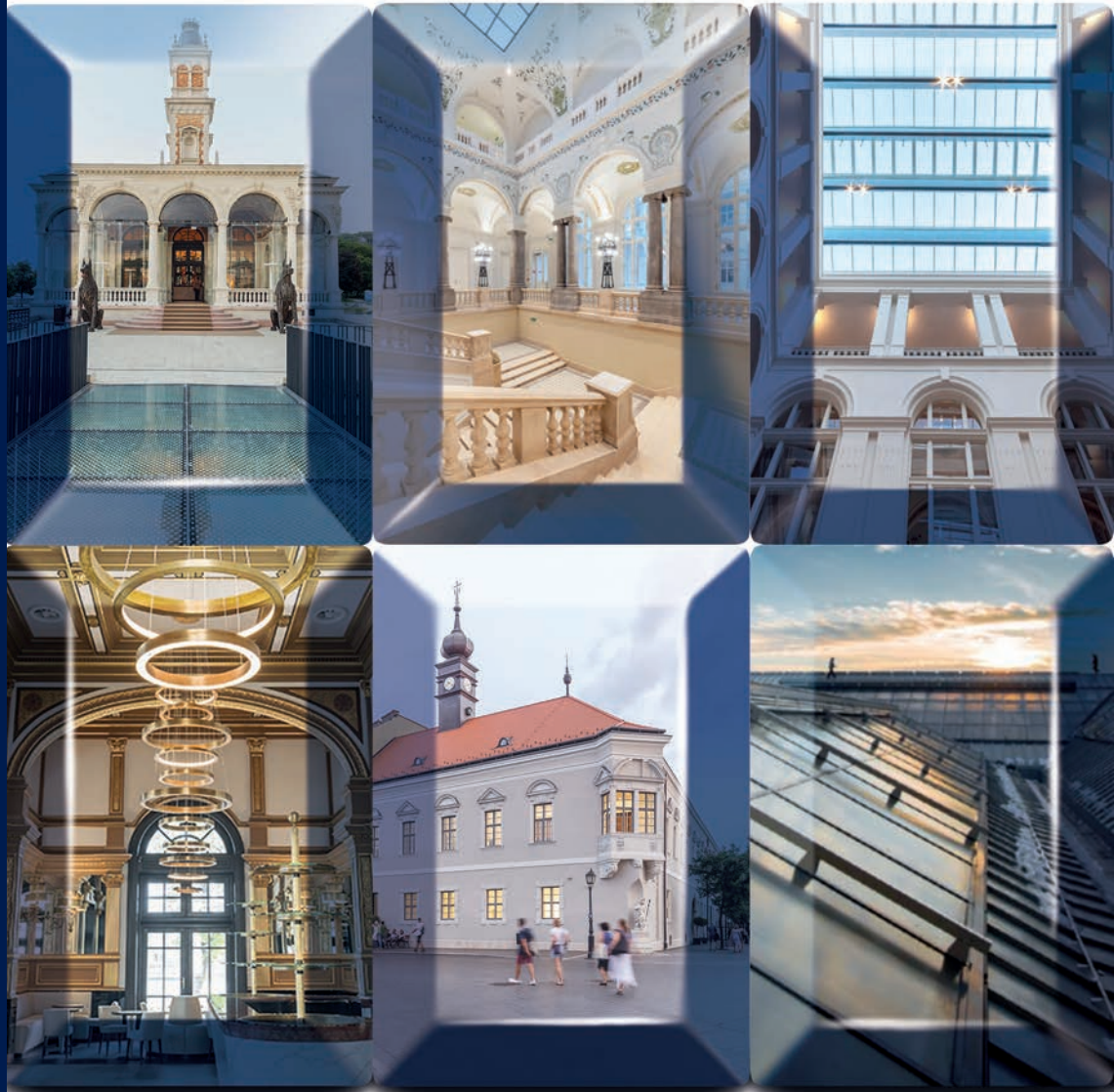




COMMERCIAL REAL ESTATE MARKET REPORT



2023
OCTOBER

“Your actions preserve you for the future.”

Miklós Ybl



COMMERCIAL REAL ESTATE MARKET REPORT

2023
OCTOBER

Published by the Magyar Nemzeti Bank

Publisher in charge: Eszter Hergár

H-1013 Budapest, Krisztina körút 55.

www.mnb.hu

ISSN 2676-8755 (print)

ISSN 2676-8747 (on-line)

The commercial real estate (CRE) market is of key importance, as it influences all economic sectors and also plays a role in people's everyday lives. In light of this, the Magyar Nemzeti Bank analyses developments on the CRE market in this biannual report.

The following two factors are crucial to the analysis of commercial real estate:

- I. On the one hand, commercial real estate is a fixed asset used by economic agents as a production factor; therefore, its value is influenced by the interplay of supply and demand for this asset.
- II. On the other hand, commercial real estate is an investment vehicle: investors purchase such assets to realise a yield premium – over and above the available risk-free return – on the cash flow from utilising the real estate and/or the increase in value, while taking extra risk in the process.

Consequently, in addition to supply and demand trends, investor expectations are a key determinant in the value of commercial real estate, similarly to financial markets. Furthermore, developments on the CRE market also affect the functioning of the financial system. This is primarily due to the fact that a large portion of credit institutions' corporate loan portfolios are comprised of CRE-collateralised loans, which account for almost 40 percent of the portfolios in Hungary.

As such a large amount of bank assets are CRE-collateralised, there is a strong relationship between CRE values and the credit cycle. During an economic upturn, a positive feedback loop may develop between rapid growth in real estate values and lending, which can lead to excessive lending and fuel borrowing for real estate speculation. In an economic crisis, banks' non-performing loans burden the institutions' capital adequacy, resulting in a reduction in credit supply. As seen in the 2008 crisis, the commercial real estate market plays a major role in banks' pro-cyclical behaviour. Moreover, corrections in CRE prices affect future investments and thus the real economy, which affects the operating environment of banks. A decrease in commercial real estate values generates losses for banks and institutional investors with large CRE stocks and contributes to financial instability.

Consequently, the CRE market can negatively affect the stability of the financial system via multiple channels, and thus it is of the utmost importance for the Magyar Nemzeti Bank as a macroprudential authority to monitor and thoroughly analyse the commercial real estate market.

The Commercial Real Estate Market Report aims to provide an overview of the underlying economic developments and the system of interactions between economic agents. Consequently, this report represents a unique central bank publication at the international level, due to its integrated presentation of the macroeconomic and financial stability aspects of the CRE market. The set of information used by the publication includes the following:

- The presentation of the macroeconomic environment influencing the CRE market is based on the information in the MNB's Inflation Report.¹ Key statistical variables relevant to the CRE market include changes in the volume of gross value added, employment trends, changes in retail sales and changes in the yield environment.
- The analysis of current commercial real estate market developments relies primarily on data provided by real estate consulting firms and information from the Housing and Real Estate Market Advisory Board's meetings. Developments in the commercial real estate market are analysed by market segment (office market, retail market, industrial-logistics market, hotel market), but due to the capital city-focused market structure the bulk of the data is limited to Budapest. A micro-database is available to monitor construction projects.
- The analysis of the CRE financing market relies primarily on balance sheet data from credit institutions and the interest statistics collected by the MNB; information on the qualitative features of lending developments collected in the Lending Survey² is also used.

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

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

Contents

1 Executive summary	7
2 Office market	8
3 Industrial-logistics market	14
4 Retail market	19
5 Hotel market	21
6 Commercial real estate investments	24
7 Commercial real estate financing	28
Annexes	32
Annex 1: Sub-markets of the Budapest office market	32
Annex 2: Concepts related to demand in Budapest	33
Annex 3: Annex charts	34
List of Boxes	
Box 1: The impact of hybrid working on the office market after COVID-19	12
Box 2: Summary notes of the september 2023 meeting of the Housing and Real Estate Market Advisory Board	17

1 Executive summary

In 2023 H1, developments in the real economy were not supportive for the commercial real estate market. Inflation-induced declines in real wages were accompanied by falling retail sales and a decrease in domestic hotel guest nights. The contraction of GDP and investment activity also suggests a negative outlook for rental demand for offices and industrial-logistics properties. Rising interest rates on EUR loans have further undermined the propensity to invest in real estate, which has been weak across the region for a year now. Risks related to commercial real estate have increasingly come into focus at the international level, and in their reports on financial stability all of the major central banks have emphasised the risks related to commercial real estate stemming from cyclical factors (e.g. slowing economic activity, high inflation, high interest rate environment due to inflation) and structural trends (e.g. focus on hybrid working, e-commerce, nearshoring (relocation of production and suppliers closer to markets), energy efficiency).

The vacancy rate in the Budapest office market increased by 1.3 percentage points to 12.6 per cent in 2023 H1, while the vacancy rate in the industrial-logistics market rose significantly by 4.8 percentage points to 8.6 per cent. Despite these increases, vacancy rates in both of these segments remain lower than the historical peaks, but the high levels of planned completions and the low net market absorption in the first half of the year reinforce the risk of further increases. No significant volumes of new office projects were launched in 2023 H1, and the volume of new developments in the industrial-logistics segment also decreased. However, based on the construction work currently underway and the H1 demand data, oversupply (i.e. a vacancy level that is persistently higher than manageable from the perspective of real estate utilisation and operation) may be seen on the office market within one year and on the industrial-logistics market within two years.

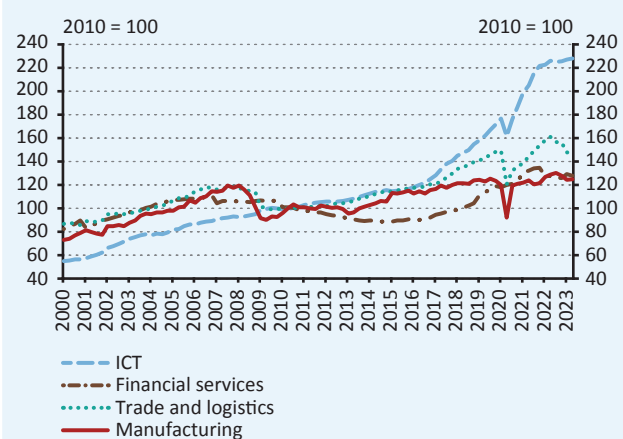
The Hungarian investment market registered turnover of EUR 0.25 billion in 2023 H1, down 60 per cent on 2022 H1. In the first half of the year, 80 per cent of the transaction volume was linked to domestic investors. The economic slowdown, uncertain growth outlook and high financing costs are leading to low investment activity in Hungary and across Europe. Most countries in the CEE region have seen a decline in investment turnover and an increase in prime office yields (which applies for the best category properties). In year-on-year terms, capital values calculated on the basis of prime office yields and rents dropped by an average of 10 per cent in the CEE region and by 19 per cent in Budapest by the end of 2023 Q2. While the rate of depreciation is lower than what was seen in the 2008 crisis, current developments in real estate values need to be monitored closely from a financial stability perspective.

In 2023 H1, banks' disbursements of project loans secured by commercial real estate was down 44 per cent on the same period of the previous year, with new loan issuance falling for all property types except hotels and housing estates. According to MNB's Lending Survey, after a year and a half of tightening, banks left the terms of commercial real estate loans broadly unchanged in 2023 Q2 and had no plans to change such in 2023 H2. Overall, the exposure of domestic credit institutions to CRE-backed project loans is less than half of the post-2008 crisis level, both in terms of balance sheet total and own funds. At the same time, due to the potential increase in risks, the system risk capital buffer (SyRB) will be reactivated from 1 July 2024 for preventive purposes, after having been suspended indefinitely during the COVID-19 epidemic, which will strengthen the banks' ability to withstand shocks.

2 Office market

In parallel with slowing economic activity, rental demand in the Budapest office market rose by 4 per cent year-on-year in 2023 H1, but still remains roughly 15 per cent below pre-COVID levels. Net market absorption in the first half of the year was negative, i.e. total office space let decreased compared to the end of the year, in part due to the high share of contract renewals in demand, which amounted to almost 50 per cent. The vacancy rate in the Budapest office market rose by 1.3 percentage points in 2023 H1 to reach 12.6 per cent at the end of June, partly due to the expiry of lease contracts and partly due to vacant floorspace in the 64,000 square metres of new completions. Based on ongoing developments, 91,000 square metres of new completions is expected in 2023 H2. As a result of new completions and low demand, the vacancy rate is expected to rise and may reach 14 per cent by the end of 2023. Since 2022 Q2, there has been a decline in office development activity, with no significant volumes of new office projects started. Office market vacancy rates increased in half of the capitals in the CEE region and decreased in the other half, while office space equivalent to 3–8 per cent of the stock is under construction in some cities, with Budapest at the top end of the scale at 6.4 per cent. As new office space comes onto the market and structural factors affecting demand remain in place (e.g. hybrid working, stronger focus on energy efficiency), vacancy may continue to rise in all capital cities.

Chart 1
Performance of sectors relevant to the CRE market



Note: Seasonally adjusted data. The ICT sector refers to the information and communications technology sector.

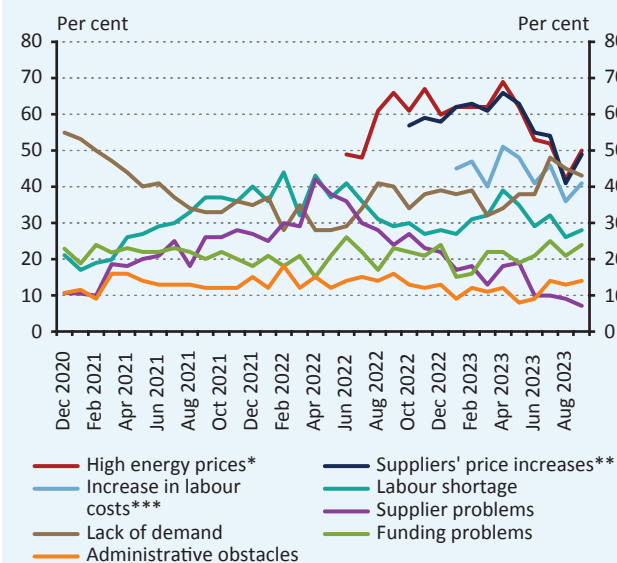
Source: HCSO

Gross domestic product contracted by 2.4 per cent in 2023 Q2, but annual growth may return to the positive domain again from the end of the fourth quarter. In 2023 Q2, the change in Hungary's economic output came in second to last in the EU ranking. Looking at the major economic sectors, the performance of agriculture cushioned the decline in GDP. The value added of industry fell by 5.7 per cent, while the output of manufacturing dropped by 4.2 per cent versus the same prior-year period. The value added of the construction industry was 6.2 per cent lower than in the same period of the previous year, while the value added of services decreased by 2.8 per cent. Among consumption items, net exports and final government consumption boosted economic output. The annual change in value added in 2023 Q2 varied across the sectors that are most relevant for the commercial property market (Chart 1). The ICT and financial sectors expanded, while contraction was seen in trade and manufacturing. Annual GDP growth is expected to return to positive territory in the fourth quarter, while nearly flat performance is projected for the third quarter.³ Employment in the national economy remained at historically high levels, reaching a historic peak in 2023 Q2 on a seasonally adjusted basis, which was driven by an increase in the number of employees in the private sector.

Companies cited a lack of customers, high energy prices and price increases by suppliers as the main constraints on production. According to the MNB's September 2023 business sentiment survey, rising labour costs also represent an important constraint, while labour

³ Magyar Nemzeti Bank, Inflation Report, September 2023. Available at: <https://www.mnb.hu/en/publications/reports/inflation-report/28-09-2023-inflation-report-september-2023>

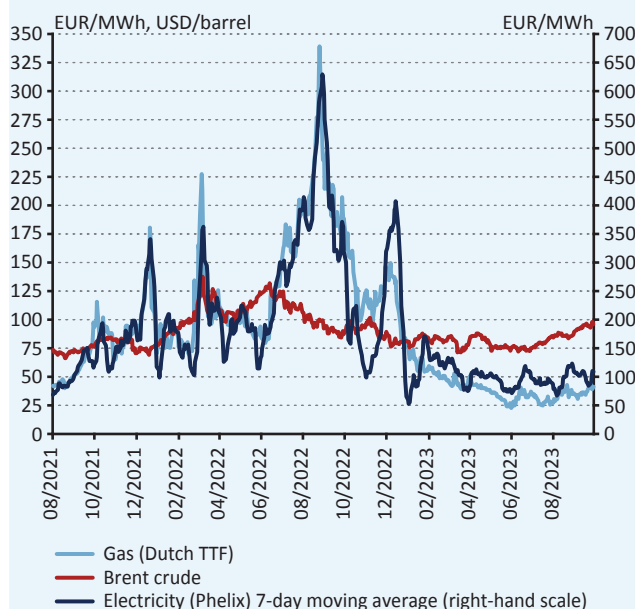
Chart 2
Factors hindering production growth



Note: * This answer option has been included in the survey since June 2022. ** This answer option has been included in the survey since October 2022. *** This answer option has been included in the survey since January 2023.

Source: MNB corporate business sentiment survey

Chart 3
Market price development for gas and electricity



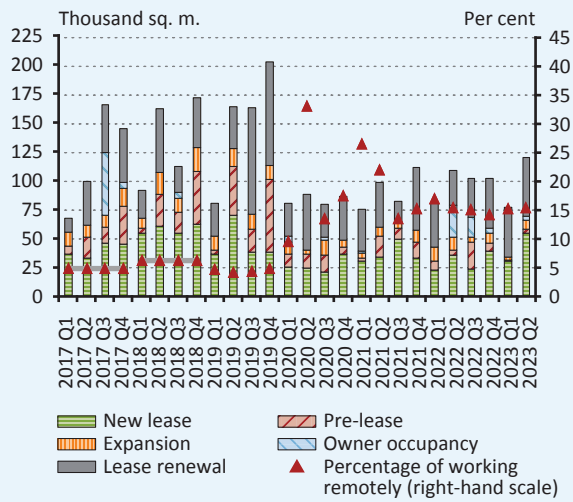
Source: Bloomberg

shortages and financing problems were cited by somewhat fewer companies (Chart 2). According to the European Commission's ESI survey, insufficient demand is also the most important constraint in the construction sector, as reflected in the industry's orders indicators: the volume of new contracts signed by construction companies was 7 per cent lower in July 2023 and 26 per cent lower in the first seven months of the year versus the same period of last year. The volume of the contract portfolio at the end of July was down 24.4 per cent on the previous year.

From a property management perspective, one favourable development is that gas and electricity prices have stabilised at significantly lower levels compared to 2022 H2. The TTF gas price has been volatile in recent weeks, but remains below the levels seen before the start of the Russian-Ukrainian war (Chart 3). In line with the low level of gas prices, the 7-day moving average of German Phelix electricity prices has been below EUR 120 per MWh for the last six months, well below the levels of nearly EUR 400 recorded in December. As a result of the production cuts by OPEC+ countries, between end-June and end-September 2023 world oil prices rose by more than 25 per cent, advancing to over USD 90/barrel. The higher crude oil prices impact logistics and trade activities through road freight transport, as well as tourism and accommodation performance via passenger transport.

Contract extensions gained ground in the first half of the year, and looking ahead tenants' unused space also increases the risk of rising vacancy rates. In 2023 H1, total demand for modern office space in Budapest was 4 per cent higher than in the same period of last year, but this increase was driven by a 38-per cent rise in contract renewals, while net demand shrank by 15 per cent (Chart 4). Within net demand, the volume of new rental transactions increased by 48 per cent, but pre-leases, space extensions and owner-occupancy transactions decreased by 66 per cent, 54 per cent and 87 per cent, respectively, compared to 2022 H1. The volume of lease contracts signed in the first half of the year amounted to 197,000 square metres, of which 48 per cent were contract extensions, significantly higher than the 37 per cent average for the first half of the last five years (2018–2022) and also above the 46 per cent figure for 2020 H1. New lease contracts accounted for 43 per cent of total demand, 5 per cent of space expansion transactions and 2 per cent for both pre-leases and owner-occupancy transactions. In terms of the distribution of office demand by sector, the share of the financial sector and public administration decreased the most in 2023 H1 compared to 2022. An increase was observed mainly in the share of services to end users and retail trade activities, but the increase in the share of the manufacturing-industry-

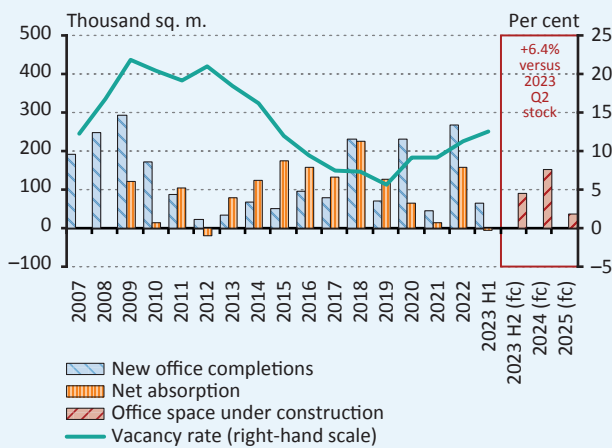
Chart 4
Demand in the Budapest office market and the ratio of employees in intellectual occupations working remotely



Note: The 3-month moving average of employees aged 15–74 working remotely at home as a percentage of those in intellectual occupations. For each quarter of 2017 and 2018, the annual rate of working remotely is shown; no quarterly data are available for these years.

Source: CBRE, Cushman & Wakefield, HCSC

Chart 5
Leasing and development activity in the Budapest office market



Note: Based on data from the end of 2023 Q2.

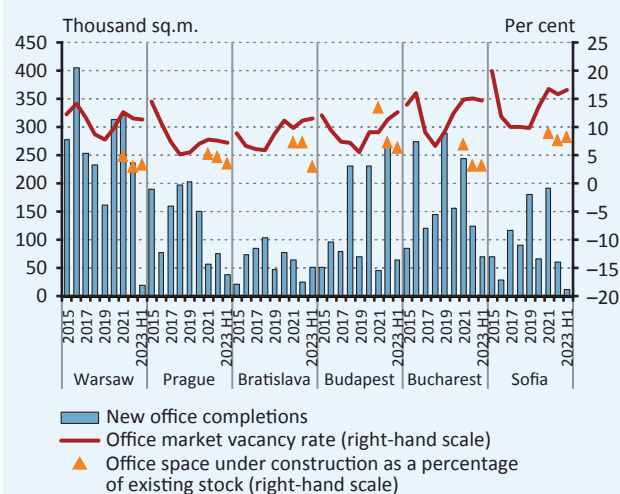
Source: Budapest Research Forum, Cushman & Wakefield

energy sector seen in recent years also continued (Annex, Chart 11). The share of teleworking, based on the share of employees in white-collar jobs, remained at around 15 per cent at the national level. On the Budapest office market, this ratio may be substantially higher, which means an additional “let vacancy” beyond the measurable office stock without a lease contract. The effects of hybrid working on the office market, relevant international experiences and related social developments are discussed in Box 1.

In the first half of the year, the volume of expiring office leases exceeded the volume of demand for new space, leading to a decrease in leased office space and an increase in the vacancy rate. In 2023 H1, 64,000 square metres of new office space (representing 1.5 per cent of the stock at the end of the previous year) was completed, down 41 per cent on the same prior-year period (Chart 5). Consequently, at the end of June 2023 the stock of modern office space in Budapest amounted to 4.3 million square metres, while the vacancy rate stood at 12.6 per cent, up 1.3 percentage points versus end-2022 and 3.4 percentage points versus end-2021. Net market absorption,⁴ which shows the change in the leased stock, was negative in the first half of the year, i.e. the volume of expiring leases exceeded the volume of new space requirements. In 2023 H2, another 91,000 square metres of new space is expected to be completed, bringing the annual new supply to 155,000 square metres. This projected annual growth in supply is well below the record level seen in 2022, but is the fourth highest volume in the last ten years. 40 per cent of the space slated for completion in the second half of the year had a pre-lease contract at the end of June, down from 53 per cent on average in the same period in the previous four years. Adjusting to the fall in demand, the stock of office space under construction in Budapest has been steadily declining over the past year and a half, with new projects no longer being launched in any substantial volume and fewer new construction projects being started each quarter than were completed in the period concerned. At the end of June 2023, a total of 279,000 square metres of office space was under construction, accounting for 6.4 per cent of the existing modern office stock in Budapest, a figure that has risen 17 per cent over the past four years. The pre-lease rate for office space under construction was 38 per cent at end-Q2. Based on the volume of ongoing projects and the moderate demand, the vacancy rate is expected to rise further and reach around 14 per cent by the end of 2023. Over a period of one year, a vacancy rate exceeding a still manageable level of around 15 per cent cannot be ruled out. In 2024 H2 and in 2025, the vacancy rate is expected

⁴ For definitions related to CRE demand, see Annex 2.

Chart 6
Development activity and vacancy rates in regional capital office markets



Source: MNB compilation based on CBRE, Colliers, Cushman & Wakefield and JLL data

to fall in line with the decline in stock under construction and new spaces completed, as well as the expected improvement in economic performance.

Owing to the weaker demand, rents have risen only slowly, despite the high inflation environment. With regard to the total modern office stock regularly monitored by the Budapest Research Forum, the average monthly level of offered rent was EUR 14.2 per square metre in 2023 Q2, reflecting a year-on-year increase of 1.8 per cent. For better quality offices (category “A”), the average offered rent was EUR 16.5 per square metre per month, up 0.7 per cent from a year earlier.

With the increase in the vacancy rate on the Budapest office market in the first half of the year, the domestic figure is now close to the regional average. In 2023 H1, the vacancy rate rose in three of the CEE regional capitals and fell in three others (Chart 6). In Bucharest, Prague and Warsaw the decrease ranged between 0.2 and 0.4 percentage points, while in Bratislava and Sofia the increase was between 0.4 and 0.6 percentage points. The largest increase was recorded in Budapest, where the indicator rose by 1.3 percentage points. The lowest vacancy rate (7.3 per cent) was still observed in Prague and the highest rate (16.6 per cent) in Sofia, with Budapest close to the average of the six capitals surveyed (12.3 per cent). The ratio of new office space under construction to the existing stock fell in Budapest, Bratislava and Prague, while it stagnated or rose slightly in Bucharest, Sofia and Warsaw. In terms of new completions in 2023 H1, declines of 21–86 per cent were recorded in the capitals, with the exception of Bratislava, versus the same period of last year. In Bratislava, more than four times as much office space was completed in the first half of the year than one year earlier, but the 51,000 square metres completed does not represent a spike in the volume, as this increase was due to the low base figure for 2022.

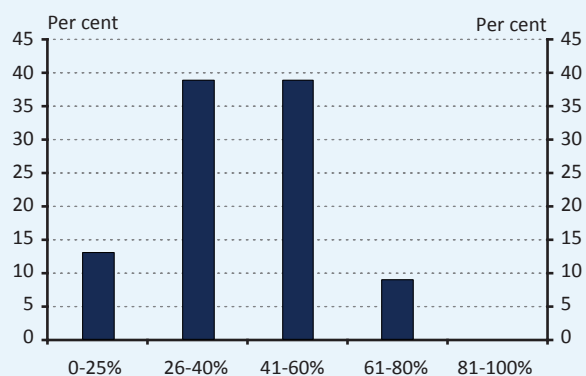
Box 1**The impact of hybrid working on the office market after Covid-19**

The coronavirus pandemic in 2020 led to sudden changes in the office market and the use of offices. To contain the spread of Covid-19, many employers introduced partial or full-time working from home for office workers. While there was still uncertainty about the how long the changes in office use patterns would last during the first waves of the pandemic, by 2023 the share of teleworkers and employees working at least in part from home had stabilised at a higher level in Hungary. The spread of home office work has meant that some of the office space that have been let, and which is counted as occupied in office market statistics, is occasionally or partially vacant and unused. In the current uncertain economic environment, this may offer companies renting office space the potential to reduce costs by returning some of their leased office space, but it also poses a risk to property owners and ultimately to financing banks in an office market with the currently rising vacancy rates. In this Box, we review the potential risks associated with leased but unused office space, based on international research and the experience of domestic market professionals.

According to the CBRE's June 2023 survey⁵ of CEE companies which mostly had more than 1,000 employees, just over half of the companies reported an average office presence of 40 per cent or less, with only 9 per cent reporting a rate of more than 60 per cent. At the same time, half of the respondents believe that the office occupancy rate has not yet stabilised and expect it to rise until 2024 H1. Companies in the region are broadly uniform in their expectations that hybrid working will continue, and 38 per cent expect an average of 3 or more days per week spent in the office, half of them expect an equal share of office and home office work, and 12 per cent expect home office to dominate in the future.

With the rise of home office work, the relative majority of companies surveyed have already reduced the amount of office space they use over the past three years, but the reduction in office portfolios is still lagging behind what has been seen in other European locations, and thus this process is likely to accelerate: three out of ten companies in the region are planning to reduce their office space by between 10 and 30 per cent over the next three years, with a similar proportion cutting their space by less than 10 per cent, while the share of those planning to expand their office portfolio is below 30 per cent. In parallel, a rapid expansion of shared desks is expected: three quarters of the companies plan to increase the number of shared desks, so that the frequency of an average of maximum one employee per workstation could drop from 28 per cent to 5 per cent in two years in the case of the companies surveyed, and the frequency of an average of more than two employees per workstation could rise from 10 per cent to 21 per cent.

McKinsey's analysis⁶ of office occupancy patterns in major metropolitan areas in the developed world suggests that it is reasonable to assume that current levels of office occupancy – which are lower than before the pandemic – may persist over the longer term. On the one hand, office attendance rates have been relatively stable since mid-2022, and on the other hand, workers expect their days in office to increase only marginally, with a preference for spending slightly less time in office on average than now. One tenth of the employees surveyed also said they would quit if their employer required them to go to the workplace every day or would accept a significant pay cut

Proportion of respondents in the office attendance rate categories in the CEE region

Source: CBRE Research, CEE Office Occupier Sentiment Survey

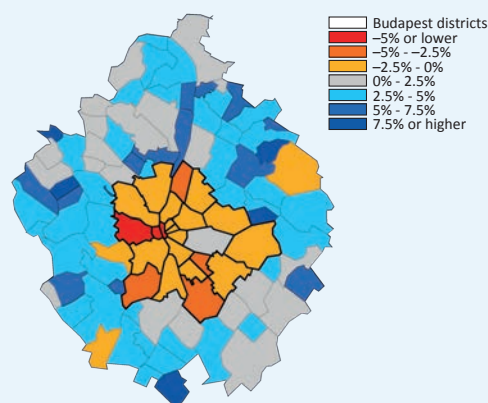
⁵ CBRE Research, CEE Office Occupier Sentiment Survey, June 2023. Available at: https://www.cbrecee.com/CEE_Office_Occupier_Sentiment_Survey

⁶ McKinsey Global Institute, Empty spaces and hybrid places: The pandemic's lasting impact on real estate. July 13, 2023. Available at: <https://www.mckinsey.com/mgi/our-research/empty-spaces-and-hybrid-places/>

in exchange for the right to work from home at their own discretion. However, the evolution of office occupancy may also be affected if labour market conditions were to change substantially or if relevant research were to report clear productivity advantages or disadvantages of hybrid working.

The spread of hybrid working and the move out of metropolitan areas were mutually reinforcing trends during the pandemic. Population growth rates in Western European cities mostly exceeded those in suburban areas in the years before the pandemic, but by 2020–2022, suburban regions were already experiencing 0–2 percentage point higher population growth (or a slightly smaller decline than that) compared to urban centres, with a difference of more than 8 percentage points in London. The rate of net outward migration from large cities slowed down by 2022, but has not stopped. Moves were mostly motivated by more affordable housing, home ownership and better housing conditions, and were enabled by working from home, according to the McKinsey study. In Budapest, the net balance of inward and outward movers was already negative

Net balance of domestic emigration and immigration in proportion to the resident population in 2020-2021



Source: HCSO, Teir

in the years before the pandemic, and this trend accelerated in 2020–2021. By contrast, in the vast majority of the agglomeration settlements of the capital city, the population grew as a result of moves, with 5 settlements experiencing population growth of more than 7.5 per cent over two years as a result of moves, while 14 settlements saw growth of between 5 per cent and 7.5 per cent. The trend of moving out of the capital may also contribute to the persistence of home office work among office staff in Hungary.

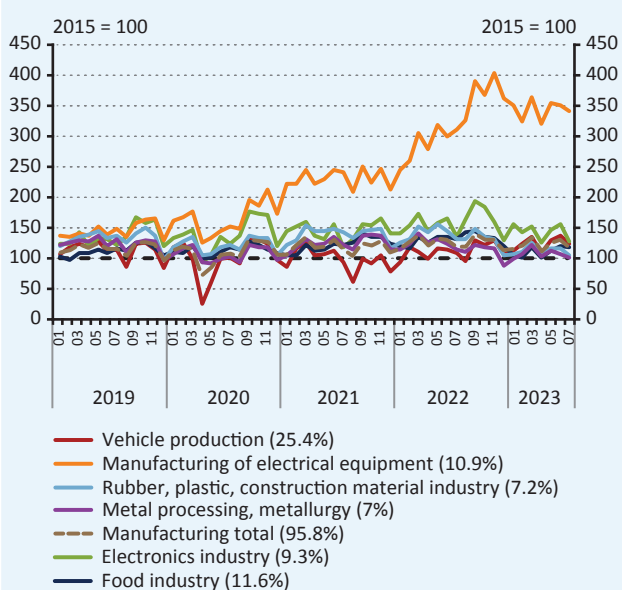
McKinsey's modelling estimates that the median demand for office space in the metropolitan areas they analysed (including London, Munich, New York, Paris, Beijing, San Francisco, Shanghai, Tokyo) will be 13 per cent lower by 2030 than in 2019, before the pandemic, as a result of the above trends. Uncertainty about office attendance levels encourages tenants to sign shorter-term contracts, which can make financing more difficult for lessors, as the length of existing lease contracts also plays a role in bank risk assessments. In the cities studied, the capitalisation of the office market could thus decrease by 26 per cent on average between 2019 and 2030, but in a more severe case (if the presence of all office workers were to fall to the current lowest level for large scientific and technical companies (e.g. Big Tech)) it could reach up to 42 per cent. The increase in vacancy rates, the lower demand and property depreciation may primarily affect the market for lower quality (B and C category) offices, which may be less suitable for hybrid operations, and employers may opt for smaller but better quality offices from the same budget, due to the reduction in office attendance.

At the September 2023 meeting of the Housing and Real Estate Market Advisory Board, which brings together experienced Hungarian office market players, market experts noted that the Hungarian office market is also witnessing an increasing shift in tenant demand towards high-quality, low-cost office space, while low-quality office space will face a serious challenge to remain competitive. The current level of vacancy rates could be up to 2 percentage points higher, according to experts, if one takes into account the areas that are not used by tenants and are actively offered for subletting. The supply of office space in Hungary is set to keep increasing in the coming quarters, as large-scale developments are completed, and thus real estate market actors expect the vacancy rate to rise further. The period of significant growth in supply in recent years will come to an end by 2025, and from then on the vacancy rate is expected to stagnate or decline in light of the demand trends. In addition, more and more companies are looking to increase the 2 to 3 office working days per week, which is typical among tenants in the Váci út office corridor, and this may reduce the extent of unused office space, but may also pose a risk to employee satisfaction and turnover in the current tight labour market.

3 Industrial-logistics market

Output fell in most manufacturing subsectors in 2023 Q2, with industrial production in 2023 H1 showing a decline of 4.8 per cent versus the same period of the previous year, and the volume of domestic road freight transport in tonne-kilometres of goods falling by 9 per cent. The vacancy rate of industrial-logistics spaces around Budapest rose significantly by 4.8 percentage points to 8.6 per cent in 2023 H1. This level of vacancy is still not considered high by historical standards, but represents a substantial increase compared to the past 4 to 5 years and was reached starting from a low level over the span of just two quarters. If net market absorption stagnates at a weak level similar to the first half of the year, the industrial-logistics segment may see vacancy rates in the problematic range above 15 per cent over a two-year horizon. In 2023 H1, 177,000 square metres of new industrial-logistics space was finished, setting a record for H1 completions. Completions planned for 2023 H2 are also expected to be of a significant volume, at around 220,000 square metres, one third of which had been pre-leased by the end of June 2023. Rents for industrial and logistics properties showed a slight increase of 1 per cent on an annual basis. The large industrial investments underway in Hungary and the associated supplier base are generating significant demand for industrial-logistics developments, but most of this is for the construction of owner-occupied real estate, and market experts believe that the lack of market benchmarks and the unpreparedness of municipalities to manage the developments (in terms of regulation and administration) are additional challenges for the implementation of industrial-logistics projects for rental purposes outside Budapest.

Chart 7
Change in the volume of production of the main manufacturing industries (2015 = 100)



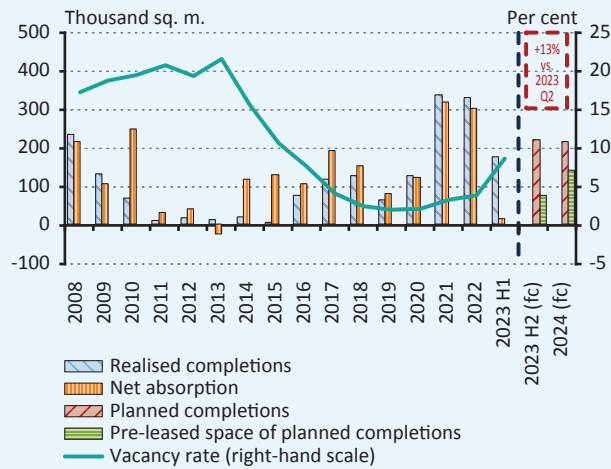
Note: Compared to the monthly average of 2015. In the legend, the percentage values in parentheses next to the manufacturing subsectors denote the subsector's share in the industrial production of the period January–July 2023.

Source: HCSO

Industrial production fell in 2023 H1 and investment activity also declined. After a drop of 2.6 per cent in July 2023, the volume of industrial production declined by 5.3 per cent on an annual basis in August, while the H1 performance was 4.8 per cent below the year-earlier level. In July, production fell in most manufacturing subsectors, but year-on-year increases were recorded in vehicle manufacturing, battery and electric motors manufacturing, and pharmaceuticals production. Vehicle manufacturing, representing the largest share, grew by 14.4 per cent compared to July last year, while the production of electrical equipment rose by 9.8 per cent (Chart 7). Among the two most important subsectors of the electrical equipment manufacturing sector, the volume of battery and dry cell manufacturing increased by 24 per cent, while the volume of electric motor, generator, distributor and controller manufacturing was 8.1 per cent lower. Investment in the national economy dropped by 13.5 per cent in 2023 Q2 versus the same period one year earlier. The dynamics of the sectors that are dominant in the commercial real estate market showed a different picture (Annex, Chart 2). Investment in manufacturing, the most important sector, grew by 7.7 per cent, and the financial and insurance activities sector recorded a 13.9-per cent increase, but the other sectors that are crucial for the commercial real estate market showed weaker investment dynamics.

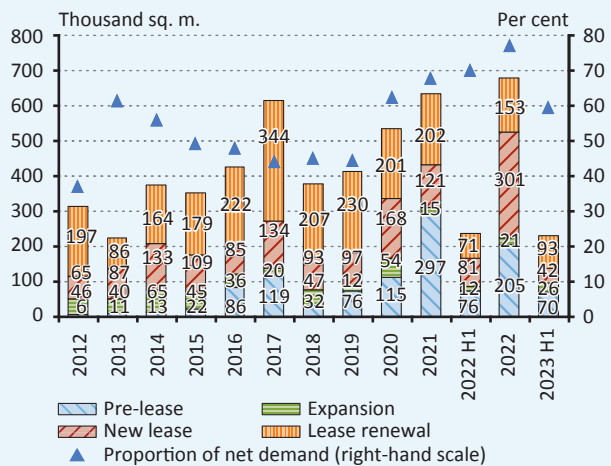
The high volume of new completions and low net market absorption have led to a significant increase in the vacancy rate in the industrial-logistics market in and around Budapest. In 2023 H1, 177,000 square metres

Chart 8
New completions, net absorption and the vacancy rate in the industrial-logistics market of Budapest and its environs



Note: Based on data from the end of 2023 Q2.
Source: Budapest Research Forum, Cushman & Wakefield

Chart 9
Customer demand by contract type in the industrial-logistics rental market of Budapest and environs

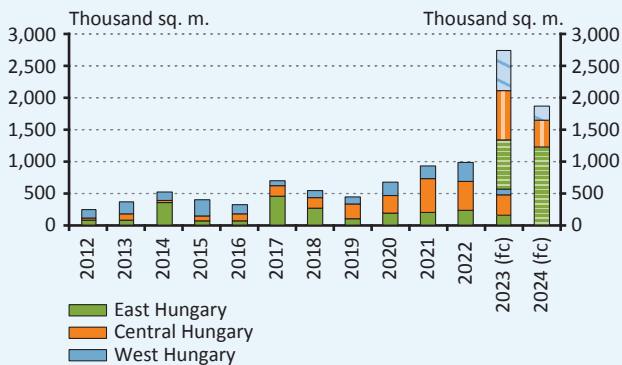


Source: Budapest Research Forum, Cushman & Wakefield

of industrial-logistics space was delivered in and around Budapest, setting a record for completions in the first half of the year (Chart 8). One fifth of the new space placed on the market in the first half of the year found a tenant by the time it was completed. In 2023 H2, nearly 220,000 square metres are still expected to be completed, and based on ongoing development data, one third of the completions planned for 2023 H2 had pre-lease contracts at the end of June 2023. This pre-lease rate is 5 percentage points higher than the previous year’s 28-per cent pre-lease rate for 2022 H2 completions calculated from 2022 Q2 development data, but is lower than the rate of 44 per cent recorded two years ago. In terms of demand, net market absorption has set a negative record: although it was positive, over the last 10 years no first-half figure has been lower than the 13,000 square metres measured in 2023 H1. Within this, net market absorption in the second quarter was particularly low, falling in the negative range (-27,500 square metres). Low net absorption and high volumes of completions led to a 4.8-percentage point increase in the vacancy rate on the Budapest industrial-logistics market in the first half of the year, bringing the end-June indicator to 8.6 per cent. If net market absorption stagnates at a low level similar to the first half of the year, the industrial-logistics segment may see vacancy rates in the already difficult-to-manage range above 15 per cent over a two-year horizon.

The low net market absorption in the first half of the year was due to weak net demand, including a high weight of space requirements (pre-leases) for later completions. In 2023 H1, lease contracts were signed for 234,000 square metres of industrial-logistics space in the market of Budapest and its environs (Chart 9). This level of gross demand was 3 per cent lower than the data for the same period of last year, but it cannot be considered low, as it is 22 per cent higher than in 2019 H1. In 2023 H1, net demand excluding contract renewals fell by 18 per cent year on year, while the volume of contract renewals rose by 32 per cent. This means that contract renewals accounted for the largest share of gross demand in the first half of the year, at 40 per cent, compared to an average of 30 per cent over the past three years, and the share of pre-leases was also 30 per cent. As a result, 70 per cent of gross demand in the first half of the year was accounted for by rental transactions that had no (immediate) impact on the leased stock (on net market absorption). New lease contracts accounted for 18 per cent and extensions for 11 per cent of gross demand in the first half of the year, compared to the average rates of 31 per cent and 6 per cent respectively over the past five years. Logistics service providers were the most active players in the industrial-logistics rental market in 2023 H1, accounting for 54 per cent of total rentals, but production activity also had a high share of 31 per cent (Annex, Chart 14).

Chart 10
Industrial-logistics completions and planned completions in Hungary



Note: Central Hungary includes property developments in Budapest and environs. Planned completions are based on data from the end of 2023 Q2.

Source: CBRE

Typical offered rents at the end of 2023 Q2 were in the range of EUR 4.95–5.60/sqm/month (Annex, Chart 15). The mean value of the typical rental price range has risen by 1 per cent over the past year, reflecting a substantial slowdown as supply has picked up.

Industrial investment could increase the national industrial-logistics real estate stock by more than one fifth in 2023. At the end of June 2023, the national stock of modern industrial-logistics real estate amounted to about 13.3 million square meters, including real estate for rental purposes and proprietary use. In 2023 H1, 568,000 square metres of new space was completed. Of this, in terms of completions outside Budapest (391,000 square metres), 40 per cent of the new space was realised in the Eastern Hungary region, 39 per cent in the Central Hungary region and 21 per cent in the Western Hungary region (Chart 10). At the national level, the ongoing industrial investments and associated supply chain developments are generating significant demand for industrial-logistics real estate. In 2023, a record 2.7 million square metres of industrial-logistics real estate is expected to be completed nationwide, an increase of 21.5 per cent compared to end-2022. In 2023, 40 per cent of the new completions are expected in Central Hungary (including Budapest), 34 per cent in Eastern Hungary and 26 per cent in Western Hungary. Foreign capital inflows and related bottlenecks affecting the industrial-logistics segment, as well as issues affecting other segments, were also discussed at the September 2023 meeting of the Housing and Real Estate Market Advisory Board; a summary of the opinions expressed can be found in Box 2.

Box 2**Summary notes of the september 2023 meeting of the Housing and Real Estate Market Advisory Board**

In order to monitor developments in the real estate market and identify potential risks, the Magyar Nemzeti Bank considers it important to consult with market participants. A meeting was held in September 2023 with the participation of experts in the fields of construction, real estate development, investment and consulting, as well as the competent ministries and key players in financing. Participants discussed the current situation and future prospects of the commercial real estate market, with particular attention to the risks on the real estate market, real estate market developments and the challenges affecting the rental market.

Construction, property development

According to market experts, one of the biggest challenges in the construction industry at the moment is to avoid the reduction of capacities built up over years of hard work despite the decline in orders, and in particular to avoid the emigration of skilled labour to Western European countries, which is a realistic possibility at the moment, as it was in the years following the 2008 crisis. As orders decline, there is more and more room for bargaining, both in terms of prices and delivery deadlines, which can lead to the loss of smaller or less efficient firms. So far, experts have not seen any substantial price falls in construction material prices, as, in addition to demand, they are affected by several other factors (among others, energy prices), and consequently a “correction” in real estate prices also has not begun. Construction output is down by around 30–35 per cent, with civil engineering showing an even more significant decline. As civil engineering is the initial stage of all construction, it is a good indicator of the outlook for the construction industry. In 2024, market experts expect an even more significant decline.

In the context of the new draft act on architecture, the opinion was expressed that it could distort construction material market processes through expectations related to the procurement of construction materials, which could result in price increases. In this context, the regulatory position was also expressed that the proposed new legislation aims to improve quality and to favour domestically produced raw materials. The use of domestic materials in public tenders will be an advantage in awarding contracts, but this will be optional for the time being, and on the other hand, the act will only be able to significantly transform supply chains in the construction industry over the longer term (about 10 years) in the direction of preference for domestic products.

Another important legal change that directly affects the operation of the real estate market is the new regulation on logistics parks, which will enter into force on 1 January 2025. Thereafter, it will not be possible to carry out logistics activities in a property that does not have a qualification according to the law, but a significant portion of the existing real estate does not meet the requirements. According to experts, this could significantly limit supply, but discussions are already underway between market players’ interest representation groups and the regulator.

Rental markets

In the office market, tenants’ demand has shifted towards better quality offices with lower operating costs, even if they are available at higher rents. Along with volatile energy prices, this trend means that 2023 and 2024 will be years of upgrading and optimising operating costs for properties with poor energy ratings, but even not very old BB-rated properties may need to be upgraded to AA for better options for letting.

According to the experts, starting from 2020, dynamics in the office market have changed: before that there were 600,000–650,000 square metres of rental transactions observed per year, which has decreased to around 400,000 square metres, and gross demand seems to be stabilising at this level. In 2023, the first half of the year developed accordingly, but the rate of contract renewals increased, due to which net absorption remained negative. Market players are closely monitoring how tenants’ decisions may change direction in the coming periods as the lease contracts, which are typically concluded for 3–5 years, that were signed before or during the pandemic, expire. They consider that if a tenant wishes to give back more than 15 per cent of its space, the separation of that space

will involve significant reconstruction work and costs, which will result in the tenant looking for a location with suitable characteristics in another office building. Professionals in the office market have reported that more and more large companies are looking at how to increase office attendance as they see added benefits in working at the office in several respects (including the cohesiveness of corporate culture, the training and development of talent, social skills, information security). At some companies, there is an effort to reduce the current 2–3 days a week of home office to 1 day per week.

Although office vacancy rates are rising in Hungary, the region and across Europe as well, vacancy figures are already much higher in the USA than in Hungary. According to experts, the Budapest office market may see a rise in vacancy rates in the coming quarters due to moderate demand and new completions, but then stagnation is expected after a year, as the supply boom seen in the last 2–3 years is fading and no significant volumes of office completions are expected for 2025.

In the experts' experience, there are retail properties across the country where the overheads paid by the tenant exceed the rent. Electricity accounts for the vast majority of energy use in shopping centres, at around 80 per cent, and thus the evolution of electricity market trends plays an important role in their operation. In shopping centres, 40–60 per cent of the tenant mix is almost always made up of the same companies and brands, with fewer and fewer domestic retailers among the tenants, and the number of domestically-owned retail businesses operating foreign franchises has declined in recent years in particular. As for the employment situation, experts believe that although the labour shortage in domestic retail businesses is only 10 per cent, fluctuation rates can reach 30 per cent.

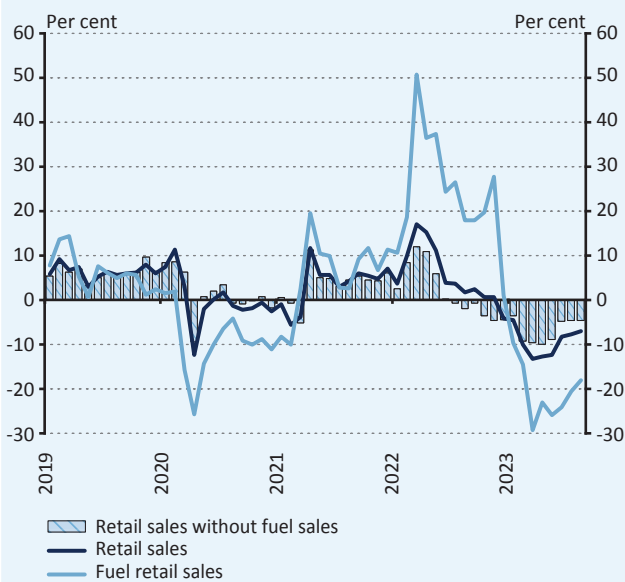
Financing and investments

Financing providers are experiencing uncertainty and a negative outlook for investors, which currently encourages them to finance only well-capitalised players with good references. Rental demand in the industrial-logistics segment remains high, but in addition to elevated financing costs, market participants are also experiencing an increasingly tight trend in banks' openness towards financing the segment. In the context of bank project loan portfolios, in cash-flow approach based and more tightly regulated project lending, actors are more likely to expect restructuring, while defaults are less expected by them.

4 Retail market

In 2023 H1, the vacancy rate in Budapest shopping centres typically stagnated, while the rate increased substantially in rural, regional cities. Offered rental price ranges for secondary shopping centres in Budapest and for shopping centres in regional cities have increased, while they have stagnated for other retail property types in Budapest. The decline in the volume of retail sales since December 2022 continued in the first eight months of 2023 compared to the same period of the previous year, with the fall in households' real net wage bill and a low level of household confidence as possible contributing factors. Shopping centres use a lot of energy, mainly electricity, and the sector is thus strongly exposed to energy market developments. Energy prices have stabilised since the spring of 2023, but the geopolitical situation still carries the risk of a renewed rise in energy prices.

Chart 11
Year-on-year change in retail sales and fuel retail sales volume

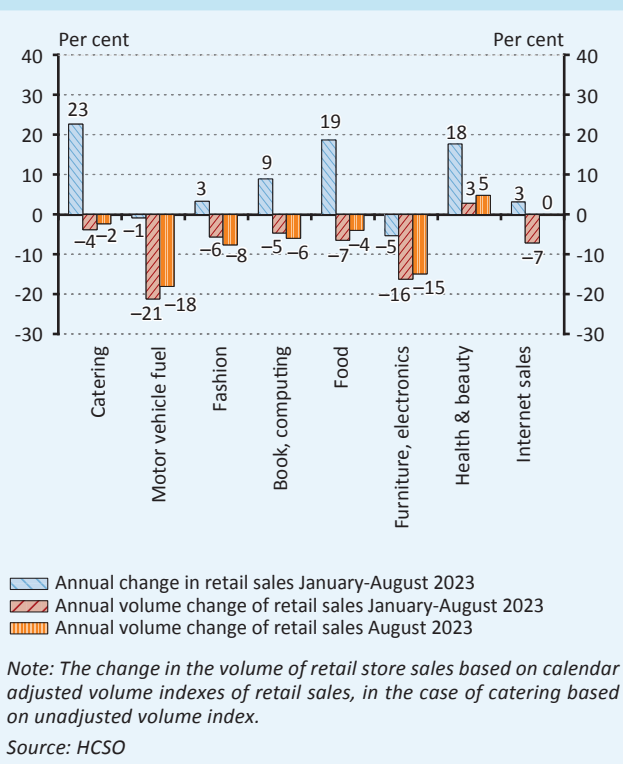


Note: Calendar-adjusted data. In 2022, fuel retail sales accounted for 17.8 per cent of total retail sales.

Source: HCSO

As real wages fall, retail sales volumes are also declining in almost all store types. Among the main determinants of household consumption, the real net wage bill fell by 2.1 per cent on an annual basis in July 2023 (Annex, Chart 4). The August household confidence indicator improved slightly versus the previous month, but remains low and below the level of the period before the pandemic. In the first eight months of 2023, retail sales rose by 10.1 per cent at current prices compared to the same prior-year period, but on a volume basis, they dropped by 9.6 per cent year-on-year. In August 2023, the volume of retail sales fell by 7.1 per cent year-on-year (4.5 per cent excluding fuel trade), based on data following adjustment for calendar effects (Chart 11). Food and food-related convenience stores – which account for the largest share, at 45.6 per cent in 2022 – saw their turnover fall by 4.0 per cent on an annual basis. The largest volume decline (18.1 per cent) occurred in petrol stations, with the large decrease due to the end of the fuel price freeze in December 2022 and the high sales volume in August 2022 (Chart 12). The sales volume of shops selling medicines, medical products and perfumes increased in August 2023 by 4.8 per cent year-on-year, while the turnover of motor vehicle and vehicle parts stores stagnated (+0.2 per cent), but decreasing sales volumes can

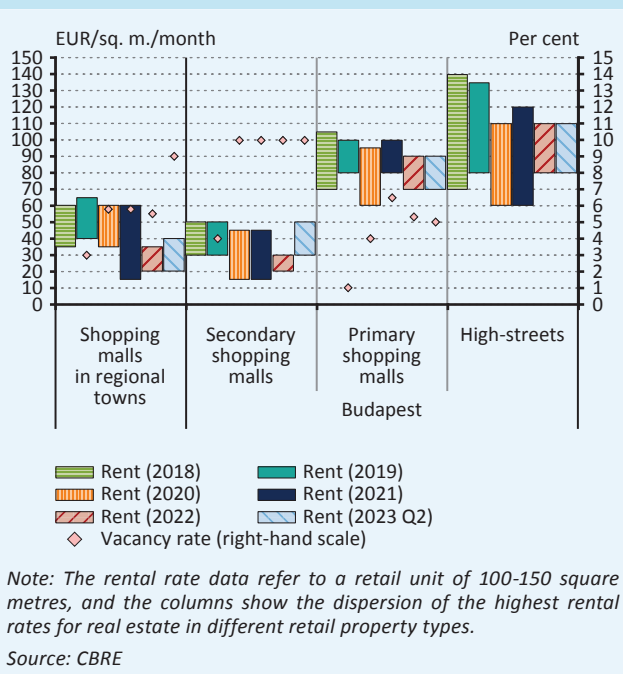
Chart 12
Development of turnover of retail store types and restaurants



be observed in other types of stores. In terms of sales at current prices, in the January-August 2023 period, besides fuel trade, furniture and technical goods stores recorded a decline of 5.3 per cent year-on-year. At current prices, the share of online channels in retail sales excluding fuel fell from 11.4 per cent in 2021 to 10.2 per cent in 2022 and 9.3 per cent in the first eight months of 2023.

The offered rents of secondary shopping centres in Budapest and shopping centres in regional cities increased in 2023. In 2023 H1, the mean values of typical offered rental price ranges for retail premises of 100–150 square metres increased or stagnated compared to year-end 2022 levels. By category, while the typical offered rental price ranges of Budapest primary shopping centres and high streets remained unchanged, the Budapest secondary shopping centres saw the largest increase in rents (Chart 13). For the latter, the rental price range, which fell during the pandemic, has returned to its 2019 level of between EUR 30 and EUR 50 per square metre per month. There is also a slight increase in offered rents for shopping centres in regional cities, where the top of the price range has climbed from EUR 35 to EUR 40 per square metre per month. In 2023 H1, vacancy rates for shopping centres in regional cities rose from 5.5 per cent at the end of 2022 to 9 per cent. There is stagnation in the case of Budapest shopping centres and a slight decrease in the case of primary ones.

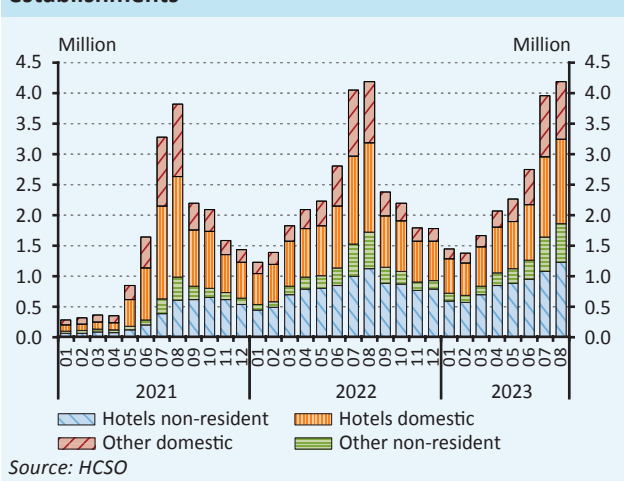
Chart 13
Retail rental rates and vacancy rates in Hungary



5 Hotel market

In the first eight months of 2023, the number of guest nights spent in commercial accommodation establishments decreased slightly by 0.4 per cent at the national level compared to the same period of the previous year. Within this, the number of overnight stays by domestic guests fell by 8 per cent owing to lower real wages, while overnight stays by foreign guests rose by 11 per cent due to several major international events. Within commercial accommodation establishments, hotel revenues in the period January–August 2023 were 28 per cent higher than in the same period of the previous year, while the number of hotel guest nights rose by 1 per cent. In the hotel sector at the national level, 3,500 new hotel rooms were under construction at the end of June 2023 and are scheduled to be completed in the next year and a half to two years, but there is much uncertainty about the timing of completions, with delays expected to continue as in past years. Similar to Budapest, hotel occupancy rates continued to improve in 2023 H1 in the CEE region’s capitals, with now only a 6.5-percentage point gap compared to the pre-pandemic level in 2019 H1.

Chart 14
Monthly guest nights in commercial accommodation establishments



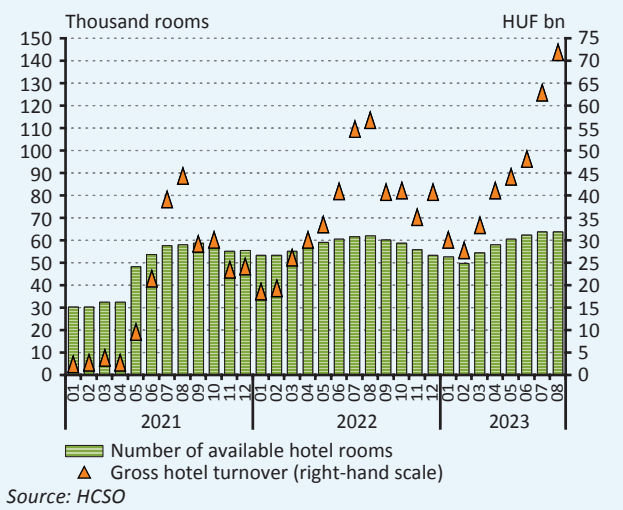
In the first eight months of 2023, hotel guest nights increased slightly due to foreign guest nights, while the number of overnight stays by domestic guests decreased.

In January–August 2023, a total of 7.8 million guests spent 19.7 million guest nights in domestic commercial accommodation establishments, up 3.2 per cent regarding the number of guests and down 0.4 per cent regarding the number of guest nights year-on-year (Chart 14). The number of nights spent by domestic guests fell by 8 per cent, while the number of overnight stays by foreign guests rose by 11 per cent compared to January–August 2022. In the period under review, 69 per cent of all overnight stays and 74 per cent of overnight stays by foreign guests were spent in hotels. The number of nights spent in hotels increased by 1 per cent year-on-year at the national level and by 9 per cent in Budapest, which was also linked to several major international events (Annex, Chart 7). In both cases, the increase was due to the number of overnight stays spent by foreign guests, as the number of overnight stays by domestic guests fell by 7 per cent at the national level and by 1 per cent in Budapest. In the first eight months of 2023, the number of overnight stays by guests spent in hotels at the national level was nearly one quarter lower than in 2019, with the number of overnight stays by foreign guests lower by more than one quarter.⁷

In August 2023, the number of hotel rooms on offer was 3 per cent higher and hotels’ revenues for the first eight months were 28 per cent higher than in 2022. In 2023, the number of hotel rooms on offer continued to show the typical seasonality, but the offer of rooms fell more at the

⁷ From June 2022, the HCSO uses a new data source for data on commercial accommodation establishments, with data published back to 2021 from the new data source. Therefore, the comparability of accommodation data before 2021 and after May 2022 is limited. The change in the number of overnight stays in 2019 and 2023 was estimated using a correction factor calculated from the deviation of the data available from the old and new data sources of the HCSO for the same periods (January 2021 to May 2022).

Chart 15
Domestic hotel capacity and development of gross turnover



beginning of the year, especially in February. This may have been partly due to high energy prices, but also to renovation work organised outside the peak season. In August 2023, around 63,800 hotel rooms were available nationwide, which is 3 per cent more than the rooms on offer a year earlier (Chart 15). Taking into account the number of guest nights stagnating at the national level, the gross revenue of domestic hotels in the January–August period of 2023 was 28 per cent higher than in the same period of 2022.

Hotels in all of the capital cities of the CEE region saw improved performance, with room rates already exceeding the 2019 levels by nearly 20 per cent on average. In 2023 H1, room occupancy rates in hotels in the region’s capital cities ranged from 61 to 71 per cent, reflecting an increase of 3 to 16 percentage points versus the same period last year and a decline of only 6.5 percentage points on average for the region versus the same period in 2019 (Chart 16). Warsaw hotels had the highest occupancy rate in the region at 71 per cent, down just 1 percentage point from four years earlier. In terms of average gross room rates, Budapest hotels are the most expensive in the region at EUR 115, which is 6 per cent higher than the regional average. In 2023, hotel room rates rose in all capital cities, by an average of 22 per cent, with Warsaw showing the highest rate of increase at 29 per cent. The average hotel room rate in all regional capitals already exceeded the 2019 level by an average of 18 per cent.

Chart 16
Average performance indicators for hotels in CEE capitals in 2019–2023

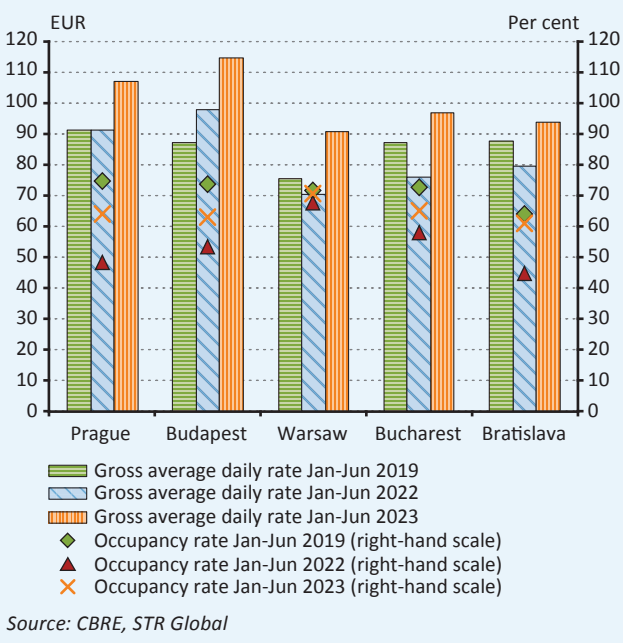
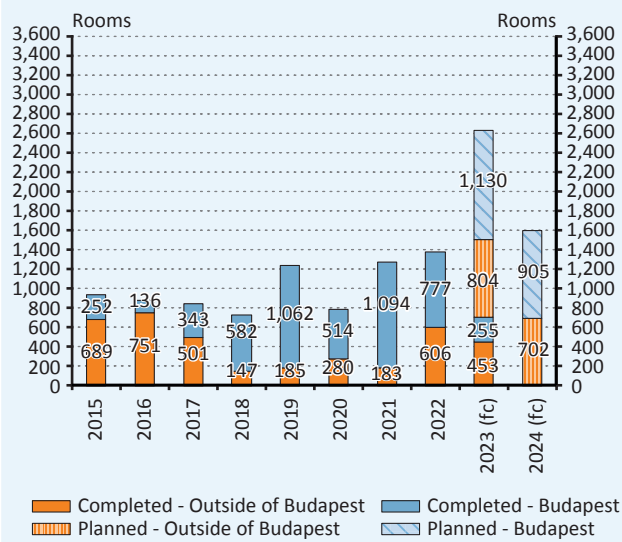


Chart 17
Number of completed and planned hotel rooms in Hungary



Note: Completions planned are based on data from the end of 2023 Q2.

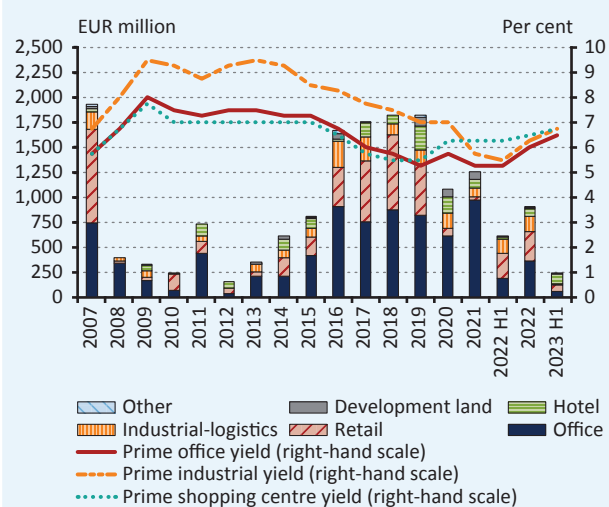
Source: CBRE, Cushman & Wakefield, Hungarian Hotel & Restaurant Association

Slowing economic activity and falling real wages pose a risk to further growth in tourism and the success of developments. In 2023 H1, a total of around 700 new hotel rooms were completed across the country (Chart 17). 36 per cent of the completed rooms are located in Budapest. Ongoing hotel developments will also result in significant completions in the coming periods: 3,500 hotel rooms are under construction and are scheduled to be completed in 2023 H2 or in 2024, 57 per cent of which will be in Budapest. In total, the number of rooms of hotel projects in progress at the end of June 2023 is equivalent to 5.7 per cent of the existing national hotel capacity of around 63,000 rooms. The availability and rising prices of building materials, the economic outlook and falling real wages pose risks to the completion of developments and hotel openings on time, and in many cases may result in delays to the completion schedule.

6 Commercial real estate investments

The domestic investment market recorded turnover of EUR 0.25 billion in 2023 H1, with investment turnover 60 per cent lower than in 2022 H1, marking the lowest H1 turnover since 2013. 80 per cent of the turnover was linked to domestic investors. In terms of primary yields, the office and industrial-logistics segments each saw a 125-basis point increase in yields, while shopping centres saw a 50-basis point increase in yields in the year to end-June 2023. The magnitude of the yield increases over the past year has amounted to between one third and two thirds of the yield increases seen in the first year of the 2008 recession in each segment. Uncertainties about the economic outlook, rising yields and high funding costs continue to keep investors on the sidelines, which also suggests low investment flows for the whole of 2023. Across the CEE region, prime office yields rose in most countries, with capital values calculated based on changes in yields and rents falling across the region, by an average of 10 per cent in the year to end-June 2023. In Budapest, data show a higher depreciation of 19 per cent. Based on the quarterly survey by the Royal Institution of Chartered Surveyors,⁸ all respondents saw the real estate market cycle in a downturn in 2023 Q2. The forward-looking capital value expectations of the professionals interviewed were negative for office and retail property, while the negative outlook for logistics centres for the first quarter shifted to neutral.

Chart 18
Investment volume on the Hungarian CRE market, its composition and prime yields



Source: CBRE, Cushman & Wakefield, MNB

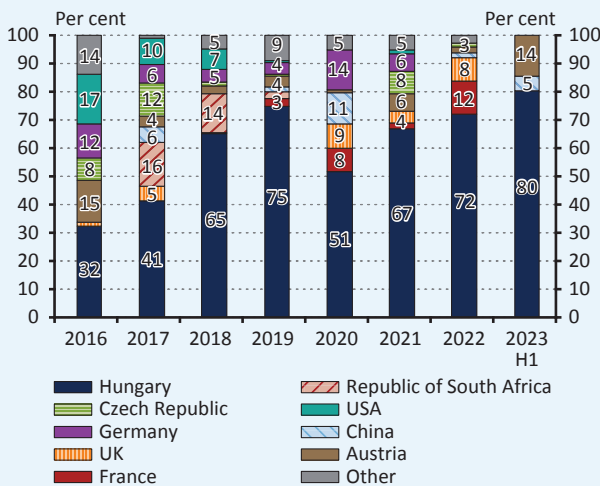
With yields continuing to rise and financing costs remaining high, investment activity remains slack and there are no factors supporting a turnaround in the short term in this regard. In 2023 H1, the investment turnover of the domestic commercial real estate market reached EUR 0.25 billion; a 60-per cent decrease in investment turnover can be measured versus the same period of the previous year (Chart 18). 41 per cent of the volume was generated by sales of hotels, 27 per cent by sales of retail property, 22 per cent of office buildings, 6 per cent by development plots and 4 per cent by sales of industrial-logistics property. Prime yields⁹ continued to rise in 2023 H1, with 125-basis point increases in both the office and industrial-logistics segments and a 50-basis point increase in the case of shopping centres versus 2022 Q2. Yields have been more subdued compared to the recession that started in 2008, when the office market saw a yield increase of 200 basis points, the industry-logistics segment 225 basis points, and shopping centres 150 basis points in the space of a year. Thus, the prime yield level for the office segment stood at 6.50 per cent at the end of June 2023, while the prime yield level for industrial-logistics and shopping centres stood at 6.75 per cent. Since the end of 2021, in line with tightening monetary conditions due to high inflation, real estate yield spreads have declined by 145 to 220 basis points across the segments compared to the 10-year Eurobond yield¹⁰ (Annex, Chart 18). However, 2023 H1 will also see an

⁸ Royal Institution of Chartered Surveyors, Global Commercial Property Monitor. Available at: <https://www.rics.org/eu/news-insight/research/market-surveys/global-commercial-property-monitors/>

⁹ Yield data refer to the (initial) gross yields of CRE transactions and are calculated as the ratio of the real estate's annual net rental revenue and the purchase price.

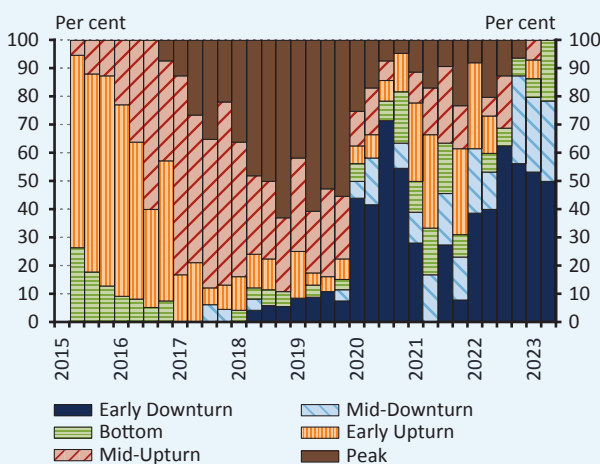
¹⁰ The 10-year Eurobond yield is the average of the 10-year government bonds issued by AAA-rated euro area countries.

Chart 19
Investment volumes on the Hungarian CRE market by investors' country of origin



Source: CBRE, Cushman & Wakefield, MNB

Chart 20
Perceptions of the current phase of the property cycle



Note: Based on responses from July 2023.

Source: RICS

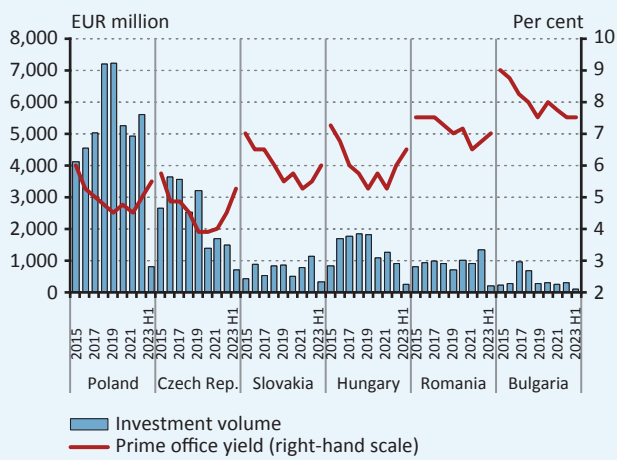
increase of around 25 basis points in the yield premium for office and industrial-logistics properties, driven by higher prime yields. After the end of June 2023, the European Central Bank (ECB) raised its key interest rates by a total of 50 basis points in August and September, which means that further yield increases and low investment flows can be expected in 2023 H2, not only in Hungary but also across Europe.

The low investment turnover in 2023 H1 was predominantly related to domestic investors. Purchases by Hungarian investors accounted for 80 per cent of the investment turnover in the first half of the year (Chart 19). The remaining 20 per cent was made up of purchases by investors from Austria and China. The combined share of domestic closed-end and foreign real estate funds amounted to 55 per cent of the investment turnover, with Hungarian real estate investment companies accounting for 29 per cent and private investors for 11 per cent (Annex, Chart 17). Hungarian public open-ended real estate funds saw an overall inflow of capital in the first three quarters of 2023. Liquid assets coverage in public real estate funds remains at an adequate level, with the ratio of liquid assets to net asset value, taking into account the amount of immediately drawable credit lines,¹¹ standing at 55 per cent at end-September 2023 (Annex, Chart 20).

In 2023 Q2, all experts already reported a decline in the commercial real estate market. In the first and second quarters of 2023, respectively, 53 and 50 per cent of experts interviewed by the Royal Institution of Chartered Surveyors (RICS) viewed the commercial real estate market cycle as being in an initial downturn phase, with 29 per cent predicting a sharp market downturn (Chart 20). While 7 per cent of experts in the first quarter, and 21 per cent in the second quarter believed that the domestic commercial real estate market had sunk to its lowest point, a higher rate than this was last observed at the beginning of the cycle in 2015. This clearly reflects the negative direction and uncertainty of the current situation and outlook for the commercial real estate market; in the second quarter, none of the respondents thought that the market was in a recovery phase. In 2023 H1, more than half of the respondents reported a decline in both domestic and foreign investor interest in all real estate segments. For the office and retail real estate markets, the three-month forward-looking capital value expectations remained negative in 2023 H1, while the negative outlook for 2023 Q1 for logistics centres has turned neutral (Annex, Chart 25). Risks related to commercial real estate are increasingly

¹¹ Government Decree No 78/2014. (III. 14.) on the investment and borrowing rules applicable to collective investment forms permits the inclusion of unconditional and immediately drawable credit lines in the calculation of the ratio of liquid assets.

Chart 21
Investment volume and prime office market yields in the CEE region



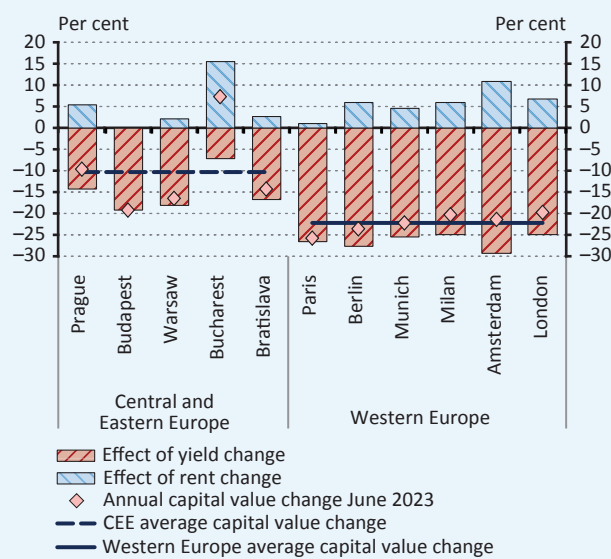
Source: MNB compilation based on CBRE, Colliers, Cushman & Wakefield and JLL data

in focus at the international level, and following the December 2022 European Systemic Risk Board (ESRB) recommendation,¹² all of the major central banks have emphasised in their financial stability reports the risks related to commercial real estate from cyclical factors (e.g. slowing economic activity, inflation, high inflation-induced interest rate environment) and structural trends (e.g. focus on hybrid working, e-commerce, energy efficiency).

In 2023 H1, investment yields rose in most countries in the CEE region, with transaction volumes falling by an average of almost 60 per cent on an annual basis. Investment markets in most CEE countries were characterised by rising yields in 2023 H1. Prime office yields stagnated only in Bulgaria, where the yield level is around 150 basis points higher than the average of the other CEE countries (Chart 21). Among the CEE countries, Prague continues to have the lowest prime office yield at 5.25 per cent and Sofia the highest at 7.50 per cent. At the regional level, investment flows in 2023 H1 were 58 per cent lower than in the same period of the previous year (Annex, Chart 19), with the largest decreases in transaction volumes seen in Poland (71 per cent) and Hungary (60 per cent). The only country where investment turnover increased in the first half of the year was Bulgaria (by 24 per cent), but even there it was relatively low at EUR 83 million.

¹² RECOMMENDATION OF THE EUROPEAN SYSTEMIC RISK BOARD of 1 December 2022 on vulnerabilities in the commercial real estate sector in the European Economic Area (ESRB/2022/9). Available at: <https://www.esrb.europa.eu/news/pr/date/2023/html/esrb.pr230125~f97abe5330.en.html>

Chart 22
Annual capital value change in CEE and in major Western European office markets, June 2023



Note: Yearly changes based on a comparison of data for 2022 Q2 and 2023 Q2. The rate of value change in the prime office market segment is not representative of the entire market, however, its direction is a good indicator of the tendency in the value development of the overall market.

Source: MNB calculation based on CBRE and Cushman & Wakefield data

The CEE region continues to show a smaller value correction compared to Western Europe, but there is uncertainty in the yield data due to the weak investment activity. Compared to yield increases of 95 to 135 basis points in the more mature Western European office markets (Amsterdam, Berlin, Brussels, London, Milan, Munich, Paris), the CEE region’s capitals have seen smaller yield increases (typically 50 to 100 basis points, with 125 basis points in Budapest) over the past year. The increase in yields tends to push down property values, which may be partly or fully offset by a rise in rents. Based on the evolution of prime yields and prime rents in the office market, in the year to end-June 2023, the calculated capital value¹³ of prime office space in Western Europe decreased by 20–26 per cent¹⁴ (Chart 22). On average, capital values in Central and Eastern Europe are down by 10 per cent, but there are substantial differences between countries. Based on prime office yields and rents, capital values in Budapest fell by 19 per cent over the one-year period under review, closer to the value corrections in Western Europe. The change in yields and rents implies lower capital values in Warsaw by 16 per cent, in Bratislava by 14 per cent and in Prague by 9 per cent year-on-year. At the same time, values in Bucharest may even have risen thanks to a 16-per cent increase in prime rents.

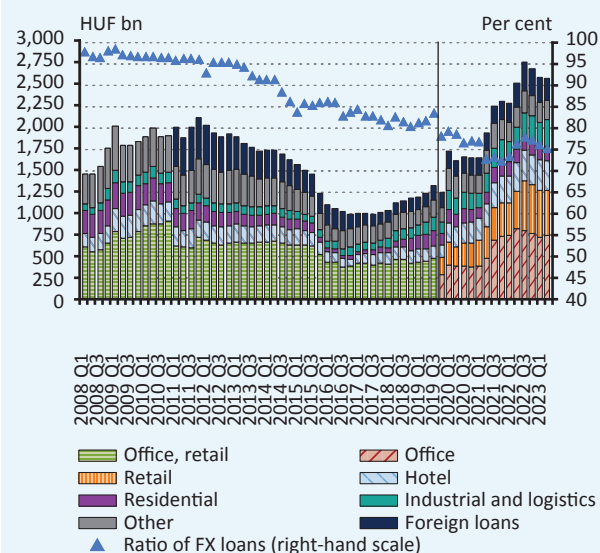
¹³ The capital value of prime offices is a calculated, theoretical value, being the amount of the annual net rental revenue resulting from the level of prime rental rates capitalised by the prime yield as a perpetual annuity (annual prime revenue from rents/prime yield).

¹⁴ As regards the changes in the capital value estimated based on the change in prime yields and rental rates it should be noted that the prime yield and rental rate represent the expected yield and rental rate in the case of top-quality properties at prime locations. The degree of the changes measured in the prime property category does not necessarily reflect the average trend in the entire office market, but it may serve as a good indicator of the direction of changes.

7 Commercial real estate financing

The stock of CRE-backed project loans of credit institutions increased by 2.2 per cent on an annual basis by the end of June 2023, while the value adjusted for exchange rate effects rose by 7.5 per cent. The share of project loans denominated in foreign currency has declined over the past three quarters, in line with the strengthening of the forint against the euro, and stood at 75 per cent (80 per cent excluding residential real estate projects) at the end of 2023 Q2. In 2023 H1, banks disbursed 44 per cent less project loans secured by commercial real estate than in the same period of the previous year. There is a shift in the composition of disbursements by property types: while around half of the disbursements in earlier periods were linked to office buildings and shopping centres, this fell to 29 per cent in 2023 H1. In addition, the share of disbursements related to housing estates accounted for 29 per cent, hotels for 20 per cent and the industrial-logistics segment for 13 per cent. On a year-on-year basis, the volume of project loan disbursements for financing hotels increased the most, rising by 61 per cent due to the low base value in 2022, while in the case of housing estate projects there was an increase of 6 per per cent, and disbursements in other segments decreased in the first half of the year. Interest rates on EUR-denominated loans, which make up the bulk of project loans, are expected to rise further in line with the European Central Bank's interest rate decisions, but portfolio quality has not deteriorated so far in parallel with the increased funding burdens. According to the MNB's Lending Survey, in 2023 Q2 – after a year and a half of tightening – banks left the terms of commercial real estate loans broadly unchanged, with no changes planned for the second half of the year. In the second quarter, responding institutions reported overall unchanged loan demand for commercial real estate loans, while about one third of them reported declining loan demand for residential projects and a similar proportion reported increasing loan demand for logistics centres.

Chart 23
Composition of the credit institution sector's project loan stock for CRE purchase or development, by real estate type



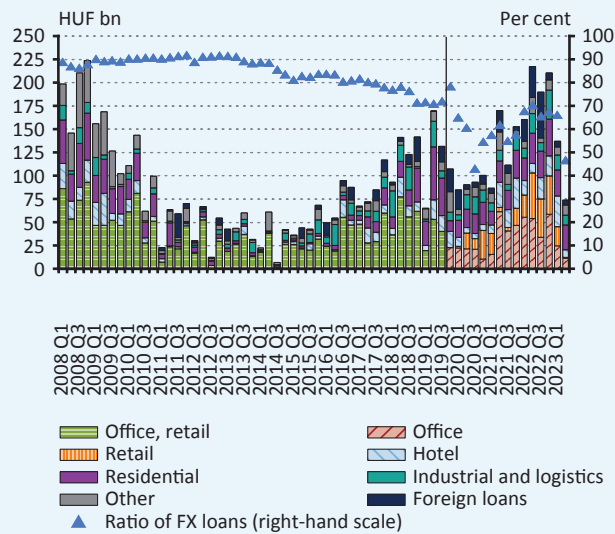
Note: No data breakdown by real estate type is available for loans provided to foreign companies before 2011. Until 2019 Q3 based on aggregated data of the data-providing institutions, from 2019 Q4 based on individual loan agreement data, the comparability of data from these two periods is limited.

Source: MNB

While the stock stagnated or declined, the share of foreign currency loans in the project loan portfolio backed by commercial real estate decreased. At the end of June 2023, credit institutions had a total of HUF 2,564 billion of commercial real estate financing project loans¹⁵ on their balance sheets, including loans for housing estate projects (Chart 23). This represents an annual increase of 2.2 per cent in the stock in nominal terms and 7.5 per cent excluding the exchange rate effect. Compared to the end of 2022, the project loan portfolio fell by 4.3 per cent in nominal terms and rose by 1.4 per cent at constant exchange rates or stagnated with adjustment for exchange rate effects taken into account. Within the stock, the share of foreign currency loans almost entirely denominated in euro has declined over the past three quarters, in line with the strengthening of the forint against the euro, and stood at 75 per cent (80 per cent excluding residential real estate projects) at the end of 2023 Q2. At the end of June 2023, 30 per cent of the commercial real estate-backed project loan portfolio of credit institutions financed the development and purchase of office buildings, 25 per cent of retail real estate, 15 and 13 per cent of the loans were related to the hotel and industrial-logistics segments, 7 per cent to residential real estate projects and 9 per cent to other types of real estate. On an annual basis, the retail

¹⁵ In monitoring the portfolio and disbursements of project loans secured by commercial real estate, the MNB has switched to using the credit contract-level data of the credit registry data service, which is available from December 2019. Compared to the previously used data tables based on the CRR definition of project loans, the credit registry provides a broader view of project loans, and therefore the comparability of the portfolio data before 2019 Q4 with 2019 Q4 and onwards in Figures 23 and 24 is limited.

Chart 24
Project loan disbursements of the credit institution sector for the development or purchase of commercial real estate by property type



Note: No data breakdown by real estate type is available for loans provided to foreign companies before 2011. Until 2019 Q3 based on aggregated data of the data-providing institutions, from 2019 Q4 based on individual loan agreement data, the comparability of data from these two periods is limited.

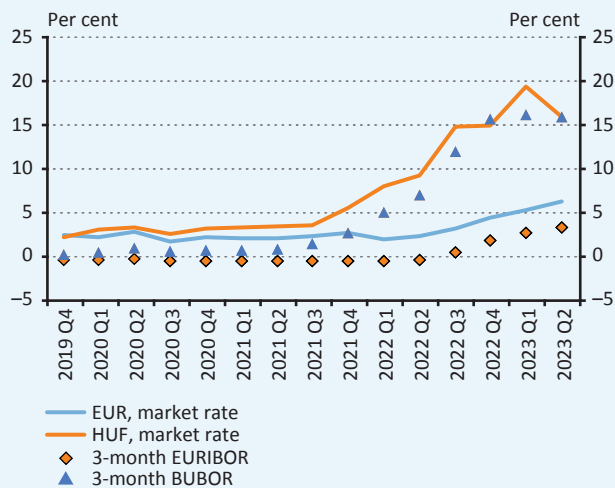
Source: MNB

real estate loan portfolio grew the most, expanding by 19 per cent, followed by the industrial-logistics segment’s loan portfolio, which increased by 16 per cent. The stock of housing estate loans increased by 12 per cent, while the stock of hotel loans grew by 2.2 per cent. At the same time, the stock of office building loans, the most heavily weighted category in the portfolio of credit institutions, decreased by 13 per cent compared to 2022 Q2. By location of financed properties, the outstanding principal amount of domestic loans increased by 3 per cent over the past year, while that of foreign loans decreased by 6 per cent.

The volume of project loans disbursed fell substantially in 2023 H1, with the most pronounced decline seen in retail and office disbursements.

In 2023 H1, credit institutions disbursed a total of HUF 211 billion in development or purchase project loans secured by commercial real estate, which also includes project loan disbursements for housing estates (Chart 24). In nominal terms, this amount is 44 per cent lower than the volume disbursed in the same period last year, or a decrease of 43 per cent after adjusting for the exchange rate effect. Overall, 31 per cent of the disbursements in the first half of the year were for purchases in terms of the loan objective, compared to only 10 per cent for office buildings, and 84 per cent for retail properties and 67 per cent for hotels. The share of the purchase loan objective in disbursements for 2020–2022 ranged between 44 per cent and 47 per cent, with the low share in 2023 H1 reflecting the decline in investment activity over the past year, while ongoing developments still need to be financed. Loans disbursed for foreign real estate accounted for 5 per cent of H1 issuance, marking a significant drop from 15 per cent in 2022 H1. 29 per cent of the volume disbursed by credit institutions in 2023 H1 was for the financing of housing estate projects, 20 per cent for hotels, 18 per cent for offices, 13 per cent for industrial-logistics properties and 11 per cent for retail properties. In a year-on-year comparison, with the exception of loans for hotels and housing projects, the new volume placed decreased for all sub-portfolios, with the largest decrease, namely 78 per cent, registered in the case of the retail segment. At the same time, disbursements to finance hotels increased by 61 per cent and those to finance residential projects rose by 6 per cent. The share of foreign currency loans in new disbursements in 2023 H1 was 59 per cent (79 per cent excluding residential real estate projects), showing a decrease of 10 percentage points (2 percentage points excluding residential real estate projects) compared to 2022 H1.

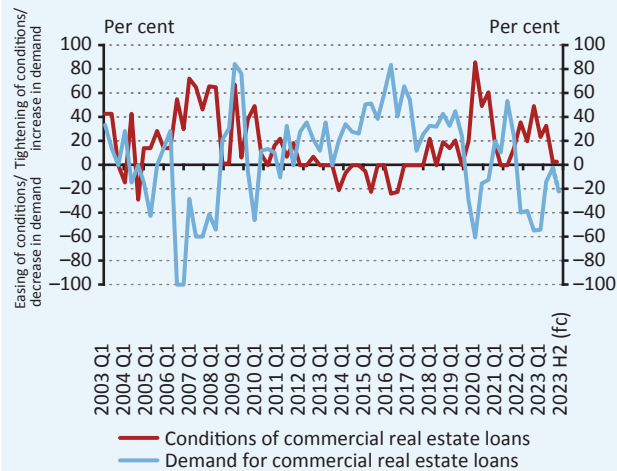
Chart 25
Average interest rate on new project loan contracts secured by commercial real estate and 3-month interbank offered rates



Note: The average interest rate weighted by the contractual amount of project loans secured by commercial real estate concluded in the given quarter. Interbank offered rates are quarterly averages.

Source: ECB, MNB

Chart 26
Development of CRE loan demand and loan conditions



Note: Responses of the participating banks, weighted by market share.
Source: MNB, Lending Survey

Interest rates on EUR-denominated loans, which account for the bulk of project loans, are expected to rise further.

On the basis of new contracts, the interest rate on EUR-denominated project loans climbed substantially higher in 2023 Q1, as the average interest rate on EUR-denominated project loans rose by 1.9 percentage points versus end-2022 (Chart 25). In 2023 Q3, the ECB raised its policy interest rate by 25 basis points on two occasions, which is expected to trigger further increases in interest rates for euro loans. Among project loans, the average interest rate on market-based new forint loans rose by 1.1 percentage points overall in 2023 H1. After a rise of 4.4 percentage points in the first quarter, the second quarter already saw a decline of 3.3 percentage points, in line with the MNB's interest rate cuts and the fall in interbank rates.

Portfolio quality has not yet deteriorated in parallel with the increased financing burdens.

Despite the higher interest rates in recent periods, there is no visible deterioration in the NPL ratio of the CRE-backed project loan portfolio of credit institutions at the sector level, and in fact this indicator has been on a downward trend over the past two years. At the end of June 2023, the NPL ratio of the analysed loan portfolio stood at 4.2 per cent, down 0.6 percentage points from one year earlier and 1 percentage point from two years earlier. The improvement in the NPL ratio is due to the reclassification of loans previously in the payment moratorium, which have since been restructured, back to the performing category after the observation period. The NPL ratio for all types of real estate loans decreased or stagnated, with the highest rate of 12.7 per cent observed for hotels and the lowest rate of 0.1 per cent for office loans. In the case of hotels, one of the main reasons for the high NPL ratio is that these loans have been in moratorium for the longest period of time in the context of the slowdown in tourism, and therefore downgrades after the observation period are still to come. However, in light of the high financing costs and uncertain economic prospects, financial stability risks related to the commercial real estate market may increase in the coming periods. In view of this, from 1 July 2024, the MNB will reactivate the systemic risk capital buffer (SyRB) for commercial real estate project loan exposures as a preventive measure.¹⁶

Banks do not plan to change the terms of commercial real estate loans in the second half of the year.

According to the MNB's quarterly Lending Survey, the banks left the terms of commercial real estate loans broadly unchanged in 2023 Q2, with no changes planned for 2023 H2 (Chart 26). At the same time, 9 per cent of banks in net terms

¹⁶ MNB Macprudential Report, October 2023. Available at: <https://www.mnb.hu/en/publications/reports/macprudential-report/macprudential-report-2023>

plan to tighten financing conditions for housing and office projects due to the challenges affecting the sector and more expensive bank funding (Annex, Chart 24). In the second quarter, banks reported broadly unchanged loan demand for commercial real estate loans compared to the first quarter, while 32 per cent of banks reported declining loan demand for residential projects and a similar proportion reported increasing loan demand for logistics centres. Among the segments of the commercial real estate market, banks expect demand to pick up in the second half of the year only for financing logistics centres, while half of the respondents expect demand for shopping centres to continue to fall and 24 per cent expect weaker demand for residential projects.

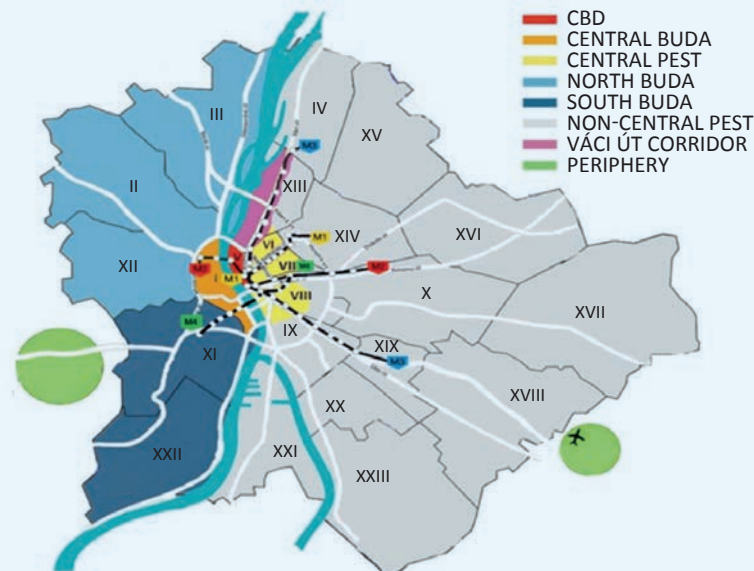
Annexes

ANNEX 1: SUB-MARKETS OF THE BUDAPEST OFFICE MARKET¹⁷

The office market of Budapest is divided into the following eight sub-markets based on the data collection of the Budapest Research Forum (Chart 27):

- **Central Business District – CBD:** The inner districts of Budapest, primarily the office buildings in the 5th district and on Andrassy út and the surrounding streets from Bajcsy-Zsilinszky út to the Oktogon. Most of the CBD is an architecturally protected area with a few category “A” office buildings and very limited development opportunities.
- **Central Buda:** Area bounded by the Margit körút–Krisztina körút–Böszörményi út–Jagelló út–Villányi út–Fehérvári út–Október huszonharmadika utca–Irinyi József utca. Similar to the Central Business District, development opportunities are limited.
- **Central Pest:** Area bounded by the Inner City–the Váci út Corridor–Dózsa György út–Thököly út–Fiumei út–Orczy út–Haller utca. Concentrated developments have been performed in this sub-market.
- **North Buda:** Most of districts 2, 3 and 12; investments are limited to smaller areas.

Chart 27
Sub-markets of the Budapest office market



Source: Budapest Research Forum

¹⁷ Source: Cushman & Wakefield

- **South Buda (Non-Central Buda South):** Districts 11 and 22. In the development of this sub-market, available development areas are an alternative for the service centre office tenants of the Váci út Corridor, but these are less accessible than the Váci út Corridor.
- **Non-Central Pest:** Areas of Pest that are not part of the Inner City, Central Pest or the Váci út Corridor.
- **Váci út Corridor:** Area bounded by Szent István krt.–Váci út–Újpest Városkapu and the Danube. The Budapest office corridor where the most significant office developments were realised due to its available development areas and good accessibility (public transport: metro line M3, car: via Váci út). This is the most popular sub-market among foreign companies for siting their service centres.
- **Periphery:** Agglomeration areas, mainly Budaörs, Vecsés, Biatorbágy and Törökbálint.

ANNEX 2: CONCEPTS RELATED TO DEMAND IN BUDAPEST

Members of the Budapest Research Forum (CBRE, Colliers International, Cushman & Wakefield, Eston International, JLL, Robertson) collect CRE market contracts categorised into the following transaction types:

- **New lease:** A lease agreement of an immediately available area concluded with a tenant that was not previously present in the real estate.
- **Pre-lease:** A pre-lease contract concluded for a building that has not been completed yet and is not present in the current supply. Consequently, the volume of pre-lease transactions made in the period considered does not immediately increase the leased stock, but only later when it is actually placed on the market.
- **Expansion:** A rental agreement concluded with a tenant that is already present in the real estate, but rents area additional to its existing tenement.
- **Owner occupation:** The real estate owner utilises the area, basically removing it from the market, decreasing stocks offered for lease.
- **Lease renewal:** The extension of an existing contract with no effect on the rental stock.

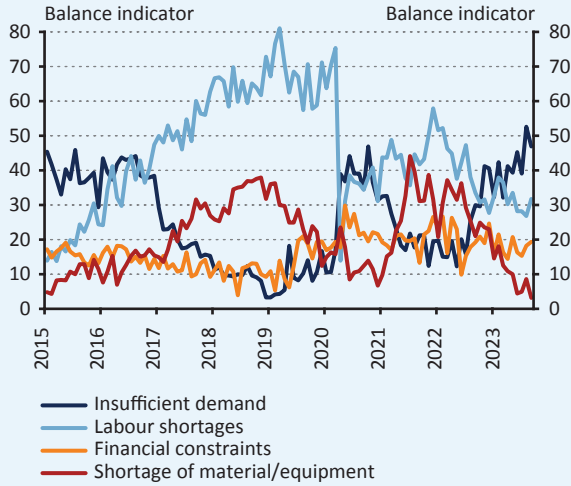
The comprehensive measures of rental market activity:

- **Total demand (gross demand):** The total volume of the above five lease transaction types in the period considered.
- **Take-up:** Measures the stock of actual new lease contracts; from the above, it includes the volume of new leases, pre-leases and expansions for the period considered.
- **Net absorption:** Demonstrates changes in the lease stock in the period considered. The difference between net absorption and gross demand is caused by lease renewals, pre-leases and tenants which exit the market.

ANNEX 3: ANNEX CHARTS

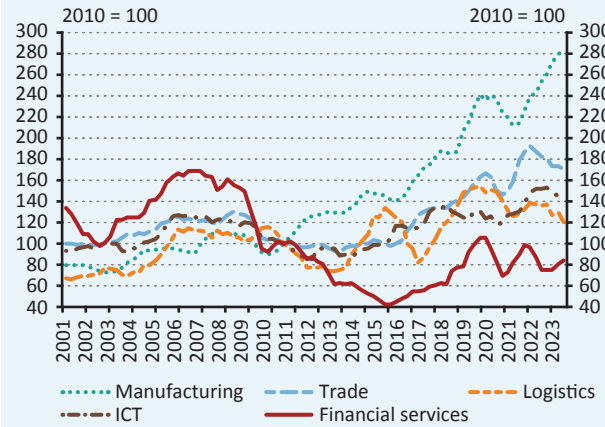
1 Macroeconomic environment

Chart 1
Factors limiting output in the construction industry



Source: European Commission

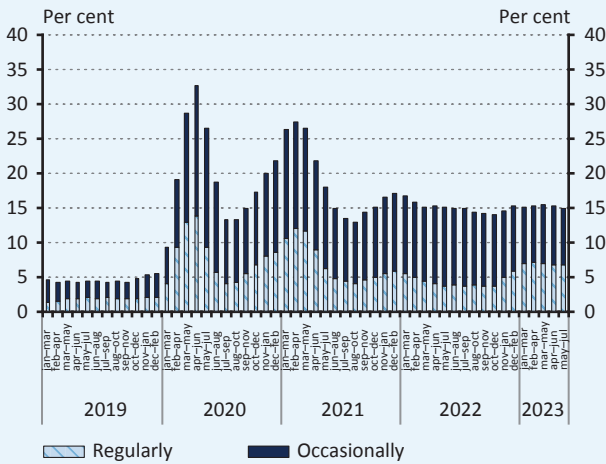
Chart 2
Investment activity of sectors relevant to the CRE market



Note: 4-quarter moving average. The ICT sector refers to the information and communications technology sector.

Source: HCSO, MNB calculations

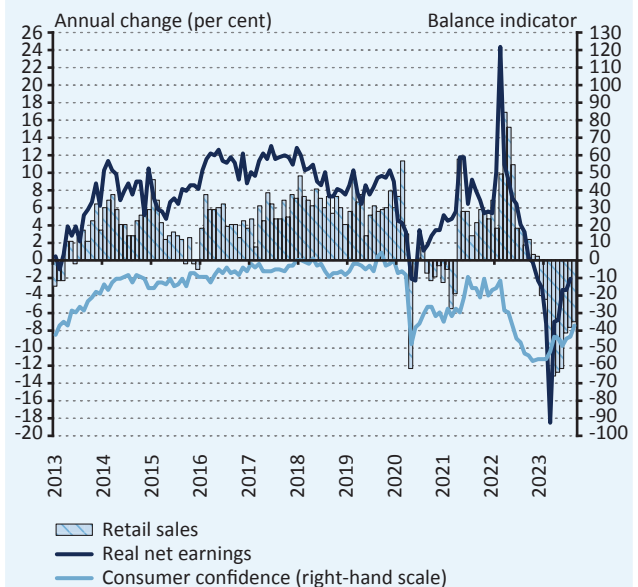
Chart 3
Employees working remotely or at home as a proportion of those in intellectual occupations



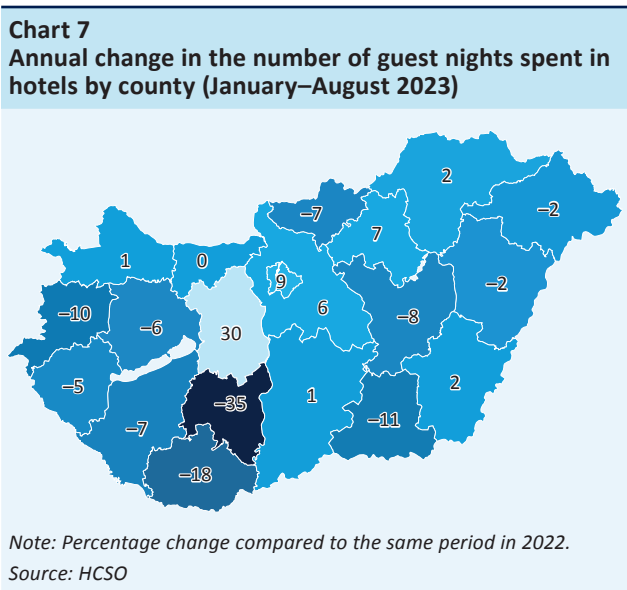
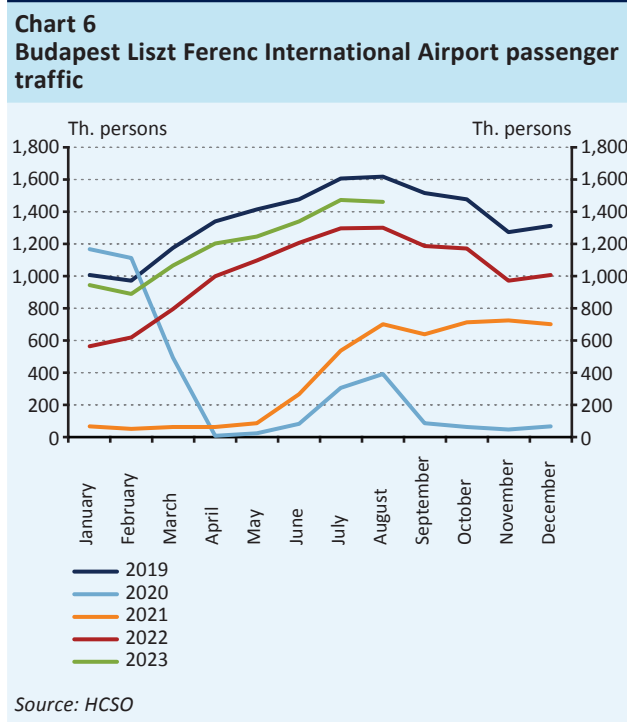
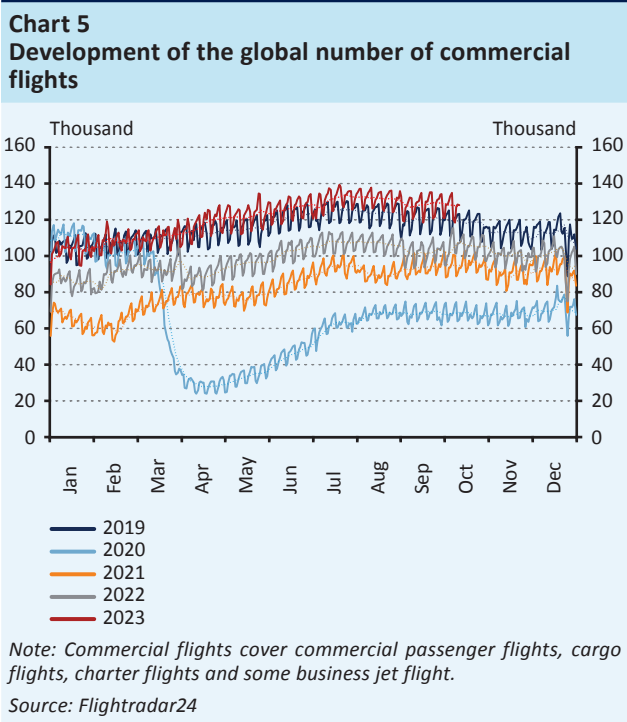
Note: Three-month moving average of employees working remotely or at home aged 15–74 as a percentage of those in intellectual occupations.

Source: HCSO

Chart 4
Development of retail sales, incomes and the consumer confidence indicator

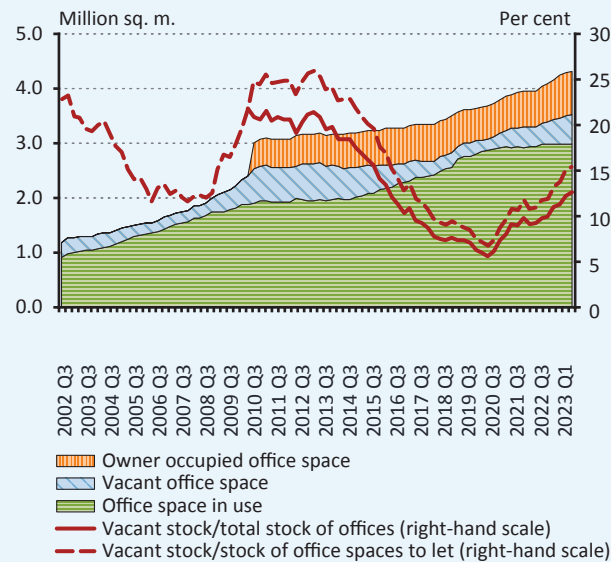


Source: European Commission, HCSO



2 Office market

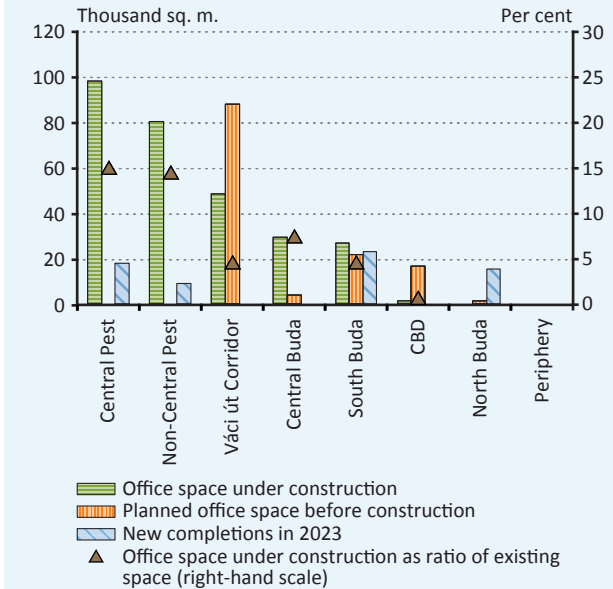
Chart 8
Floorspace and vacancy rates of modern offices in Budapest



Note: Data for owner-occupied offices only available from 2010 onwards.

Source: Budapest Research Forum

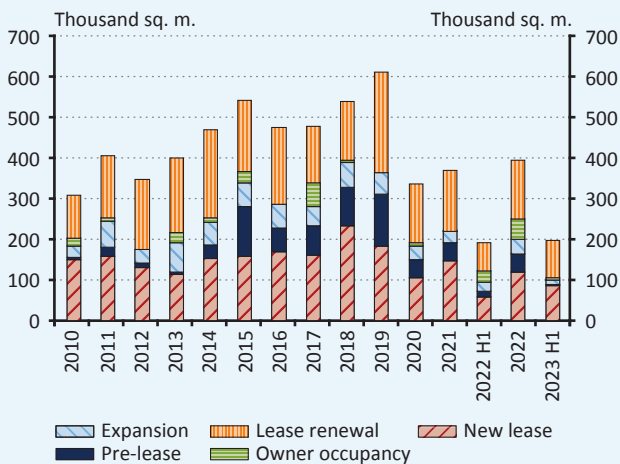
Chart 9
Distribution of Budapest office developments, renewal rate and new completions by sub-market



Note: Based on data from the end of 2023 Q2.

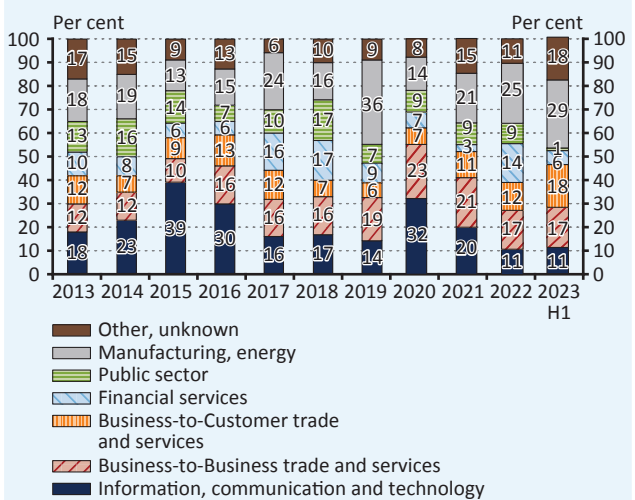
Source: Cushman & Wakefield

Chart 10
Volume and composition of rental demand in the Budapest office market



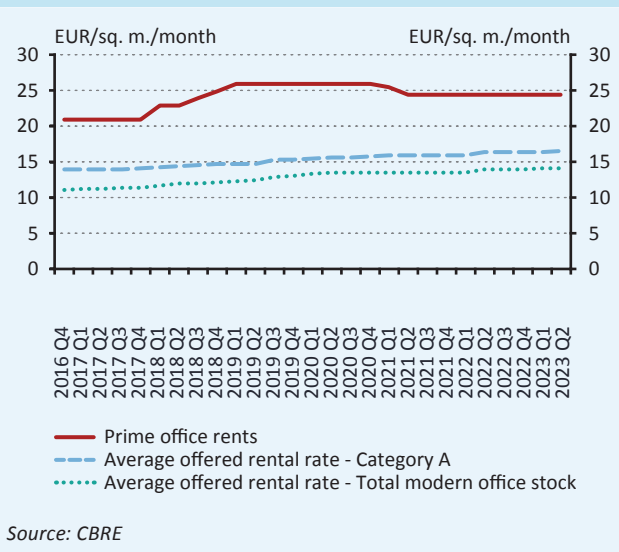
Source: Budapest Research Forum, Cushman & Wakefield

Chart 11
Take-up composition of the Budapest modern office market by tenant activity



Source: CBRE

Chart 12
Offered rental rates on the Budapest office market



3 Industrial-logistics

Chart 13
Floor space and vacancy rates of modern industrial-logistics sites in Budapest

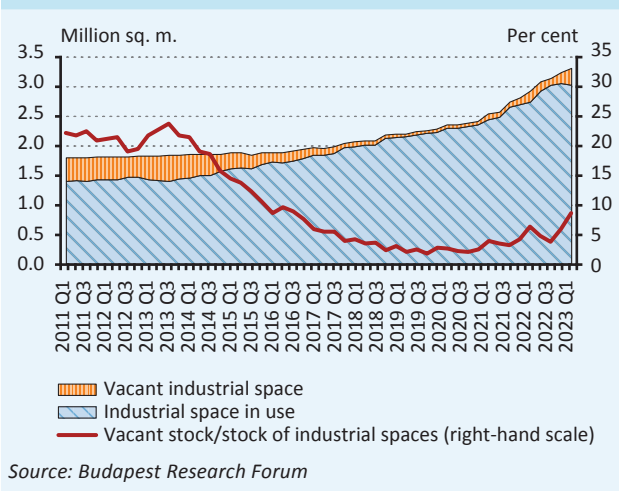


Chart 14
Total demand composition on the industrial-logistics market of Budapest and environs by tenant activity

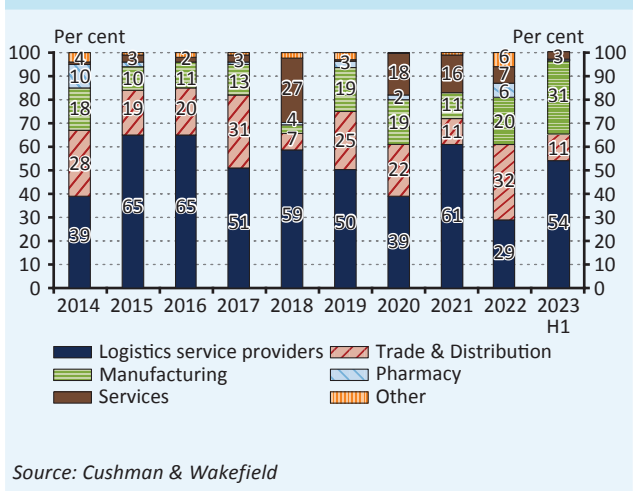
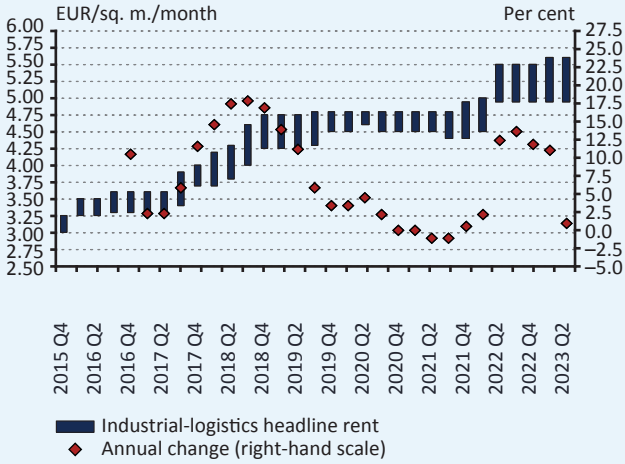


Chart 15
Typical rental rates of industrial-logistics properties in Budapest and environs

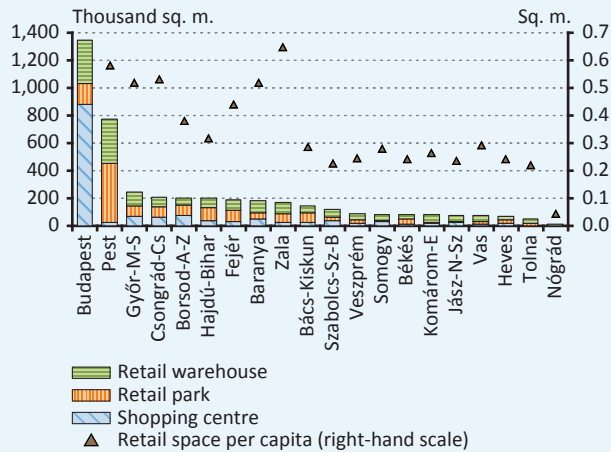


Note: Yearly change presents the yearly change in the mean of the rental rate range.

Source: CBRE

4 Retail market

Chart 16
County distribution and composition of the modern Hungarian retail real estate stock

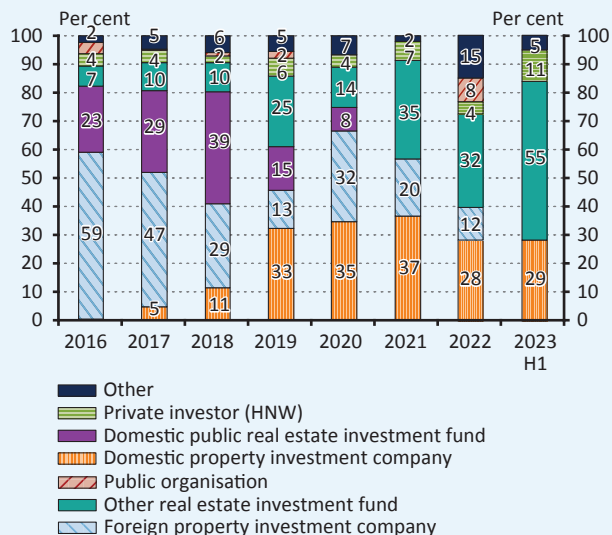


Note: Based on data from the end of 2023 Q2.

Source: CBRE

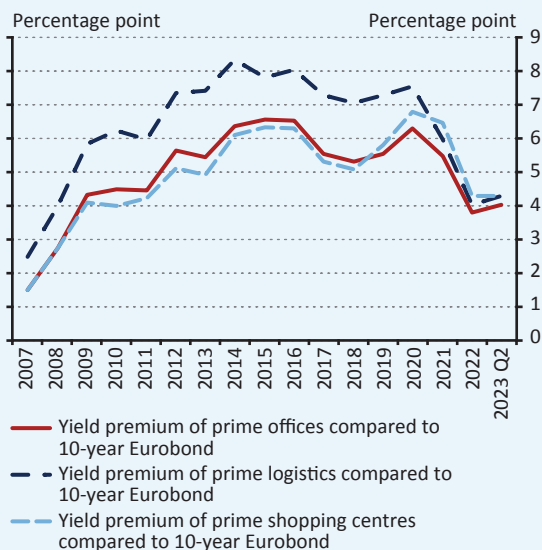
5 Commercial real estate investments

Chart 17
Investment volumes on the Hungarian CRE market by investor type



Source: CBRE, Cushman & Wakefield, MNB

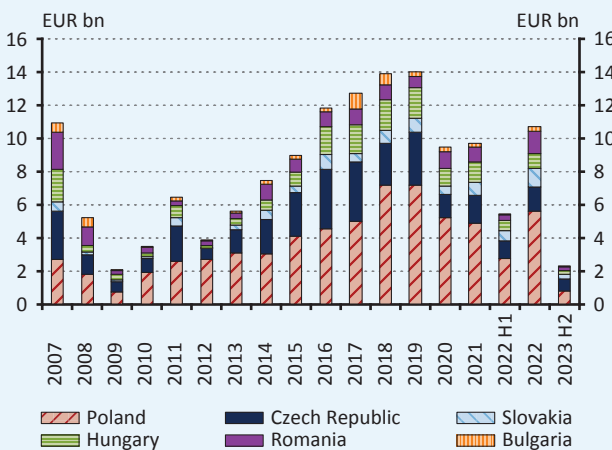
Chart 18
Yield premium of Budapest prime real estate investments compared to 10-year euro government bonds



Note: The 10-year Eurobond yield is the Q4 average, for 2023 the Q2 average of the 10-year government bonds issued by AAA-rated euro area countries.

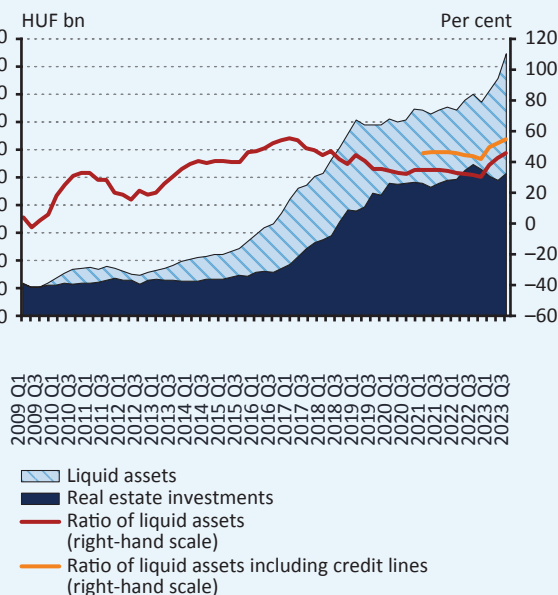
Source: CBRE, Cushman & Wakefield, ECB

Chart 19
CRE investment flows in the CEE region



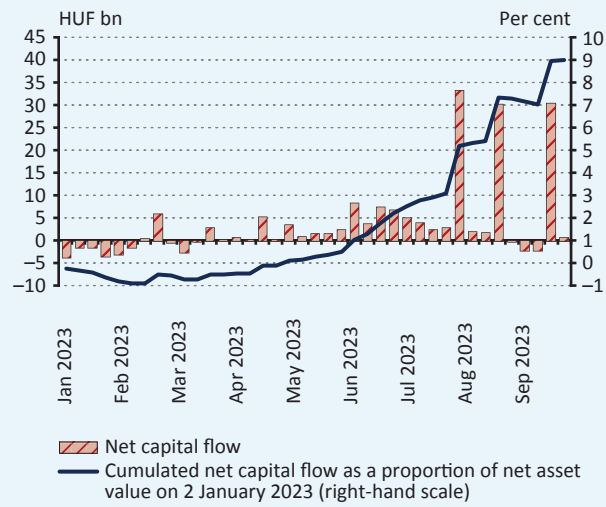
Source: MNB compilation based on CBRE, Colliers, Cushman & Wakefield and JLL data

Chart 20
Asset composition of public real estate funds and the ratio of liquid assets to net asset value



Source: MNB

Chart 21
Net capital flows in Hungarian public real estate investment funds

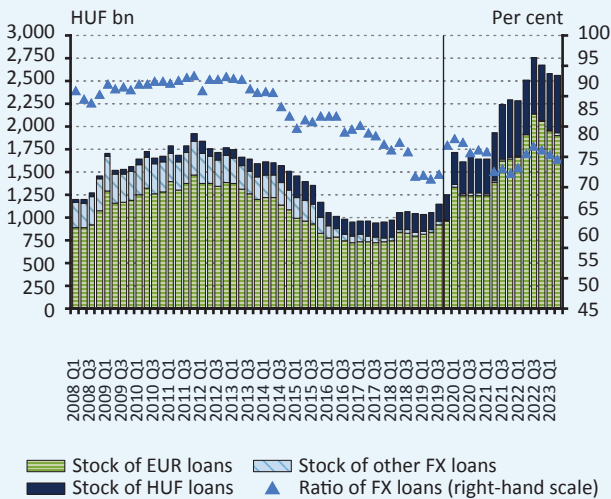


Note: Weekly data. The outstanding capital inflows in August-September 2023 are related to the capital investments by the Magyar Fejlesztési Bank, won by the institutions in the tender of the Baross Gábor Capital Programme's Real Estate Fund Sub-programme.

Source: MNB

6 Bank financing of commercial real estate

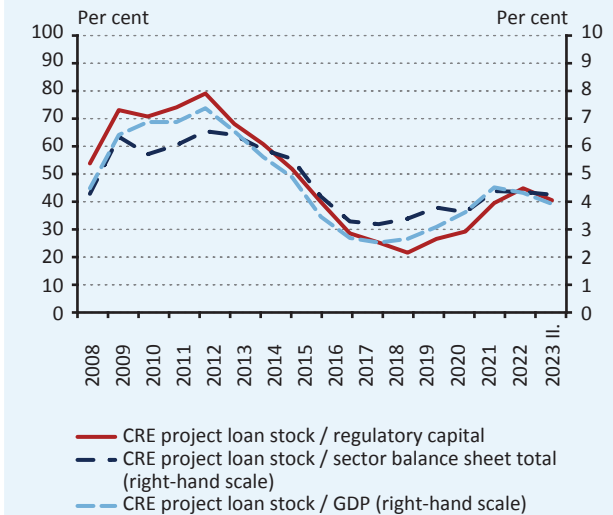
Chart 22
Composition of the credit institution sector's stock of CRE purchase or development project loans by currency



Note: Until 2019 Q3 based on aggregated data of the data-providing institutions, from 2019 Q4 based on individual loan agreement data, the comparability of data from these two periods is limited.

Source: MNB

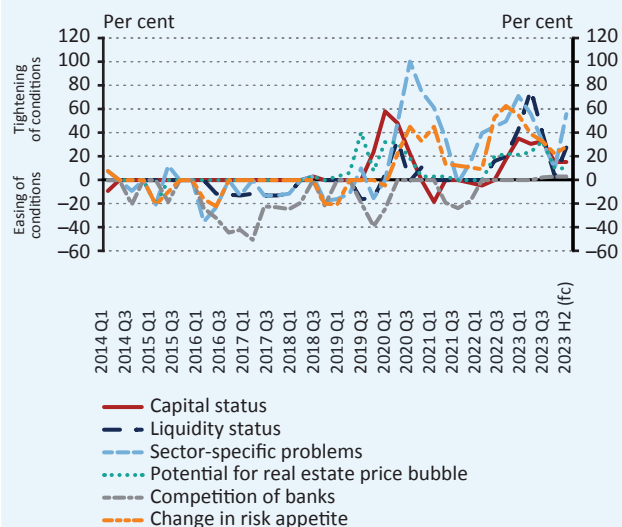
Chart 23
The importance of commercial real estate project loans in credit institutions sector



Note: Credit institutions sector without affiliates, based on non-consolidated data. Until 2019, based on the project loan portfolio according to the CRR project loan definition, from 2020 on the basis of a broader project loan definition, the use of the broader definition in 2023 Q2 results in a 25-per cent higher project loan stock compared to the CRR definition. From 2019 CRE project loan outstanding includes real estate Funding for Growth Scheme (FGS) bond stock.

Source: MNB

Chart 24
Factors behind changes in CRE loan conditions

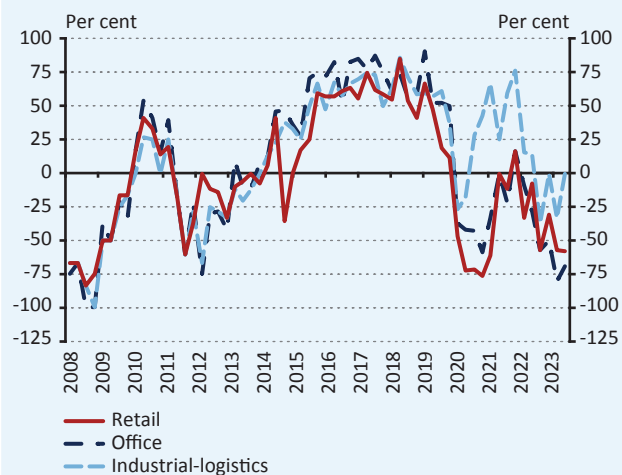


Note: Responses of the analysed banks weighted by market share.

Source: MNB, Lending Survey

7 Commercial real estate market survey of RICS

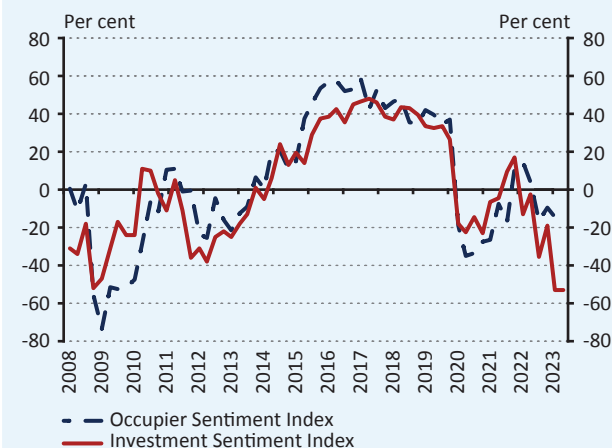
Chart 25
Three-month capital value expectations by segment



Note: Net ratio of respondents indicating increase and decrease in capital value. Based on responses from July 2023.

Source: RICS

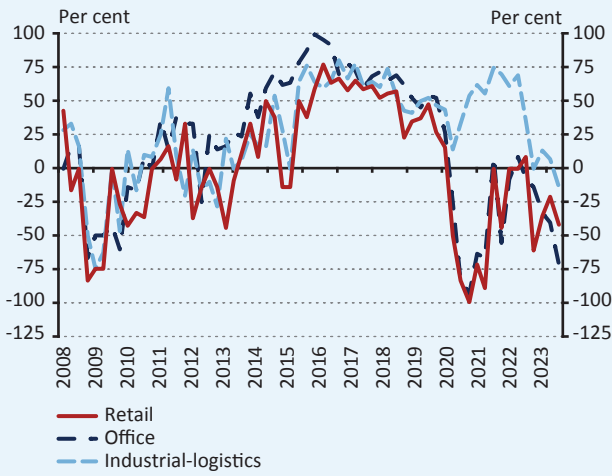
Chart 26
Development of Investment and Occupier Sentiment Index



Note: Based on responses from July 2023.

Source: RICS

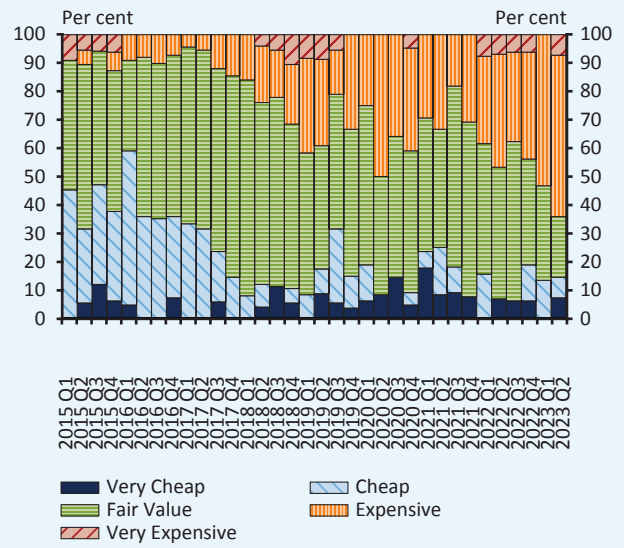
Chart 27
Development of rental demand by segment



Note: Net ratio of respondents indicating increase and decrease in demand. Based on responses from July 2023.

Source: RICS

Chart 28
Valuation level of the commercial real estate market



Note: Based on responses from July 2023.

Source: RICS

Miklós Ybl

(6 April 1814 – 22 January 1891)

He was one of our greatest architects, belonging to the most prominent Hungarian masters of the 19th century. He was a representative of historicism on a European level. His reputation extended over the borders of Hungary not only due to his education, but also due to his works of art. His work covered several genres of art and he left a remarkably rich legacy. His early style was characterized by romanticism with Roman elements. He, later, dedicated himself to neo-Renaissance. He was an artist of major impact completing numerous assignments and receiving recognition in his lifetime. The design of symbolic, significant and long-lasting buildings of our national culture are associated with the name of Miklós Ybl.

He laid the foundation of his career in Hungary by completing international studies and gaining experience. Between 1825 and 1831, he was the student of the Imperial and Royal Institute of Technology (the Politechnikum) in Vienna. In 1840, he enrolled in the Bavarian Academy of Arts in Munich, and he went to Italy for learning purposes in 1841, which he repeated five years later. He started his work in the office of the well-known architect of the time, Mihály Pollack in 1832, then based on his referral he transferred to Henrik Koch in Vienna in 1836.

In 1841, he opened his first independent office named Architectural Institute together with Ágoston Pollack, the son of Mihály Pollack in Dorottya street in Pest. From 1843, he received a growing number of orders from the Károlyi family, for whom he worked as a royal architect until 1861. István Károlyi assigned the reconstruction of the castle in Fót to him in 1845. The assignment also included the designing of the adjoining Roman-Catholic church, which was built in Romantic style thus making reference to the Middle Ages. The church is considered as one of the most outstanding works of Miklós Ybl. Completing castle designs was a main part of his career. Of these works, it is worth mentioning the palace of earl Lajos Battyhány in Ikervár, as well as the castle of the Károlyi family in Parádsasvár.

The most important period of his creative years coincided with one of the most significant times of European urbanization. Among many other buildings, he designed the house with a passage on Múzeum Boulevard, the apartment block located at 17 Bajcsy-Zsilinszky road, as well as the Hungarian National Hall (Tattersall) during this period. The Tattersall was destroyed in the second world war. He designed the Customs House in Pest in 1870. His other prominent works included the bath at Margaret-Island, which was demolished after the second world war, and the House of Representatives at 8 Bródy Sándor street exhibiting the characteristics of the Renaissance Revival architecture (currently the Italian Cultural Institute).

His most significant works include the Hungarian State Opera House. A restricted tender procedure for its design was announced in 1873, which Ybl won. Construction started in October 1875 with royal support, and Miklós Ybl was soon made supervisor of the project. The Builders' rite was held on 7 December 1878, and the building was officially opened with the performance of Bánk bán on 27 September 1884, with the royal family also attending. At the same time, Miklós Ybl was working on the construction of the Castle kiosk and bazaar in Buda (1875-1882), which was built to resemble Italian, German and French hanging gardens. In 1882, he received the Cross of the Lipót-order, and was appointed a member of the House of Magnates by the king on 21 June 1885. Towards the end of his life, he continued the construction of Saint Stephen's Basilica designed by József Hild, and subsequently, he participated in the reconstruction of the Buda Castle. However, he could not finish this assignment, as he passed away on 22 January 1891.

COMMERCIAL REAL ESTATE MARKET REPORT

October 2023

Print: Prospektus Kft.

H-8200 Veszprém, Tartu u. 6.

mnb.hu

©MAGYAR NEMZETI BANK

H-1013 BUDAPEST, KRISZTINA KÖRÚT 55.