

Review 2020 & Outlook 2021

Commercial
real estate market

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2021



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Introduction

Despite the ongoing COVID-19 pandemic and its enormous impact on the global economy, 2020 brought a good result, with market investments in excess of EUR 5.3 billion. Despite a 30% decline in transaction volume compared to the record year of 2019, sentiment towards the investment market in Poland remains positive, with the volume of closed transactions exceeding the average over the last 10 years. 2020 saw reduced interest in office assets and shopping centres, with investors' attention drawn towards the dynamically developing warehouse sector. The sector has been witnessing record demand for space for several years, with a resultant significant increase in developer activity.

The warehouse sector and the e-commerce industry are becoming the greatest beneficiaries of the new market trends - trends substantially influenced by the changing market situation caused by the COVID-19 pandemic. In other sectors of commercial real estate, the mood is less optimistic. H2 2020 brought much weaker results on the demand side in the office sector. At the same time, the effects of government restrictions due to the growing number of COVID-19 cases remain severe for the retail and hotel sectors. Alternative assets sectors, including those at an early stage of development, may also be set to benefit from changing investor preferences. These include: the PRS sector (the market of apartments for rent), the private student accommodation sector, and the data centre sector - all sectors which have the chance to attract a growing number of investors looking for portfolio diversification.

Research Team

Office sector	Retail sector	Warehouse sector	Hotel sector	Alternative assets
4	8	12	16	20
			PRS sector	Data centre sector

Office sector

In 2020 both tenants and developers made more cautious decisions. Tenants took a conservative approach to leasing new space, while developers opted to delay the start of construction work for some planned developments.

2020 saw a significant increase in vacancy rates in most major office markets. In addition, space availability is being boosted by the increasing amount of space available for sublease.

Despite limited tenant activity, high new supply, a rapidly growing office sublease offer, and a consequent increase in the vacancy rate, most ongoing construction is proceeding according to schedule.



Office market in Poland

In the first half of 2020, the office sector in Poland saw no clear, visible signs of a market slowdown due to the COVID-19 pandemic. The second half of the year, however, did see negative effects. At the end of 2020, the total existing office supply in Poland exceeded 11.7m sq m, of which half was located in Warsaw, with another 1.55m sq m and 1.23m sq m in the two largest regional office markets of Kraków and Wrocław respectively. Over the course of the year, approximately 707,000 sq m of office space was delivered to the Polish market (only 6,000 sq m less than recorded in 2019), with the third quarter accounting for almost 40% of this volume. The highest pace of development of the office market in 2020 was observed in Warsaw, Kraków and Katowice - almost 75% of the total new supply introduced to the Polish market was in these three cities. While the volume of lease transactions in the first half of the year was driven by negotiations begun before the pandemic (670,000 sq m was leased in Poland between January and

June 2020), the figures from the second half of the year clearly show a slowdown in the office sector, particularly in the largest markets. Warsaw saw the least amount of leased space for almost a decade - 602,000 sq m was subject to lease. Similarly, in regional cities tenants leased 582,000 sq m - the smallest figure since 2015. The largest decrease was recorded in Kraków, where only 60% of the 2019 transaction volume was leased. That said, despite this decline, the highest tenant activity in 2020 among regional markets was in Kraków and Wrocław, with nearly half of all 2020's signed agreements there.

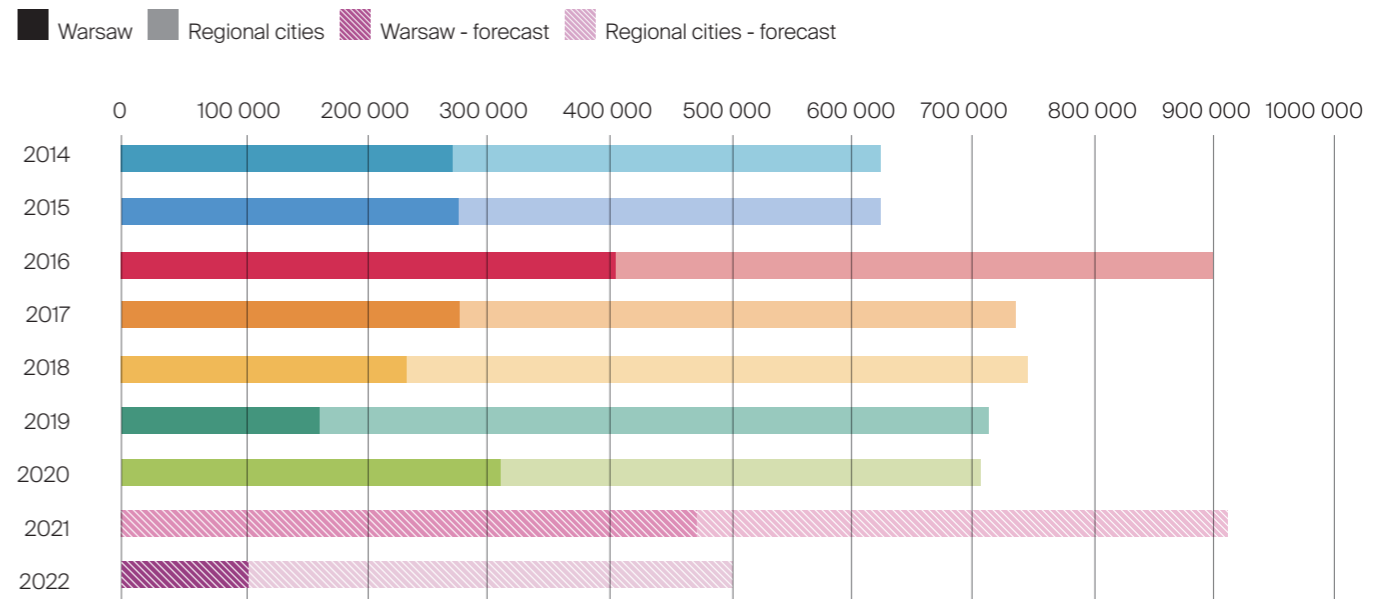
It is worth pointing out the changes in the structure of lease transactions. Whilst new agreements and pre-let contracts have prevailed in recent years, approximately 40% of the office space leased in the largest markets in Poland in the second half of 2020 came from renegotiations of existing agreements, often being signed for shorter periods than market standards. The reduced tempo seen in leasing led

to a further increase in the vacancy rates recorded during the first nine months of the COVID-19 pandemic. From the end of March to December 2020, the offer of available office space for immediate lease increased by 380,000 sq m.

Consequently, the vacancy rate in Warsaw increased by over 2.4pp. to 9.9%, and by 3.3pp. in the regions to 12.7%. The relatively high volume of new office supply not fully commercialised has had the greatest impact on this vacancy rate growth, particularly in Q3 and Q4. There is still 260,000 sq m of office space for lease in the projects delivered to the major markets in 2020, giving an attendant vacancy rate of 37%.

In reality, the range of office space available for lease is much wider. The COVID-19 pandemic, and thus the transition to work in a hybrid system or solely from home, along with the deteriorating economic situation, have undoubtedly prompted some companies to re-evaluate their office space needs.

Chart 1 / Office supply in major office markets in Poland (sq m)



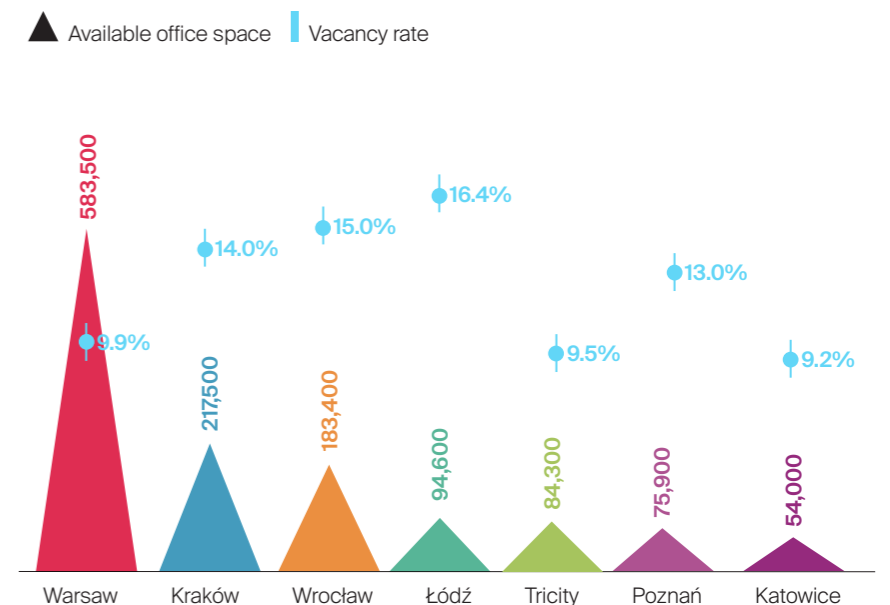
Source: Knight Frank

Some of them are looking for savings under the new conditions, and some companies are considering changes to their work model. As a result, the number of tenants deciding to reduce their current office space via subletting is on the increase. At the end of December 2020, in the largest office markets in Poland, the sublease offer already included over 200,000 sq m of office space for immediate lease - almost twice the figure at the end of H1. Disturbing signals are also evident on supply results. Long investment processes don't allow for flexibility in developer reactions to new market circumstances. As a result, high developer activity in the office sector is still observable - there are over 1.6m sq m of office space under construction in Poland, only slightly less than in the record years 2018-2019. According to developer schedules, the supply of office space expected to be delivered in 2021 may reach the highest volume for many years and may exceed 900,000 sq m. Inevitably, this will likely result in a further significant vacancy rate increase. Despite the changing market conditions, asking rents in the majority of cities remained stable. However, the

expected further increase in vacancy rates and a falling demand for office space, along with the current changing and uncertain market situation, may lead

owners to be more flexible in the rental process, which may in turn bring about effective rent decreases in the quarters ahead.

Chart 2 / Available office space (sq m) and vacancy rate (Q4 2020)



Source: Knight Frank



Investment market in the office sector

The global pandemic and restrictions have led to a redrawing of the real estate investment map, with particular reference to both the sources of capital and investor appetites for particular segments of commercial real estate. The decline in interest in office properties is a direct consequence of the COVID-19 pandemic and its creation of a climate of uncertainty regarding the changing work environment.

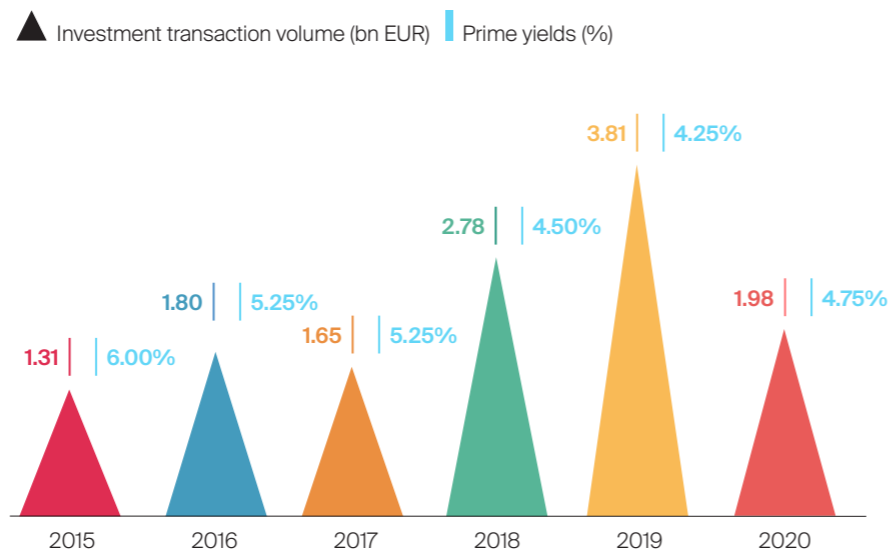
In 2020, the volume of office transactions reached EUR 1.98 billion - 38% of the total value of real estate transactions in Poland. The sector recorded a 50% decrease in investments compared to 2019, with Warsaw remaining the office market leader, with the value of transactions reaching close to EUR 1.3 billion. The most important transactions included: the acquisition of Wola Center by Hines; the acquisition of Nowogrodzka Square by the French fund Amundi; and the acquisition of Generation Park Z by Deka Immobilien.

In the office sector, prime assets are currently expected to be valued at yields of around 4.75%, compared to early 2020's corresponding figure of around 4.25% - 4.35%.

2021 remains a big unknown, although it seems likely that the real estate market in Poland will be of great interest to funds from Europe, China and Singapore. In the coming quarters, the market situation will be influenced by many factors, primarily

related to the development of the global pandemic - the attendant restrictions and evolving sanitary regimes, along with the return of employees to offices, will have a significant impact on the shaping of new trends in the office market.

Chart 3 / Investment transaction volume in the office sector



Source: Knight Frank

TRENDS

1

Expected growth of available space for lease and falling demand for office space may result in tenant pressure to renegotiate rents.

2

The new reality is prompting some companies to re-evaluate their office space needs. Some employers are considering changing their working models - opting to reduce the office space they currently occupy and sublet the remaining space.

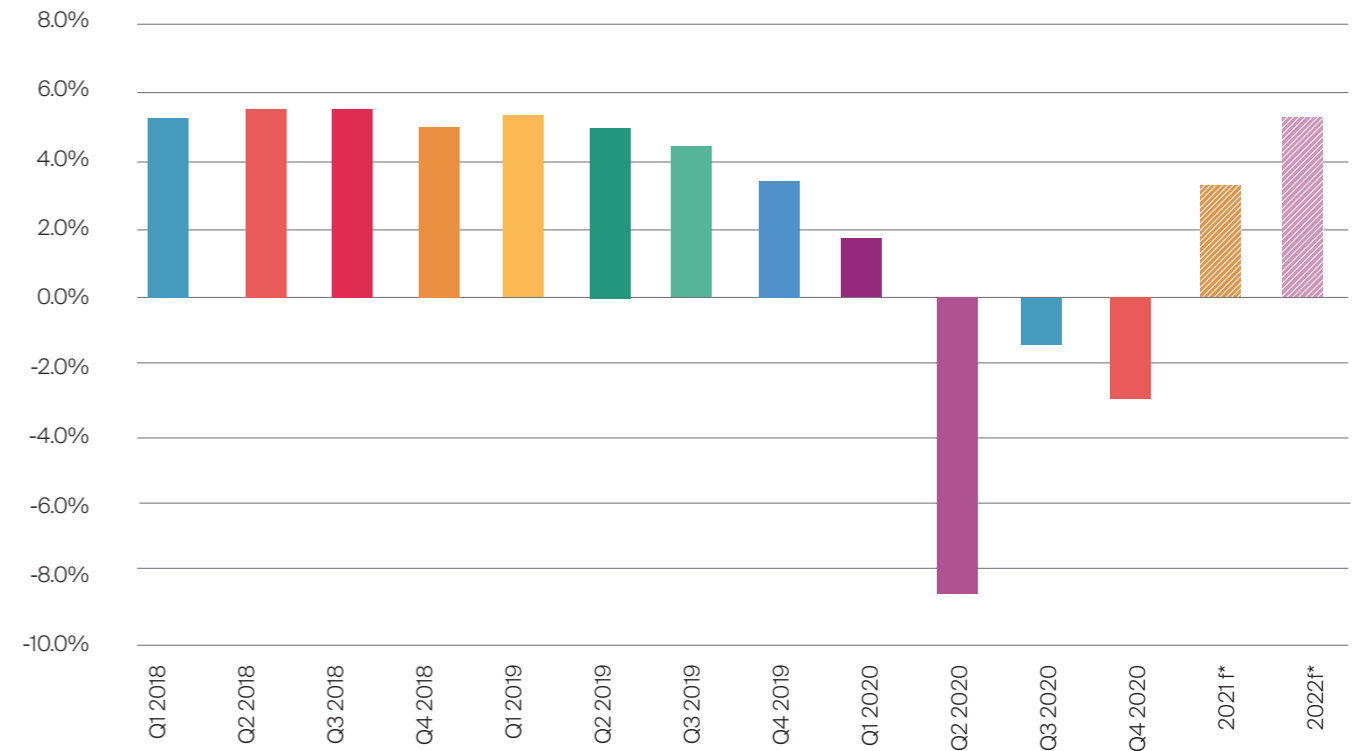
3

The working model in many companies will increasingly be based on a combination of different environments, locations, working hours, and „agile working conditions” to increase productivity, employee engagement and satisfaction. Thus, it is expected that more and more companies will systematically move towards different location strategies and a hybrid model of work.

4

Due to the growing requirements of office building tenants, the cooperation of the office sector and proptech sector can be expected to continue. Consequently, more and more advanced features in building systems, along with their supporting applications, will aim at ensuring safety and comfort in buildings and leased space.

Chart 4 / Polish GDP growth (y-o-y)



Source: Statistics Poland; *European Commission forecast, January 2021



Economic indicators

1

GDP GROWTH

According to Statistics Poland, Polish GDP fell by 2.8% in 2020 compared to an increase of 4.5% in 2019. The COVID-19 pandemic and related restrictions led to the first decline in GDP since 1991. The biggest contributor to this was the fall in domestic demand, which reduced GDP by 3.6pp. The weakest GDP growth rate was observed in Q2 2020, when a decline of 8.4% y-o-y was recorded. Subsequent quarters have already brought an improvement in performance.

In Q4 2020, the main driver of the Polish economy was industry, itself driven by an upturn in global manufacturing. The decline in GDP recorded in Poland in

2

UNEMPLOYMENT RATE

2020 is well below the average for the European Union, where the decline in GDP in 2020 was estimated at 7.4%. It is worth noting here that forecasts of GDP growth in Poland for 2021 and 2022 are positive.

Despite the COVID-19 pandemic, Poland has not so far seen the sharp increase in unemployment that was foreseen at the outset of the pandemic. Many companies have simply decided to stop increasing employment levels, rather than actively cutting numbers. From June to November 2020, the country's unemployment rate remained unchanged at 6.1%, rising to 6.2% in December.

3

BASE INTEREST RATE

In February 2021, the Monetary Policy Council, decided to leave interest rates at the level set at the end of May 2020. Thus, the base rate remained at its lowest historical level of 0.1%. The decisions taken by the Monetary Policy Council are a response to the fight against the economic consequences of the pandemic. In addition, the National Bank of Poland forecasts that rates will be kept unchanged at least until early 2022.

Retail sector

The COVID-19 pandemic and the subsequent closing or limiting of the activities of shopping centres for a total of almost 3 months was a litmus test for the economic condition of both retail schemes and tenants.

The limiting of the activity of shopping centres has accelerated the digital transformation of the retail industry. The share of online sales in retail sales in selected months of 2020 approached 11-12% (compared to the 5-6% achieved before the pandemic).

Investors have redirected their attention to smaller retail projects, which coped better with the consequences of the pandemic than traditional shopping malls. Due to the lower value of acquired assets in 2020, investors invested approximately EUR 700m in the retail sector.



Retail market in Poland

It was an unprecedented year in almost every aspect for the Polish retail sector. Over the nine months of 2020 which followed March, when the COVID-19 pandemic first hit Poland, shopping centres faced two periods of severe restrictions - in March/April and November. The majority of shops were forced to close each time, with the retail units which were allowed to remain open (including grocery stores, drugstores, pharmacies, stores with toys and articles for children) facing limitations in the number of customers allowed to enter the shop at any one time. The operational restrictions were also applied to cinemas and fitness clubs, while food and drink outlets were limited to the provision of take-away services. The impact of this ban was all the more painful as many shopping centres in recent years have attempted to increase the share of tenants from the entertainment and food sectors in response to the changing purchasing trends of consumers.

As a result of these actions, turnover and footfall figures dropped significantly. Although the indicators increased week

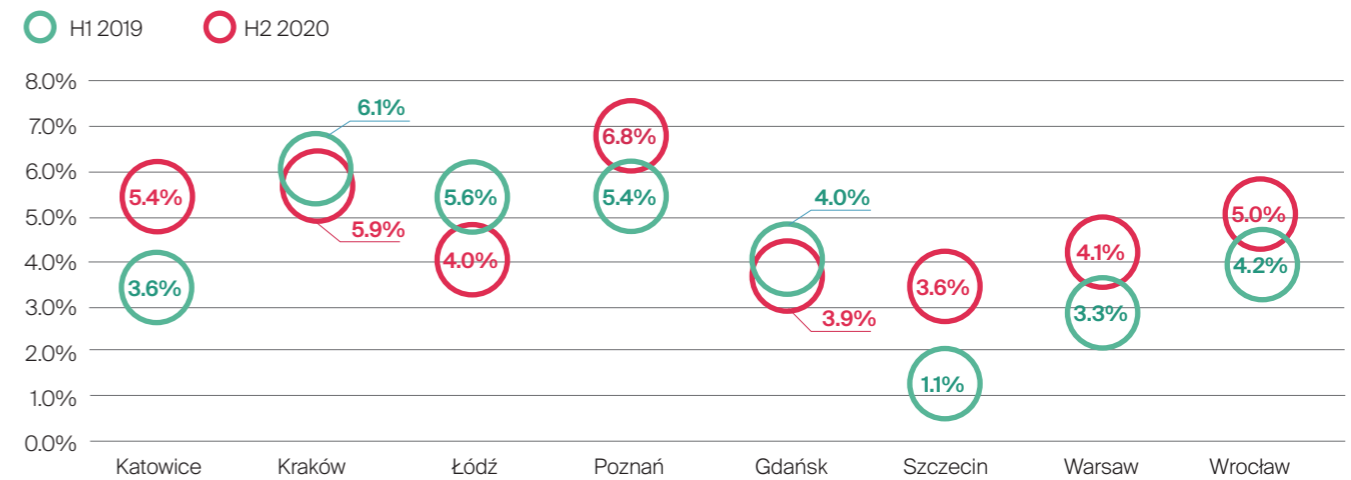
by week after the lifting of each lockdown, many centres had still not returned to 2019's turnover and footfall volumes by the end of the year. It is estimated that in 2020, footfall in shopping centres decreased by some 30%, and turnover fell by some 25% compared to 2019.

All this has severely damaged the condition of many tenants. Some of them also failed to renegotiate their lease agreements, and, as a result, were forced to leave shopping centres altogether. Decreases in revenues in 2020 also accelerated the decisions of several international brands (including Camaieu, Salamander, Sportisimo and Stefanel) to cease their activity in the Polish market. For the vast majority of potential tenants, the COVID-19 pandemic has been a period of suspended expansion processes. This resulted in the completion of not fully leased retail schemes. Such an example can be found in Szczecin, which recorded the highest increase in vacancy rate over 2020 due to the opening of the Rondo Hakena Park, which was approx. 80% leased on opening.

The consequences of these decisions are not yet fully reflected in the scale of increases in vacancy rates. At the end of August 2020, the vacancy rate for the 8 largest agglomerations was estimated at 4.8% (an increase by 0.7 pp. over 9 months). It can be expected that the changes currently being experienced by the retail sector may lead to a noticeable increase in the vacancy rate in the coming quarters.

Despite the prevailing market uncertainty, the level of retail developer activity in Poland has changed little. That said, it should be emphasized that even before the pandemic it was not high, and the scale of the new annual supply was characterized by a downward trend. Apart from a few projects which postponed their opening dates, there has been hardly any suspension of work on projects already under construction. Importantly, however, 2020 saw the closing of shopping centres with a total area of approximately 200,000 sq m. This included nine centres representing 1st generation shopping centres (Auchan and Tesco), as well as the Sukcesja shopping centre in Łódź.

Chart 5 / Vacancy rates in 8 major agglomerations



Source: Knight Frank

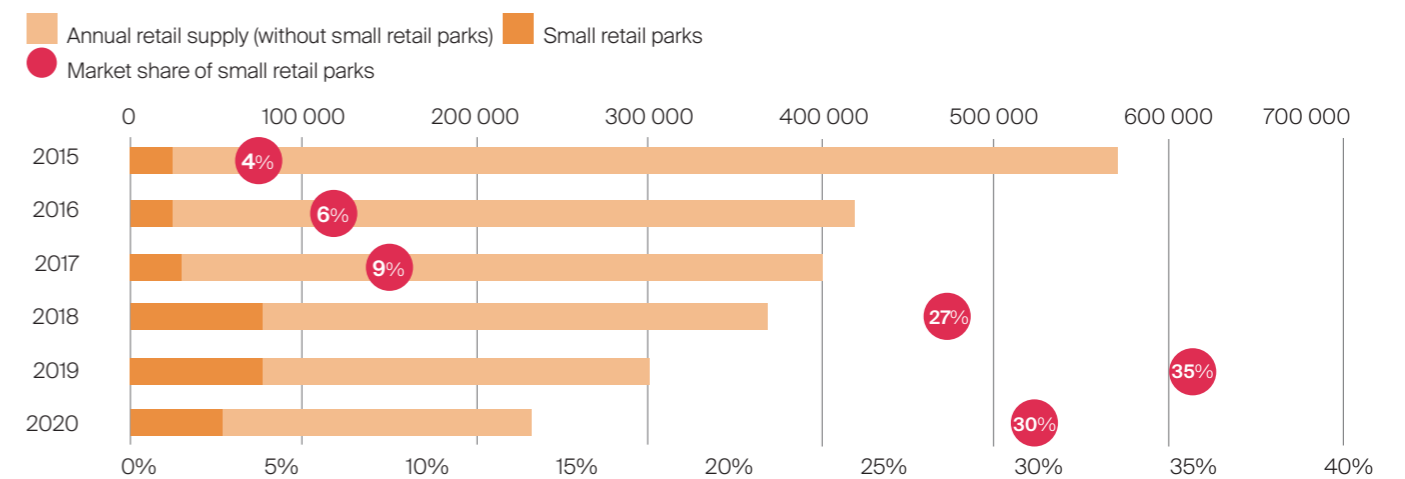
In 2020, developers completed a total of 237,000 sq m - approximately 80% of the supply delivered in 2019. Small-scale retail parks (5,000-10,000 sq m) accounted for half of this space. The popularity of such retail schemes (i.e. without common areas, with separate entrances from the parking level to individual stores) among customers has been observed over the last 2-3 years and, in the time of the pandemic, their position has strengthened (mostly due to the feeling among buyers that they offer greater sanitary safety due

to their lack of common areas). This has positively impacted both footfall figures and turnover volumes in such projects. In December 2020, only 265,000 sq m of retail space was identified as being under construction - another indicator confirming decreasing developer activity in the retail sector over recent years. The completion of the vast majority of these projects is scheduled for 2021.

When seeking a positive impact of the COVID-19 pandemic on the retail sector,

it can be found in the acceleration of e-commerce development. During both lockdowns, many retail chains recorded dynamic growth in online orders. Online shopping has gained in popularity even in industries that were previously dominated by brick-and-mortar trade (e.g. the food industry). For many brands, it was the pandemic and lockdowns that accelerated the implementation of online channels into their sales strategies.

Chart 6 / Annual supply (sq m) and market share of small retail parks (2015-2020)



Source: Knight Frank

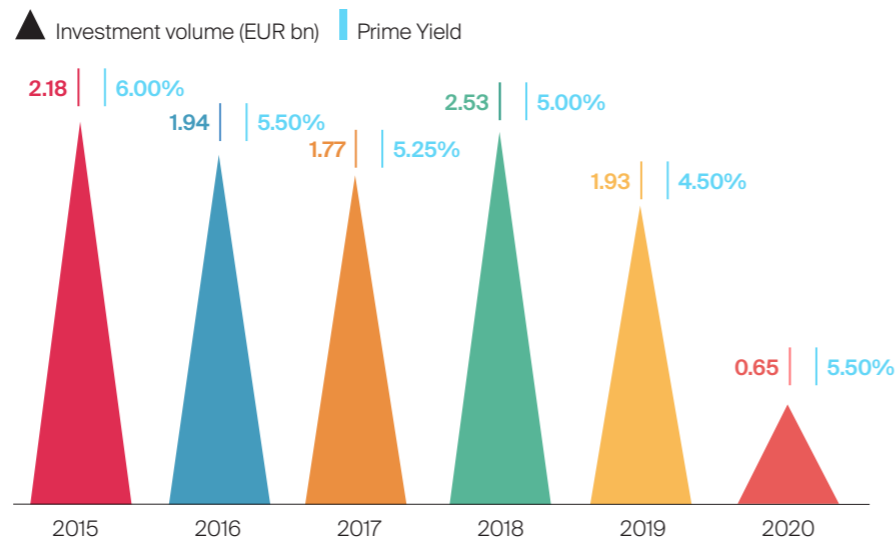


Investment market in the retail sector

In the 12 months of 2020, the appetites of investors and foreign funds for Polish commercial properties remained high. The preference for specific sectors has, however, changed. The consequences of the restrictions introduced in Poland for shopping malls and uncertainty over the further condition of such products resulted in a significant decline in investor interest in large-scale shopping centres, which had been popular pre-pandemic. As a result, the volume of transactions in the retail sector in 2020 did not exceed EUR 700m and accounted for only about 30% of the recent 5-year average. Investors who, despite the pandemic, remained interested in the retail sector, focused their attention on smaller facilities (small retail parks and convenience centres), which, as shown by footfall and turnover data, coped better with the consequences of the pandemic. An example of such transactions was the acquisition of a portfolio of 12 properties (including Hop Stop in Siedlce, Pasaż Chełmiński in Chełmno and Park Handlowy Piast in Piastów) by the British fund LCP Properties. In 2020, transactions involving the stand-alone stores occupied by Tesco in the past years had a significant share in the transaction volume. Their buyers were, among others, Echo Investment (3 schemes in Poznań, Łódź and Kraków), Castorama (Ruda Śląska, Tychy, Rzeszów) and Karuzela Holding (Puławy).

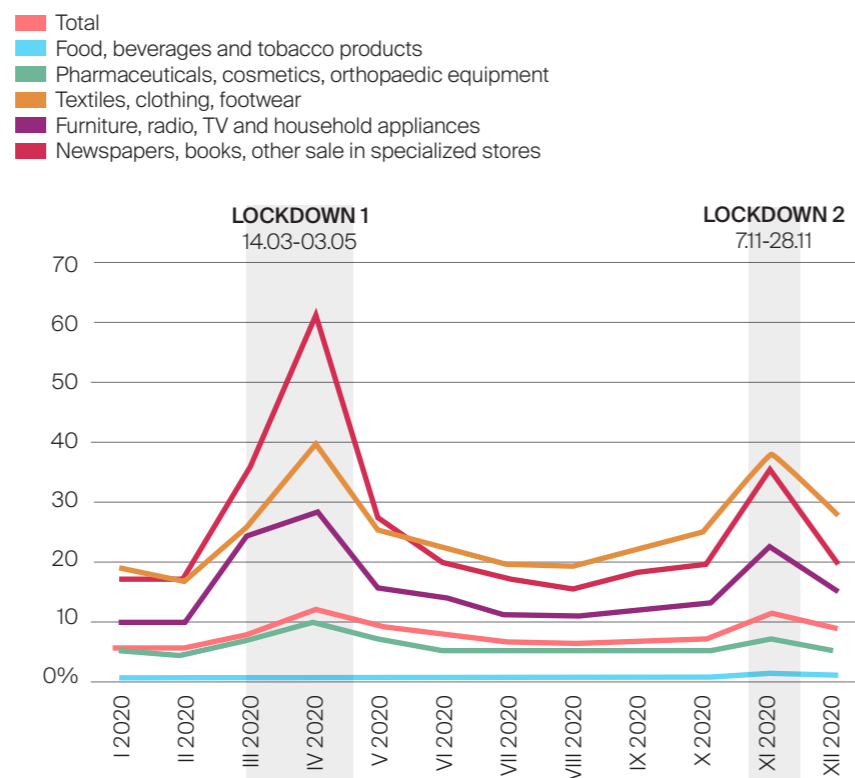
The changing attitude of investors to the shopping centre sector, along with the limited interest of banks in financing the sector, had a significant impact on the level of yields, which recorded a correction in level compared to 2019. Knight Frank experts estimate that if any prime asset was sold in 2020, prime yield would approach approx. 5.50%, i.e. some 1% higher than at the end of 2019.

Chart 7 / Annual investment volume and prime yields in retail sector



Source: Knight Frank

Chart 8 / Share of online sales in retail sales (total and in selected retail categories)



Source: Statistics Poland



TRENDS

1

An increase in the activity of developers delivering convenience shopping centres and small retail parks - as a response to both consumer demand and investor interest.

2

A systematic increase in the share of e-commerce in retail sales. A sharp increase in the number of brands which are developing omnichannel sales strategies.

3

A slowdown in the pace of the expansion of both domestic and international brands, primarily due to the reduced footfall in shopping centres and, in the case of luxury brands, due to the limited supply of new, high-standard shopping malls.

4

An expected increase in vacancy rates, especially in traditional shopping centres as a result of the limited pace of expansion of new brands and the vacating of shopping centres by tenants who have lost financial liquidity as a result of bans or limitations on trade during the pandemic.

5

A decline in rents, especially in shopping centres with a weaker position on the local market. In prime properties rates should remain stable, although owners of all properties may need to be more flexible when renegotiating existing leases or negotiating new leases.



Economic indicators

March 2020 was the first month in which limitations were imposed on Polish society and the Polish economy. The restrictions introduced at the turn of Q1 and Q2 2020, mainly those related to the closure of the majority of stores in shopping centres, a ban on the organisation of events, and the suspension of service activities, affected the Polish economy to an unprecedented degree - one not experienced even during the crisis of 2008/2009.

Government-imposed travel and daily movement restrictions, bolstered by the spectre of rising unemployment and wage cuts, negatively impacted consumer sentiment and demand for most consumer goods. For four consecutive months (March - June 2020) retail sales dynamics remained negative. A slight rebound took place only in July and levels remained similar until September.

Unfortunately, the following months brought further declines in sales dynamics: -2.3% in October and -5.3% in November (the result of the re-introduction of restrictions on shopping mall activity between November 7 and 28). Even in December, which usually sees annual increases in retail sales attributable to the Christmas season, the sales dynamics were negative (-0.8%). Particularly high drops in sales between January and December were recorded in clothing and footwear (-17.3% y-o-y) and in the categories of fuel (-16.6% y-o-y) and vehicles and parts (-13.2% y-o-y). The negative dynamics of retail sales were slightly mitigated by an increase in sales of food and beverages (2.8% y-o-y, which resulted from making "stocking up" purchases in light of an uncertain future) and furniture, electronics and household appliances (by 5.4%, resulting from increased demand for electronics in connection with remote work and learning).

Over the past several years, online sales have been systematically gaining in popularity among Poles, although their share of retail sales did not exceed 5-6%. The COVID-19 pandemic and restrictions connected with lockdowns made online shopping even more popular. Between April and November 2020, the share of on-line sales in retail sales reached record-breaking levels for Poland - approaching 12%. Between lockdowns, the share of online purchases declined, whilst remaining above pre-pandemic levels, auguring well for the future.

Warehouse sector

The dynamic growth of the warehouse sector in Poland is determined by demand hitting new records year by year.

The constant growth in tenant interest in modern warehouse space is resulting in vigorous developer activity, in new investments in BTS formats, as well as on a speculative basis.

Due to dynamic growth of the e-commerce sector in 2020, the warehouse sector has become a major beneficiary of current market changes.



Warehouse market in Poland

The warehouse sector is the only commercial real estate sector to remain immune to the effects of the COVID-19 pandemic and the socio-economic consequences of the lockdown. 2020 saw a continuation of the dynamic development of the warehouse market in Poland, with total stock exceeding 20.8m sq m by the end of December 2020, and growing demand reaching yet another record-breaking annual volume of 5.2m sq m of leased space.

Poland's warehouse market shows no let-up in attracting tenants from logistics companies, distribution centres, manufacturing enterprises, retail chains and the e-commerce sector. The intensifying demand from the e-commerce industry observed in the last half of the year is a major factor in the dynamic development of SBUs (small business units) and last mile logistics facilities located in the vicinities of Poland's large cities.

The highest concentration of warehousing remains in Warsaw and its surroundings,

where nearly 5m sq m of warehouse space is situated (24% of Poland's total stock). Despite the uncertain market situation caused by the COVID-19 pandemic, developer activity stayed strong. The vast majority of launched investments, regardless of interrupted supply chains and difficulties with labour force availability, have proceeded without delay or disruption.

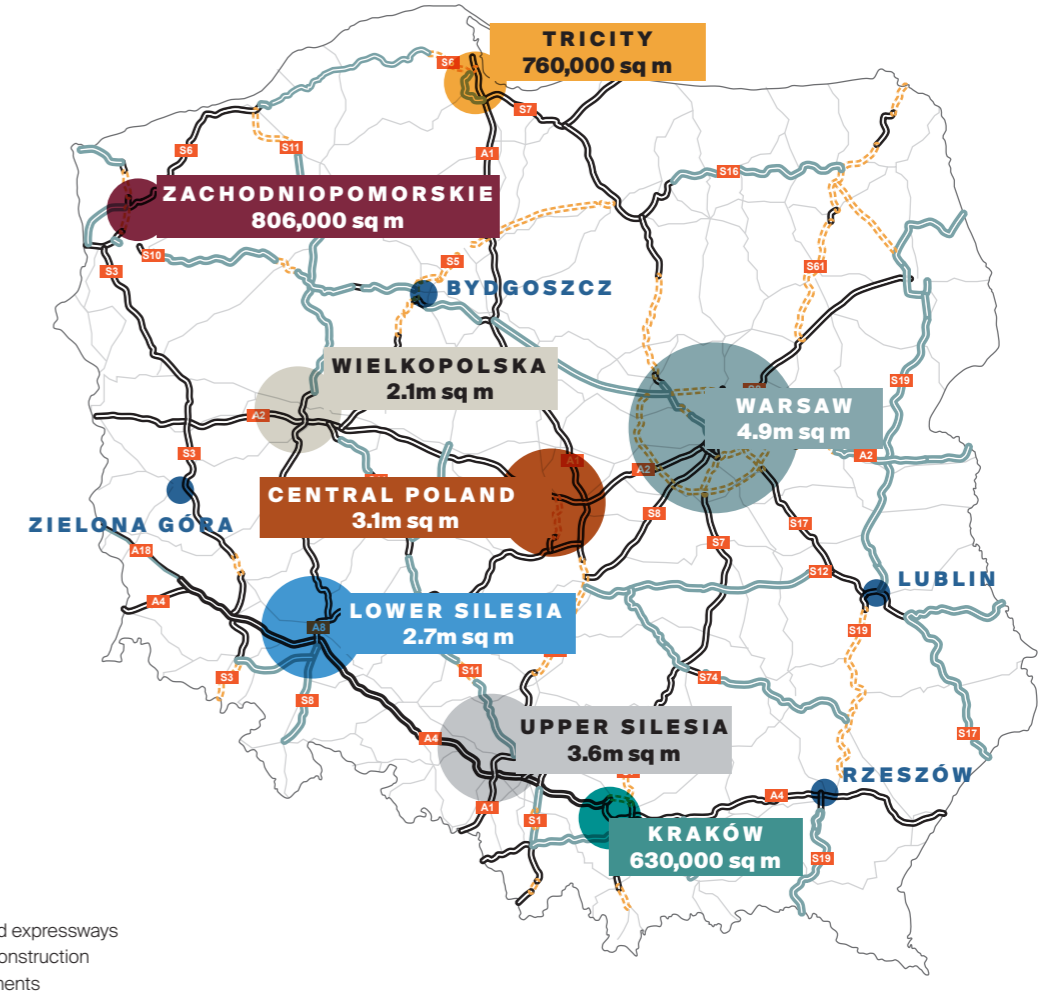
From the beginning of the year, new supply of warehouse space grew by over 2m sq m, a 10% increase compared to the corresponding 2019 period. The largest volume of new supply was delivered in Q3 2020 (some 670,000 sq m). The highest increases in warehouse stock, where a combined 68% of total new supply was delivered, were observed in 3 developed warehouse hubs: namely, Warsaw area (zone I and II), Upper Silesia and Lower Silesia. The largest large-scale schemes to receive permits for use from January to December 2020 were, among others: A2 Warsaw Park (103,700 sq m), Hillwood Wrocław Wschód II (63,900 sq m), P3 Mszczonów

(58,500 sq m), Panattoni Park Ruda Śląska II (56,000 sq m), Hillwood Oleśnica (53,000 sq m) and 7R Park Gdańsk II (51,800 sq m).

At the end of Q4 2020, nearly 2m sq m was identified as being at the construction stage. This means that developer activity, after a noticeable dip in the middle of 2020, increased and, by the end of the year, exceeded the volume under construction at the end of 2019. Following several quarters with a high share of speculative investments, the market is witnessing a noticeable shift in developer focus towards projects secured by pre-lease agreements, or built using the build-to-suit format.

Tenant activity in the warehouse sector is showing continuous growth. The volume of leased space in 2020 reached a record-breaking 5.2m sq m, a figure not previously witnessed on the Polish warehouse market. The largest finalised deals in 2020 were, among others: two agreements signed by Amazon (BTS in Świebodzin 200,400 sq m and Hillwood Łódź Górna

Map 1 / Warehouse stock in concentration areas in Poland (Q4 2020)



Existing highways and expressways
Major routes under construction
Planned road investments

Source: GDDKiA, Knight Frank

73,000 sq m); Euro-net in Prologis Park Janki (73,400 sq m); 7R BTS for Żabka in Radzymin (67,500 sq m); Panattoni BTS for 4F in Czeladź (67,000 sq m).

The government's imposition of restrictions, particularly in the retail sector in spring, has changed consumer purchasing behaviour and stimulated increased interest in online sales channels. The significant rapid growth in the e-commerce sector since the outbreak of the COVID-19 pandemic has positively impacted the warehouse sector - the

benefits of the changes are evidenced by the volume of finalised transactions in 2020.

Over the twelve months of 2020, tenants were mainly attracted to the largest warehouse hubs: Warsaw area (21%), Upper Silesia (20% of Poland's total take-up), and Central Poland (18% share of leased space).

The limited volume of new supply delivered to the market between September and December 2020, along with the high

tenant activity registered in Q4, resulted in a decrease in the level of available space - at the end of December 2020 it was estimated at 6.6%, with some 1.37m sq m of immediately available space.

The asking rents in all the major industrial hubs in Poland remained at a stable level of EUR 2.50-5.00/sq m/month, with the highest rates being found within the administrative borders of Warsaw.



Investment market in the warehouse sector

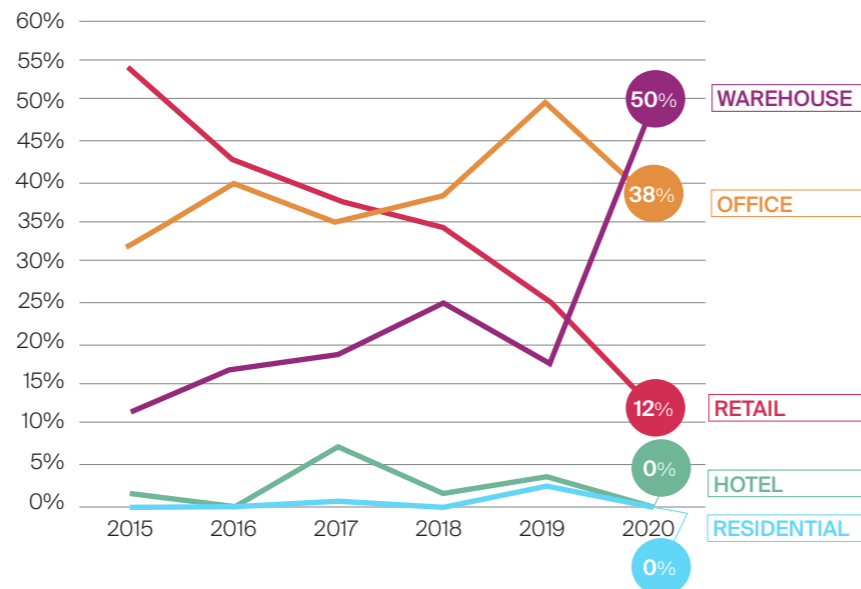
The best historical results achieved on the investment market in the industrial sector amounted to EUR 2.6 billion, which was largely the reaction of investors to the development of the e-commerce market, even stronger in the era of the COVID-19 pandemic and changing market sentiments. Investor activity in 2020 clearly reflects the decisive advantage of the warehouse sector in the commercial segment, because of as much as 50% of capital invested in Poland constituted acquisitions of assets in the warehouse sector, and depending on further restrictions resulting from the pandemic the sector may remain the leader on the investment market. Last year, the most sought-after assets were warehouse portfolios such as Goodman's portfolio acquired by GLP, Hillwood's portfolio acquired by Rosewood, as well as BTS projects with long term leases such as Leroy Merlin in Piątek acquired by

Savills Investment Management, and two Amazon projects in Poznań and Wrocław purchased by Blackbrook and Hines.

The current global economic situation caused by the pandemic has a significant

impact on yields. Already evident is their adjustment in each sector, but their growth in the industrial sector is minor. Prime big box properties are valued at 5.50%, while BTS assets with long leases are valued at 5.00%.

Chart 9 / Structure of investments transactions in Poland according to market sectors share



Source: Knight Frank



TRENDS

1

The growing importance of online sales channels will cause further high tenant interest in modern warehouse space, especially in companies representing the e-commerce sector and related industries such as logistics.

2

High demand will lead to ongoing strong developer activity. This will translate into further growth of warehouse stock in the coming quarters.

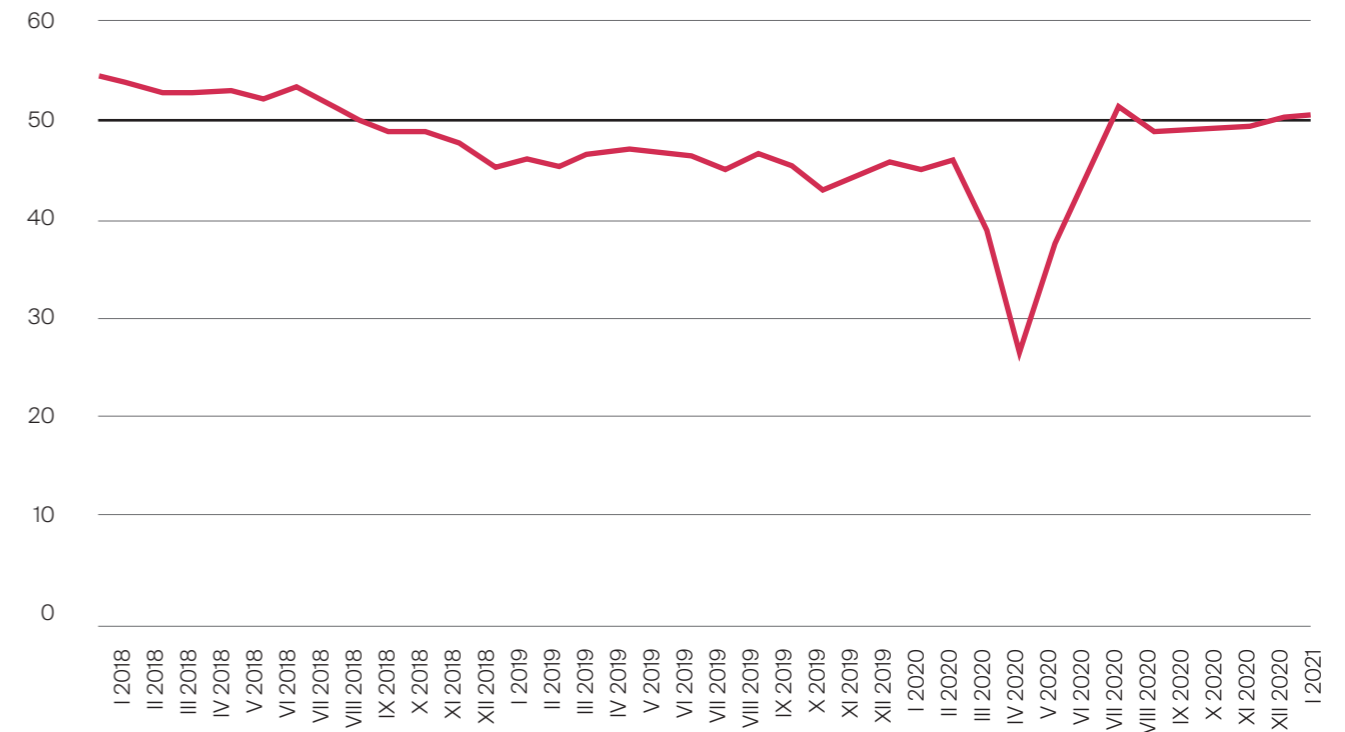
3

The accelerated development of the e-commerce sector brought about by the COVID-19 pandemic will facilitate further, dynamic growth in last mile logistics developments and Small Business Unit schemes dedicated to urban warehousing.

4

The development of the warehouse market will result in changes in the standards of built space. Trends such as the automatization of warehouse schemes, growing environmental awareness, and sustainable development, along with an emphasis on friendly working environments are all becoming more visible.

Chart 10 / PMI in Poland



Source: Knight Frank



Economic indicators

1 PMI

The beginning of 2021 brought an improvement in economic conditions and a more positive sentiment in the Polish industrial sector. In January, the PMI index in Poland rose to 51.9 points, signaling the most significant improvement in conditions in industry since July 2020 when the Polish economy was making up for the losses caused by the spring closures – that month saw the PMI reach 52.8 points. Growth in industrial orders was attributable to exports, which grew at a three-year high. This was accompanied by an increase in the number of new workplaces in industry. Furthermore, the

rolling out of the vaccination program across Europe, and the expected economic recovery in the second half of 2021, contributed to optimistic business sentiment among Poles and Polish manufacturers. The latest published PMI data for the Eurozone indicate good conditions for Polish export growth and industrial production in early 2021.

2 INDUSTRIAL PRODUCTION

According to Statistics Poland data, industrial production in Poland in December 2020 increased at a pace exceeding market expectations – by

11.2% y-o-y. This represents the best result for a decade. The figure for Q4 2020 also points to the healthy condition of industry, since industrial output rose by 4.7%. The main source of industrial production growth in December lies in sectors with a significant share of export sales in their revenues – evidence of a gradual recovery in global trade.

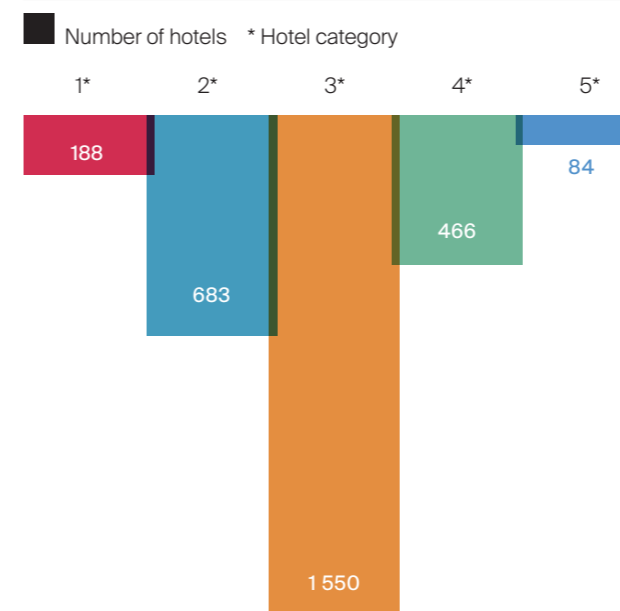
Hotel sector

As a result of the COVID-19 pandemic and its negative impact on the tourist market, sharp decreases in occupancy rates in hotels were observed in Poland.

Market uncertainty caused delays in the commencement of construction works on new hotels, as well as the suspension by investors of some construction projects already in progress. This was due, in part, to the difficulty in securing financing for such projects from banks.

Limited travel possibilities resulting from the government restrictions, resulted in a much reduced number of tourists - the most common hotel guests. This contributed to the permanent closure of some facilities.

Chart 11 / Hotel stock in Poland by hotel category (2020)



Source: Knight Frank

Chart 12 / Average hotel occupancy rate in Poland (%)



Source: Knight Frank on the basis of Statistics Poland data



Hotel market in Poland

In recent years, the hotel market in Poland has undergone dynamic development, resulting in both an increasing number of offered hotels and hotel rooms. The growing interest in Poland as an attractive country for tourists has attracted more and more foreign visitors, ensuring increasing occupancy rates for hotel rooms. As a result, 2018 and 2019 saw record numbers of hotel facilities commissioned for use. 2020, however, saw a number of negative influences from the COVID-19 pandemic and the hotel sector has become one of the most heavily affected by the lockdown and the resulting freezing of the economy.

Since 14th March 2020, successive administrative decisions aimed at stopping the spread of the COVID-19 pandemic have had a significant impact on the Polish tourism market. The key factors were: the closing of borders to non-residents; a sharp reduction in the number of

international flights and rail connections; the limiting of the operation of hotel catering and entertainment areas; and finally a temporary ban on conducting hotel operations, other than for the provision of accommodation to practicing medical professionals, or people quarantined or isolating. The reopening of hotel facilities from 4th May under a strict sanitary regime brought a temporary improvement in the market situation. However, in the autumn months, another sharp drops in occupancy rates on the hotel market were observed. As a result of the sudden increase in COVID-19 infections, the activities of entertainment areas closely linked to the hotel business, such as swimming pools, gyms, and aqua parks, have been limited. The operating results of hotels was also negatively affected by a negligible amount of demand from the meetings and events (MICE) sector, which traditionally peaks in the autumn months. Furthermore, from 7th November 2020, the ban on

hotels operating for tourist purposes was reintroduced, resulting in a continuation of the significant slowdown in the hotel market, along with another sharp decrease in occupancy rates.

2020 saw the growth rate in the hotel sector significantly decrease as a result of a number of effects of the COVID-19 pandemic. At the end of the year, there were 2,971 hotels in Poland (a 0.68% increase y-o-y - against an average 2017-2019 annual growth rate of 3.5%). The number of hotel rooms increased to 147,836 units (a 2.1% increase y-o-y - against an average 2017-2019 annual growth rate of 5%).

The significant market slowdown is also reflected in the hotel room occupancy rate, which in 2020, according to Statistics Poland data until November, averaged 29.6%. A record low of only 7.2% for the Polish hotel market was reached in April.

It is worth noting that in recent years the occupancy rate in Poland has been stable, and between 2016 and 2019 it averaged 52.3%. In 2020 in many regional Polish cities single-digit occupancy rates were recorded. Such low levels were heavily influenced by the significantly limited number of tourists using hotel facilities. According to Statistics Poland data, from January to November 2020, there were only 10,765,218 guest stays, compared to 21,827,687 guest stays for the corresponding 2019 period. This can be compared to an average annual number of hotel guest stays for 2016-2019 of 21.5 million.

Over the last few months, the profile of hotel guests in Poland has changed. The majority of them were domestic visitors - a consequence of the limited travel possibilities available to them. In previous years, foreign visitors constituted an average of some 26% of all hotel guests while, according to Statistics Poland data, from January to November 2020 this value dropped to 14%, reaching record low results in May and June (6% and 8%, respectively).

Given the unfavourable market conditions, some hotel owners decided to close

their hotel facilities permanently due to, among other things, problems with financial liquidity. The group of hotel facilities closing their doors in 2020 includes both the 5-star Sofitel Wrocław Old Town and the Blow Up Hall in Poznań, as well as the 3-star Arbiter hotel in Elbląg, which succumbed to bankruptcy in Q3 2020. At the end of 2020, 42 hotels were at the construction stage, and were to open under chain brands after the implementation of investor plans. This will result in an expansion in the market offer to the tune of approximately 6,500 new hotel rooms. By way of comparison, at the end of 2019 there were 46 chain hotels under construction.

Moreover, due to the pandemic and the ongoing difficult market situation, 2020 saw investors deciding to suspend 13 projects already at the construction stage, including hotels such as the 4-star Puro and Qubus (both in Katowice, with 246 and 97 rooms, respectively), Puro's second 4-star venture in Warsaw (330 rooms), and the 3-star Holiday Inn Express in Wrocław (142 rooms).

Additionally, the ongoing pandemic has also contributed to delays in new hotels in Poland. The opening of the Admiral Hotel

in Legnica, planned for March 2020, took place in June, and the opening of the Nosalowy Park in Zakopane took place in July, although it was also initially planned for March. The openings of 4-star hotels such as the Courtyard & Moxy Szczecin City complex with 255 rooms, and the Nyx Hotel in Warsaw, with 331 rooms, were initially planned for Q3 2020 but have been put back to 2021 - the Courtyard & Moxy Szczecin City complex opening is now planned for Q2-Q3 2021 - the Nyx Hotel for Q1 2021. The 3-star Hampton by Hilton with 105 rooms, located in Olsztyn, is also waiting to open its doors to tourists.



Investment market in the hotel sector

The hotel market is, along with the retail sector, one of the most highly affected by the COVID-19 pandemic. Consequently, in 2020, a limited number of hotel transactions were recorded. However, as with the retail sector, the hotel market is expected to increase yields by 100 bps. As a result, it is foreseen that the best assets in Warsaw will be valued by investors at 6%. Due to the ongoing COVID-19

pandemic, there was little interest in hotel transactions observable on the market. Consequently, Knight Frank identified one hotel transaction in 2020. In March 2020, AccorInvest acquired 98.6% of Orbis S.A. shares by way of a public tender offer. This transaction was the last stage of Orbis' transformation after Accor took over the hotel and franchise business for EUR 286 million in Q3 2019. The acquisition of Orbis, owner and operator of 73 hotels in

6 Eastern European countries, enabled AccorInvest to expand its real estate portfolio to 135,000 rooms, confirming its position as the leading hotel owner and operator in Europe. AccorInvest is currently both the owner and operator of hotels located in 26 countries in Europe, Latin America and Asia.



TRENDS

1

In 2020, there was a significant slowdown in the expansion of activity of investors on the Polish hotel market due to the sector's situation caused by the ongoing COVID-19 pandemic. It can be expected that developers will remain less active in 2021. Moreover, the schedules of planned projects may continue to change due to the prevailing market uncertainty. In turn, it is likely that the commencement of construction works on some hotels may be postponed.

2

There were sharp declines in both the number of hotel guests and the hotel room occupancy rate, resulting in the poor operating performance of hotels in 2020. Standard prices for accommodation in many facilities, especially in chain hotels, have been discounted in order to encourage tourists to use hotel services. The care for sanitary safety has become an important element of hotel operations, and simultaneously a measure of high-quality service for hotel guests.

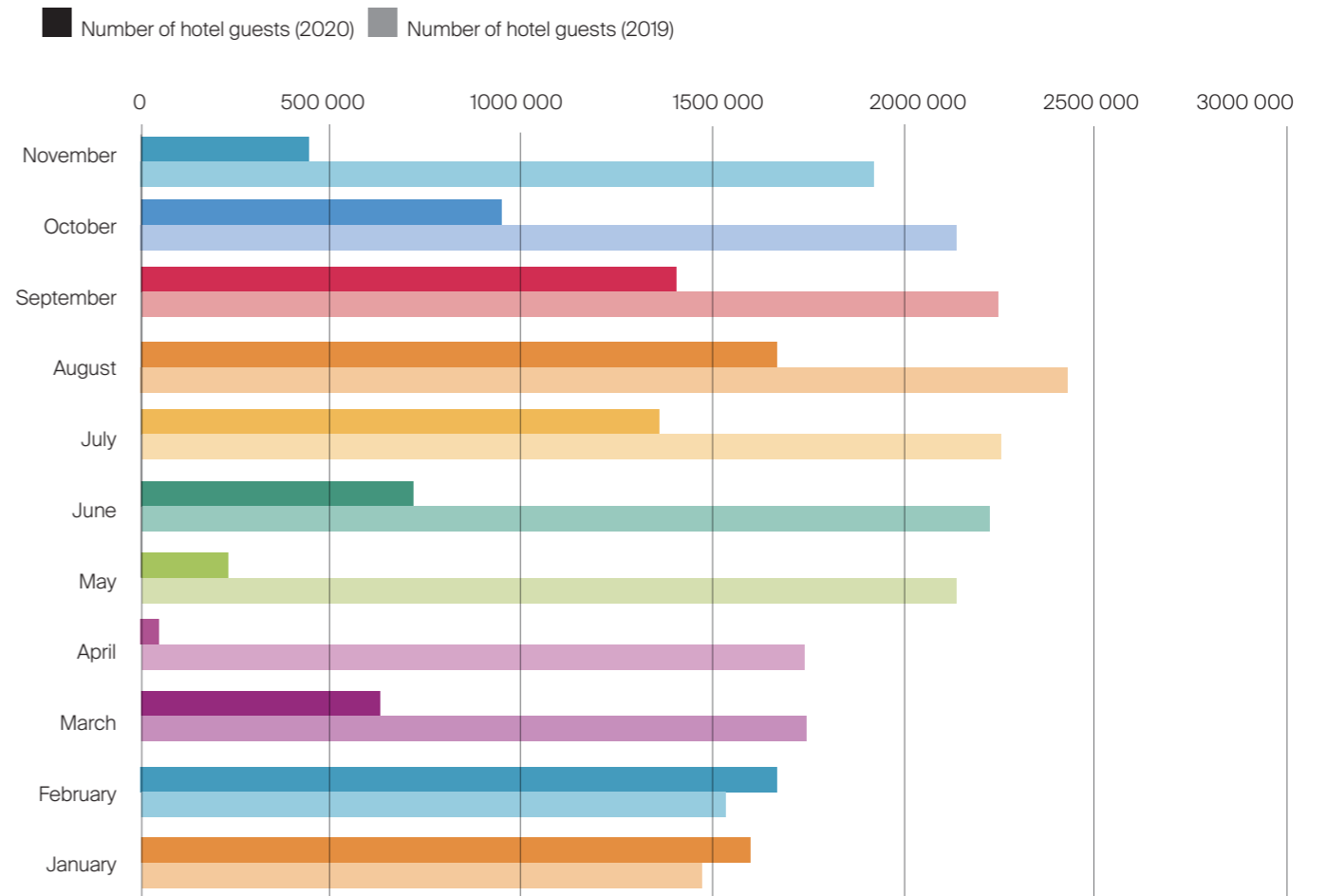
3

The slowdown on the hotel market is expected to continue until at least the end of H1 2021. However, an increase in the number of tourists and the level of occupancy rates in hotel facilities during the holiday season is expected, as was the case in 2020. In addition, the ongoing COVID-19 vaccination program will contribute to a reduction in travel concerns, which should positively impact the number of hotels' visitors and the operating performance of hotel facilities in second half of 2021.

4

Improvement in the situation on the hotel market will largely depend not only on an increase in the number of domestic and foreign tourists visiting the facilities, but also on the return of the regular organisation of events in the MICE sector (fairs, conferences, congresses). This is an important element of the operation of hotels, especially city ones.

Chart 13 / A monthly number of hotel guests in Poland (2019 vs. 2020)



Source: Statistics Poland



Economic indicators

In almost every month of 2020, the negative influence of the ongoing pandemic were noticeable, inevitably connected with the effects of restrictions imposed by Polish and European governments. The temporary closure of airports and borders introduced in March and April 2020, which drastically reduced the number of foreign journeys, had a major impact on tourist traffic.

Further restrictions in travel options resulted in a significant decrease in the number of foreign tourists visiting Polish hotels. From January to November 2020, some 1.7 million foreign guests used the services of hotel facilities, while the

average annual number of foreign tourists visiting hotels in 2016-2019 in Poland was approximately 5.6 million. It is worth noting that the number of foreign tourists visiting Polish hotels from January to November 2020 was only 31% of the total number of foreign hotel guests in the corresponding period of 2019.

For several years, Poland has seen an increase in the number of visits by foreigners – testimony to the growing interest in Poland as a tourist destination. According to Statistics Poland data, 2016 saw 80.5 million non-residents (including 17.5 million tourists) come to Poland, while in 2019 the figure had already reached

88.5 million - of which 21.2 million were tourists. Due to the collapse of the tourism market in 2020, however, a significant decline in this values is expected, bringing a slowdown in the previously upward trend. In addition, according to Statistics Poland data, in Q3 2020, the number of crossings of the Polish border decreased by 36.7% compared to Q3 2019. In the same period, there was also a significant decrease in the value of goods and services purchased by foreigners in Poland (down 46.6% on the third quarter of 2019).

Alternative assets market

PRS sector



PRS market in Poland

The PRS market is a relatively new sector on the Polish real estate market. As a result, the resources for such facilities in Poland are limited, although they have been systematically growing in recent years. Still in its initial stages of development, the flats built for rent sector in Poland is gradually defining itself - the starting point was the terminology developed in Great Britain, in particular the BTR (Build-to-Rent) formula. The PRS sector in Poland is concentrated primarily in the largest urban centres where, at the end of 2020, 15 entities were operating or had secured land for the construction of such facilities. The largest operators present or entering the Polish market are: TAG Immobilien, Resi4Rent, Heimstaden, Golub GetHouse, Catella, Aurec Capital, Fundusz Mieszkań na Wynajem and Zeitgeist Asset Management. Currently, there are almost 30 housing investments in Poland in the PRS formula, offering a total of over 4,500 apartments for rent, owned by institutional entities. Almost half of them (over 2,100) are in Warsaw, but regional cities are also attracting investor attention. Moreover, around 3,700 apartments are already at the construction phase, most of which are scheduled for completion in 2021 and 2022. Over 50% of this number are located in Warsaw. Among the regional cities, the leader is Wrocław, with almost 600 units under construction. Significantly, investors have further plots of land secured for such investments, on which they plan to complete some 15,000 new apartments for rent by the end of 2025.



PRS (private rented sector):

- in Poland operating in line with the British BTR (Build-to-Rent) model
- residential investments designed and built for rent
- offering tenants apartments in the form of subscriptions to a service
- apartments in the projects have a single owner and are managed on their behalf by specialized entities
- often offering additional services, amenities and common areas for residents, such as; gyms, laundries, bicycle storage, 24/7 monitoring and reception desks



Investment market in the PRS sector

Interest in assets from the institutional rental sector in Poland has been growing for several years, but recent quarters have brought an increase in activity. This was partly due to the negative impact of the COVID-19 pandemic on the commercial market sectors (especially retail and hotels). New companies appeared on the market, including Heimstaden, a European rental real estate operator, who began Polish operations with the acquisition of two projects in Warsaw (640 apartments in total). Entities already present on the Polish market in 2020 secured further

land for investments in the PRS sector. It is worth noting that in Poland in 2019-2020, EUR 230 million was invested in the housing sector, while in Europe in 2020 alone, it was EUR 62.9 bn. The increasing number of foreign investors interested in building apartments in Poland in the PRS formula serves as confirmation of the dynamic activity and impetus of this sector. Furthermore, attractive rates of return are drawing entities experienced on Western European markets, where the PRS sector is significantly more developed.

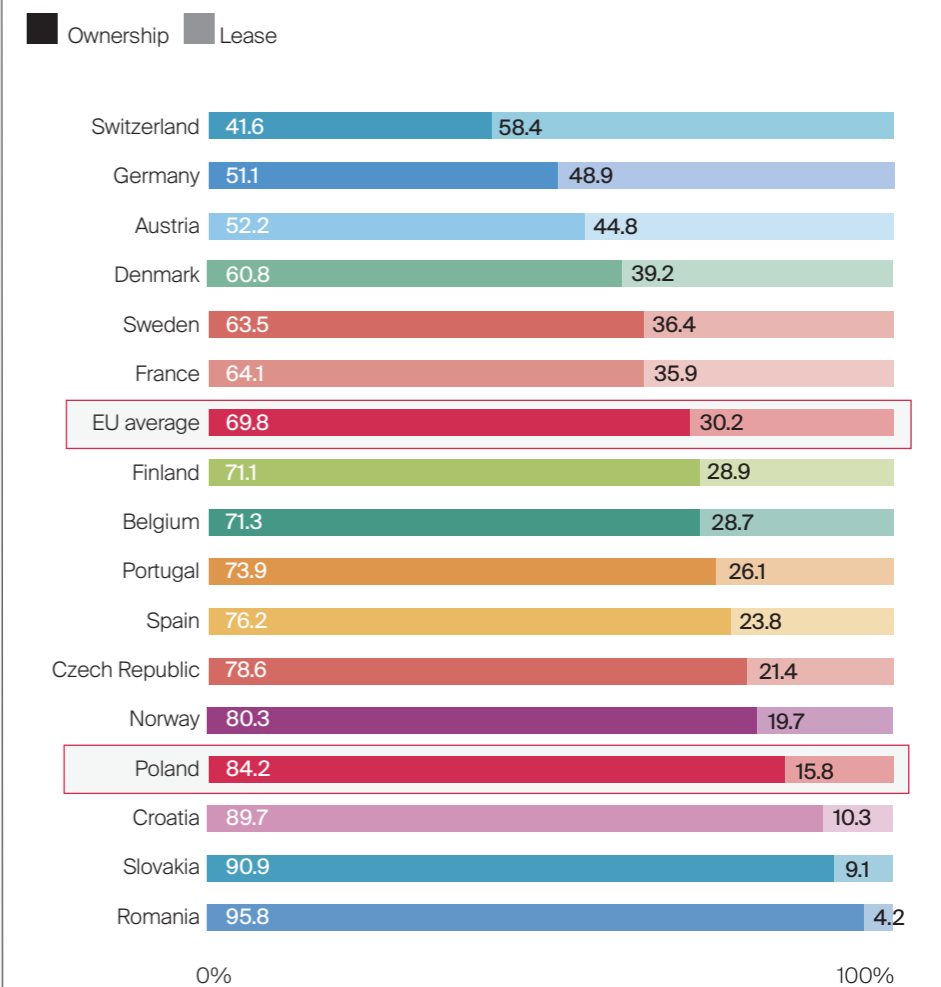
POTENTIAL OF POLAND FOR DEVELOPMENT OF PRS SECTOR

The development potential for the PRS sector in Poland can be found, among other things, in the changing ownership structure on the housing market. In 2019, 30.2% of the EU population rented apartments, while the remaining 69.8% were owners. In Poland, these proportions are even more pronounced - only 15.8% of the population are tenants, while 84.2% are owners of apartments and houses. At the same time, however, it should be emphasized that the ownership trend is weakening. Eurostat data shows an increase in the number of people renting flats in the EU - a trend observable since 2010, and one which may indicate systematic growth in the openness of society to renting. Despite the large share of owner-occupied housing in Poland, the market has been experiencing the problem of housing shortages for years. In 2015, the deficit was estimated at approximately 1.5 million units. Additionally, the quality of housing is a problem for the Polish residential market. The number of rooms per capita in Poland is only 1.1 - the lowest such value among European countries. Moreover, some 37% of the Polish population live in overcrowded households (the EU27 average is 17%). Only four countries note a higher index than in Poland; Romania, Latvia, Bulgaria and Croatia. The development of the PRS market in Poland may be positively influenced by demographic changes, especially with the presence of the generations Y and Z on the market, along with a transformation in lifestyles visible across all generations. For several years, there has been increased interest in, among other things; the sharing economy, subscription models, and an increased flexibility and mobility in the population. Additionally, there is an observable, growing reluctance to incur long-term obligations - particularly financial ones. Added to this, there is systematic growth in the number of foreign students studying at Polish universities - students who, due to a deficit in dormitory places, decide to rent apartments. It is worth noting here that the education level of Poles is increasing, with knock-on

effects in terms of higher salaries. This means, as confirmed by Statistics Poland data, that levels of disposable income are growing. This situation allows people to sufficiently cover their basic needs and, as a result, more attention can be put on the improvement of the quality of life. This allows for the improvement of housing conditions, in such ways as upgrading apartments for larger or better located versions. The implementation of these plans is made possible by the purchase of an apartment for living or rental. National Bank of Poland data

shows that the average monthly rent for a flat and the average monthly mortgage repayments are currently comparable financial burdens on household budgets. As a result, the decision to buy or rent is increasingly not made solely on the basis of economic factors, but in accordance with individual consumer preferences.

Chart 14 / Ownership structure of the Polish residential market



Source: Eurostat

Alternative assets market

Data centre sector



Data centre market in Poland

With the spread of the Internet across the world has come an ever-growing volume of data produced by both institutions and private users. In recent years, this systematic digitization of analogue information and processes has been joined by the internet of things. In a knowledge-based economy with the need for the rapid exchange of information, industries related to the collection and processing of information, among them the data centre sector, are gaining in importance.

Observers in recent years have noted not only a dynamic growth in the value of the market, but also a rapid increase in the infrastructure space occupied by data centres. The COVID-19 pandemic has further accelerated digitization, due to the fact that trade, work and education have moved online in a very short space of time. Concurrently, due to the COVID-19 pandemic, market uncertainty has been growing, prompting companies to look for savings and deciding to outsource IT services. As a result of the market changes currently being observed, the demand for data centre services and efficient data transmission is accelerating.

The introduction of data protection safeguards (GDPR) by the EU in 2018 imposed on companies the need to supervise their own data centres. This has become one of the key factors determining the development of this sector in Poland. The geographical proximity of Western European markets, lower infrastructure

maintenance costs, and EU membership ensure the prospects for the development of this sector in Poland are good. This was further helped by the EU's 2019 adoption of laws facilitating the free flow of non-personal data between member countries. At the end of 2020, some 120 data centres existed in Poland with a total net area (i.e. dedicated to servers) of approximately 100,000 sq m. An important feature of the Polish market is the fragmentation of the sector, both in terms of the number of operators and the area of individual data centres. The vast majority of these

facilities have a net area of between 200 and 500 sq m.

Warsaw remains the largest market in Poland, with approximately 40 data centres. The capital of Poland enjoys great interest from hyperscalers (global providers of cloud services, such as Google and Microsoft), and providers of colocation services (renting server rooms to multiple server owners) - especially those aiming to serve Central and Eastern Europe. As the largest city in Poland and one of the largest in the CEE region,



A data centre is a building or part of it, consisting of a server room and areas supporting its operation. Data centres are equipped with mechanisms and procedures to increase the security and continuity of server operation, such as: redundancy of servers, network elements and discs, ventilation and cooling systems, fire protection and access control.



The location of the data centre is influenced by:

- electrical installation infrastructure
- energy cost
- access to at least two Internet sources, preferably fibre-optic; each with a separate infrastructure
- access to the internet backbone and proximity to internet exchange points
- access to backup power system installations and UPS (*uninterruptible power supply*)

Warsaw has attracted investments from global companies in recent quarters. In the second half of 2020, Google, in cooperation with the Chmura Krajowa, launched the Warsaw region Google Cloud (an investment estimated at approximately USD 2bn). In the coming years Poland will see investments of:

- Microsoft - in 2022 the company plans to partially launch the Microsoft Azure region (infrastructure, training and cloud services for enterprises and the public sector) - an investment worth approx. USD 1bn,
- Vantage Data Centers - in the Mlociny area in Warsaw, the launch of two data centres (one of them - in 2021) is planned.

Apart from the above ventures, the Warsaw market hosts; Atman (owner of approx. 20,000 sq m of modern data centres in Warsaw, making it the largest data centre operator in Poland and the CEE), Orange (a new data centre with an area of 1,600 sq m), and Equinix. Outside Warsaw, Beyond.pl is expanding its campus in Poznań.

POTENTIAL OF POLAND FOR DEVELOPMENT OF DATA CENTRE SECTOR

- favourable geographical location and EU membership
- well-developed road infrastructure and access to public transport
- relatively low electricity costs (approx. 15% lower than the EU average, and approx. 40% lower than Germany, the most expensive EU country)
- high number of qualified IT specialists - almost 80,000 students study IT in Poland every year, with some 14,000 graduates joining the labour market annually
- relatively stable industrial demand structure, increasing role of SMEs as clients of data centres
- growing propensity of companies to outsource IT - according to a study conducted at the beginning of 2020 by Deloitte and the ICAN Institute with the support of Google Cloud, 31% of Polish companies used cloud computing solutions and another 22% intended to implement them within three years
- growing external demand - interest of foreign customers in Warsaw as a local telecommunications hub due to the need to minimize delays in data transmission, the implementation of which is possible by shortening the distance between the user and the server and building local data centres.



TRENDS

- 1 A dynamic increase in the amount of collected and transmitted data resulting from, among other things; digitization of enterprises, development of telecommunications and construction of next-generation (5G) networks, systematic growth in the number of mobile devices. Added to this is the development of the financial services market, in which online sales are playing an increasingly important role - requiring the handling of a huge number of transactions per unit of time.
- 2 The growing popularity of the outsourcing of IT services - the increasing willingness of companies to place their data processing equipment in specialized data centres, instead of building their own server facilities.
- 3 Cloud computing - the transfer of some data processing to companies offering cloud computing, which will also operate on the basis of infrastructure offered by specialized data centre providers.
- 4 In Poland, a systematic increase in both the number of data centres and their processing power is expected; further consolidation of the data centre sector and an increase in the importance of several key operators are also expected.
- 5 Warsaw will remain the location of "first choice" in Poland, but in the next few years dynamic development of data centres in locations outside the capital city is possible due for lower IT infrastructure maintenance costs.
- 6 A growing supply of "green" data centres (powered by energy from renewable sources) due to legal requirements regarding CO₂ emissions, and due to their high energy efficiency and lower infrastructure maintenance costs.

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- ◆ market reports and analysis available to the public,
- ◆ tailored presentations and market reports for clients.

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