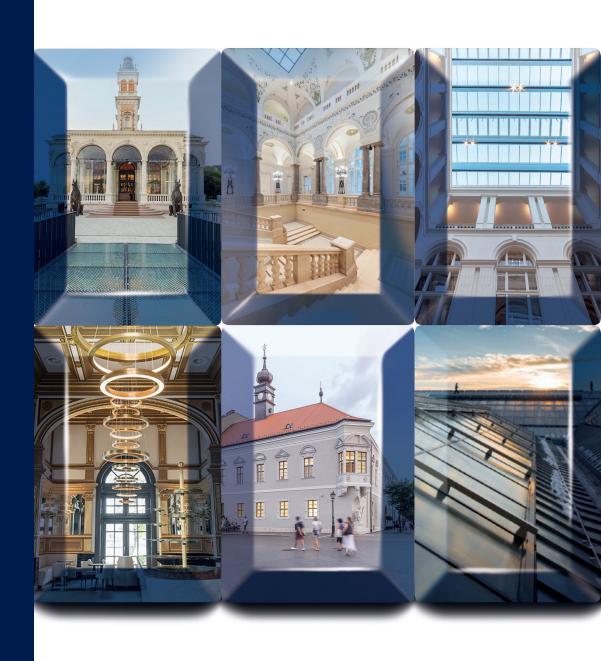


COMMERCIAL REAL ESTATE MARKET REPORT



"Your actions preserve you for the future."

Miklós Ybl



COMMERCIAL REAL ESTATE MARKET REPORT

Published by the Magyar Nemzeti Bank

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The commercial real estate (CRE) market is of significant importance, as it influences all sectors of the economy while also playing an important role in people's everyday lives. In this light, Magyar Nemzeti Bank analyses the development of the CRE market in this report, which is published biannually.

The following two factors are decisive for 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 their supply and demand.
- ii. On the other hand, commercial real estate is an investment vehicle: investors purchase such assets to realise a yield premium in addition to the available risk-free return via the cash flow of utilising the real estate and/or the increase in value, by taking extra risk.

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 in the CRE market also affect the functioning of the financial system. This is primarily due to the fact that most banks' corporate loan portfolios are CRE-collateralised loans, accounting for almost 40 per cent of the portfolios in Hungary in 2018.

As such a large amount of bank assets is CRE-collateralised, a strong relationship is created between CRE values and the credit cycle. During an economic upturn, a positive feedback loop may develop between rapid growth in real estate value and lending, which can lead to excessive lending. During an economic crisis, non-performing loans at banks put a burden on institutions' capital adequacy, which results in the reduction of credit supply. As seen during 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 deficits 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 processes 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 commercial real estate market. The set of information used by the publication includes the following:

- 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 the current commercial real estate market processes relies primarily on information provided by real estate consulting firms. The analysis of developments in the commercial real estate market is presented by market segments (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: http://www.mnb.hu/en/publications/reports/inflation-report

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

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1. EXECUTIVE SUMMARY

The Magyar Nemzeti Bank deems the regular monitoring of the real estate market to be an important task, and accordingly, it has been gradually updating its real estate market analysis framework since 2016. The first published results were the MNB housing price index family and the Housing Market Report. The current publication focusing on the commercial real estate market marks another milestone in the development of the MNB's real estate market analysis activities.

In 2018, broad-based growth of 4.9 per cent was seen in the Hungarian economy, which exceeded market expectations. This growth was primarily supported by the expansion of market-based services, but the performance of the construction and manufacturing industries also increased GDP considerably. The favourable developments in 2018 sustained the six-year upturn on the CRE market, moreover along with labour resources, the lack of physical infrastructure also appeared as a constraint to performance among companies operating in the services sector. The performance of the manufacturing and services sectors was a key factor for the CRE market on the demand side. Stable retail sales growth generates favourable demand conditions for the retail segment of the CRE market, while favourable developments in tourism lead to rising demand for hotels.

By the end of 2018, the average vacancy rate of modern offices in Budapest dropped to a historically low 7.3 per cent following a six-year decline. Similar to previous years, the office market was characterised by strong demand for rentals in 2018, which resulted in declining vacancy rates regardless of the outstanding volume of new completions. The composition of office market take-up by tenant activity was more balanced in terms of sectors in 2018 than in previous years. It must be added that - in contrast to previous experience – the public sector accounted for a larger portion of demand.

The vacancy rate of industrial-logistics properties in Budapest and its agglomeration reached its lowest recorded rate at the end of 2018. With the low vacancy rate, lease extensions remained dominant in demand. Due to high demand, the rental rates of industrial-logistics properties in Budapest increased by more than 15 per cent in 2018.

Partly due to domestic sector regulations, new supply in the retail real estate segment was relatively restricted in previous years and no large increase is expected in the foreseeable future. The lack of new supply and growing demand resulted in higher rental rates. However, due to the expansion of e-commerce, the future viability of shopping malls may be called into question. Based on market research data, consumers' need to try products will probably remain, and therefore real estate owners and retailers will have to find the optimal tenant mix and the new consumer experiences, often supported by modern technologies, that can attract consumers.

In 2018, domestic hotel performance increased in all categories compared to last year's results. In contrast to the previous period, hotel openings in 2018 primarily occurred in Budapest, and this will continue in projects currently under construction or in the preparatory phase. Due to the strong hotel building activity, twice as many hotel room openings are planned for the next three years than were opened in the previous four years combined.

In 2018, investment flows in the domestic commercial real estate market reached EUR 1.8 billion. Within this, office buildings remained the most popular investment product. The lack of available properties suitable for investment led to a low investment volume in the first half of the year, but as a result of several major transactions, investment flows reached the 2017 levels in the second half. The yield premium of office investments in relation to long-term government securities remains significant. Based on transaction sums, 65 per cent of investment purchases were linked to Hungarian agents, which is significant even in a historical comparison. In 2018, the net asset value of public domestic real estate investment funds increased by 41 per cent. The ratio of real estate investments to the net asset value of these funds was 53 per cent at the end of 2018, which may be considered a safe level.

In parallel with the upswing on the CRE market, project loan stocks collateralised by CRE rose in 2018, primarily as a result of higher outstanding HUF loans. In an annual comparison, the loan stock for industrial real estate developments and hotel purchases increased the most, but office and retail real estate loans still represent the majority of the loans outstanding. Among new disbursements, loans for purchasing CREs were increasingly popular. Looking ahead to H1 2019, banks plan to tighten conditions on commercial real estate loans; the main reasons include a prudent approach to the excessive increase in real estate prices and the bank's capital position.

According to the results of the CRE market survey conducted by the Magyar Nemzeti Bank (MNB) and the Royal Institution of Chartered Surveyors (RICS), market experts expect investment demand for most kinds of real estate to increase or stagnate in H1 2019. According to the respondents, tenancy demand for office buildings and for the best performing shopping centres is expected to rise in the first half of the year, while prime non-central office buildings and prime logistics centres may be the most prominent in terms of property development.

2. MACROECONOMIC ENVIRONMENT

In 2018, Hungary's gross domestic product rose by 4.9 per cent, surpassing market expectations. Growth was mainly supported by the expansion of market-based services relevant to the commercial real estate market, but the performance of the construction and manufacturing industries also boosted GDP considerably. The GDP growth contribution of the services and manufacturing industries – the source of the domestic economic growth – was 3.2 per cent, and the six-year recovery of the CRE market continued. Employment developments in the private sector portend favourable demand conditions supported by the intense investment activity of the sectors. Along with labour resources, the lack of physical infrastructure appeared as an obstacle to performance, suggesting that more and more companies in the services sector are planning to expand their office capacities and logistics facilities. Stable retail sales growth provides favourable demand conditions for the retail segment of the CRE market, while favourable developments in tourism lead to growing demands for hotels. In parallel with the increasing demand conditions, new CRE supply is catching up to the demand for new capacities, as observed by the growth in industrial and logistics centre construction.

Chart 1: GDP growth contribution of the tertiary and manufacturing sectors

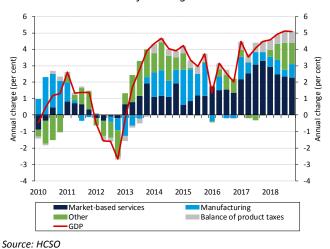
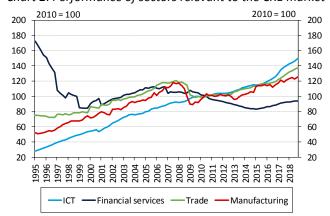


Chart 2: Performance of sectors relevant to the CRE market



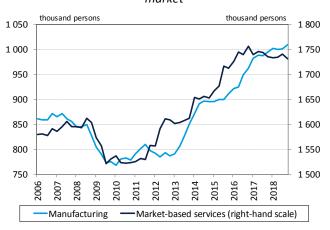
Note: The ICT sector refers to the information and communications technology sector. Source: HCSO

2.1. Factors influencing the commercial real estate market

In 2018, Hungary registered broad-based economic growth of 4.9 per cent, which exceeded market expectations. In Q4 2018, gross domestic product grew by 5.1 per cent year on year, also surpassing market expectations (Chart 1). For 2018 as a whole, GDP increased by 4.9 per cent compared to the previous year. This growth was primarily supported by the expansion of market-based services, but the performance of the construction and manufacturing industries also made a strong contribution. The service and manufacturing sectors are the core of Hungarian economic growth, contributing 3.2 per cent to the 2018 GDP growth.

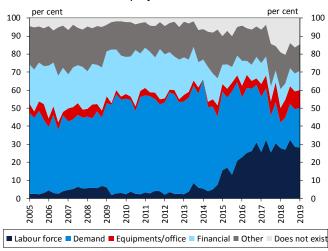
The performance of sectors relevant to the commercial real estate market fosters favourable demand conditions for commercial properties. The output of the core sectors of domestic economic growth, the services and manufacturing sectors, rose dynamically in the past few years (Chart 2). The added value of the manufacturing industry increased by 4.3 per cent in Q4 2018, while the commercial and logistics sector produced 6.6 per cent growth. The added value of business services relevant to the office building market increased by 5.4 per cent.

Chart 3: Employment rates of sectors relevant to the CRE market



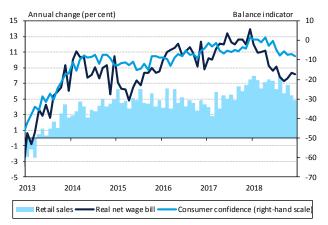
Source: HCSO

Chart 4: Obstacles to performance in the services sector



Source: European Commission

Chart 5: Development of retail sales, incomes, and the consumer confidence index



Source: European Commission, Eurostat, HCSO

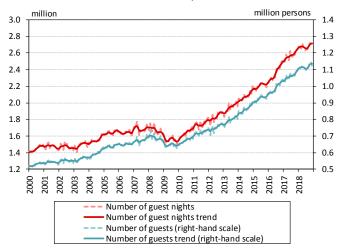
Employment developments in the private sector signal favourable demand conditions for companies interested in CRE properties. The increase in the national employment rate in previous quarters mainly stemmed from the private sector. Within the private sector, the uninterrupted growth in employment in the manufacturing industry that started in 2013 continued in 2018 again. The dynamic growth of the market-based services sector had declined slightly in previous quarters, but sector employment rates remained high (Chart 3). The number of vacant job positions in the private sector increased, suggesting rising demand for

labour by companies.

Along with labour constraints, the lack of physical infrastructure also appeared as an obstacle performance in the beneficial demand environment among the companies of the services sector. Based on regular monitoring of these companies, demand and financial conditions are improving, while the lack of workforce is an obstacle to the expansion of market activities (Chart 4). In the manufacturing industry, access to skilled employees has typically become a major constraint on production. In the last few years, a similar phenomenon has been emerging in the services sector. However, along with labour resources, the lack of physical infrastructure has also appeared as a barrier to performance, which suggests that more and more companies in the sector would like to expand their office capacities and logistics facilities.

The stable increases in retail sales provide favourable demand conditions for the retail segment of the commercial real estate market. In 2018, domestic retail sales increased by 6.5 per cent year-on-year, primarily due to food, durable goods, and electronics sales (Chart 5). Last year, the consumer confidence index almost reached a historical peak, suggesting robust consumer demand. The assessment of the population's financial situation and future saving ability increased further, encouraging the purchase of high-value durable goods. Growth in retail sales may have a positive effect on demand for retail properties. An important detail is that due to changes in consumer habits in the last few years, a long-term decrease in the number of retail stores has been observed, primarily linked to the increased role of shopping centres and online shopping. Regarding changes in consumer habits and their effects on retail properties, see Box 1.

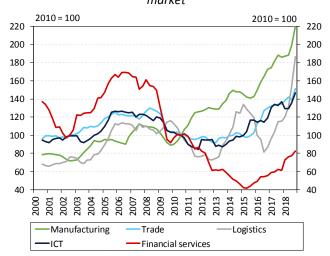
Chart 6: Guests and guest nights of commercial guest accommodations per month



Source: HCSO

Chart 7: Investment activity of sectors relevant to the CRE

market



Note: The ICT sector refers to the IT, communication, and telecommunication sectors. Source: HCSO, MNB calculations

Chart 8: Regional distribution of the manufacturing sector's performance, 2013-2016



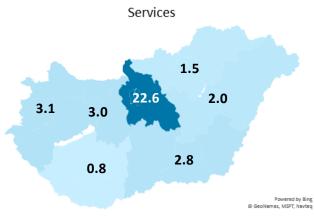
Note: The data presents the contribution of the regions to the added value growth in percentage points. Source: Eurostat, MNB calculations

Owing to favourable developments in the tourism sector, demand for hotels continued to increase. The multi-annual growth trend in commercial accommodations continued in 2018: 12.5 million guests used the services of Hungarian accommodations for 30.9 million nights, up 5.2 per cent and 3.8 per cent, respectively, compared to 2017 (Chart 6). Foreign and domestic guests accounted for a 50-50 per cent of the annual turnover of commercial accommodations measured in guest nights. The number of non-resident guest nights increased in all accommodation types compared to the previous year. Similar to previous years, the majority of non-resident guests stayed in hotels; 82 per cent of their guest-nights were spent in this accommodation type, with more than one third of this occurring in four-star units.

The strong investment activity of the sectors also boosted **CRE demand in the private sector**. In the last few years, the underlying development of investments has reflected a long-term upswing in a wide range of sectors. Continuing the previous trends, in Q4 2018, investments among companies with at least 50 employees increased by 10 per cent year-on-year. The investments of enterprises that produce primarily for foreign markets increased; the main growth was seen in the manufacturing industry, which has a significant weighting. However, the portion of the manufacturing and services sectors that produce for the domestic market demonstrated less dynamic growth compared to previous quarters. Regarding sub-sectors relevant to the CRE market, the investment volume and growth rate of both manufacturing and logistics companies were significant (Chart 7). In the manufacturing industry, investment volumes increased by 18.7 per cent in Q4 2018, while in the logistics sector, investments rose by 61.9 per cent, partially due to specific items. Even though the investment volume of the financial sector falls short compared to other sectors, it is showing dynamic growth, as the sub-sector's investment performance increased by 32.8 per cent by the end of last year. Investment in the commercial sector grew by 12.8 per cent, while telecommunication industry investment expanded at a rate of 8.8 per cent. All in all, investment increased in a wide range of sectors, which contributed to the demand for both industrial properties and offices.

The performance of the various industries varies by region,³ strongly influencing local demand for commercial properties. Hungary's manufacturing industry posted average growth of 3.5 per cent in the last few years, mainly linked to companies in the vehicle and machine industries, the electronics industry, and the chemical industry. In terms of the regional distribution in the manufacturing industry's

Chart 9: Regional distribution of the performance of the services sectors, 2013-2016



Note: The data presents the contribution of the regions to the added value growth in percentage points. Source: Eurostat, MNB calculations

added value, Western and Northern counties played a major role, mainly due to the regional allocation of manufacturing enterprises (Chart 8). The added value of the manufacturing sector increased by 33.2 per cent between 2013 and 2016, and the main contributors, besides the Western and Central Transdanubia regions, were the North Hungary counties. The added value of the services sector increased by 35.7 per cent between 2013 and 2016. Services are still concentrated in Central Hungary, and Budapest has a significant role in the region (Chart 9). Accordingly, the Central Hungary region contributed 22.6 percentage points to the entire performance of the services sector in the period under review. Planned and ongoing road-network developments and complex major investments - such as the BMW factory in Debrecen and its infrastructure developments - may significantly boost commercial real estate demand in specific regions. Planned investments may also decrease regional inequalities in the future.

³ Data on the added value of specific sectors by region only available until 2016.

3. CURRENT STATUS AND DEVELOPMENTS IN THE COMMERCIAL REAL ESTATE MARKET

By the end of 2018, the average vacancy rate of modern offices in Budapest fell to a historical low of 7.3 per cent, following a six-year decline. Similar to previous years, the office market was characterised by strong demand for rentals in 2018, which resulted in declining vacancy rates regardless of the outstanding volume of new building completions. The composition of net office building tenancies by tenant activity was more balanced amongst the sectors in 2018 than in previous years, but – in contrast to previous tendencies – the public sector accounted for a larger share of the demand.

The vacancy rate for industrial-logistics properties in Budapest and its environs reached its lowest recorded rate at the end of 2018. Besides low vacancy rates and the low volume of properties developed without pre-lease, lease extensions (lease renewals) remained dominant in terms of demand. More than two thirds of the take-up is associated with logistics service providers and commerce. Along with the 100 per cent pre-leased deliveries typical of previous years, the delivery of multiple, currently unrented industrial-logistics properties is expected for 2019. In 2018, rental prices of industrial-logistics properties in Budapest increased by more than 15 per cent.

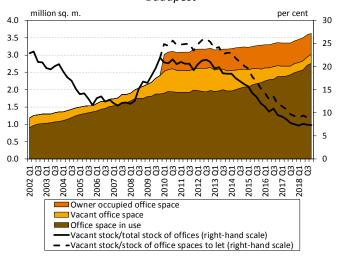
Partly due to domestic sector regulations, new supply in the retail real estate segment was relatively restricted in previous years and no large number of openings is expected in the foreseeable future. In the last years, the lack of new supply and mounting demand resulted in rising rental rates. However, due to the expansion of e-commerce, the future viability of shopping malls may be called into question. Based on market research data, consumers' need to try products will probably remain, and therefore real estate owners and retailers will have to find the optimal tenant mix and new consumer experiences, often supported by modern technologies, that can attract consumers.

In 2018, domestic hotel performance increased in all categories compared to last year's results. In contrast to the previous period, hotel openings in 2018 primarily occurred in Budapest, and this will continue with the projects that are currently under construction or in the preparatory phase. Due to the brisk hotel construction activity, more than twice as many hotel room openings are planned for the next three years than were opened in the previous four years combined.

In 2018, investment flows in the domestic commercial real estate market reached EUR 1.8 billion, with office buildings remaining the most popular investment product. The lack of available properties suitable for investment led to a low investment volume during the first half of the year, but — as a result of several major transactions — investment flows reached the 2017 levels in the second half of the year. The yield premium of office investments in relation to long-term government securities remains significant, at 2.7 percentage points on prime offices. Based on transaction sums, 65 per cent of investment purchases were linked to Hungarian agents, and 50 per cent to domestic and foreign real estate funds. In 2018, the net asset value of public domestic real estate investment funds increased by HUF 410 billion (41 per cent). The ratio of real estate investments to the net asset value of these funds was 53 per cent at the end of 2018, which can be considered a safe level. According to 2018 year-end data, 76 per cent of clients who invested in public real estate funds (156,000 people) are retail investors; they owned 36 per cent of public real estate fund assets.

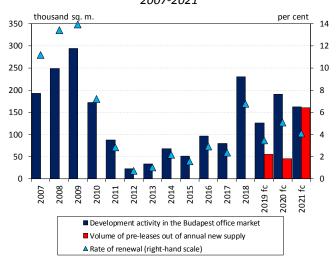
Similar to Hungary, the CRE market of other countries in the CEE region is also characterised by strong development activity, robust rental demand and decreasing vacancy rates. Compared to Prague and Warsaw, prime office market yields in Budapest offered a premium of 100-125 basis points at the end of 2018.

Chart 10: Floor space and vacancy rates of modern offices in Budapest



Note: Data for owner-occupied offices only available from 2010 onwards. Source: Budapest Research Forum

Chart 11: Development activity in the Budapest office market 2007-2021



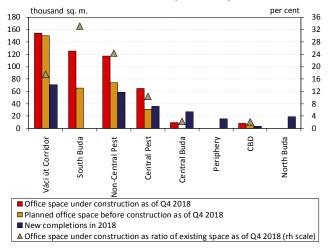
Note: Based on 2018 year-end data. Source: Budapest Research Forum, Cushman & Wakefield

3.1. Office rental market

By end-2018, the average vacancy rate of modern offices in Budapest fell to a historic low of 7.3 per cent. At the end of last year, the modern Budapest office stock was 3.63 million square metres; 3.02 million square metres (83 per cent) were space to let and 0.61 million square metres were owner occupied space (Chart 10). In 2018, office vacancy rates saw a slight reduction (of 20 basis points) compared to the end of 2017, but this modest decline resulted from strong supply and demand side activities. The 7.3 per cent total office vacancy rate is the lowest ever measured in the Budapest office market. At the end of 2018, the average vacancy rate of the offices to let was at 8.8 per cent.

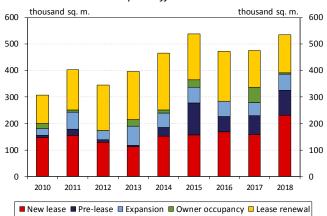
In 2018, the volume of new office building completions in the Budapest office market was significant. During the year, 231,000 square metres of new office space was completed in Budapest, almost three times more than completions realised in 2017; the last time so many offices were in supply was in 2009 (Chart 11). The Budapest office market is characterised by exceptionally high development activity: at the end of 2018, 480,000 square metres of new office space was under construction. This will enter the market as new supply in the coming 2-3 years. With the completion of these buildings, new office floor space amounting to 13 per cent of the existing Budapest modern office stock (as of Q4 2018) will appear. According to 2018 year-end data, 126,000 square metres of new offices will be delivered by 2019 and 44 per cent of them are already contracted by tenants via pre-leases. Based on the relatively high pre-lease rate of deliveries expected for 2019, the vacancy rate will likely continue to decrease this year. With the start of new developments and the possible late delivery of current construction, the volume of 2020 and 2021 completions will likely increase in the next quarters. Three office projects are currently under construction with a 2021 planned completion date: two of them are built for owner occupation, and one is a built-to-suit office building built for the tenant's needs.

Chart 12: Distribution of Budapest office developments; renewal rate and new completions by sub-market



Note: Based on 2018 year-end data. Source: Cushman & Wakefield

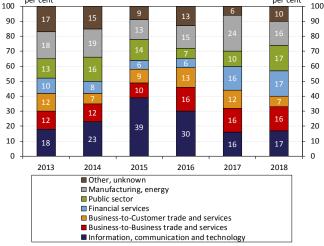
Chart 13: Volume and composition of rental demand in the Budapest office market



Source: Budapest Research Forum, Cushman & Wakefield

Chart 14: Take-up composition of the Budapest modern office market by tenant activity

per cent



Source: CBRE

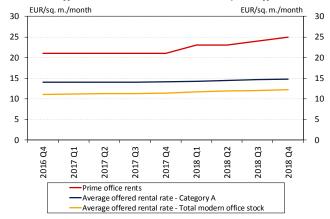
per cent

Besides the Váci út office corridor, significant office development activity was seen in the South Buda and Non-Central Pest sub-markets, and a considerable amount of new office space is being constructed in the Central Pest sub-market.⁴ 24 per cent (878 square metres) of all modern office spaces in Budapest are concentrated on the Váci Út Corridor and the volume of new office space under construction is here the highest; furthermore, the volume of planned, but not yet constructed space is also the largest here (Chart 12). Based on the sub-market distribution of ongoing and planned developments, the Non-Central Pest sub-market has an increased development activity, primarily along Boulevard Róbert Károly - Hungária -Könyves Kálmán. The renewal rate calculated as the ratio of office space under construction and existing office stock will be exceptional in the next 2-3 years in the South Buda and the Non-Central Pest sub-markets (33 per cent and 24 per cent, respectively).

Similar to previous years, the office market was characterised by strong rental demand in 2018, which resulted in declining vacancy rates despite the outstanding volume of new completions. In 2018, the total annual demand⁵ of the office market amounted to 536,000 square metres, almost reaching the 2015 record of 538,000 square metres (Chart 13). In 2018, new leases played a bigger role both in terms of volume and ratio, which was rendered impossible by the narrowing of new supply in recent years. Among both existing stocks and new developments, most of the rental demand is focused on the Váci Út Corridor submarket, which attracts more than one third (36 per cent) of the total demand. According to 2018 data, South Buda, Central Pest, and the Central Business District - CBD submarkets are some of the most popular markets, attracting 14, 12, and 12 per cent of all lease transactions by rented floor space.

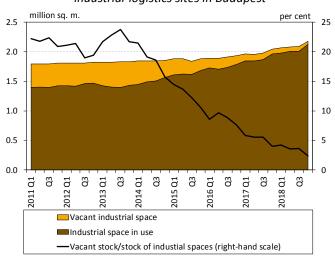
The composition of office take-up by tenant activity was more balanced in terms of sectors in 2018 than in previous years. The sectors IT-telecommunications, Business-to-Business (B2B), financial services, public services, and manufacturing-industry-energy practically had equal parts of the take-up filtered from lease renewals (Chart 14). The active presence of the public service sector was prominent in 2018 and compared to the previous two years, it exhibited significantly stronger demand for floor space. In a yearly comparison, the ratio of manufacturing-industry-energy and the Business-to-Consumer sectors suffered the greatest decrease in their shares from the take-up.

Chart 15: Offered rental rates on the Budapest office market



Source: CBRE

Chart 16: Floor space and vacancy rates of modern industrial-logistics sites in Budapest



Source: Budapest Research Forum

The average offered rental rate of Budapest offices increased constantly in recent years. In 2018, it rose by a total of 7.1 per cent. The most obvious increase was in the offered rental fee of prime offices which have the best locations and are high quality, its level was registered as 25 EUR/square metre/month by real estate consulting companies in the end of 2018 (Chart 15). This level is 19 per cent higher than the data from a year before, but the increase rate for prime rent is not typical of the entire market. Average monthly rental prices in the total modern office stock regularly monitored by the Budapest Research Forum were at 12.19 EUR/square metre at the end of December 2018, reflecting a 7.1-per cent increase year-onyear. As for the better quality offices (A category), the average offered rent was 14.73 EUR/square metre/month at the end of last year as a result of a 4.2-per cent, year-onvear increase.

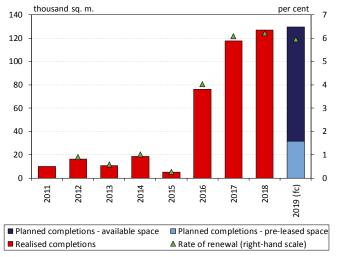
3.2. Rental market for industrial-logistics properties

Vacancy rates for industrial-logistics properties are at a historical low. At the end of 2018, the stock of modern industrial-logistics properties in Budapest and agglomeration which is monitored by Budapest Research Forum amounted to 2.18 million square metres (Chart 16). Of this, 91 per cent is located in industrial-logistics parks, with the remaining 9 per cent situated in smaller, urban logistics properties. The vacancy rate in the industriallogistics segment fell to 2.4 per cent by the end of 2018, marking a 1.6-percentage point decrease versus the previous year-end data and a historic low. Within the stock, a vacancy rate of 2.1 per cent is measured for logistics parks and 5.1 per cent for urban logistics properties, while there is only 52,000 square metres of empty industrial-logistics properties in Budapest and the agglomeration. The owner composition of the industrial-logistics supply in Budapest and its agglomeration is highly concentrated: more than one fourth of the current stock belongs to the owner with the largest holdings, and nearly two thirds (64 per cent) of all areas belong to the five actors with the biggest stocks.

⁴ For a detailed description of the Budapest office sub-markets, see Annex 1.

⁵ For definitions related to CRE demand, see Annex 2.

Chart 17: New deliveries and renewal rate in the industriallogistics market of Budapest and its agglomeration



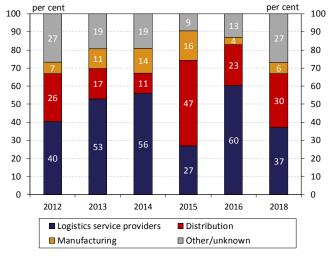
Note: The 2019 forecast is based on 2018 year-end data. Source: Cushman & Wakefield

Chart 18: Customer demand by contract type in the Budapest and agglomeration industrial-logistics rental market



Source: Budapest Research Forum, Cushman & Wakefield

Chart 19: Take-up composition of the Budapest and agglomeration industrial-logistics market by tenant activity



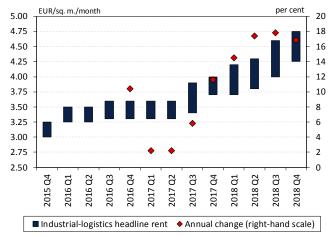
Source: CBRE

Along with the 100-per cent pre-leased completions typical in previous years, the completion of multiple, currently unrented industrial-logistics properties is expected for 2019. In 2018, 127,000 square metres was newly completed on the industrial-logistics market of Budapest and its agglomeration (Chart 17). This is 8 per cent over the new floor space completed in the previous year, but 84 per cent of this had predetermined tenants upon completion, and thus little space was left to satisfy current, immediate demand. The volume of new completions planned for 2019 amounted to 130,000 square metres at the end of last year, which basically corresponds to the 2018 level, but only 24 per cent of this floor space was pre-leased. This also indicates that there is a higher ratio of speculative developments (with a low pre-lease rate or no pre-lease), which will likely offer agents who want to move or are new in the market more freedom. Nevertheless, considering the take-up of the industrial-logistics market in recent years (170,000-270,000 square metres/year), the supply shortage is not expected to ease substantially over the short term. According to market operator information, although developers possess the lots necessary for industrial-logistics investments and the development and construction period is also shorter in the logistics market than for offices, along with the considerable rise in construction costs and the available rental fees the required return is often not ensured, and therefore speculative investments have not been initiated.

With a 2.4-per cent vacancy rate and in light of the low volume of spaces developed without pre-leases, contract extensions (lease renewals) remained dominant within lease transactions. In 2018, 378,000 square metres of industrial-logistics spaces was contracted in the Budapest and agglomeration market. Within this, 55 per cent of the transactions were lease renewals, 25 per cent were new leases, 12 per cent was expansion, and 8 per cent were pre-lease agreements (Chart 18). Most of the demand (98 per cent, much like earlier years) was realised in logistics parks, urban logistics properties only accounted for a share of 2 per cent. The low pre-lease rate of expected new completions (24 per cent) for 2019 compared to previous periods may result in a decrease in the weight of lease renewals.

In the 2018 take-up of the industrial-logistics market, most of the demand is due to logistics service providers. 37 per cent of the take-up falls into this sector, the other major one is finished product distribution (trade) with 30 per cent, but the ratio of tenants with unknown or not registered activities is also considerable (Chart 19). Within demand, the demand of manufacturing tenants, which is low even in

Chart 20: Typical rental rates of industrial-logistics properties in Budapest and agglomeration

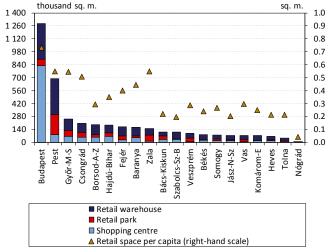


Note: Yearly change presents the yearly change of the mean of the rental rate range. Source: CBRE

a historical comparison, has to do with the fact that enterprises with these activities typically operate at their own properties realised using their own investment due to the specialised requirements of their operations.

In 2018, rental rates of industrial-logistics properties in Budapest increased by more than 15 per cent. At the end of December, the average offered rental fees of industrial spaces ranged between 4.25 and 4.75 EUR/square metre/month (Chart 20). The mean of the typical rent range rose 17 per cent year-on-year by the end of 2018, and in a three-year comparison, a 44-per cent increase has been seen compared to the end of 2015. The weak supply of industrial-logistics spaces will likely put more upward pressure on rental fees in 2019.

Chart 21: County division and composition of the modern Hungarian retail real estate stock



Source: CBRE

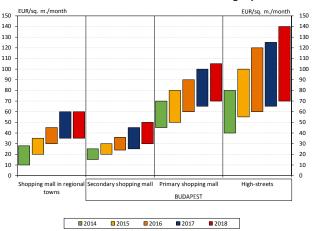
3.3. Retail real estate rental market

In the retail real estate segment, only a very limited amount of new supply was available in recent years, and a large number of new completions is expected in the near future. In Hungary, 4.1 million square metres of modern retail properties is available, of which 47 per cent consists of retail warehouses (e.g. hypermarkets, hardware stores), 35 per cent is shopping centres, and 18 per cent is retail parks. One third (31 per cent) of the entire stock is concentrated in Budapest and 17 per cent is located in Pest county (Chart 21). Over the past 5 years, no major shopping centre completions occurred in Hungary⁶ and even currently, there is only one such development under construction with a planned opening date in 2020, with more than 50,000 square metres to rent. Projects in the preparation phase planned by developers include a major new shopping mall, the expansion of two existing shopping malls, and multiple retail parks (strip malls), mostly in Budapest sites.

In recent years, the lack of new completions and rising demand resulted in higher rental rates. At the end of 2018, the highest rental fees in Budapest shopping streets were between 70 to 140 EUR/square metre/month, while 4 years earlier, 80 EUR/square metre/month was the top of this range (Chart 22). The highest available rental fees of

⁶ The amendments of Act LXXVIII of 1997 on the formation and protection of the built environment (Construction Act) in effect from 1 January 2012 and 1 February 2015 played a part in the failure to develop new shopping centres. The currently effective Chapter IV/A of the Construction Act forms the latter amendment, often referred to as "shopping-centre-stop law", came about as the result of the latter amendment. According to current regulations, commercial buildings with a floor space of more than 400 square metres need a special authority to evaluate their building permits, which makes the permit process longer.

Chart 22: Retail rental rates in Hungary

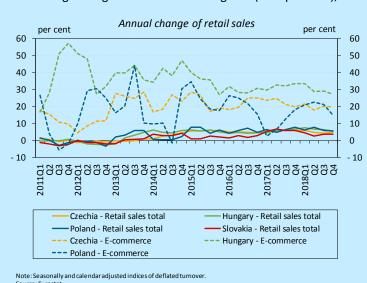


Note: The columns show the dispersion of the highest rental rates for real estate in different retail property types. Source: CBRE

Budapest primary shopping malls⁷ were around 105 EUR/square metre/month, a 5 per cent increase compared to the previous year's level of 100 EUR/square metre/month. There is a significant gap between the rental rates of the primary and secondary shopping centres⁸ in Budapest. While in 2014, the level of the highest achievable rental rates for shopping malls in regional cities and secondary Budapest shopping malls were 28 and 25 EUR/square metre/month respectively, by the end of 2018, this level had doubled in both cases and in the shopping malls of certain regional cities 20 per cent higher rental fees are achievable (60 EUR/square metre/month) than in secondary Budapest ones (50 EUR/square metre/month). Due to the lack of planned openings for the next period, rental fees are expected to rise. Furthermore, due to the lack of available areas, demand for secondary shopping centres is increasing, providing an opportunity for the modernisation of such properties, which some owners have already performed in order to enhance their competitiveness.

1. BOX: THE FUTURE OF SHOPPING MALLS WITH THE RISE OF E-COMMERCE9

Within retail sales, the turnover of e-commerce is steadily increasing both at the global and national levels and this form of commerce represents a growing proportion within the total volume of trade sales. According to a study published by the Centre for Retail Research, the average ratio of e-commerce within trade sales in 2017 in Western Europe was 8.8 per cent, with the highest figure in the United Kingdom (17.8 per cent), but ratios of 10 per cent were also reached in Germany (15.1



per cent) and France (10 per cent). At the end of the list is Italy with a 3.4 per cent e-commerce ratio in total trade sales. Based on HCSO data, 'mail order and internet retailing' accounted for 5.6 per cent of all trade sales in Hungary in 2018 (not including sales of fuel, motor vehicles, and motor vehicle parts) and 30-40 per cent annual growth was observed in this retail type over the past five years. In a regional comparison, retail grew 4-6 per cent annually in the Visegrád countries in 2018, and e-commerce purchases increased between 15 and 27 per cent in certain countries.

Due to the global rise of e-commerce, the spread of communication technologies and devices, and changes in consumer habits, the future viability of physical

stores might be questioned. In this context, there are several opinions. The worst negative predictions describe the complete demise of shopping centres in the coming years (ghost malls). It is undeniable that certain tendencies related to society,

⁷ Primary shopping malls: these malls are centrally located near major transportation hubs and are easily accessible.

⁸ Secondary shopping malls: Compared to primary ones, these malls are further from central locations and/or are less accessible.

⁹ Sources used for the text in the box: Cushman & Wakefield, European Retail – The Revolution Continues, Winter 2018/19; Cushman & Wakefield, European Shopping Centres – The Development Story, May 2018; CBRE Research Italy, The Store E-volution, 2017;

retail, marketing, and technology may influence retail channels, and therefore shape the future of shopping centres, but among these not only have negative effects can be identified, but new developments with business potential, as well.

Retail transition will not be a quick, immediate process, but on the one hand, a continuous and progressive adaptation to changing customer needs and on the other hand, a continuous development to keep existing customers and attract new ones. In order to understand this development, we should review a few tendencies in retail.

Customer behaviour: customer expectations of shopping and the shopping experience are changing and broadening: quality, price, promptness, and simplicity are the main factors that influence customer choices the most. However, customers' need to physically experience products (try in use, try on, see for themselves, etc.) is still one of the most important factors, and therefore online and offline retail channels are typically used in tandem. "Showrooming" refers to the customer behaviour when customers inspect and try the desired products in a store before purchasing them through online channels (websites, mobile applications, etc.). On the other hand, "webrooming" refers to the behaviour when products are looked up online but purchased in store. In conclusion, based on customer requirements, demand for stores and shopping centres is unlikely to disappear in the future, and instead the combined use of different (online, physical) retail channels may grow.

Retailers' reaction to changing demands: based on the tendencies seen in previous years, more and more retailers have realised the importance of developing online retail channels to avoid competitive disadvantages. On the other hand, a number of webshops that used to only exist online started to open stores as a possible result of consumer experience-related expectations and the combined use of online and offline channels. Development is not a one-way process which results in the disappearance of retail stores and shopping centres (offline \rightarrow online; retail store \rightarrow webshop); retailers will need to take the advantages and disadvantages of physical presence into account and even in physical stores, adapting services offered by webshops (delivery, pick-up, return, electronic payment opportunities, etc.) will be necessary.

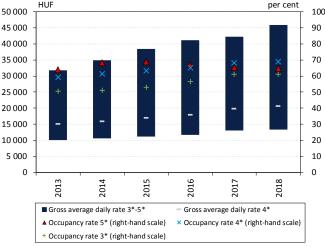
Essentially, customer needs support the future viability of shopping centres, but retailers (tenants) and real estate owners will need continuous/regular development to enhance the customer experience in order to keep attracting consumers. The most frequently mentioned, critical factors to future success are the following:

- Technology and use of data: smart phones offer shopping centres an opportunity to communicate directly with their customers. Shopping centres have been able to measure visitor numbers for a while now, but newer technologies which can also provide personalised offers to returning customers based on their previous activities are already available. The use of these technologies also raises privacy issues, and therefore compliance with privacy regulations may also contribute to the success of shopping centres in the future.
- Multi-generational approach: today, consumers are represented by six different generations, characterised by different behaviours, preferences, and attitudes to trends and technology. Retailers and real estate owners will therefore need to clearly understand their target customer base and develop multiple strategies that attract and engage various generations of customers.
- Shopping centres as communal spaces: some suggest that shopping malls may develop into experience centres, where F&B and leisure services will play a more significant role along with traditional shopping opportunities. To be able to adapt to customer habits, flexible, convertible spaces and shorter, more flexible lease agreements may be needed. Experience centres will have more mixed-use multifunctional spaces that host events, exhibitions and community programmes. Some suggest that office spaces and residential areas might also be included in experience centres.
- New rental models: due to the blurring boundaries between online and offline shopping channels, rental models are expected to change. In new rental models, rental fees would reflect the actual role of stores in sales while customers use multiple channels (online, store, "showrooming", "webrooming") for shopping. New metrics and methodologies supported by both real estate owners and tenants need to be developed. The number of visitors and time spent in store will likely be taken into account in possible future rent calculations.
- New tenant types: new tenant types are expected to emerge in shopping malls; the primary phenomenon here is the "direct-to-consumer" (D2C) commercial model which refers to the direct contact between manufacturers and consumers. Start-ups and smaller manufacturers are primarily expected to use the opportunity provided by this model to interact with customers and test their products or services. To attract younger generations, new, experience-based F&B and health and beauty operators will likely appear in shopping centres.

Logistical function: among today's shopping centres, there are more and less successful ones, but their common characteristic is their proximity to consumers. Along with the constant growth of e-commerce and ever-increasing customer needs, getting products to the end user as quickly and simply as possible is becoming more and more important. This process offers properties that are doing less well in the competition for customers a new potential future use. The function of some shopping centres may transform to create parcel collection and distribution points with a smaller customer area and a bigger warehouse area.

All in all, the importance of location in the success of properties will not change considerably in the future. Properties with better locations may remain successful with a suitable strategy, adaptability, and developments, despite the decrease in the need for floor space foreshadowed by the steady growth of e-commerce. At the same time, these changes will enable less profitable retail properties to utilise their new-found potential. Less profitable properties may experience a partial or complete change of function; another possibility is demolition and reutilisation of the lot for a new function.

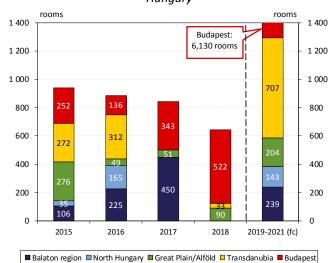
Chart 23: Annual average performance indicators for domestic hotels by hotel category, 2013-2018



Note: For the gross average daily rate, the bottom of the bars represents the 3-star, the top represents the 5-star category.

Source: HCSO, Hungarian Hotel & Restaurant Association

Chart 24: Number of opened and planned hotel rooms in Hungary



Note: Data for 2019-2021 include the number of rooms in hotel projects that were in the phase of preparation or construction by the end of 2018 and are expected to open by the end of 2021.

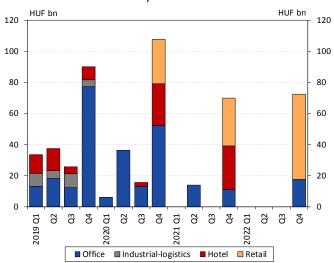
Source: Hungarian Hotel & Restaurant Association

3.4. Hotel market

Compared to last year's results, domestic hotel performance increased in all categories in 2018. Regarding room rates, five-star-hotel prices increased the most, as the gross average daily rate (ADR) exceeded 45,000 HUF/night at the end of 2018, resulting in an 8.5-per cent annual increase (Chart 23). Similar to previous years, four-star-hotels had the highest national occupancy rates (68.9 per cent) in 2018. Occupancy rates of three- and five-star-hotels fell slightly compared to 2017, but due to rising room rates, this did not significantly undermine their profitability.

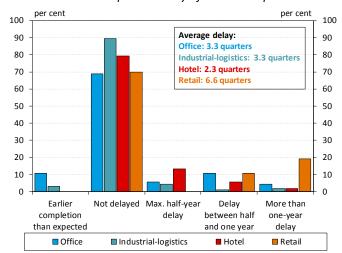
Unlike previous years' tendencies, Budapest is the main venue for hotel openings realised in 2018 and planned for the next years. In 2018, 10 new hotels with 645 rooms in total were opened in Hungary, slightly less than 2017, when 13 new hotels opened with a total of 844 rooms (Chart 24). Compared to previous years, the allocation of hotel openings shifted significantly as most of the new room supply (81 per cent) was built in Budapest, while in 2015-2017, openings in the countryside and Balaton were more prevalent. This focus on Budapest can also be observed in development activities: at the end of December 2018, 86 hotel projects were in the phase of preparation or construction countrywide, with 53 projects (6,130 rooms) inside and 33 projects (1,293 rooms) outside of Budapest. The number of planned openings suggests robust hotel building activity, considering that over the next three years, more than twice as many hotel room openings are planned than in the previous four years combined.

Chart 25: Distribution of project value of CRE properties for lease in the preparation or development phase by planned completion date



Note: CRE developments above 5,000 square metres based on Q4 2018 data. Source: ibuild.info

Chart 26: Completion delay of CRE developments



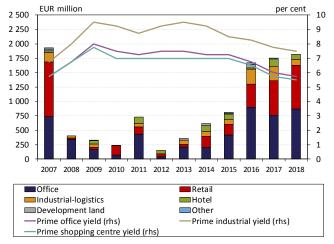
Note: CRE developments above 5,000 square metres based on Q4 2018 data. Average delays only account for projects in delay from the original plans. Source: ibuild.info

3.5. Domestic CRE developments

Office projects make up more than half of the domestic CRE developments. In Hungary, the total project value of CRE for lease development before or under construction with a floor space of at least 5,000 square metres was HUF 509 billion in late 2018. Based on project value, more than half (53 per cent) of the surveyed developments consists of office space, almost one quarter (23 per cent) is retail space, 19 per cent is hotels, and 5 per cent is industrial-logistics property (Chart 25). 96 per cent of the office space and 100 per cent of the retail properties for lease planned to open in the next four years are located in Budapest. The value-based distribution of hotel projects inside and outside of Budapest is 60-40 per cent.

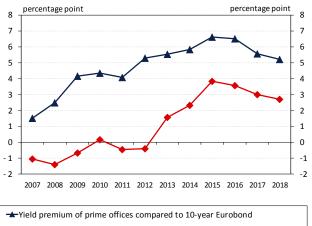
Compared to residential properties, CRE properties are less affected by completion delays as only 16 per cent of all projects had a delayed completion date as compared to the original plans. Completion delays were seen for 21 per cent of all office building and hotel projects each - measured by project value (Chart 26). Completion delay time is 3.3 quarters for offices and 2.3 quarters for hotels. Retail properties have the longest completion delays at 6.6 quarters compared to original plans. For these projects, it should be added that the number of developments being planned or under construction is low, and therefore projects that have been in the preparatory phase for a long time but not been built can have a significant effect on the high level of completion delays. As with offices, a delay of 3.3 per cent can also be reported for industrial-logistics properties, but only 7 per cent of the projects by project value has not completed according to the original plan. It is important to note that most projects affected by delays are all in the preparatory phase, while properties under construction usually follow the plans on time.

Chart 27: Investment volume of the Hungarian CRE market, its composition based on market segments, and prime yields



Source: CBRE, Cushman & Wakefield, MNB

Chart 28: Yield premium of Budapest prime office investments versus 10-year government bonds

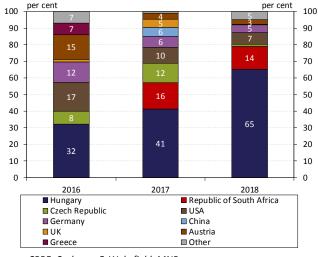


Note: The 10-year HUF government bond yield is the yearly average of the average yield of auctions. The 10-year Eurobond yield is the yearly average of the 10-year government bonds issued by AAA-rated Eurozone countries.

Source: CBRE, Cushman & Wakefield, ECB, MNB

←Yield premium of prime offices compared to 10-year HUF government bond

Chart 29: Investment volumes on the Hungarian CRE market by the country of origin of investors



Source: CBRE, Cushman & Wakefield, MNB

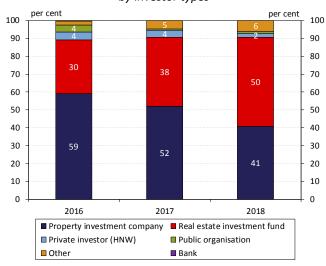
3.6. Investment market

In 2018, investment flows in the domestic commercial real estate market reached EUR 1.8 billion, with office buildings remaining the most popular investment product. The investment flows for 2018 is on par with the 2017 figure, with annual growth of 4 per cent (Chart 27). The first half of last year saw weak investment activity, which was justified by the lack of available investment properties. The slack first half was compensated by purchases in the third and fourth quarters, including a number of large transactions both in the office and retail segments. Based on the purchase price, three transactions reached or exceeded EUR 200 million, which has only occurred five times in the last three years. 48 per cent of the 2018 investment volume went into offices, 42 per cent into retail real estate, 6 per cent into industrial-logistics properties, and 5 per cent into hotels. Prime yields 10 stabilised at 2017 year-end levels during the first three quarters of 2018, but Q4 2018 featured a roughly 25-basis point decrease in every segment. The year-end yields from last year dropped to 5.75 per cent for offices, 7.50 per cent in the industriallogistics segment, and 5.50 per cent in the retail segment. With this decline, prime yields reached their 2007 historic low in the office segment. In the industrial-logistics segment, they approached within 75 basis points of the low, and in the retail segment, they fell below the low by 25 basis points. Conditions on the commercial real estate market were the focus of the first session of the recently founded Housing and Real Estate Market Advisory Board. For information on the opinions expressed at the session, see Box 2.

The yield premium of Budapest office investments compared to long-term government bonds remains significant. Over the last four years, the premium between prime office yields and 10-year government bond reference rates moved on a downward trend, but its level is still strong, which provides a good explanation for the active investment flows (Chart 28). Compared to 10-year Eurobond yields, the yield premium of prime offices was 5.2 percentage points at the end of 2018, while compared to the 10-year HUF government bond reference rate, a premium of 2.7 per cent was measured.

65 per cent of all investment flows in 2018 were linked to Hungarian entities. Among foreign investors, the total sum of investment purchases by South African investors was the highest (14 per cent of total annual investment volume), but this only covers one major retail transaction (Chart 29). The share of total investment flows reached or exceeded 5 per cent for investors from the US (7 per cent) and Germany (5 per cent).

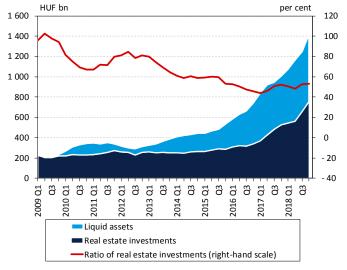
Chart 30: Investment volumes on the Hungarian CRE market by investor types



Source: CBRE, Cushman & Wakefield, MNB

In 2018, 50 per cent of the total investment volume was generated by domestic and foreign real estate funds. Along with the major Hungarian public real estate funds, private domestic and international funds also closed a number of successful transactions (Chart 30). 60 per cent of the domestic agents' investment volume was linked to major public real estate funds, but real estate companies (18 per cent) and private funds (12 per cent) also demonstrated significant activity.

Chart 31: Asset composition of public real estate funds and the ratio of real estate investments in terms of net asset value



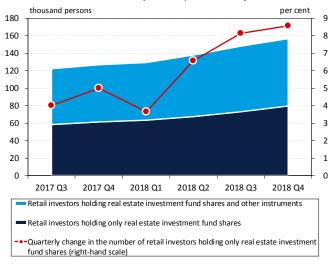
Source: MNB

3.7. Public real estate investment funds

The growing real estate stock of public real estate funds has been accompanied by steady investor appetite. The net asset value of public real estate investment funds continued to increase in 2018, rising by 41 per cent in year-on-year terms (Chart 31). The real estate stock of the funds increased by 43 per cent, and the value of their liquid assets increased by 38 per cent during the year. The higher book value of the real estate stock mostly results from new transactions, but revaluation due to rising real estate prices also played a role. The total real estate stock of public real estate investment funds was HUF 752 billion in the end of December 2018, along with HUF 664 billion in liquid assets. All in all, the ratio of real estate investments of Hungarian public real estate funds to net asset value fell from 52 per cent at the end of 2017 to 48 per cent by the end of June 2018, and then increased to 53 per cent by the end of the year, which is still considered a safe value.

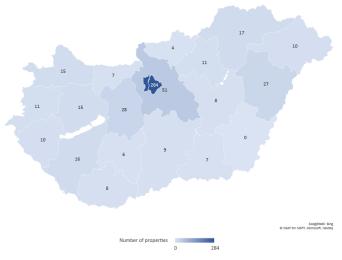
¹⁰ Yields data refer to the (initial) yields of CRE transactions that is a gross yield and is calculated as the ratio of the real estate's annual net rental revenue and the purchase price.

Chart 32: Retail investor composition of Hungarian public real estate investment funds by number of clients



Source: MNB

Chart 33: Location of properties of public real estate investment funds



The number of retail investors purchasing shares in real estate funds increased. At the end of 2018, 76 per cent of customers who invested in public real estate investment funds (156,000 people) were retail investors (with stocks under HUF 10 million); they held 36 per cent of public real estate funds. The number of retail investors increased by approximately 30,000 (24 per cent) during the year (Chart 32). More than half of retail investors only have public real estate fund investment shares in their portfolios; i.e. they are not diversified for risk. The number of retail investors who only invested in real estate funds increased by more than 18,000 people (30 per cent) in 2018. Purchasing investment shares of public real estate investment funds remained a popular form of investment in the current low interest environment, as the half-year yields of the funds stayed positive in Q3 and Q4 2018, at 1.5 per cent on average.

Half of the public real estate funds' properties are located in Budapest. 52 per cent of all real estate assets of public real estate funds (544 properties in total) are in Budapest, and 20 per cent are in county towns (Chart 33). In terms of function, almost 60 per cent of the individual properties are offices or retail properties and 20 per cent are residential properties. Six properties are worth more than HUF 20 billion. The number of properties built after 2010 is rather low (32), most of the stock (66 per cent) was built between 1997 and 2009.

Source: MNB

2. BOX: FOUNDING THE HOUSING AND REAL ESTATE MARKET ADVISORY BOARD AND LESSONS FROM THE FIRST SESSION

The Housing and Real Estate Market Advisory Board (Lakás- és Ingatlanpiaci Tanácsadó Testület; LITT or Board) was founded at the initiative of the Magyar Nemzeti Bank, in order to provide a means for the efficient and regular exchange of information between the most important agents in the real estate market and economic policy, and to offer a forum where market agents can communicate their suggestions on improving market efficiency to the regulatory authorities. Board members include major market players, the main advocacy groups of the sector, the relevant ministries and MNB representatives.

The Board's first meeting was held on 18 March 2019 and discussed the current situation of the CRE market, which is summarised below based on the opinions of the Board members.

Commercial real estate investment market

Experts found that – compared to the CRE market yields of other European capitals – the Budapest market offers a yield premium of about 100-150 basis points. Most of this is available for the decrease in yields, but looking forward, the interest

rate environment may also affect this. Basically, the increase in investment demand is permitted by favourable macroeconomic indicators. There are no liquidity issues, the investment market is currently characterised by an oversupply of capital. 2018 was also a record year compared to the last 10 years in terms of investment flows, but looking to 2019 no high-value transactions are expected, and instead numerous lower-price purchases can be expected, with the prognosis indicating an investment volume of EUR 1.5 billion. Looking ahead, the market does not need to set more and more records, as what investors primarily look for is stability. Over the past three years, the domestic CRE market has demonstrated this stability with volumes between EUR 1.5-1.8 billion. Regarding investor composition, the appearance of foreign investors can increase stability, as the turnover does not depend on a small group of players.

In recent years, a considerable amount was invested in real estate investment funds, which can potentially lead to excessive competition stemming from investment constraints. However, according to experts, this competition did not develop as this would be harmful to the funds; falling yields decrease capital inflows and below a certain level of yields buying real estate is not worthwhile for the funds. The planned regulatory restrictions on real estate funds also came up at the Board meeting, which would increase the redemption time of shares to 180 days. According to some opinions, the planned restrictions do not protect investors in case of a crisis, while the regulation may result in a withdrawal of investments from the real estate funds. The aim of the MNB with this is to restrict the option of quick divestment which is a systemic risk with these institutions, because in the case of a shock the time needed to sell the properties does not mass investment withdrawals to be fulfilled within a short time. Events after the 2008 crisis revealed the real threat of this risk.

Office and retail properties are the most popular products in the investment market. It was said that business lease contracts and tenancy agreements are currently covered by the same regulations, even though very different situations may arise in the two contractual relationships. Consequently, regulations for business and residential lease contracts may need to be reviewed and separated, and this could also serve to decrease investor risk. In this context, there are available international examples; the German one was mentioned specifically.

Regarding the interrelationships of development costs, rental costs, and yields, one thing that came up is that construction expenditures have increased dynamically in recent years, without a corresponding increase in rent. With these trends and the relatively stable yields, developers' revenue has decreased, which has a negative effect on the appetite for development. Currently, the rental real estate development market for industrial-logistics properties is in a similar situation. In recent years, pre-leased properties have typically been built, and therefore agents with rental demand have few options on the market. The Budapest office market is not yet under this kind of pressure, and tenants currently have alternatives.

Commercial real estate construction in Hungary

Many experts mentioned the presence of the public sector in the construction market at the LITT meeting. The participants agreed that the state's investment activity should be smoothed over cycles. Public orders should fulfil a price compensation (anti-cyclical) role, but currently these orders add to the heated state of the market. The members of the Board who represent the public sector agreed that the scheduling of the public sector's construction orders could be improved, but they also emphasised that because of the large number of agents, segmented coordination may be preferable to complete centralisation. One of the market actors stated that as private orders are forced out from the construction industry, the CRE investment market may dry out because of the lack of products, which would result in a decrease in investment flows. The expert hoped that the Investment Agency (Beruházási Ügynökség), created in December 2018, would help avoid this. In the case of the state's counter-cyclical appearance in the construction market, construction industry capacities would not disintegrate as they did during the 2008 crisis.

According to one market expert, the construction industry has a 20-25 per cent efficiency reserve which could be utilised via closer cooperation between contractors and investors, e.g. by coordinating planning, material choice, and other steps of project preparation. A comment was made to better measure developments in the construction industry as the statistics published apply to the construction industry in general, while a more detailed breakdown would be useful.

According to the stated opinions, the process of obtaining a construction permit is still too lengthy, but there is a reserve that could be used to make it shorter, allowing supply to be somewhat more flexible in its reaction time. As for retail properties, the so-called "shopping centre stop" prolongs the authorisation process by approximately 75 days; this may be worth reviewing.

According to market players, risks are not taken like they were before the 2008 crisis. In parallel to the market recovery, banks became more open in project financing, but investors experience a much more conservative attitude from financiers both in valuation and risk assessment.

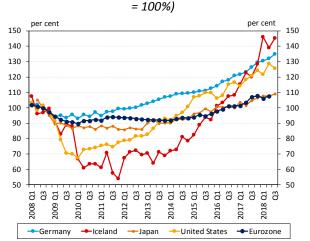
The office market balance

Based on the Board's discussion, the current volume of rental demand in the Budapest office market (approximately 300,000 square metres per year) seems stable going forward. In terms of composition, office market demand comes from various agents, and multiple sectors had very similar shares in 2018 leasing. This diversity is still capable of guaranteeing the stability of demand.

Market operators currently report excess demand, but the rational decision is to finish any projects even if this changes. Consequently, supply's potential overshooting is a risk ingrained in the nature of developments, as completion takes more time. According to experiences, the real estate market cycle is a year-1.5 years longer than the economic cycle. For market balance, new developments generated by supply for floor space are healthy.

According to one of the experts, Budapest has no unified business district, the establishment of that would be a complex investment and needs state cooperation to be created by investors.

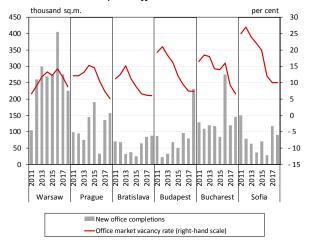
Chart 34: CRE price developments by country (2008 average



Note: Germany: office and retail real estate, Iceland: capital and agglomeration average square metre prices, Eurozone average prices, in other cases, national coverage, all CRE and clear price change.

Source: Bank for International Settlements

Chart 35: New completions and vacancy rates in the regional capital office markets



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

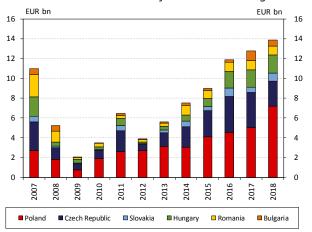
3.8. International CRE review

CRE prices in the Eurozone exceeded the 2008 price levels by 8 per cent at the end of Q2 2018. The availability of price indexes that follow CRE prices is relatively limited, but based on available data, CRE prices have increased most dynamically since 2010 in Iceland, Germany, and the United States of America (Chart 34). In these countries, prices exceed their 2008 levels by 25-45 per cent, while in Japan and the Eurozone countries, CRE prices are 8-9 per cent higher than in 2008.

Similar to Hungary, the office markets of several capital cities in the CEE region are characterised by active developments, strong rental demand and decreasing vacancy rates. Office vacancy rates were at a historic minimum in many regional capitals (except for Warsaw and Sofia) at the end of 2018 (Chart 35). The lowest vacancy rate was measured in Prague, where 5.1 per cent of all office properties were unutilised. One indicator of the strong demand for offices is that vacancy rates decreased simult0061neously with the appearance of considerable new office completions in every analysed country.

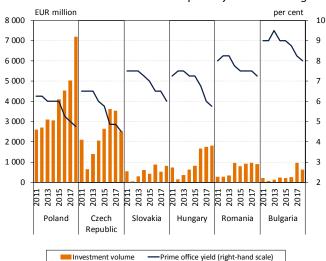
Real estate investors are still keenly interested in the region, and the total investment flows of CRE markets has kept increasing. Investment activity in the CEE region has been increasing steadily in the last few years (Chart 36). The total investment flows of the analysed countries increased by 8.6 per cent in 2018, and the strongest growth rates were seen in the transaction volumes of Slovakia (albeit from a low base, but +56 per cent) and Poland (+43 per cent). Poland stands out from the countries both for its area, population, and the

Chart 36: CRE investment flows in the CEE region



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

Chart 37: Investment volume and prime yields in the region



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

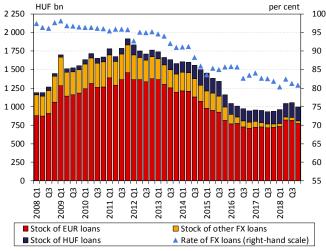
number of cities with office market potential; 52 per cent of all investments in the region are realised here.

In the other countries of the region, the scarce supply of available, investment-worthy real estate acts as an obstacle to investment flows. In the Czech Republic, Romania, and Bulgaria, the 2018 investment volume did not reach the 2017 level, which may be traced back to a lack of available real estate suitable for development and not the lack of investor interest (Chart 37). A large volume of office development is underway in the capitals, which portends an increase in investment flows for the next periods. Following previous trends, prime office market yields continued to fall in 2018; among all the analysed countries, the lowest rate was measured in Prague (4.5 per cent), while the highest was in Sofia (8 per cent). Prime office market yields have dropped below their lowest level measured in the previous real estate market cycle in Prague and Warsaw, and in Budapest, they were at their earlier minimum level in the end of 2018. In Romania and Bulgaria, prime office market yields remain above their historical low points. Regarding prime office market yields, compared to Prague and Warsaw, Budapest offered a premium of 100-125 base points at the end of December, but yields are typically 25 basis points lower than in Bratislava, and 150-225 points lower than in Bucharest and Sofia.

4. CRE FINANCING

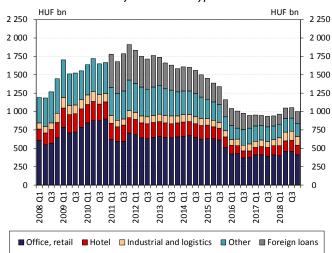
In parallel with the market upswing, the stock of project loans collateralised by commercial real estate property rose in 2018, primarily resulting from growth in HUF loans. In an annual comparison, the largest increase was seen in the loan stock for industrial real estate developments and hotel purchases, but office and retail real estate loans still represent most of the stock. Among new disbursements, loans for purchasing CRE are increasingly popular. Looking ahead to H1 2019, banks plan to tighten conditions on business real estate loans: the main reasons for this include a prudent approach to the excessive increases in real estate prices and the bank's capital position.

Chart 38: Composition of the credit institution sector's CRE purchase or development project loan stock by currency



Source: MNB

Chart 39: Composition of the project loan stock provided for CRE purchase or development by the credit institution sector by real estate type



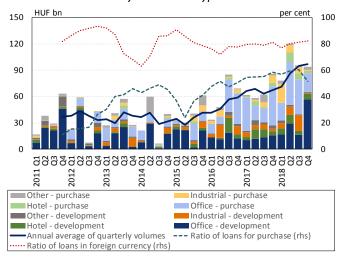
Note: No data breakdown by real estate type is available for loans provided to foreign companies before 2011. Source: MNB

In 2018, the CRE-collateralised project loan stocks of credit institutions rose, primarily owing to growth in HUF loan stocks. At end-2018, the total stock of credit institution sector project loans for CRE development or acquisition was approximately HUF 1,000 billion, up roughly 6.5 per cent on the stock at the end of the previous year (Chart 38). 15.7 per cent of the loans is accounted for by financing provided to international companies, and 80.8 per cent are foreign currency loans. Following the 2008 financial crisis, the share of foreign currency loans decreased significantly: from 98 per cent to 81 per cent. By the end of 2018, volumes denominated in currencies other than the euro have virtually disappeared. The ratio of other loans, typically Swiss franc loans decreased from 25 per cent in 2008 to 4 per cent by the end of Q4 2018. In the CRE market, foreign currency financing does not necessarily represent a higher risk compared to HUF financing, as the borrowers' revenue from leasing out the real estate is typically determined in euros. However, vulnerability stemming from foreign currency risk may arise for tenants whose revenue mostly comes in forints, but who pay rent in euros. Consequently, credit institutions should pay special attention to the tenant composition in terms of exchange rate risk already upon designing the scheme and also take into consideration the tenants' exchange rate exposure when they determine the properties' long-term income generating capacity and the risk parameters of the loan.

Financing for industrial real estate development and hotel purchases grew the most. Loans provided for financing industrial and logistics real estate increased the most in 2018, rising by approximately 45 per cent, while loan stocks provided for hotel financing exceeded the end-2017 volume by 9 per cent (Chart 39). Within CRE loans, the office and retail sector represents the largest proportion, accounting for approximately 44 per cent.

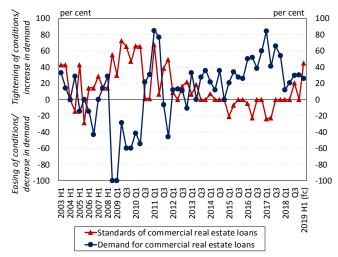
Among new disbursements, loans taken out for purchasing CRE are increasingly popular. Considering 2018 as a whole, credit institutions granted HUF 387 billion of CRE financing project loans, approximately 44 per cent more than

Chart 40: Project loans provided to domestic companies for CRE purchase or development by the credit institution sector by real estate type



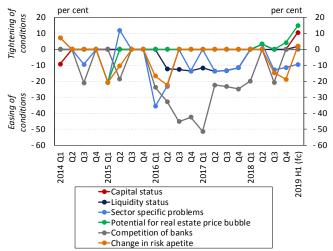
Source: MNB

Chart 41: CRE loan demand and the development of loan conditions



Note: Responses of the analysed banks weighted by market share. Source: MNB, Lending survey

Chart 42: Factors of changes in CRE loan conditions



Note: Responses of the analysed banks weighted by market share. Source: MNB, Lending survey

disbursements in 2017 (Chart 40). With the recovery of new loan disbursements, the ratio of loans provided for new real estate purchase increased somewhat within the new volume over the last three years; while in 2013-2014 it was 45 per cent, in 2017 and 2018, it was 59 and 57 per cent, respectively. Loans granted for purchases have a lower risk level compared to construction loans as the real estate that serves as collateral is available upon loan origination. The ratio of foreign currency loans within new disbursements is stable around 80 per cent, and this is not considerably different from the ratio seen for the loan stock as a whole. Among new CRE loans, loans provided for developing or purchasing industrial real estate or office building increased the most. For the former segment, the volume granted in 2018 was 110 per cent, and for the latter segment, it was 50 per cent more than the 2017 value.

Looking ahead to H1 2019, banks are planning considerable restrictions in the conditions of business real estate loans. Based on the responses by banks participating in the MNB's Lending Survey, demand for CRE loans continued to grow in

2018, while in Q3, some banks reported tightening of borrowing conditions (Chart 41). In 2018, a net 20-30 per cent of banks reported increasing demand compared to 2017, when 60-80 per cent of respondents reported an increase in demand for credit. Looking ahead to H1 2019, a net 26 per cent of banks reported increasing interest in CRE loans, and they are primarily expecting interest in the industrial-logistics and the office segments. For H1 2019, weighted by market share 45 per cent of the banks that responded to the Lending Survey reported restricting conditions.

Caution due to the exaggerated growth in real estate prices has appeared as a motive for the planned tightening of conditions. Based on responses to the Lending Survey, the improvement of the real estate sector's specific issues, the increasing risk tolerance of banks, and increasing competition among banks all had an effect on loosening borrowing conditions in 2018 (Chart 42). Looking ahead to H1 2019, a net 15 and 10 per cent of banks indicated the risk of a real estate price bubble developing and the bank's capital position as factors that push towards stricter borrowing conditions. Some banks have also become careful regarding CRE lending which has to do with the currently active market environment. The risks inherent in the commercial real estate market are gaining increasing attention at European level, and the European Systemic Risk Board has developed its own risk assessment methodology for identifying market risks. For a summary of the risk assessment report, see Box 3.

3. BOX: RISKS IN THE EU CRE MARKET BASED ON THE REPORT OF THE EUROPEAN SYSTEMIC RISK BOARD (ESRB)

ESRB Report (November 2018)¹¹

Close monitoring of the CRE sector is important at the EU level, and thus the ESRB developed its own EU-level risk assessment framework for the CRE market. Due to the interconnectedness of European CRE markets, they highlight the importance of a standardised framework that, besides analysing specific country markets, is capable of identifying EU-level trends.

The framework analyses the vulnerability of CRE markets across four main conceptual categories:

- The collateral stretch assesses risks related to asset price valuations and rapid price changes.
- The income and activity stretch analyses the sustainability of the income-generating capacity of CRE and the sector's activity.
- The financing stretch analyses developments in bank credits and non-bank sources of financing in order to identify potential sectoral risks.
- Monitoring potential negative spillover effects aims to identify risks influencing financial stability and the real economy.

The risk assessment methodology presenting current trends consists of a survey and a scoreboard based on indicators. Both methods follow the principles determined by these four stretches, and therefore analyse both cyclical and structural risks at the same time. In this methodology, there are four risk classifications: no risk, low risk, medium risk, and pronounced risk. For an adequate analysis, both the scoreboard and the survey should be taken into account, along with expert and national opinions.

European overview

The low European yield environment pushed investor demand towards CRE, and therefore numerous common trends can be identified on the European CRE markets. Due to increasing activity in the sector, similar trends can be observed in all categories.

Collateral stretch

As a result of increasing demands, CRE prices are on the rise and real prices are close to their historical peak in numerous countries. However, due to market heterogeneity, this pricing does not represent excessive growth that exceeds the value supported by fundamentals in every country. Along with the price dynamics, the rapid moderation of yields increases the vulnerability of the entire European market considerably, although the yield premium of CRE above government bonds is higher than its own historical average in multiple countries. The Czech Republic, France, Germany, Sweden, Finland, Luxembourg, the Netherlands, Norway, Portugal, and Spain demonstrate high collateral risks on the coverage channel based on the survey and/or scoreboard results.

Income and investor activity stretch

Despite the low yields, CRE may still offer a significant premium compared to other assets. Demand pressure is proven by the increase in transaction volumes all over Europe, and investor activity is the highest in the premium real estate segment. It is hard to determine exactly whether the increasing investor activity is caused by expectations of long-term profitability or the lack of alternative investment options in the low yield environment. Stability and sustainability risks are the highest in Denmark, the Netherlands, and in Romania on this stretch.

¹¹ The European Systemic Risk Board published the Report on vulnerabilities in the EU commercial real estate sector on 26 November 2018 – https://www.esrb.europa.eu/pub/pdf/reports/esrb.report181126 vulnerabilities EU commercial real estate sector.en.pdf).

Financing stretch

At the EU level, CRE loans are growing steadily, and the change in outstanding volumes experienced is consistent with the macro-environment. Bank lending conditions were loosened after the crisis, but remained relatively strict, and therefore no short-term market overheating should be expected. CRE financing sources are stable and well diversified, but financing outside the banking system is becoming more significant, and the share of non-bank operators is even higher than before the crisis. The sustainability of the liabilities side is demonstrated by the fact that there are no countries in which both the survey and the scoreboard identified at least a medium level of risk.

Channel of contagion

The CRE market is of high importance for systematic risks. There are multiple transmission channels that can affect European economies if disadvantageous market processes occur. In some countries, the interconnection with the construction market has a strong influence on the stability of the financial system and the real economy, and non-performing loans should also be monitored. Regarding risk materialisation, increasing non-bank activities require specialised monitoring by insurance companies and real estate funds. The increasing presence of international investors on specific markets may increase cross-border contagion risks. In the contagion channel, the survey and the scoreboard both indicate at least medium risk for Cyprus, Denmark, Finland, Croatia, the Netherlands, Sweden, and the UK.

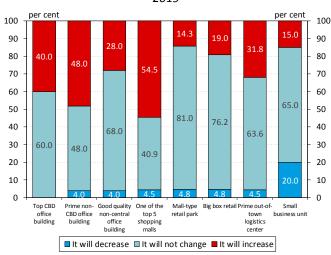
Hungary's assessment

Regarding Hungary, none of the analysed stretches of the ESRB risk assessment presented a risk above medium. Cover, income, and investor activity as well as contagion channels all carry a low risk, and only the financing stretch received a "medium risk" evaluation, primarily based on the rapid increase in the assets of Hungarian real estate investment funds. It must be added that while the growth in assets managed by these funds was indeed impressive in recent years, at the sector level, the ratio of the real estate assets of public real estate investment funds compared to their net asset value was 53 per cent in the end of 2018, which is a safe level for system risk (redemption risk).

5. RESULTS OF THE MNB-RICS REAL ESTATE MARKET SURVEY

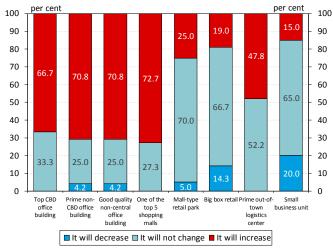
According to the results of the CRE market survey conducted by the Magyar Nemzeti Bank (MNB) and the Royal Institution of Chartered Surveyors (RICS), market experts anticipate growing or stagnating investment demand for H1 2019. According to the respondents, in the first half of the year rising tenancy demand for office buildings and for the best performing shopping centres is expected, while prime non-central office buildings and prime logistics centres may be the most prominent in terms of real estate development.

Chart 43: Market expectations for investment demand in H1 2019



Source: MNB, RICS

Chart 44: Market expectations for tenant demand for commercial properties for rent in 2019 H1



Source: MNB, RICS

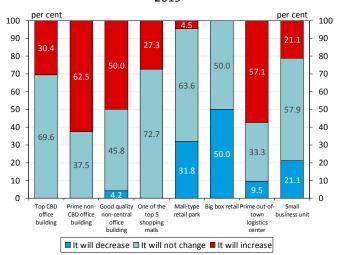
5.1. Market expectations for H1 2019

Market experts anticipate growing or stagnating investment demand for most real estate types. According to the results of the CRE market survey¹² conducted by the Magyar Nemzeti Bank (MNB) and the Royal Institution of Chartered Surveyors (RICS), most of the market experts anticipate stagnating investment demands for most real estate types for H1 2019 compared to the second half of 2018 (Chart 43). One exception is the Top 5 Shopping Mall category, where more market experts (54.5 per cent) anticipate growing investor interest than the opposite. Another sign of the active demand environment is that for top, centrally located offices, no experts expect a decline in investor demand, and for many real estate types, the ratio of those who expect a decrease in investments was very low (4-5 per cent).

Tenant demand for offices and the best-performing shopping centres is projected to increase in the first half of the year. Regarding tenant demand, experts provided different answers in the survey by real estate types. While in the all surveyed office and Top 5 Shopping Malls categories, most (67-73 per cent) of the responding experts predicted an increase in tenant demand, for the other retail real estate categories and for pieces of industrial-logistics real estate, most respondents expect no change in tenant demand for H1 2019 (Chart 44). Furthermore, for urban logistics real estate, the ratio of respondents predicting a decrease in tenant demand for H1 2019 was slightly higher (20 per cent) than those who expect growth (15 per cent).

¹² In cooperation of the Magyar Nemzeti Bank (MNB) and the Royal Institution of Chartered Surveyors (RICS), the Market Sentiment Survey, a questionnaire-based survey on developments in the Budapest commercial real estate market, was restarted at the beginning of 2018. 27 experts participated in the survey restarted by the MNB and RICS, conducted for the third time, which referred to H1 2019 in its forward-looking questions. Among the respondents, financial institution employees engaged in real estate valuation or real estate financing (52 per cent), furthermore investment experts and experts offering consultancy (11-11 per cent) were in the majority. 78 per cent of respondents work for local companies, while 22 per cent work for internationally active companies.

Chart 45: Market expectations for CRE developments in H1 2019



Source: MNB, RICS

Development appetite for prime non-central offices and prime logistics centres may increase. Based on survey results, 62.5 per cent of experts anticipate rising development appetite for prime non-central offices in H1 2019, while this ratio is 57 per cent for prime logistics centres (Chart 45). Development appetite for retail properties (retail parks and warehouses) other than Top 5 Shopping Malls will likely either decline or stagnate.

ANNEXES

Annex 1: Sub-markets of the Budapest office market¹³

The office market of Budapest is divided into the following eight sub-markets based on the data collection of the Budapest Research Forum (Chart 46):

- Central Business District CBD: The inner districts of Budapest, primarily the office buildings in the 5th district and on Andrássy Street and the surrounding streets from Bajcsy-Zsilinszky Street 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 bound by Margit Boulevard Krisztina Boulevard Böszörményi Street Jagelló Street Villányi Street - Fehérvári Street - Október Huszonharmadika Street - Irinyi József Street. Similar to the Central Business District, development opportunities are limited.
- Central Pest: Area bound by the Inner City, the Váci Út Corridor, Dózsa György Street, Thököly Street, Fiumei Street, Orczy Street and Haller Street. Concentrated developments have been performed in this sub-market.
- North Buda: Most of districts 2, 3, and 12; investments are limited to smaller areas.

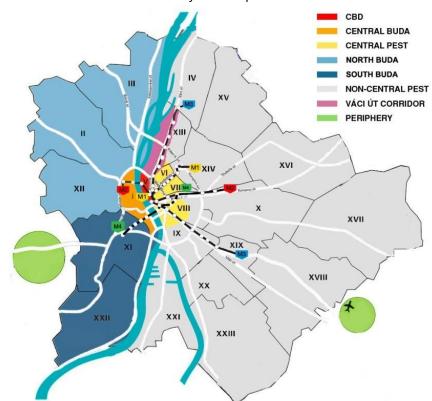


Chart 46: Sub-markets of the Budapest real estate market

Source: Budapest Research Forum

- South Buda: 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 bound by Szent István Blvd Váci Street Újpest Városkapu 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 Street). This is the most popular sub-market among foreign companies for the allocation of their service centres.
- Periphery: Agglomeration areas, mainly Budaörs, Vecsés, Biatorbágy, and Törökbálint.

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¹³ Source: Cushman & Wakefield.

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 lease 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.
- <u>Pre-lease:</u> a pre-lease contract concluded for a building that has not been delivered 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 actually gets on the market.
- <u>Expansion:</u> 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's owner utilises the area, basically removing it from the market, decreasing stocks offered for lease.
- <u>Lease renewal:</u> the extension of the existing contract with no effect on the rental stock.

The comprehensive measures of rental market activity:

- <u>Total demand (gross demand):</u> the total volume of the above five lease transaction types in the period considered.
- <u>Take-up:</u> measures the stock of actual new lease contracts; from the above, it includes the volumes of new leases, pre-leases, and expansions for the period considered.
- <u>Net absorption:</u> demonstrates changes in the leased stock in the period considered. The difference between net absorption and gross lending is caused by lease renewals, pre-leases, and tenants who exit the market.

Ybl Miklós (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.

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