemployment, and changes in the yield environment.*
- *The analysis of current housing market processes relies primarily on the information provided by the Hungarian Central Statistical Office (HCSO). Information on changes in housing market turnover and housing prices can be split 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 analysis of the housing mortgage loan market relies primarily on the balance sheet data of credit institutions and the interest statistics collected by the MNB; information on the qualitative features of lending processes collected in the Lending Survey[2] 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

TABLE OF CONTENTS

LIST OF BOXES

1. EXECUTIVE SUMMARY

The upturn in the domestic housing market observed in previous years continued in 2017. According to the MNB's aggregated house price index, house prices rose by 13.8 per cent on a national average, representing slightly slower growth compared to the 15.4 per cent registered in 2016. In real terms, house prices rose by 11.4 per cent in 2017. In addition to the continued increase in prices, the roughly 2 per cent rise in housing market sales transactions also demonstrates the continuing recovery on the market. Despite the strong rise, the level of house prices remains below the level justified by the macroeconomic fundamentals on a national average, i.e. there is no overheating yet. On the other hand, house prices in Budapest have already reached this level.

Hungarian housing market developments are still marked by strong regional heterogeneity, but the focus is tending to shift to an increasing degree from the capital to rural settlements. In 2017, the number of sales tended to rise in those – typically smaller – settlements, where the price level was still lower, while on the other hand in Budapest the number of transactions started to decline, due in part to the substantially increased price level (growth of 101 per cent by the end of 2017 compared to the end of 2013). The larger price increase observed in the capital resulted in a widening price gap between Budapest and rural areas: in 2017, the average square meter prices observed in villages were 25 per cent of the average prices recorded in the capital, while this ratio was 47 per cent in 2012. The annual rate of price appreciation in Budapest already shows gradual deceleration, albeit in the light of the high price level, this still represents substantial price appreciation. While in 2015 house prices in Budapest rose by 26.8 per cent, in 2016 and 2017 they were up 23.6 and 13.3 per cent, respectively.

Factors influencing the demand side of the housing market improved further in 2017. The more than 5 per cent rise in households' disposable real income, the continued decline in unemployment and increasing savings resulting from the vigorous wage outflow, suggest that demand will remain robust. Lending for housing is also characterised by buoyant demand: in 2017, the volume of new housing loans rose by almost 40 per cent, while 45 per cent of housing transactions involve bank loans. However, in Hungary the volume of outstanding housing loans as a per cent of GDP is one of the lowest in Europe, and thus there is still room for lending, which is kept within prudent bounds by the debt cap rules.

According to our preliminary house price index estimated on the basis of data provided by housing market intermediaries to monitor current house prices, house prices rose further in the first quarter of 2018, increasing by 4.7 per cent nationally in nominal terms (annual growth of 13.8 per cent) and by 3.4 per cent in Budapest (annual growth of 12.1 per cent). In the light of the housing market fundamentals, according to our forecast the rise in house prices may continue throughout 2018, by 11.1 per cent in real terms and by 13.9 per cent in nominal terms.

In 2017, the supply side of the housing market was characterised by further growth, but looking ahead the healthy rate of home constructions is hindered by severe frictions. In 2017, roughly 38,000 new construction permits were issued and almost 14,400 new homes were completed, exceeding the values recorded in 2016 by 20 per cent and 44 per cent, respectively. However, the renewal of the Hungarian housing stock, i.e. the number of new homes relative to the stock of dwellings, is occurring at a slow rate of merely 0.3 per cent per annum, which is extremely low in a regional comparison. As regards the capital, the completion of new homes may peak in 2018–2019, as residential property developers anticipate the completion of 8,800 and 10,000 new homes this year and next year, respectively, compared to 2,800 in 2017. However, by 2020 the number of planned completions will decline sharply, mostly due to the fact that then, according to the presently effective rules, the preferential 5 per cent VAT rate of new homes will be phased out.

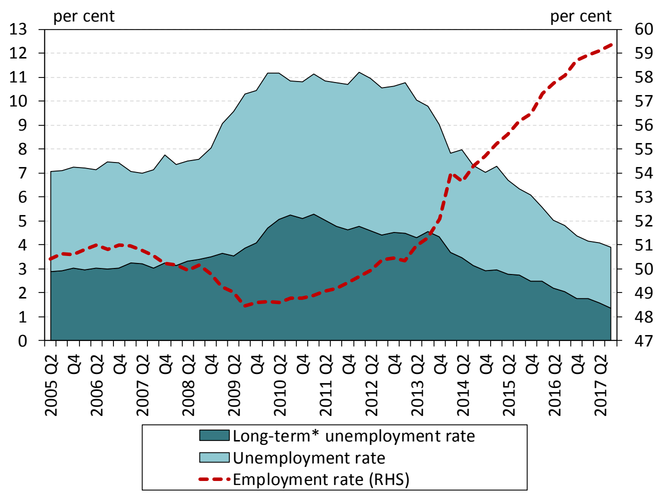
With a view to understanding the housing market processes more thoroughly, in March 2018 the MNB interviewed several major housing market actors (developers, contractors and intermediaries), where the senior executives and experts of the companies summarised the key frictions of the supply side of the market in the following three points: (1) due to the uncertainties related to the preferential VAT rate, developers are not keen on planning from 2020, (2) there is a shortage of skilled labour of almost 40,000 workers in the construction industry, which results in tight capacities, (3) commercial property and government investments are siphoning off significant capacities to the detriment of housing developments, and on the whole these factors result in the over-utilisation of construction capacities. As a result of the foregoing, housing projects face major delays, and developers have postponed the anticipated completion date in the case of roughly 63 per cent of the dwellings under construction in Budapest.

On the whole, housing market fundamentals imply a further upturn, but frictions on the supply side are hindering a healthy increase in home construction, while further growth in the completion of new homes would be welcome in terms of the renewal of the domestic housing stock. As regards house prices, no overheating can be observed for the time being, but due to the high price level in Budapest and the rapid increase in lending, the market must be closely monitored.

2. MACROECONOMIC ENVIRONMENT

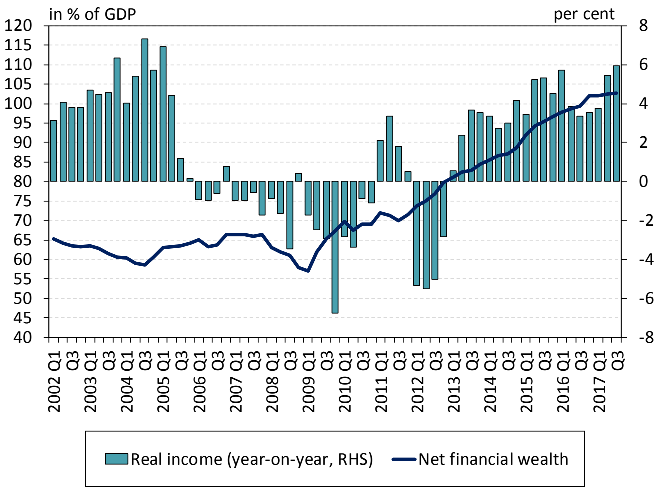
Factors influencing the demand side of the housing market developed favourably in 2017, and thus the market has continued to recover, in conjunction with the favourable income and labour market position of households, as well as growth in the volume of new lending. The improving financial position of the household sector and the strong wage outflow also substantially boosted the savings of the sector, which – along with the favourable long-term income prospects – paints a more positive picture of prospective demand conditions in the housing market. The supply side of the housing market has also improved, although it is adjusting more slowly compared to the previous real estate market cycle, primarily due to the shortage of skilled labour capacities. The growth rate of house prices still outstrips that of construction costs, and thus at present the supply margin has a positive effect on the development mood; however, the accelerating rise in construction costs and particularly, as cited by market participants, in the price of certain basic materials, may reduce this incentive in the future.

Chart 1: Unemployment and employment rate



*Note: * Unemployed for more than 1 year.*
Source: MNB

Chart 2: Changes in households' financial assets and real income



Source: MNB

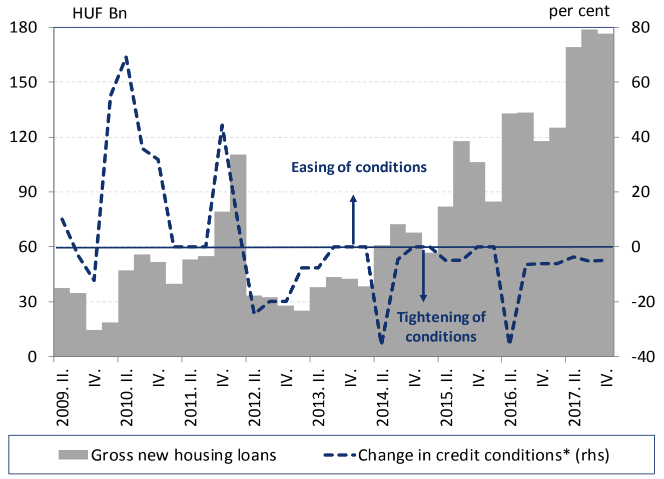
2.1. Domestic housing market demand

In 2017, the Hungarian housing market continued to pick up, which was also substantially supported on the demand side by the ongoing rise in households' income and the favourable financing environment. House prices continue to rise, in parallel with growth in households' disposable income, and at the same time the volume of new loans granted for housing has also increased further.

Several demand-side factors support the continued upturn on the housing market. Housing market trends are strongly determined by labour market prospects. Accordingly, the gradual increase in labour demand and in parallel with this, the decline in long-term unemployment, supports households' willingness to invest thanks to improving longer-term income prospects. In the past year, in addition to the lower tax burden, moderate inflation and improving employment ratios, the strong wage outflow – resulting from the substantial rise in the minimum wage and the guaranteed wage – also contributed to the rise in real incomes, which on the whole significantly supported improvement on the demand side of the housing market (Chart 2).

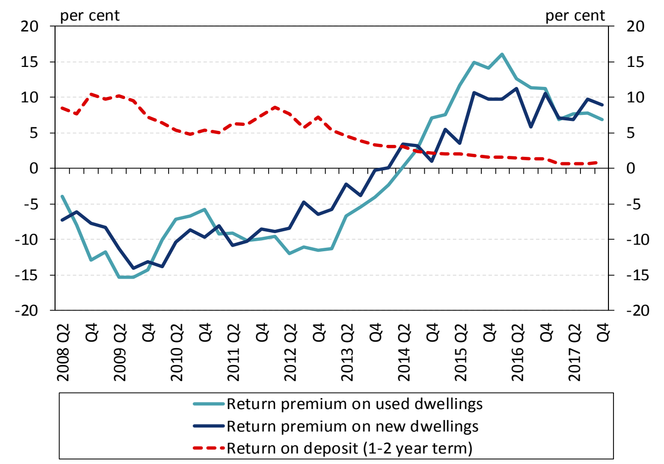
Households' improving income and financial position will boost the housing market in the long run. In the past quarters, households' disposable income has exhibited continuous growth and their financial assets reached a historic high (Chart 2). Accordingly, there was substantial improvement in income prospects, as the primary long-term determinant of households' investment decisions. Due to the slower adjustment of the supply side, the recovery in the housing market primarily affected used homes, but the past year was already characterised by a gradual pick-up in construction, and hence the market of new dwellings is becoming increasingly important. The rise in consumption was more moderate than the growth rate of households' real income, which is attributable to households' savings linked to their home construction and home improvement

Chart 3: Gross volume of new housing loans and change in lending conditions



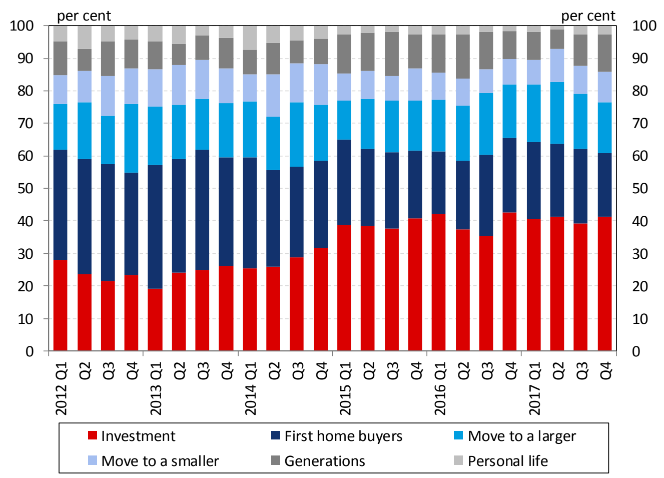
*Note: * Balance of actors reporting tightening/easing credit conditions (weighted).*
Source: MNB

Chart 4: Changes in yield premium realisable on house purchases and in deposit yields



Note: The yield premium realisable on dwellings is the difference between the annual change in the nominal house price index and the one-year government securities benchmark rate.
Source: Government Debt Management Agency, MNB

Chart 5: Distribution of home buyers in Budapest by the purpose of home purchase



Source: Duna House.

plans. Looking ahead, the strong wage outflow and the rise in savings for housing purposes may serve as a basis for the further expansion of the Hungarian housing market.

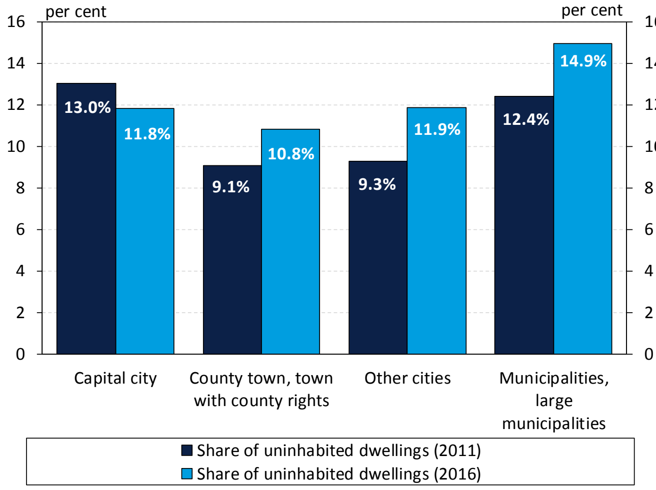
Easing in credit conditions was accompanied by a rise in housing loan disbursements. The gross disbursement of housing loans declined steadily in the post-crisis years, which – in addition to the moderate demand – was attributable to the tightening of conditions by banks. In the past years, with decreasing credit costs, the disbursement of new housing loans rose in parallel with the easing of credit conditions, but due to the still-high loan instalments, growth in net household borrowing remains moderate. Although outstanding housing loans rose by almost 5 per cent in nominal terms in 2017 as a result of transactions, in real terms (deflated by the implicit price index of household investment) this indicator showed a minor increase only at the end of last year (Chart 3).

The low interest rate environment and dynamic increases in house prices make residential properties an attractive investment. Due to the limited supply of new homes, during the turnaround on the housing market a significant upturn was first observed on the market of used homes: the number of transactions surged and used home prices rose considerably. The dynamic growth in house prices has continued, offering a high, rapidly realisable return in the low interest rate environment (Chart 4). This high return, realisable merely from the price appreciation, is resulting in further strengthening of the used home market at present as well, although in 2017 – according to HCSO data – the rise in the price of new homes already outstripped that of used homes.

The emerging adjustment on the supply side permits this type of investment demand to appear in the market of new dwellings (in addition to the market of used homes), and the persistently low interest rate environment may also channel additional investors into the property market. As a result of the favourable financing environment and the high yield premium realisable on home purchases, the ratio of house purchases for investment purposes rose in recent years. At present, investment is the primary objective of home purchases in Budapest (Chart 5).

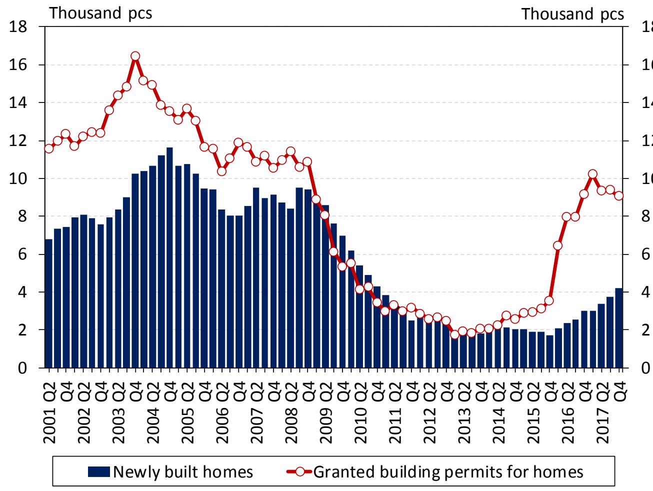
In addition to home purchases for investment purposes, the expansion of the Budapest housing market is also related to the pick-up in housing demand linked to internal migration. According to the latest HCSO survey, the ratio of unoccupied homes dropped from 13 per cent to 11.8 per cent in the capital, while in rural settlements it rose from 12.4 per cent to 14.9 per cent (Chart 6). In 2011, there were more than 118,000 unoccupied homes in the capital; by

Chart 6: Ratio of unoccupied dwellings by settlement type



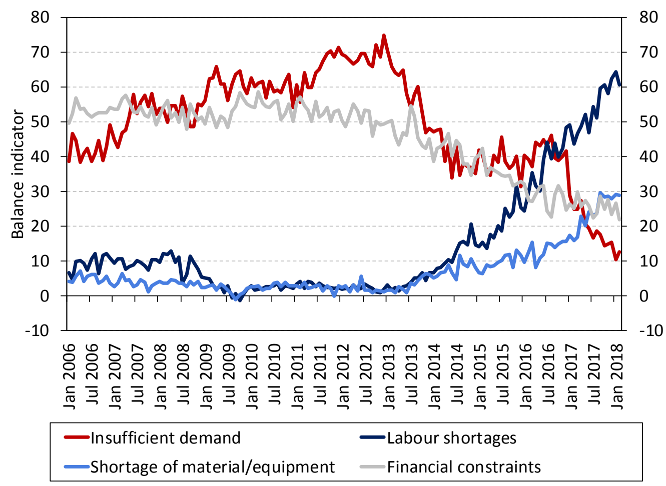
Source: HCSO

Chart 7: Annual dynamics of the number of construction permits issued and number of completions



Note: seasonally adjusted data.
Source: HCSO, MNB

Chart 8: Constraints to construction output



Source: European Commission

2016, their number fell by nearly 10 per cent to 107,000, since due to intense demand and price appreciation, some formerly unoccupied homes reappeared on the market. Internal migration, the declining population and the ageing of the rural population all contributed to the rural properties becoming vacant.

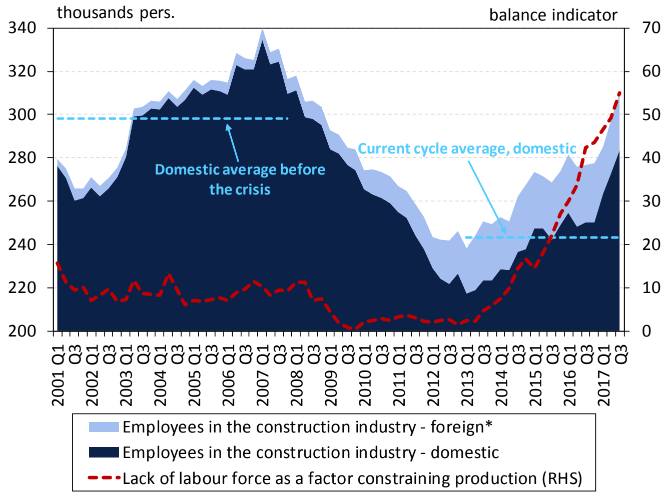
2.2. Domestic housing market supply

In recent years, housing market supply has responded increasingly strongly to the favourable demand conditions, which resulted in considerable growth in home constructions on the Hungarian housing market. However, the pace of the upswing on the housing market may be strongly influenced by the availability of skilled labour. The shortage of skilled labour is still a major problem in the construction industry, and through that in the current housing market cycle, and thus labour force is increasingly becoming an effective barrier to the upturn in construction output. The growth in house prices – as it exceeds the dynamics of construction costs – still represents favourable condition for real estate developers and for supply.

On the supply side, several factors support the upswing, but supply conditions typically respond with a delay on the real estate market. The upturn on the demand side of the housing market and – in parallel with this – the increase in the price level, also entailed a gradual adjustment in supply, resulting in a rise in the volume of home constructions starting from 2016. Numerous real estate development projects were launched in 2017, and the number of completed multi-apartment residential buildings is also expected increase considerably in 2018. However, supply-side obstacles to the housing market recovery remain.

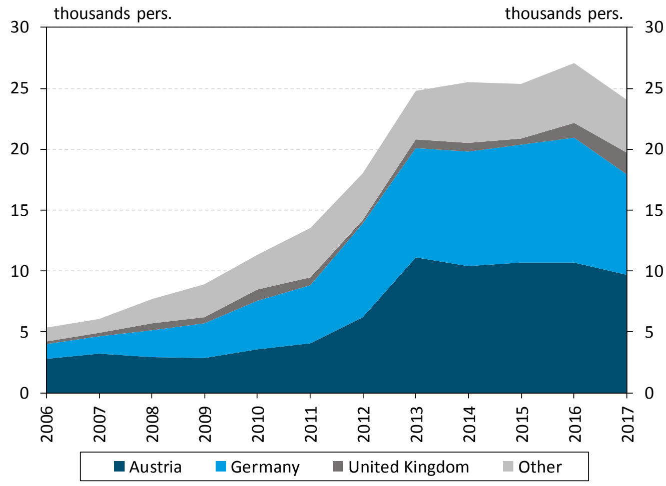
In the current housing market cycle, supply is adjusting more slowly than in the past. Despite the favourable economic environment, the pace of the recovery in housing construction has remained slower compared to previous episodes, reflecting the more gradual adjustment of supply in the current housing market cycle. While in the past period a stable, strong rise was observed in the number of residential construction permits, the number of new dwellings completed only began to increase substantially last year. Accordingly, the number of new dwellings built exceeded 14,000 in 2017, whereas the number of construction permits issued was already close to 38,000 (Chart 7). Based on our current estimates, the rise in the number of residential construction permits is followed by a pick-up in housing completions after 8–9 quarters, which is

Chart 9: Number of employees in construction



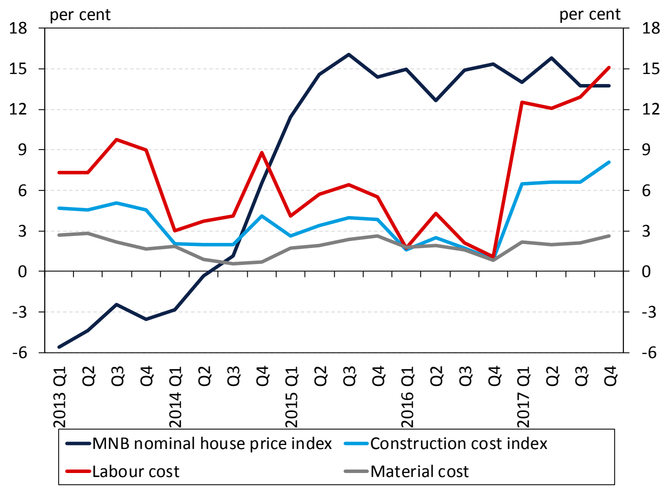
*Note: *Based on employees with households in Hungary.*
Source: HCSO

Chart 10: Distribution of construction workers working abroad by the country of employer*



*Note: * With household in Hungary.*
Source: HCSO

Chart 11: Home construction costs and nominal house prices



Source: HCSO

a slowdown compared to the lead time of 5–7 quarters measured during the previous real estate cycle.[3]

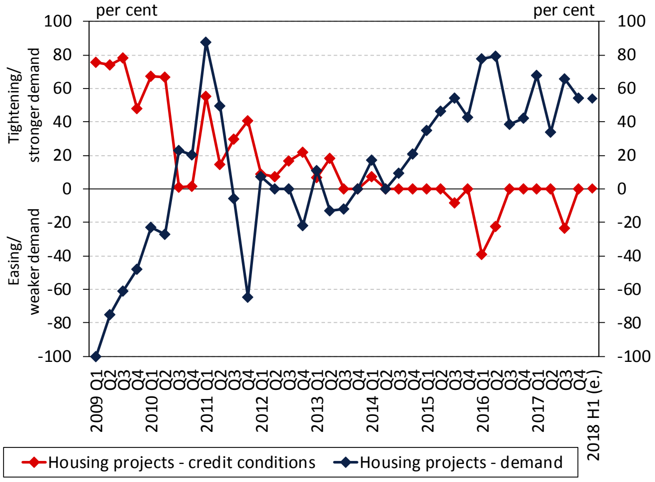
The pace of the upswing on the housing market is strongly influenced by the availability of skilled labour. In recent years, it has been an increasingly typical feature of the construction industry that the shortage of labour and basic materials are the main factors hindering production, while at the same time construction companies have faced increasingly favourable demand, and financing constraints have been an issue for fewer and fewer companies. In terms of the factors hindering production, labour shortage was the most pronounced factor in the responses of the construction companies polled by the European Commission (Chart 8). Accordingly, despite rising demand and improving financing conditions, almost two-thirds of the companies face labour capacity shortage. The projected pace of expansion on the housing market may be hindered to a great degree by this constraint.

A substantial portion of the workers previously employed in the construction industry have found jobs abroad. Labour shortage was not a constraint at the start of the current housing market cycle, but in the past period it has become one of the most significant factors hindering production (Chart 9). The slower adjustment of supply may also partly be attributable to the fact that the number of construction workers with households in Hungary but employed abroad rose at the highest rate between 2011 and 2013, and at present amounts to roughly 25,000 persons. The majority of the employees working abroad are employed in Austria and Germany (Chart 10). Accordingly, in light of the fact that in the pre-crisis cycle the number of construction employees in Hungary was nearly 60,000 persons higher, labour force is increasingly becoming an effective constraint to the upswing in construction output.

According to the HCSO indices, home construction costs rose substantially in 2017. In the past quarters, home construction costs rose strongly, while the annual growth rate of house prices still outstrips the rise in construction costs, which may contribute to supply side adjustment. In 2017, the gap between the construction cost index and the housing price index narrowed only moderately, which results in favourable profitability for residential property developers. As a result of the high wages, in the past period labour costs for home construction also rose significantly, which contributed to the dynamic growth in construction costs (Chart 11). Looking ahead, the strong wage growth, the shortage of labour and rising construction material

[3] For details see: Magyar Nemzeti Bank. Housing Market Report, October 2016, Box 3. link

Chart 12: 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

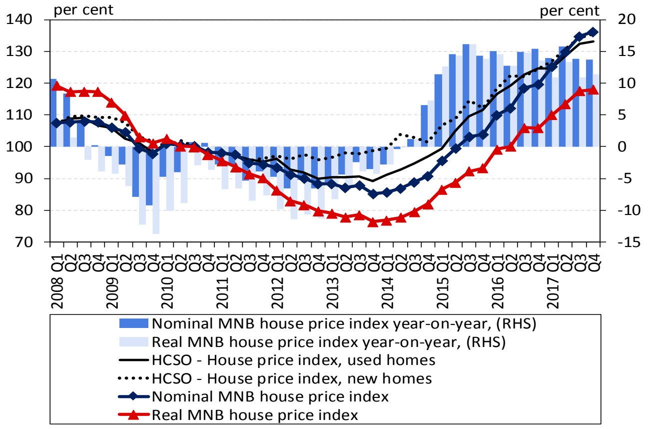
prices may jointly reduce the profitability of developers, as supply-side adjustment may lead to slower house price appreciation.

Banks reported substantial growth in loans for the financing of housing projects. While in first half 2017 conditions on loans disbursed for the construction of commercial real estate eased, according to banks' responses these conditions remained constant in the second half of the year. Looking at the expectations of the respondents to the Lending Survey, no significant change in financing conditions is likely to occur in the first half of 2018 either. In the case of housing projects, banks observed a strong increase in demand throughout the year, while financing conditions remained structurally unchanged (Chart 12). In addition to the opportunities provided by the favourable level of interest rates, demand growth was strongly fostered by the positive real estate investment sentiment and the improving situation on the commercial real estate market.

3. CURRENT HOUSING MARKET TRENDS

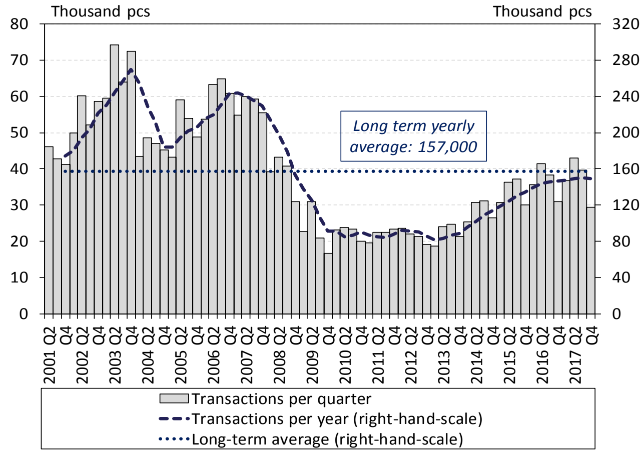
In 2017, the upswing on the domestic housing market continued, which was also reflected in the ongoing rise in house prices and the increase in the number of market sales transactions. Last year, house prices rose by 13.8 per cent in nominal terms on a national average, while the annual real growth rate amounted to 11.4 per cent. On a national average, housing prices are still below the level justified by the economic fundamentals, while prices in Budapest have slightly exceeded that level. According to the preliminary data, the rise in house prices may continue in 2018 as well. Within domestic housing market turnover, there is a shift of focus from Budapest to rural settlements. The annual growth rate of house prices in Budapest is gradually decreasing, and at the end of 2017 it fell to 13.3 per cent from 18 per cent recorded at the end of 2016, which, however, is still a high rate in view of the price level which has developed in recent years. Nevertheless, the number of sales transactions in Budapest has already decreased compared to the previous year. The number of residential construction permits and newly constructed homes continued to rise, but the renewal rate of the stock of dwellings – which could be boosted by further supply growth – is still very low in a regional comparison. One of the key findings of the interviews with housing market participants is that the residential property development market and the construction industry face a number of constraints, which are hindering healthy growth in the supply of dwellings. There is a shortage of skilled labour of roughly 40,000 workers in the construction industry, which makes capacities tight. The uncertainty in relation to the preferential 5 per cent VAT rate on new dwellings stretches capacities even more, as developers are making efforts to complete the projects by the end of 2019. Only the largest residential property developers are planning for the period after 2020, and for the time being, even only a very limited number of projects. In addition to the foregoing, construction capacities are absorbed in large volumes by the commercial real estate market and the government sector.

Chart 13: House price developments



Note: In the case of house price indices (left scale) average of 2010 = 100%.
Source: HCSO, MNB

Chart 14: Quarterly and annual number of housing market transactions



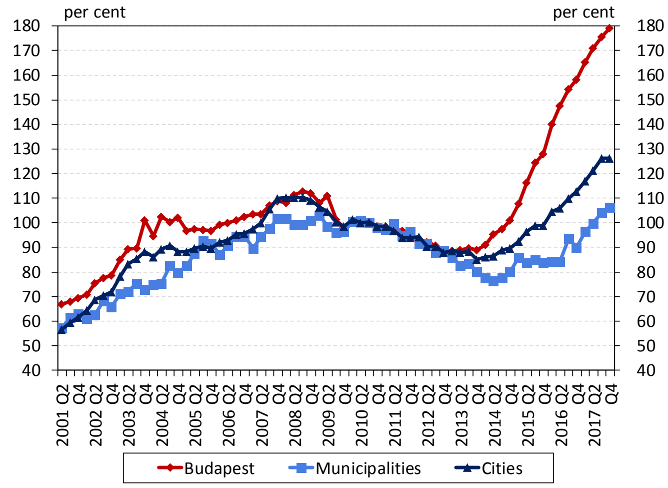
Note: 2017 estimate based on preliminary HCSO figures.
Source: HCSO, MNB

3.1. Domestic housing market developments

Hungarian housing prices continued to rise in 2017. According to the MNB's house price index, in 2017 domestic house prices rose by 13.8 per cent in nominal terms, corresponding to an increase of 11.4 per cent in real terms (Chart 13). Accordingly, the annual nominal growth rate of house prices was two percentage points lower than the figure of 15.8 per cent recorded at the end of 2017 H1. In the second half of the year, the quarterly growth rate of prices slowed, reaching just 1 per cent in nominal terms and 0.4 per cent in real terms in the fourth quarter. However, this does not necessarily mean that the growth in house prices stopped, since at the end of 2015 and 2016 – presumably also due to seasonal factors – a similar slowdown was observed in the quarterly change in house prices. The HCSO's indices for prices of new and used homes rose by 7.4 per cent and 12.3 per cent in nominal terms, respectively, while in terms of the quarterly growth rates, the HCSO's index for the change in the prices of used homes shows a deceleration for year-end, similarly to the MNB index. On the whole, according to the MNB's house price indices, the level of domestic house prices, in nominal terms, exceeds the level recorded at the end of 2008 by 26.3 per cent, and in real terms prices also reached the pre-crisis level.

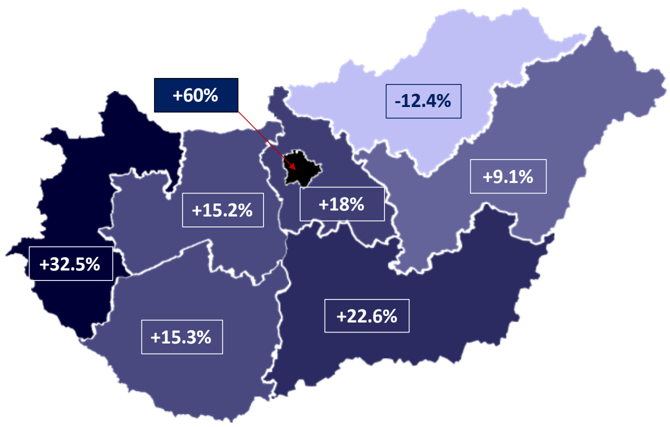
The number of housing market transactions rose in 2017. Last year, 149,000 transactions were concluded on the domestic housing market, up roughly 2 per cent on the number of transactions in 2016 (Chart 14). This brought the

Chart 15: MNB nominal housing price index by settlement type (average of 2010 = 100%)



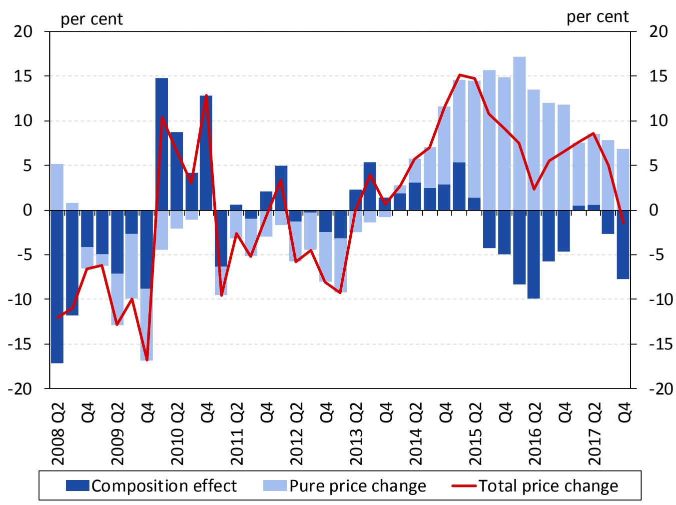
Source: MNB

Chart 16: Development of urban house prices by region between 2008 and 2017 Q4 (%)



Source: MNB

Chart 17: Decomposition of the total house price change based on the HCSO indices



Note: Annual percentage change.

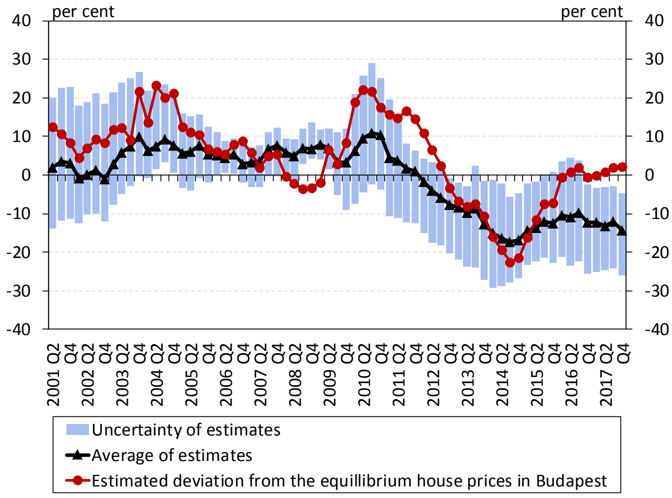
Source: HCSO

number of market transactions even closer to its long-term average of 157,000. Annual market turnover in the capital fell by 7.3 per cent in 2017, while the number of transactions outside of the capital rose by 6.4 per cent on an annual basis. When limiting this to municipalities only, the annual growth in turnover was 7 per cent. All of this is a good reflection of the shift in focus between regions and settlement types, as on the whole, based on the number of transactions, the weight of Budapest within sales dropped, while that of the smaller rural settlements rose.

In Budapest, the rate of house price appreciation has decelerated. For four years now, i.e. since the start of the turnaround on the housing market, there has been considerable heterogeneity in house price developments by settlement type. While at the end of 2017, on a national average, nominal house prices exceeded the level recorded at the end of 2013 by 60 per cent, during the same period price appreciation amounted to 101 per cent in the capital, 49 per cent in provincial cities and 33 per cent in municipalities. In the capital, after the strong price appreciation, the annual growth rate of prices already declined continuously in 2017. While prices in the capital appreciated by 23.6 per cent in 2016, this rate had decelerated to 15.9 per cent by the end of 2017 H1 and to 13.3 per cent by the end of 2017. However, in view of the high level of house prices, the latter growth rate is still not negligible. By the end of 2017, the annual nominal growth rate of urban home prices decelerated somewhat, dropping to 12.2 per cent from 14.2 per cent at the end of the first half-year. On the other hand, the growth rate measured in municipalities was higher and similar to that registered at the end of the previous half-year, i.e. 18 per cent, which was also attributable to the fact that, to date, the house price appreciation observed here was very moderate (Chart 15).

At a regional level, there are major differences in house price developments. In the medium term, domestic house price developments vary substantially not only by settlement type, but also regionally. Compared to the end of 2008, nominal urban home prices are the highest in the capital, exceeding the level then recorded by roughly 60 per cent. In addition, major appreciation in house prices was observed in the towns in the West Transdanubian and South Great Plain regions, where house prices exceeded the 2008 Q4 level by 32.5 per cent and 22.6 per cent, respectively. On the other hand, the housing market of the North Hungary region shows a substantial lag compared to the rest of the country, where urban home prices – uniquely among the regions – are still below the level recorded in 2008, by roughly 12.4 per cent in nominal terms (Chart 16).

Chart 18: Deviation of house prices from the estimated level justified by fundamentals, nationally and in Budapest[4]



Source: MNB

With rising house prices, it was cheaper real estate that changed hands. Breaking down the total change in house prices, i.e. the way the average prices of residential properties involved in sales transactions have changed, into pure price change and composition effect, based on HCSO's data, it is clear that despite the continuous rise in house prices, the composition of the homes sold shifted towards cheaper properties in 2017 (Chart 17). This is attributable to two factors. On the one hand, according to market information, at the start of the housing market boom, the first buyers to appear were affluent ones with savings, presumably purchasing higher value real estate, followed by buyers purchasing smaller value property. On the other hand, at present the increased level of house prices may prompt many buyers to purchase smaller, and thus cheaper real estate.

On a national average, house prices remain below the level justified by macroeconomic fundamentals. While domestic house prices rose substantially with the turnaround in the housing market in 2014, the upturn on the housing market took place in parallel with strong, continuous improvement in economic fundamentals, which influence the market. In the past years, the real income of households has shown a steady annual growth rate of 3–4 per cent, while long-term unemployment fell below 2 per cent. On the whole, according to our calculations, real house prices on a national average are still below the level justified by economic fundamentals. Real house prices in Budapest reached the level justified by the fundamentals several quarters ago and even exceeded this level slightly (Chart 18). Although the level of overvaluation has not increased substantially in the past quarters and is moderate for the time being, it is essential to closely monitor the market (Box 1).

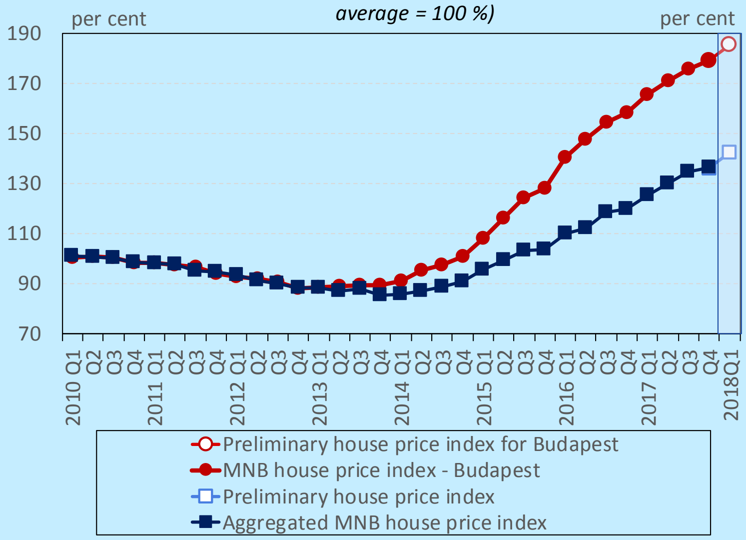
BOX 1: PRELIMINARY ESTIMATE OF HOUSE PRICE INDEX BASED ON DATA PROVIDED BY REAL ESTATE AGENCIES

Hungarian real estate market developments, and particularly the housing market trends, have changed radically in recent years. The turnaround on the market started in 2014, which was perceivable both in the appreciation of house prices and the rise in the number of sales. After this turnaround, domestic house prices appreciated on average by 3 per cent and 10.7

[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 income from the average of the indicator calculated between 2001 and 2016. 2. Estimation of the long-term equilibrium of Hungarian house prices driven by macroeconomic fundamentals by means of a vector error correction model (VECM). For the detailed methodology see: Tamás Berki – Tibor Szendrei (2017): *The cyclical position of housing prices – a VECM approach for Hungary*, Magyar Nemzeti Bank, OP 126. 3. Estimation of the level of Hungarian house prices driven by macroeconomic fundamentals by means of a dynamic OLS model. 4. Deviation of Hungarian house prices from the equilibrium by means of a structural model used for forecasting house prices. For more details, see: Magyar Nemzeti Bank: Housing Market Report, October 2016, Box 1. Deviation of house 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.

per cent in quarterly and annual terms, respectively, throughout the country. The rise in house prices was even faster in the capital: after 2014, the average rate of quarterly and annual appreciation was 4.6 per cent and 18.5 per cent, respectively. The housing market and house price developments are of the utmost importance in terms of financial stability, and thus it is important that the central bank and market participants have an accurate and current picture of developments in the latter. The domestic house price statistics (the MNB's house price index and the HCSO's house price indices), which are built on housing market transaction data collected by the National Tax and Customs Administration, are available only with a substantial lag, i.e. roughly 4 months after the period under review. However, even then only 50–60 per cent of the sales transactions concluded in the respective period are available, which complicates the formulation of a current view on the housing market. As a result of these factors, in cooperation with several major housing market real estate agencies, the MNB estimates preliminary house price indices, relying on the sales data they collect. With the assistance of these indices, the central bank and market participants can obtain a more up-to-date picture of the housing market's key indicator, the trends in house prices.

Preliminary house price indices for the country and Budapest (2010 average = 100 %)

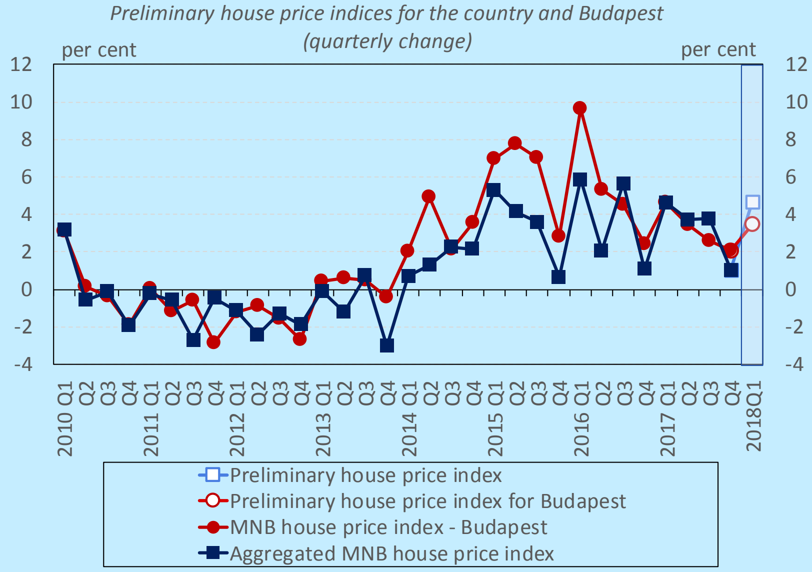


Source: Housing market real estate agent database, MNB calculations

The housing market real estate agent database, which underlies the calculations, contains roughly 137,000 anonymous housing market sales transactions concluded between 2007 and March 2018. This represents roughly 4,000–5,000 housing market transactions quarterly. Breaking it down to further units by region and settlement type – also used for the estimation of the MNB's house price index – we end up with 300–400 transactions per category. The low number of city and municipality observations broken down by regions would result in volatile indices, unfit for making consistent conclusions. In Budapest, roughly 1,500–1,600 observations per quarter (based on 2017) would be sufficient for the flash estimate. Based on the foregoing, we calculate preliminary house price indices based on real estate agent data for Budapest and for the whole of Hungary. Examining the data, we found that sales transactions managed by real estate agents are not representative of the overall housing market turnover for several reasons. The ratio of dwellings in the capital, multi-apartment residential buildings and higher value transactions are overrepresented in real estate agent data. Due to this, in estimating the preliminary house price indices, observations must be weighted based on several criteria, in order to approximate as accurately as possible the change in house prices calculated on the basis of the total market turnover.

Since the purpose of the preliminary house price index is to track future developments in the MNB's house price index with the highest possible accuracy, we run weighted regressions using models which are the closest to the MNB's house price indices' models, both for the national house price index and the Budapest house price index. We used probability weights for the regression, to ensure proper representativeness of the real estate agent sample corresponding to the total market turnover by the re-weighting procedure according to four criteria, i.e. region, settlement type, property type and price category.

Based on the results of the house price indices calculated using real estate agent data, re-weighting the regressions was only able to improve the ultimate picture of the indices to a limited degree. The higher weight of the sales transactions in Budapest in the real estate agent database provides enough observations for the calculation of an index for the capital, and it needs to be re-weighted based on fewer criteria. In the case of the national index, the strong underrepresentation of rural observations justifies relatively fewer observations and stronger reliance on re-weighting, which somewhat increased the uncertainty of the national index compared to the Budapest index. As a result of these factors, the correlation of the preliminary house price index calculated for Budapest is much stronger with the Budapest sub-index (0.8) of the MNB house

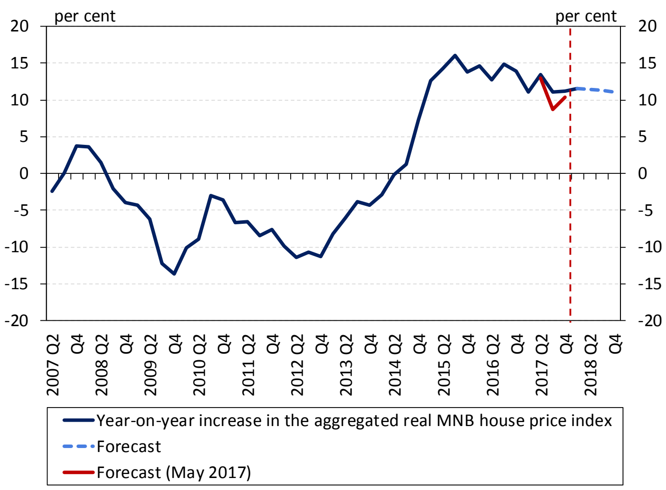


Source: Housing market real estate agent database, MNB calculations

price index than the correlation of the national preliminary house price index with the MNB's house price index (0.5); thus, on the whole, we deem the preliminary index for Budapest more reliable.

According to the results of the preliminary house price indices, house prices may have increased further in Budapest and countrywide in the first quarter of 2018 as well. According to our calculations, nominal house price in Budapest rose by 3.4 per cent in the first quarter, which is similar to the growth rate observed in previous periods, while the annual growth rate amounts to 12.1 per cent. According to our preliminary calculations, house prices at the national level may have appreciated by 4.7 per cent in the first quarter (13.8 per cent on an annual basis), which is also similar to the appreciation rates measured in previous periods. On the whole, the start of 2018 is characterised by further house price appreciation, the rate of growth has not changed considerably compared to that observed in 2017, either in the capital or countrywide.

Chart 19: Forecast of the MNB's aggregated real house price index

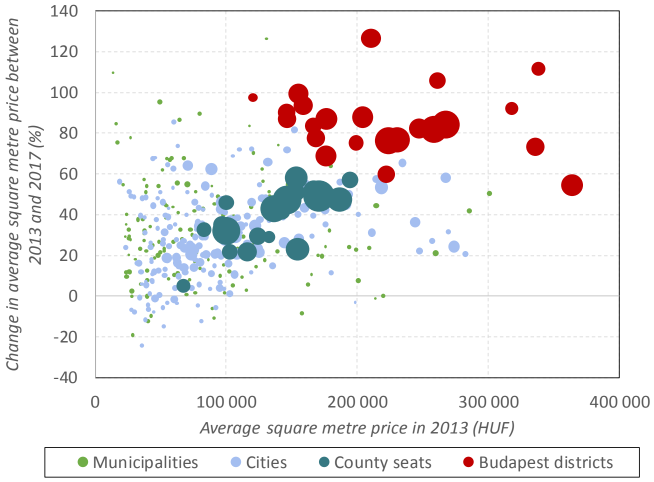


Note: Real MNB house price index for 2018 Q1, estimated on the basis of the preliminary data presented in Box 1.
Source: MNB

According to our forecast, house prices may continue to rise in 2018. For 2018, we anticipate further improvement in the macroeconomic fundamentals determining the housing market, which may continue to support the appreciation of house prices. According to our expectations, the steady growth in households' real income and the decline in long-term unemployment, which shapes longer-term income expectations, will continue this year again, contributing to further appreciation of house prices. The favourable financing environment is expected to support the upturn in the housing market this year again, possibly accompanied by persistent household demand for credit, which should contribute to a continued rise in house prices. According to our forecast, in 2018 real house prices may increase further on a national average, but the growth rate of prices may decrease gradually, albeit to a small degree: annual real house prices are expected to increase by 11.1 per cent on average (13.9 per cent in nominal terms) (Chart 19).

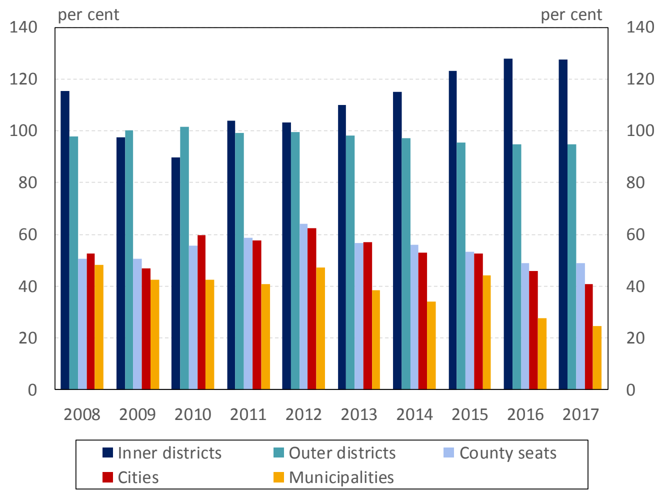
The strongest upturn in the housing market was observed where the price level was already higher in 2013 as well. The regional heterogeneity of the domestic housing market can be observed not only in the Budapest – rural Hungary relation. Examining certain Hungarian cities separately, we see the pattern that the rise in house prices was stronger in settlements where house prices were already at a higher level before the start of the market recovery, i.e. at the end of 2013, and also where the market was larger (Chart 20). The developments seen in the districts of Budapest differ sharply from the developments in rural settlements: average

Chart 20: Level of average square meter prices in 2013 and changes therein between 2013 and 2017 by settlement



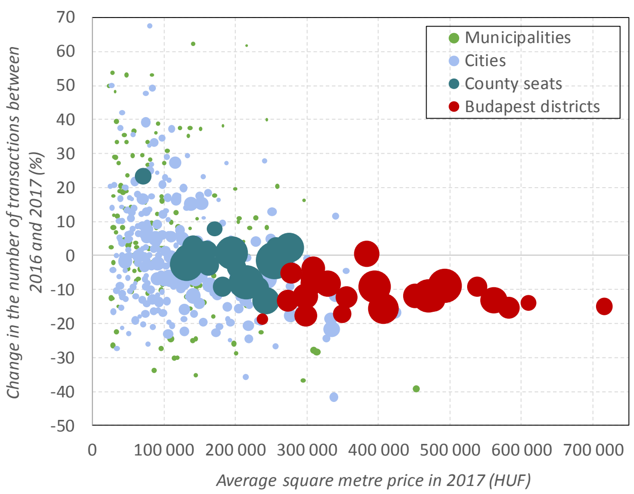
Note: The diameter of the bubbles reflects the status of the stock of dwellings on 1 January 2017. Solely based on settlements where more than 40 transactions were concluded in 2017. Source: National Tax and Customs Administration, MNB

Chart 21: Average square meter prices by settlement type (average of Budapest = 100%)



Source: National Tax and Customs Administration, MNB

Chart 22: Change in the number of transactions and level of average square meter prices



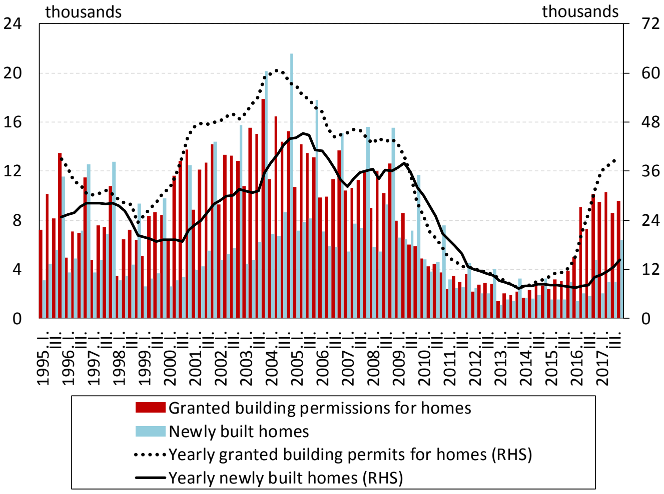
square meter prices were typically already higher in those districts in 2013 and since then they rose to a larger degree than in the rural settlements. Examining the latter separately, the aforementioned correlation also exists, namely, average square meter prices rose to a higher degree in the larger settlements that were more expensive from the outset. This phenomenon may be attributable to the fact that the upturn first commenced in the larger markets and in locations offering higher quality home supply, i.e. demand turned first to the high quality, and thus, more expensive homes.

The price gap between the capital and rural settlements widened. As regards the level of house prices, the smallest difference between Budapest and rural Hungary was observed in 2012. At that time, the average square meter prices registered in rural cities and county seats reached 62 per cent and 64 per cent of the average of Budapest, respectively, while house prices in municipalities reached 47 per cent thereof. However, thereafter the difference in the relative level of average square meter prices started to increase. By 2017, the price level observed in the inner districts of the capital exceeded the average of the capital by more than 20 per cent, while the rural settlements – despite the continuous price appreciation – became increasingly cheaper compared to Budapest. In 2017, the average square meter prices measured in the county seats stood at 49 per cent of the Budapest average, while the average square meter prices observed in cities and municipalities amounted to 41 per cent and 25 per cent, respectively, of the average for the capital (Chart 21).

In 2017, the number of transactions typically rose in the smaller and cheaper settlements. As a result of the substantial rise in house prices seen since 2014, particularly in larger settlements, the focus of transactions shifted to smaller settlements with lower price levels. In 2017, the number of market sales transactions already decreased in the capital compared to the previous year, which is presumably mostly attributable to the sharp increase in prices. By contrast, it can be observed that last year the number of housing transactions rose typically in smaller settlements, characterised by lower price levels in terms of average square meter prices (Chart 22). In the case of larger towns, this latter phenomenon may be due to the fact that yields realisable by those buying homes for investment purposes gradually declined in the case of homes in the best locations, the price of which also rose to a higher degree, and thus these buyers may have turned to locations of secondary importance in terms of investments.

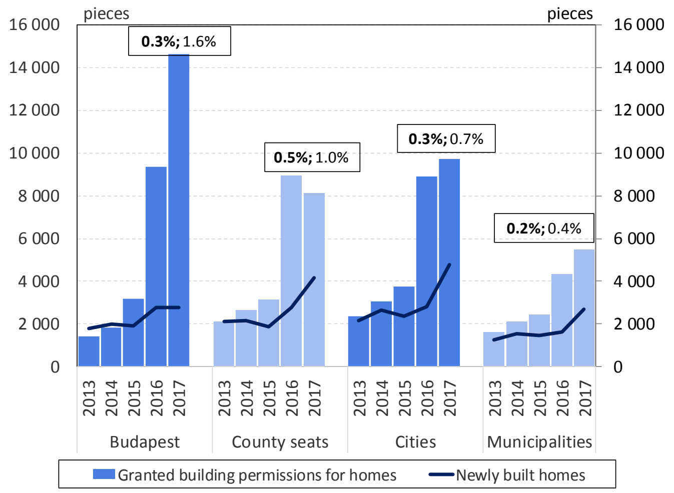
Note: The number of transactions for 2017 was calculated on the basis of 2016 Q1–2017 Q3. Number of transactions based on preliminary data. The diameter of the bubbles reflects the status of the stock of dwellings on 1 January 2017. Solely based on settlements where more than 40 transactions were concluded in 2017. Source: National Tax and Customs Administration, MNB

Chart 23: Annual dynamics of the number of construction permits issued and number of completions



Source: HCSO

Chart 24: Annual dynamics of the number of construction permits issued and number of completions by settlement type



Note: The percentage values on the chart show the renewal ratio of the stock of dwellings, comparing the number of new homes completed and construction permits issued in 2017 with the stock of dwellings at the beginning of 2017. Source: HCSO

The number of construction permits issued and the number completed new homes rose in 2017. Last year, roughly 38,000 new residential construction permits were issued in total, representing an increase of nearly 20 per cent compared to 2016 (Chart 23). In addition, the number of completions rose even more dynamically – albeit from an extremely low level – and exceeded the 2016 value by 44 per cent. In 2017, 14,400 new homes were completed nationwide, but this still represents a low level. By way of comparison, during the previous housing market cycle between 2000 and 2008, on average 33,000 new homes were completed annually. According to our estimates, the time from issuing the permit until completion rose from 5–7 quarters observed in the previous housing market cycle, to 8–9 quarters, which may have been mostly attributable to the scarce, overextended construction capacities. Thus, on the whole, the supply side of the housing market shows continuous adjustment, while further substantial growth in the completion of new homes would be desirable to ensure the sufficiently fast renewal of the domestic stock of dwellings.

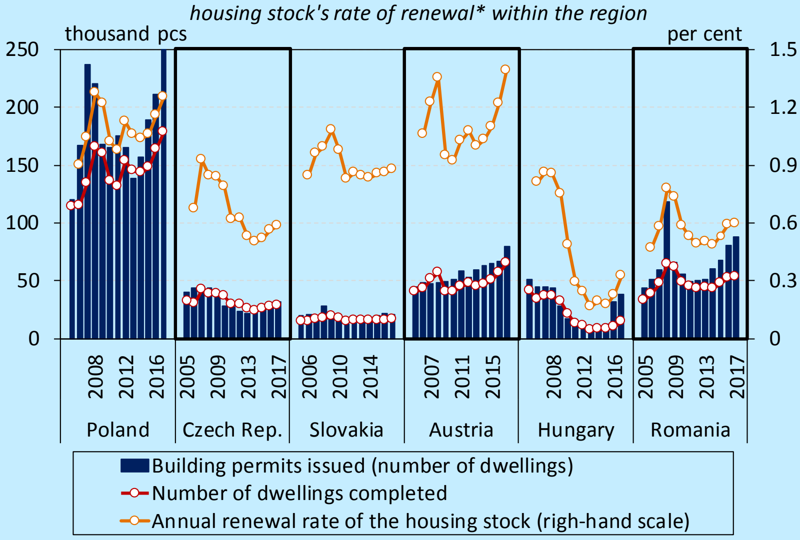
The number of residential construction permits rose to the highest degree in the capital. In 2017, roughly 14,600 new residential construction permits were issued in Budapest, representing annual growth of 56 per cent. However, the number of new homes completed in the capital amounted to almost 2,800, which does not exceed the level observed in 2016. On the other hand, in the county seats the number of new construction permits declined somewhat in 2017 compared to 2016, while it rose by 9 per cent and 27 per cent in rural towns and villages, respectively. On the whole, the number of newly built completed homes rose dynamically in 2017 in rural settlements. The renewal rate of the stock of dwellings, i.e. the number of completed new homes relative to the housing stock, may be deemed low: at the national level it amounted to 0.3 per cent in 2017. The rate was higher in the county seats at 0.5 per cent and somewhat lower in villages at 0.2 per cent. Comparing the issued construction permits to the stock of dwellings, the highest anticipated renewal rate of 1.6 per cent can be observed in Budapest (Chart 24). On the whole, the renewal rate of the domestic housing stock is at a low level, which is also clearly reflected by the regional comparison of home construction statistics (Box 2).

BOX 2: REGIONAL OUTLOOK FOR THE CONSTRUCTION OF NEW HOMES

Since 2014, the number of residential construction permits issued and completions have moved on an upward trend in all of the countries in the region. Comparing the number of completions to the number of residential construction permits issued in the previous year, we see that in Austria and the Czech Republic, in 2017 the new stock roughly corresponds to the number of residential construction permits issued one year ago. Poland and Slovakia were able to realise 75–85 per cent of the home constructions permitted in 2016, Romania 66 per cent, while Hungary only 46 per cent. In Hungary, a large part of the major rise in construction permits issued in 2016 and 2017 is attributable to the introduction of the preferential 5 per cent VAT rate applicable to the construction of new homes, and to the simplified licensing procedure. These measures attracted many new developers to the market, but for many projects construction was delayed or did not even start due to the stretched construction capacities.

Of the countries under review, at present the annual renewal rate of the stock of dwellings is the highest in Austria; the number of homes completed in 2017 is close to 1.4 per cent of the housing stock that existed at the end of the previous year, and even in the past 10 years, the renewal rate was around 1 per cent. Last year, Poland also recorded a renewal rate exceeding 1 per cent (1.25 per cent), while this rate is 0.9 per cent in Slovakia, and 0.6 per cent in the Czech Republic and Romania. In Hungary, by 2013 the annual renewal rate of the housing stock had fallen to one fifth of the 0.85 per cent rate which was registered in 2008, and it was still low (0.33 per cent) in 2017.* The renewal of the Hungarian stock of dwellings this year will be supported by the large volume of planned completions of new homes, but in the long run a substantial renewal of the housing stock can be ensured by persistent growth in the number of completed new homes.

Building permits issued for dwellings, dwellings completed and the housing stock's rate of renewal within the region*



Source: ECB, national statistics offices, MNB

The introduction of the preferential VAT rate applicable to the sale of new homes boosted development appetite. Setting out from this, we examined the sales tax practice of the countries in the region with regard to the sales of new homes. Based on the data published by the European Commission, with the exception of Austria and Slovakia, most countries in the region utilise the possibility of a reduced tax rate for new homes (table). According to the EU regulations, the individual countries may use the reduced VAT rate in the case of homes, residential constructions, renovations and alterations permitted within the framework of welfare policy measures, and thus, in most of the cases the preferential tax rate may be taken into account upon the fulfilment of certain conditions (floor area limit, value limit, purpose of use). At present, the VAT rate on sales of new homes is the lowest in Hungary and Romania (5 per cent), but the rate is also lower than 10 per cent in Poland (8 per cent) and in Slovenia (9.5 per cent). At present, in the region the highest tax rate on new homes – corresponding to the standard VAT rate – is applied by Austria and Slovakia (20 per cent). With the exception of Hungary, there is no information with regard to the definite term and temporary nature of the reduced VAT rate in any of the countries mentioned above, applying preferential tax rate on the sales of new homes. According to the effective laws, in Hungary the sales of new homes will be once again subject to the standard (27 per cent) tax rate from 1 January 2020, which will be the highest VAT rate for new homes in the region.

VAT rates applicable to the sales of new homes in the region

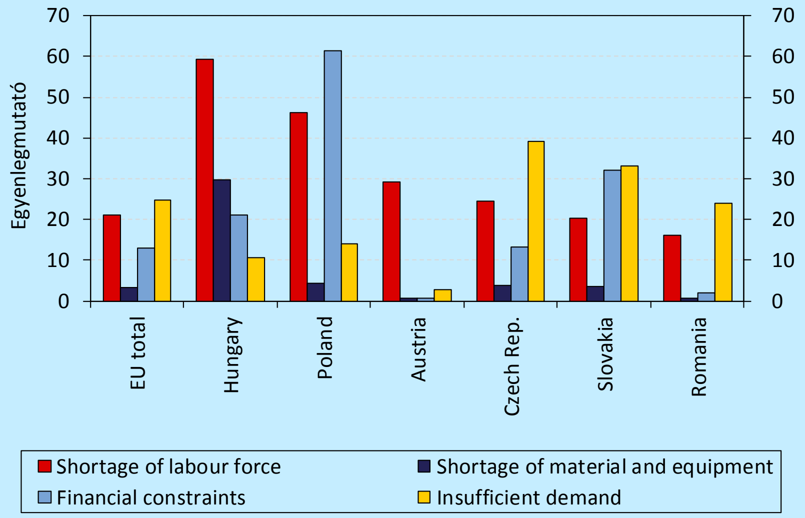
Country	**Standard VAT rate**	**VAT rate for new homes**	**Note**
Austria	20%	20%	

* The data related to the residential construction permits show the aggregated number of homes indicated in the construction permits. The calculation of the annual rates of renewal is based on the estimated existing housing stock in the case of several countries.

Czech Republic	21%	15%	In the case of new flats up to 120 square meters, and in the case of houses up to 350 square meters.
Poland	23%	8%	In the case of new flats up to 150 square meters, and in the case of houses up to 400 square meters; in the case of larger properties, the standard VAT rate is applied to the part exceeding the above parameters.
Hungary	27%	5%	Until 31 December 2019, in the case of new flats and houses not exceeding 150 and 400 square meters, respectively. Properties not meeting these criteria are subject to the standard tax rate of 27 per cent.
Romania	19%	5%	In the case of flats below 120 square meters, not exceeding the value of RON 380,000 (~HUF 25.4 million).
Slovakia	20%	20%	
Slovenia	22%	9.5%	Up to 120 square meters, if the home is purchased for own use.

Source: European Commission (http://ec.europa.eu/taxation_customs/sites/taxation/files/resources/documents/taxation/vat/how_vat_works/rates/vat_rates_en.pdf).

Factors limiting the construction sector's building activity

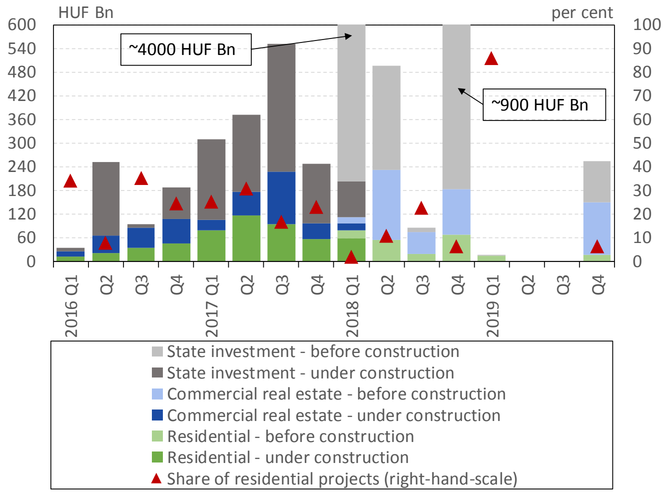


Note: Seasonally adjusted data, the chart shows the survey results as of March 2018.
Source: European Commission - Economic Sentiment Indicator

Examining the factors hindering construction output on a regional level, based on the results of the surveys, performed and published regularly by the European Commission, it was found that labour shortage is a problem in all of the countries under review, but this impacts the Hungarian construction industry the most. The labour shortage in construction is also a production hindering factor in Poland and Austria, where it is well above the aggregate EU figure. The balance indicator, showing the degree of the problem, shows the lowest value in the region for Romania, where it is even below the EU aggregate figure. The shortage of material and equipment also affects Hungary the most; in other countries in the region, a much smaller proportion of the respondent companies mention this factor as hindering production. The presence of financial constraints represents a problem mostly for the construction industry in Poland and Slovakia, while in the Czech Republic, Slovakia and Romania insufficient demand is the factor that hinders construction the most.

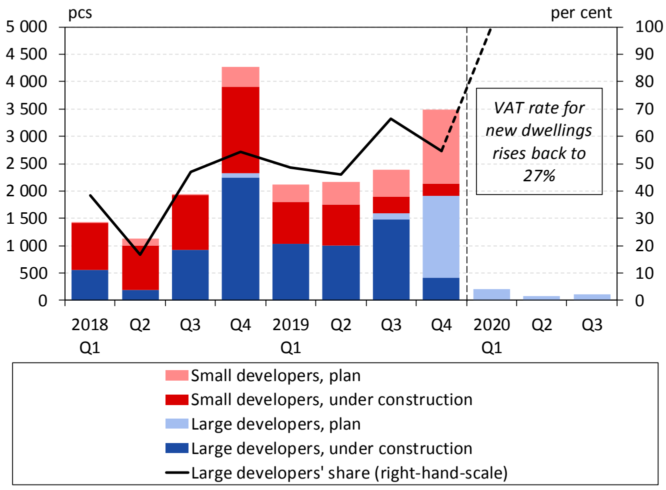
The residential development segment accounts for one-quarter of construction projects. According to 2018 Q1 data, residential property developments account for roughly 22.5 per cent of domestic construction projects which are currently active, while commercial property developments account for 22.5 per cent, and general government investments (e.g. infrastructure, institutions) account for 55 per cent (Chart 25). Residential property developments are faced with the scarcity of construction capacities in several

Chart 25: Distribution of the estimated value of construction projects by the start of the project and sector



Note: The chart was prepared based on the status of the ibuild.info database as of 10 March 2018. Within general government investments to be constructed starting in 2018 Q1, the estimated value of the Paks II project accounts for a large share of the total value of HUF 4,000 billion. Within general government investments to be constructed starting in 2018 Q4, the estimated value of the Danube – Tisza Canal project accounts for a large share of the total value of HUF 900 billion.
Source: ibuild.info.

Chart 26: Breakdown of new homes under construction and planned in Budapest in 2018 Q1 by quarter of planned completion



Note: Large home developers include developers with at least 250 homes under construction or planned.
Source: ELTINGA – Housing report

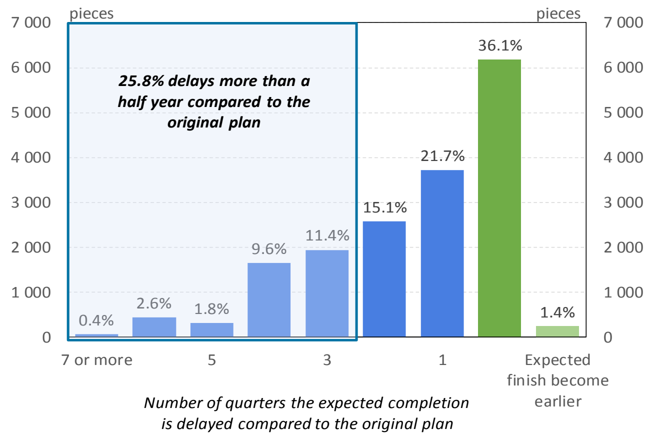
respects. On the one hand, the labour shortage perceived by construction companies alone curbs the pace of developments. On the other hand, due to the limited period applicable to the preferential 5 per cent VAT rate for new residential developments, lasting until the end of 2019, residential property developers are making efforts to complete their projects during the preferential period, which necessitates more intensive utilisation of capacities. Thirdly, the commercial property developments and the considerable volume of general government investments have major capacity absorbing impact on residential property developments, and this pattern was also confirmed by the experiences gained from the in-depth interviews with senior executives and experts of housing market companies (Box 3).

3.2. New dwelling supply in Budapest

Developers plan a low number of completions in the capital from 2020. According to data from the Budapest Housing Report, at present there are roughly 17,000 new homes under construction in Budapest. Residential property developers plan to complete roughly 8,800 new homes in 2018, a large number of which – almost 4,300 homes – are planned for the fourth quarter. Residential property developers in Budapest plan to complete even more, roughly 10,000 homes, in 2019, while from 2020 practically no completions of new homes are planned (Chart 26). This is due to the uncertainty regarding the preferential VAT rate applicable to new homes, since from then – according to the laws currently in force – the VAT rate on new homes will once again be 27 per cent. Nevertheless, market participants anticipate an extension of the preferential rate. This gives rise to uncertainties, and thus only larger developers plan for after 2020 and only a negligible number of projects. Approaching the end of 2019, the ratio of the projects of smaller developers – accounting for roughly 50 per cent of the current residential developments – will drop; these enterprises are affected even more strongly by the labour and capacity shortage, and thus the limited period of the preferential VAT rate exerts stronger pressure on them (Box 3).

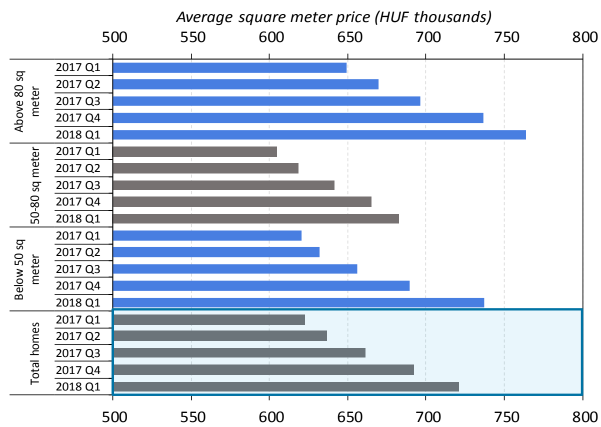
Roughly two-thirds of the new residential developments currently under construction in Budapest are behind schedule. The limited period applicable to the preferential VAT rate on new homes stretches the already limited construction capacities even more. In addition, commercial real estate developments and general government investments absorb substantial capacities to the detriment of residential developments. All of these factors result in major delays in the new home projects currently under construction. Only roughly 37.5 per cent of the new homes currently under construction in Budapest are on schedule,

Chart 27: Breakdown of new homes under construction in Budapest by the number of quarters the expected completion is delayed compared to the original plan



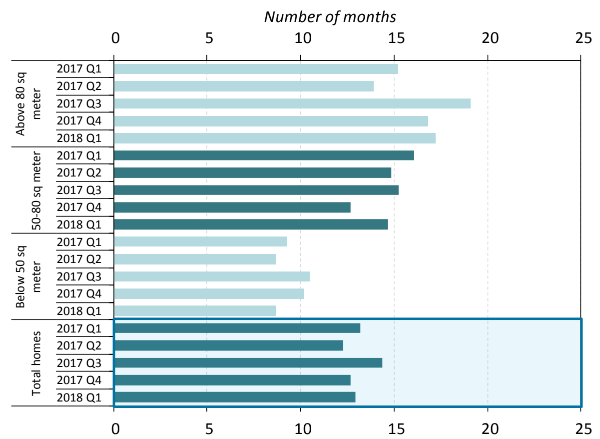
Note: Based on 2018 Q1 data.
Source: ELTINGA – Housing report

Chart 28: Average square meter price of new homes in Budapest



Note: Based on still unoccupied, unsold homes.
Source: ELTINGA – Housing report

Chart 29: Expected time to sell[5] new homes in the capital



Source: ELTINGA – Housing report

while the planned completion data has been postponed for roughly two-thirds of the projects. 21.7 per cent of the new residential developments in Budapest will be one quarter, 15.1 per cent of them two quarters and roughly 25.8 percent (4,400 homes) more than half a year late (Chart 27).

Average square meter price of new homes in the capital exceeded HUF 700,000 at the beginning of 2018. The supply-side square meter prices of new homes in Budapest rose substantially in 2017, and this growth also continued in the first quarter of 2018. By then, the average square meter price of new homes on offer in the capital amounted to HUF 721,000, up 16 per cent compared to 2017 Q1. However, examining new homes based on their size, deviations in the change of square meter prices can be observed. The average square meter price of homes with floor space less than 50 square meters rose by 19 per cent in one year, while of those with floor space of over 80 square meters rose by 18 per cent, but the square meter price of dwellings with floor space of 50-80 square meters rose to a smaller degree (Chart 28). The above-average ask price growth of dwellings with smaller floor space presumably reflects the increased demand for these homes, as the high price level may divert many purchasers to smaller floor space, and also because those buying for investment purpose typically look for smaller dwellings.

The time to sale of new dwellings with larger floor space rose, while it decreased in the case of the smaller ones. Developers can presumably sell dwellings included in the new offering in 2018 Q1 in 13 months, which is a minor decline year on year. This reflects moderate strengthening in developers' bargaining position. Smaller new homes, up to a maximum of 50 square meters, sell the fastest, i.e. within roughly 9 months, which also slightly decreased compared to 2017 Q1. In addition to the foregoing, the expected time to sale of new homes with floor space over 80 square meters rose above 17 months, which may indicate that demand for larger – and hence more expensive in terms of ultimate price – new homes may have somewhat declined (Chart 29). The low expected time to sale of dwellings with smaller floor space reflects high demand for such homes.

[5] The expected time to sell new homes is calculated as follows: based on the dwellings sold in the given quarter, we first determine the probability of sale, and then assuming the latter to be constant we determine the expected time to sell the homes according to the following formula, expressed in months: (2-probability of sale)/2/probability of sale *3.

BOX 3: SUMMARY OF THE MARKET CONSULTATIONS WITH HOUSING MARKET PARTICIPANTS

In order to obtain a more thorough understanding of domestic housing market developments, in March 2018 we conducted in-depth interviews with key market participants. In the following, we present the common, synthesised opinion of the senior executives and experts of the respondent companies.

Factors shaping demand in the housing market

Respondents agreed that the key driver of the demand observed in recent years on the housing market was the appearance of purchases postponed during the crisis, which was later followed by demand for investment purposes. The magnitude of postponed demand may have been as high as 100,000 transactions, of which 40,000–45,000 transactions involved new homes. The appearance of postponed demand in 2014 first caused an upturn in the market of used homes, which was attributable to the minimal availability of new supply resulting from the reduced volume of construction of new homes during the crisis. The interviews revealed that at the beginning of the upturn affluent purchasers with savings were the first to buy, typically without relying on loans; however, later on the ratio of those purchasing from loans gradually rose and is still rising: according to the estimate of market participants the current ratio of buyers relying on borrowing is around 30–40 per cent.

Some respondents believe that households traditionally regard a real estate purchase as an investment of stable value. At the beginning of the upturn, investors first appeared at the best (primary) locations (mostly in the capital); later on, as a result of the price appreciation and shrinking yields, they turned to secondary locations (industrial and university towns), and thus a slight lag may be perceived between the upturn of the primary and secondary investment locations. Dwellings purchased for investment purposes most often expand the supply side of the rental market, which also bears significance in terms of mobility and tourism.

As regards the measures regulating the housing market, most of the experts believed that the impact of the Home Purchase Subsidy (HPS) for families, amended in 2016, only had a fine-tuning effect on demand, because, while it substantially boosted the number of inquirers, the ratio of realised transactions remained relatively low. Others think that the impact of HPS was reflected in the price appreciation of building plots suitable for the construction of family houses. The interviews also revealed that the temporary nature of the preferential 5 per cent VAT rate, - which was also introduced from the start of 2016 for the sales of new homes until the end of 2019, - generated brought-forward demand, but the introduction of the allowance had no perceivable price reducing effect in the case of condominium dwellings, since there was a substantial rise in prices in the meantime.

The presence of non-residents in the Hungarian housing market shows strong geographic concentration: they appear the most strongly in Budapest, and particularly in some of the inner districts, while they are also active in the Balaton region and in some counties of West Hungary. The respondent market participants believe that there is no major volatility in the housing market presence of non-residents as it used to be a constant factor in the past as well.

Supply side of the housing market: challenges and frictions in residential property development and in the construction sector

The strong upturn in the residential property development market from 2016 generated a change in the composition of development companies; according to the respondents, the sector can be divided into three categories: (i) the larger companies, which proceeded with developments during the crisis as well and (ii) the larger companies, which temporarily suspended their activity during the crisis, joined in large numbers by (iii) smaller, non-professional investors, coming from other functional areas, entering the market in the hope of fast profit. At present, 50 per cent of the developments are executed by this latter group and, in the opinion of the respondents, their projects involve both quality and delivery risks. Looking ahead, according to the respondent market participants, home completions may peak in 2018, as in Budapest alone 8,000 new homes are slated for completion. On the other hand, the number of construction permits issued may decrease already from 2019, as a result of which we may face shrinking supply. All of this is mostly attributable to the uncertainty regarding the VAT rate applicable to new homes and the shortage of labour and capacity. The respondent experts are of the opinion that on the whole, the renewal of the housing stock takes place at a slow pace, and thus the housing market still has growth potentials, but the adjustment of the supply side is hindered by three key constraints: (1) uncertainty related to the preferential VAT rate of new homes; (2) labour shortage in the construction sector; (3) capacity absorbing impact of public investments and commercial property developments.

The respondents essentially approved the introduction of the preferential 5 per cent VAT rate for new dwellings , but in their opinion, the number of new residential developments rose too steeply in 2016 and a more balanced growth would have been more favourable. Among the factors hindering the smooth functioning of the market they mentioned the uncertainty around the VAT as key factor. Although the presently effective regulation allows the use of the preferential tax rate on a temporary basis only until the end of 2019, the market participants deemed the existence of the preferential rate favourable and they anticipate the prolongation of the preferential period. Due to the regulatory uncertainty regarding the preferential VAT rate, developers usually do not start projects, whose completion extends past 2020; at present such projects are launched only by the largest market participants. It is the uniform opinion of the respondents that it would be worth making a long-term decision on the VAT issue as soon as possible, as (i) most of the developers are not starting new projects until the decision is made, which leads to contraction in supply; (ii) all developers try to complete the constructions in progress and planned by the end of 2019, which results in capacity bottlenecks on the contractors' side; (iii) the last rushes expected until mid-2018 put extraordinary pressure on the licensing authorities as well; (iv) the final gross purchase price of homes completed near the end of 2019 is unclear, which also worsens the buyers’ borrowing opportunities.

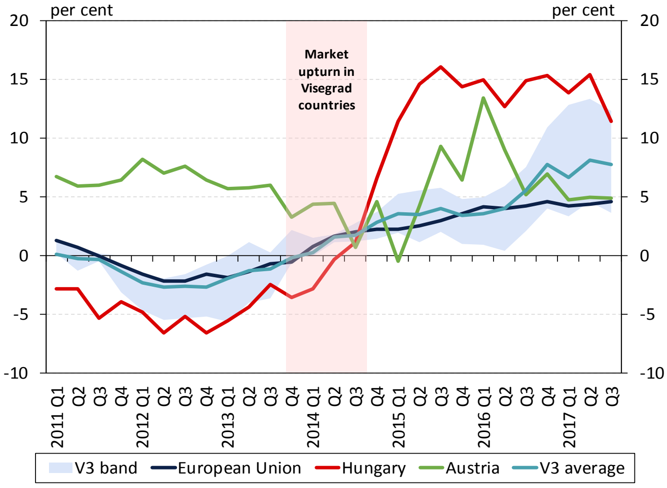
After the outbreak of the crisis, part of the contractor capacity (mostly human resources) that built up during the real estate market boom at the beginning of the 2000s, continuously eroded within just a few years. According to the respondent housing market participants, currently there is a shortage of roughly 30,000–40,000 skilled workers in the construction sector. It is a uniform opinion that the vast majority of professionals, ousted from the domestic construction sector during the crisis, went abroad and many of those, who left the country were talented experts, also speaking foreign languages, and thus at present Hungary suffers from the largest shortage among these professionals. On the whole, the quality of the labour force deteriorated in Hungary compared to the previous housing market cycle and the problem of labour shortage is further exacerbated by the low mobility of the labour force. At the same time, it was mentioned during the interviews that the general labour shortage in the construction sector impacts the various actors of the sector and the residential development market differently: the labour shortage is less likely to generate acute problems for the largest contractors and residential development companies. This is due to the fact that those companies that continued to build and develop during the crisis as well, and also duly paid their subcontractors, enjoy the trust of their partners, as a result of which, even in the case of higher remuneration, they do not trade in duly paying large companies for small developers and contractors that capitalise on favourable market trends with no long-term vision.

Respondents said that it was generally true that the cost of construction activity is comprised roughly half-and-half of construction material and labour cost, but depending on the complexity and human labour demand of the respective task, the proportion of either cost factor may increase. Respondents were of the opinion that the construction of homes is a more manual labour- and control-intensive task compared to the construction of commercial properties, and thus residential projects are usually characterised by a higher proportion of labour costs. According to the market participants, in the past two years a growth of roughly 50–80 per cent was observed in the cost of construction. Labour costs doubled during this period, while the price rose considerably for some materials (reaching as much as 60 per cent), while for some others it appreciated more moderately (by 20–30 per cent). There is an often mentioned trend in recent years, according to which the price of some construction materials increased without any rise in the base material costs, due to the fact that construction material traders adjusted their prices to the demand and supply conditions. In addition to the price appreciation of construction materials, as regards their availability, market participants reported longer delivery times; however, similarly to the labour force, the availability of construction materials also affects larger and smaller developers to a different degree. Larger developers often book capacities in advance. It was mentioned that at the start of the upturn in the housing market, brick manufacturers conducted a market survey to assess the annual material demand, but later on the launched production capacities proved to be underestimated due to the demands of new market entrant smaller developers; however, due to the uncertainty regarding the preferential VAT rate, manufacturers are not currently launching new plants.

The growth observed in contractors' fees generates increasingly favourable conditions for bringing back Hungarian experts working abroad; most of the respondents were of the opinion that the current level of labour fees has more or less stopped the emigration of further construction experts and workers.

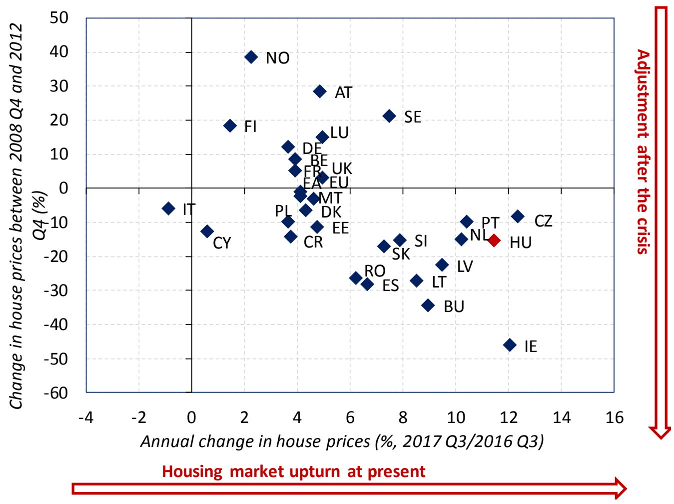
According to the interviews, at present 15–20 per cent of the construction capacities are allocated to residential developments, while the largest part of capacities is absorbed by public investments. It is the uniform opinion of the respondents that out of the orders available to the construction market all actors clearly give preference to public investments, followed by commercial property construction. The capacity absorbing effect of public investments is attributable to the higher level of contractor fees and the possibility of working longer resulting from the larger size and value of these developments. It was mentioned during the interviews that public projects come with higher responsibility and – due to the higher penalties and the tighter deadlines – with higher risk, nevertheless, it is in exchange for higher fees. From the contractors' point of view, the construction of homes is a much more control- and human resource-intensive process compared to the public investments and commercial property constructions (office buildings, retail buildings, industrial-logistics properties, hotels), which reduces the profitability of residential construction work. Due to these factors, labour capacity flows primarily to public investments and secondarily to the construction of commercial properties, and thus the activity of the largest general contractor companies is concentrated in these two areas. The overburdening of the contractors is well illustrated by the fact that it is impossible to receive an offer for the commencement of a project within one year from general contractors with solid professional background, as their capacity is fully tied up. In relation to the absorption of capacities by public investments, several market participants mentioned that in their opinion the placement of these investments onto the market in a countercyclical fashion was not ensured, which strengthens the uneven utilisation of the construction industry seen since the political transition. As a result of this, the periods of maximum utilisation of capacities and considerable surplus capacity steadily alternate with each other, while the slow build-up and fast attrition of labour capacity would call for steady utilisation.

Chart 30: Annual growth rate of house prices in a regional comparison



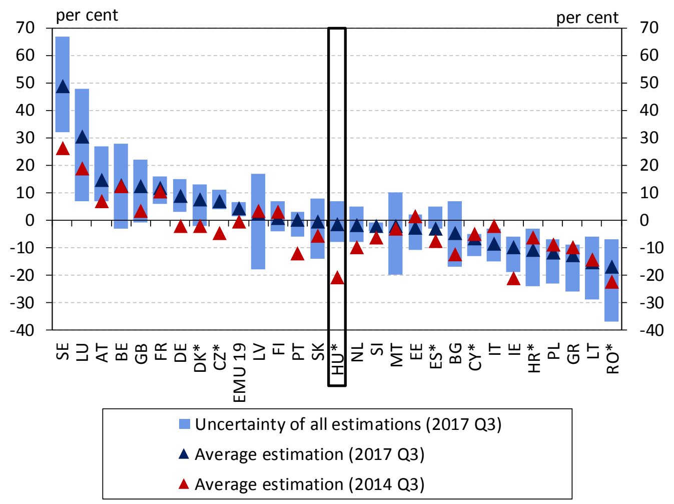
Source: Eurostat, MNB

Chart 31: Changes in nominal house prices after the crisis and at present in a European comparison



Source: Eurostat, BIS, MNB

Chart 32: Deviation of house prices from the level justified by estimated fundamentals in a European comparison



*Note: In the case of countries marked with *, based on 2017 Q2 figures. Hungary based on ESRB estimate.*
Source: ESRB, Risk Dashboard

3.3. House price developments in an international comparison

In Hungary, compared to the countries in the region, the upturn on the housing market started somewhat later. Examining the Visegrád countries, the growth rate of house prices in recent years follows similar trends as in Hungary. House prices in Hungary rose for the first time year on year in 2014 Q3, while in the Visegrád countries this took place in 2014 Q1. However, starting from 2015 house price appreciation in Hungary was much more dynamic than in the Visegrád countries. While the annual rate of price appreciation in Hungary was steadily around 15 per cent, in Poland, the Czech Republic and Slovakia the nominal price increase was 3–5 per cent in 2015 and 2016, and 5–13 per cent in 2017. The timing of the turnaround observed in the Visegrád countries coincides with the average house price dynamics recorded in the member states of the European Union. Of the neighbouring countries, Austria is an exception, since there was already steady growth in house prices prior to 2014 (Chart 30).

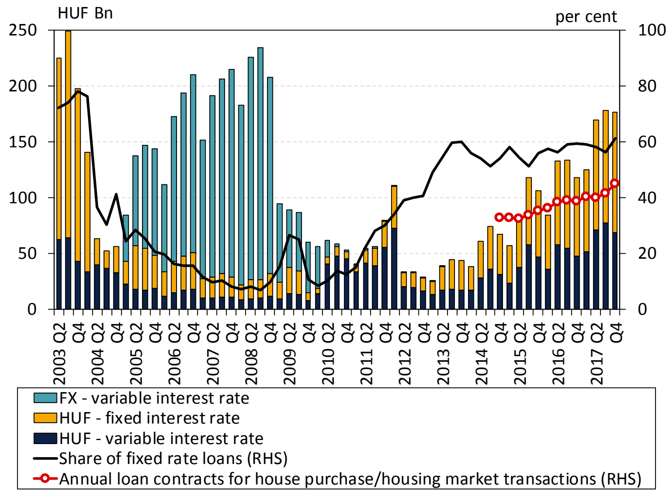
Steady house price appreciation can be observed in a number of European countries. House prices in some European countries continued to rise considerably after 2008 as well. In Norway, by the end of 2012 the level of house prices, in nominal terms, exceeded the value registered at the end of 2008 by almost 40 per cent, while house prices in Austria exceed the pre-crisis level by almost 30 per cent, in Sweden and Finland by almost 20 per cent and in Denmark by more than 10 per cent. Nevertheless, house prices in the latter countries rose dynamically in 2017 as well: Sweden recorded annual growth of nearly 8 per cent, while it was 5 per cent in Austria and Luxembourg. At present, in most of the Eastern European countries house prices are rising even more dynamically than that; however, after the crisis a considerable adjustment took place in the level of house prices in the region, and thus this latter growth may as well be regarded as a correction. In 2017 Q3, the Czech Republic and Slovakia registered annual price appreciation of slightly above 12 per cent and 7 per cent, respectively (Chart 31).

In the past three years, European house prices typically rose compared to the fundamentals. According to the measurement performed by the European Systemic Risk Board (ESRB), at the end of 2017 Q3 the level of house prices already substantially exceeded the level justified by economic fundamentals in several European countries. According to the latter calculation, in Sweden and Luxembourg house prices are above the level justified by fundamental by almost 50 per cent and roughly 30 per cent, respectively. Austria, Belgium, the United Kingdom and France registered an overvaluation of house prices of over 10 per cent. Moreover, in the case of the latter countries, the overvaluation of house prices compared to fundamentals typically rose, which – looking ahead – increases the risk of a possible correction. In the Eastern European countries, with the exception of the Czech Republic, house prices are close to (Slovakia, Hungary) or below (Poland, Romania) the level justified by fundamentals (Chart 32).

4. FEATURES OF THE RESIDENTIAL MORTGAGE LOAN MARKET

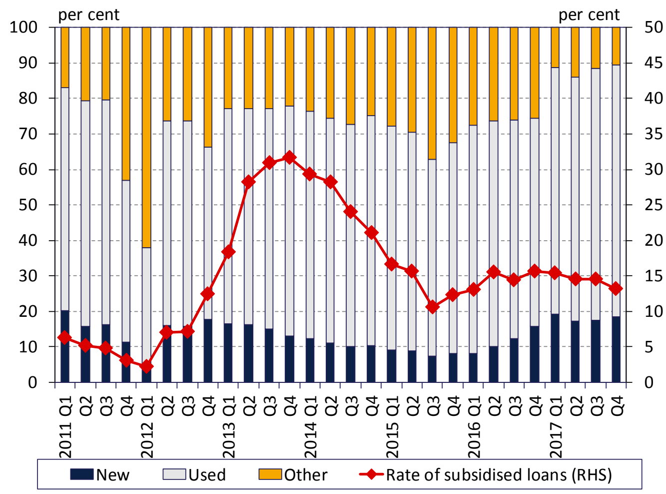
The volume of new housing loans disbursed by credit institutions rose by almost 40 per cent in 2017. Thus, new loans already amount to three-quarters of the value registered in 2008. However, contrary to the previous credit cycle, the present upturn is realised without exchange rate risk, within the limits regulated by the debt cap rules, under lower penetration of interest rate risk and in the absence of significant home equity loan withdrawals. At the end of 2017, 45 per cent of housing market transactions were already accompanied by borrowing. The volume of loans used for the purchase or construction of new homes account for 18 per cent of new loans. The increase in lending was accompanied by buoyant demand, also supported by the Home Purchase Subsidy for families. At the same time, no substantial easing took place in the supply conditions during the year: price conditions were eased, which can be also observed in the decline in average interest rate spreads. Improvement in non-price conditions is attributable to the lower share of home enlargement and renovation purposes, typically characterised by lower loan amounts and shorter maturities. Housing affordability from loans improved both on a national average and in Budapest, which supports the rise in demand further. By international standards, both the volume of outstanding housing loans as a per cent of GDP and the credit penetration is low , and thus there is further room for growth in the volume of household debt , in addition to which the effective debt cap rules continue to provide protection for households against over indebtedness.

Chart 33: Volume of new housing loans by interest rate fixation and denomination



Source: MNB

Chart 34: Distribution of housing loan disbursements by loan purpose

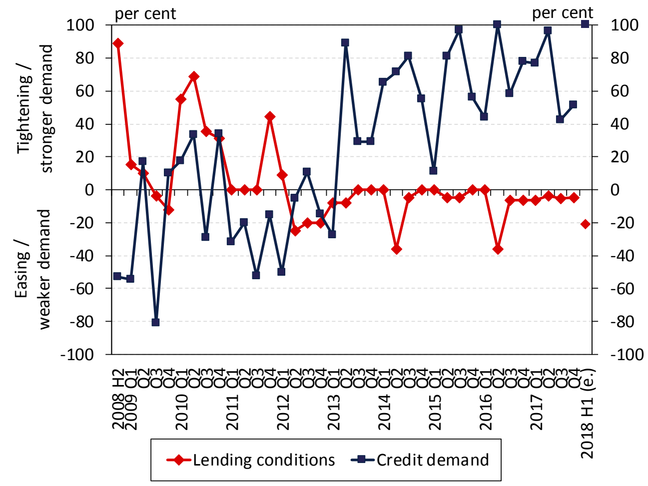


Note: Non-market loans related to HPS are classified as subsidised loans.
Source: MNB

In 2017, the disbursement of new housing loans rose by almost 40 per cent. In the second half of 2017, households drew down new housing loans in the amount of HUF 355 billion, and thus the annual volume of new loans amounted to HUF 650 billion (Chart 33), representing a growth of almost 40 per cent year-on-year. The annual volume of housing loans disbursed by credit institutions reached three-quarters of the disbursement in 2008, but there are major differences compared to the pre-crisis credit cycle. On the one hand, the volume and growth rate of home equity loan withdrawals – which played a key role in the mortgage loan market before the crisis – is not significant in the new credit cycle. On the other hand, the present upturn is realised in forint, with the prevalence of fixed-rate loans, in contrast to the pre-crisis period when foreign currency-denominated housing loans, mostly with variable interest rates, prevailed. Due to these reasons, the rise in new housing loans observed since 2013 does not carry the risks observed earlier.

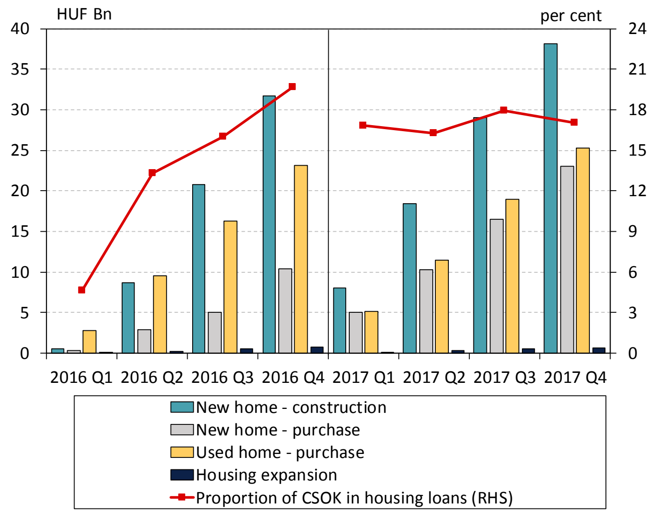
45 per cent of housing market transactions involve borrowing. In addition to the growth in the volume of lending, it can be also observed that a rising proportion of housing market transactions involve borrowing: while households resorted to bank loans for 39 per cent of transactions in the previous year, in 2017 this ratio was already 45 per cent. As regards the purpose of housing loans, the ratio of loans drawn down for the purchase or construction of new housing – which still showed an increasing trend in 2016 – stabilised last year at an average of 18 per cent, although due to the rising dynamics of new housing loans even the constant share represents strong growth in volume (Chart 34). The ratio of loans for the purchase of used homes amounted to 71 per cent in the second half of 2017, which also represents substantial 9 percentage point year-on-year growth. The expansion of loans for the purchase and construction of new and used

Chart 35: 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

Chart 36: Cumulative volume of contracts in the Home Purchase Subsidy scheme for families by purpose



Source: MNB, Ministry for National Economy

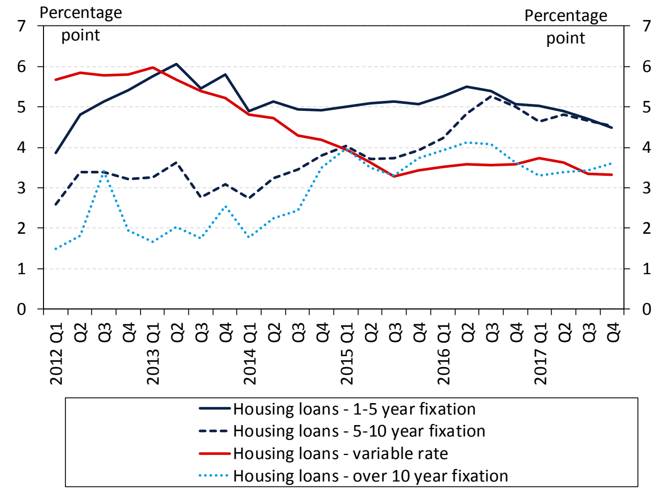
homes occurred to the detriment of other housing purposes (renovation, enlargement); however, considering the lower average credit amount of the latter loans, the drawdown did not decrease to such a large degree.

Growth in housing loans continues to take place in conjunction with buoyant demand and steady supply conditions. The Lending Survey revealed that, in net terms, 5 per cent of banks eased supply conditions for housing loans (Chart 35). However, in terms of the partial conditions, a wide range of banks (almost 60 per cent) reported a reduction in the interest rate spreads applied. Credit conditions were not eased substantially despite the fact that in addition to the opportunities following from the credit institutions' liquidity positions, the favourable trends in housing market developments and the intensification of market competition would justify it. According to the survey related to the first half of 2018, an increasing range of respondent banks, roughly one-fifth of them, anticipate easing, although they believe that this may still appear primarily in relation to price conditions. Since the tightening of the supply conditions, applied immediately after the crisis, no material changes have taken place in the new lending cycle, and thus the present level of credit standards may be deemed strict, which is also confirmed by the banks' reports, according to which risk competition has not yet commenced on the market in this segment. In parallel with this, roughly half of the banks perceived the pick-up in credit demand in the second half of 2017 and looking ahead, all of the respondent institutions anticipate further growth.

The rise in credit demand is also supported by the Home Purchase Subsidy (HPS) for families. In 2017, 17 per cent of new housing loans were connected to HPS, either as a subsidised loan belonging to the scheme or as a market loan supplementing the subsidy and the preferential loan (Chart 36). The Home Purchase Subsidy for families became available in its new form in February 2016; since then almost 50,000 subsidy contracts were concluded in the total value of HUF 153 billion. After the initial, higher demand for used homes, observed upon the launch of the scheme, in the last one and a half years the purchase of used homes stabilised as a loan purpose in two-thirds of the contracts, while the construction and purchase of new homes was the purpose of the loan in the case of 20 and roughly 11 per cent, respectively, of the contracts. The number of contracts and the contracted amount both imply low demand for the home expansion subsidy.

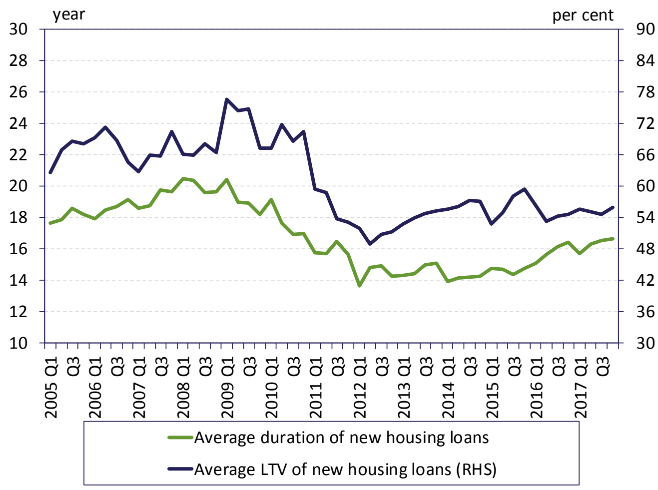
Average interest rate spreads dropped in 2017. The breakdown by length of interest rate fixation shows that while spreads on loans with interest fixed for more than 10

Chart 37: Interest rate spreads on new housing loans



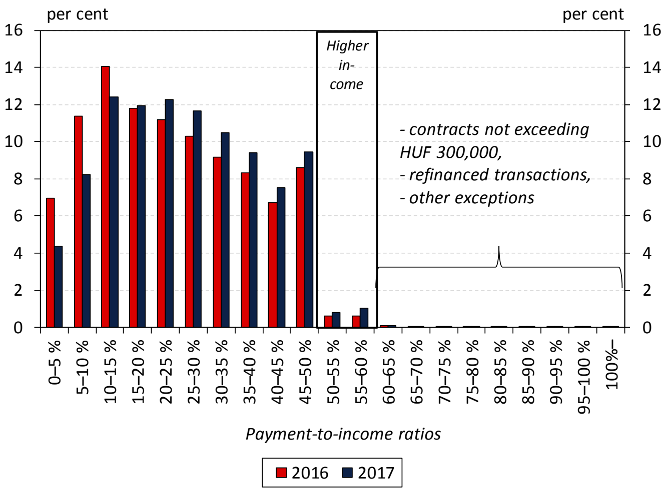
Note: APR-based smoothed spread over the 3-month BUBOR in the case of variable-rate or for up to 1-year fixed-rate housing loans, while in the case of housing loans fixed for a period longer than 1 year, the smoothed spread over the relevant IRS. Source: MNB

Chart 38: Average initial maturity and LTV ratio of new housing loans



Source: MNB

Chart 39: Distribution of the number of new housing loans by PTI value



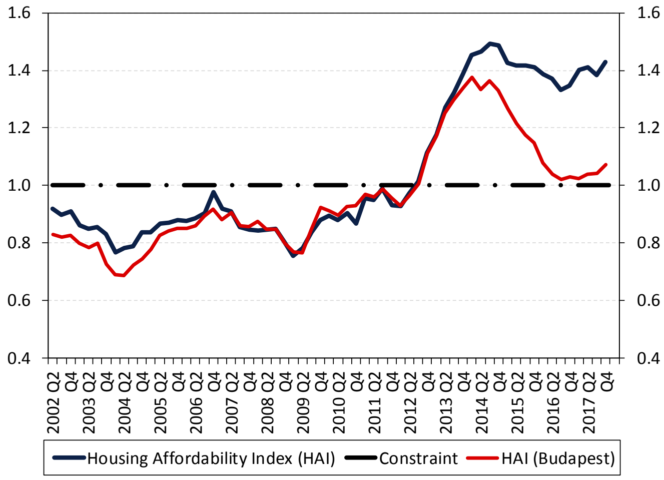
Source: MNB

years remained constant, the average interest rate spread on variable rate loans and loans with shorter interest rate fixation both declined compared to the end of 2016 (Chart 37). The spread of the variable rate products over BUBOR decreased by 0.2 percentage point compared to the end of 2016; the spread over the relevant IRS of loans fixed for 1–5 years and 5–10 years dropped on average by 0.6 percentage point and 0.5 percentage point, respectively. The ratio of loans with interest rate fixation for at least one year reached around 60 per cent within total new loans in 2017, meaning that in the current low interest rate environment 40 per cent of the new loans are exposed to interest rate risk. With a view to mitigating this risk, the MNB introduced the Certified Consumer-Friendly Housing Loan product certification, which has been available among the products offered by banks since September 2017. By December, the share of consumer-friendly loan products within new loan issues rose to 40 per cent of the monthly volume of new loans with fixed interest and it also stood at this level in the first two months of 2018. In parallel with this, in February 2018 the ratio of fixed-interest loans within total new loan disbursements already amounted to roughly 70 per cent.

The debt cap rules still do not act as effective constraints to the healthy growth in lending. Examining non-price lending conditions, it is clear that easing took place in 2017, which is reflected by the slight increase in the payment-to-income ratios, the loan-to-value ratios and also in relation to initial maturities. The average maturity of new contracts rose by roughly 3 months to 16.7 years, which is presumably attributable to the drop in the loans of smaller amount and thus of shorter maturity, utilised for purposes other than home purchase or construction. The average loan-to-value (LTV) ratio of mortgage loans increased by 1.4 percentage points compared to the end of 2016 and stood at 56 per cent in the last quarter of 2017 (Chart 38). The distribution of the payment-to-income ratio suggests that the relative monthly instalments rose since the entry into force of the debt cap rules in 2015, but the substantial part of the contracts is not concentrated around the limit and only 17 per cent of them fall into the band of 40–50 per cent, close to the threshold value (Chart 39).

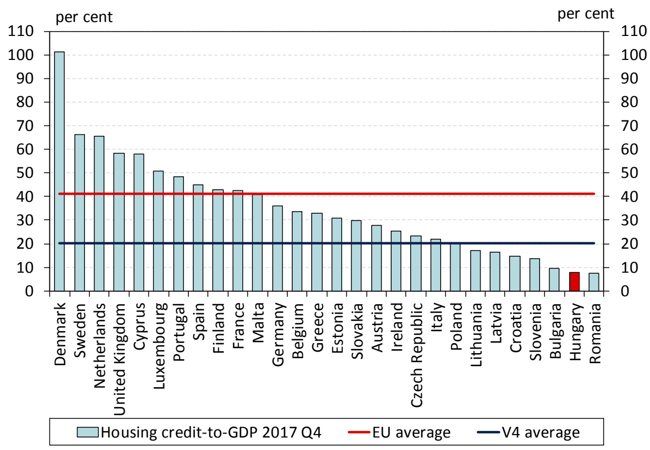
Housing affordability from loans improved both nationally and in the capital. The credit-financed purchase of an average real estate by a household with average income became more affordable in 2017 (Chart 40). This is attributable to the fact that in addition to the rise in real estate prices, average wages also increased, and the latter – together with the decrease in interest rates – had a larger positive effect than the affordability diminishing effect of house prices. It is worth examining the real estate market in Budapest separately, as

Chart 40: Housing Affordability Index (HAI)



Note: HAI shows how many times the income of a household with two average wages covers the income necessary for the purchase of an average (65 m2) dwelling with a loan. Parameters of the loan product, except for the interest rate, are constant until maturity. LTV = 70%, PTI = 30%, maturity = 15 years. Source: MNB

Chart 41: Housing credit to GDP in European comparison



Source: ECB

the affordability of financing from loans already came near to the limit at the end of 2016. This was due to the fact that the growth rate in house prices in the capital exceeded the national average and relative to that wages increased more slowly. However, in 2017 this trend turned around, which represents a favourable change in terms of the future demand of the households in Budapest.

As regards domestic outstanding housing loans, there is still room for further expansion. After the crisis, outstanding housing loans contracted substantially, and this trend only reversed in the second half of 2016. At present, the volume of outstanding loans – with the rising volume of transactions – is low by European standards as a per cent of GDP, standing only at 8 per cent (Chart 41). This represents a major lag in financial deepening compared both to the EU and to the regional average. Consequently, in the domestic economy there is plenty of room for the household sector to increase its outstanding housing loans supported by the rise in real wages and considering the constraints to over indebtedness represented by the debt cap rules. This is also supported by the fact that although in Hungary the ratio of the population living in own property is distinctly high, at 86 per cent, the ratio of those currently paying their mortgage loan is 16 per cent of the total population, while this ratio on the EU average is 27 per cent, beside lower proportion of home ownership.

Count István Széchenyi

(21 September 1791 – 8 April 1860)

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

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

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

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

HOUSING MARKET REPORT

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