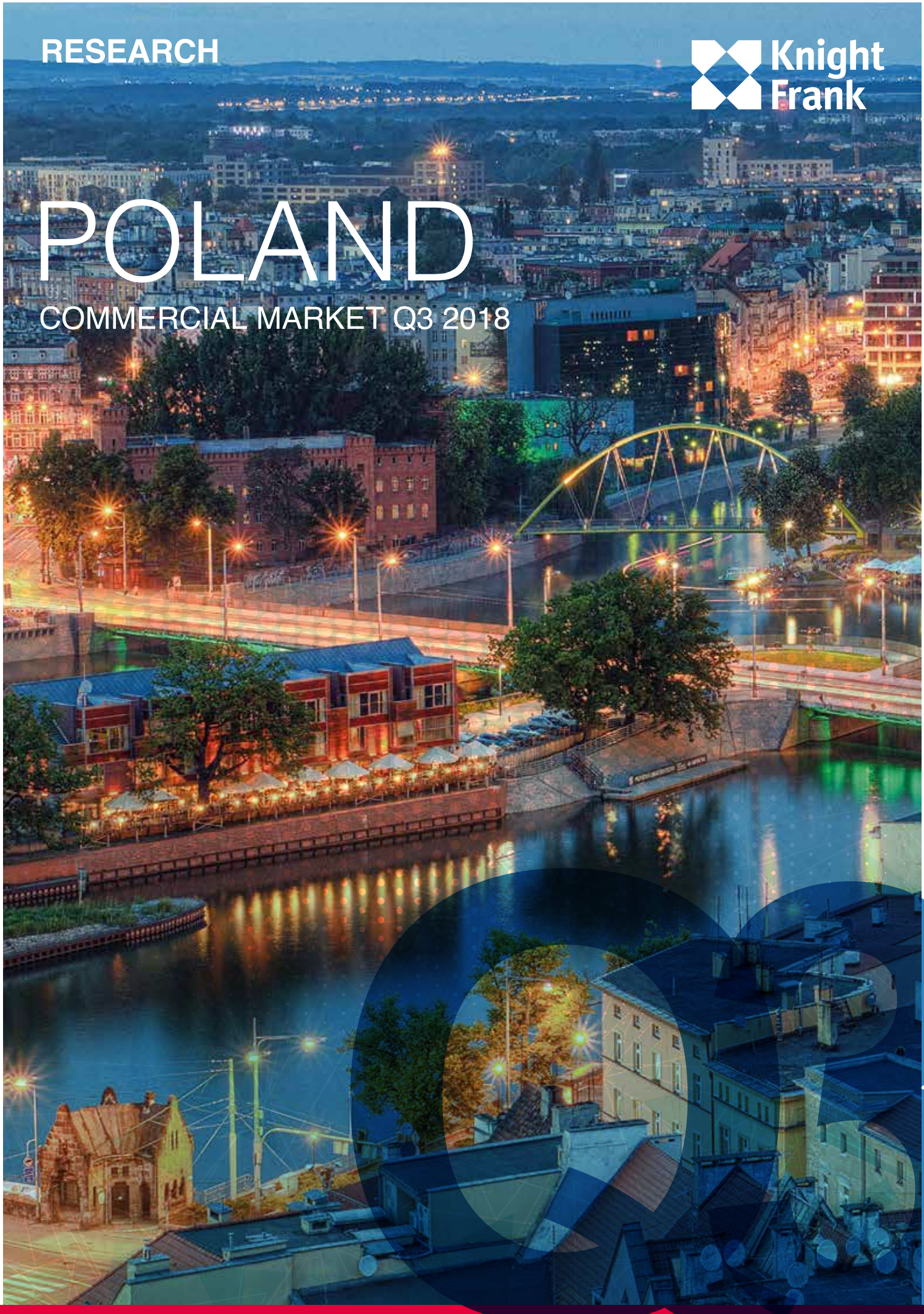


RESEARCH



POLAND

COMMERCIAL MARKET Q3 2018



WARSAW OFFICE MARKET

Total stock:
5.4m sq m

New supply (Q1-Q3 2018):
190,000 sq m
in 15 projects

Office space under construction:
805,000 sq m

Take-up (Q1-Q3 2018):
632,000 sq m

Vacancy rate:
10%

The first three quarters of 2018 saw:

- ◆ historically high nine-month take-up figures,
- ◆ a further decrease in vacancy rates,
- ◆ one of the highest volumes of office space under construction in the history of the Warsaw office market.

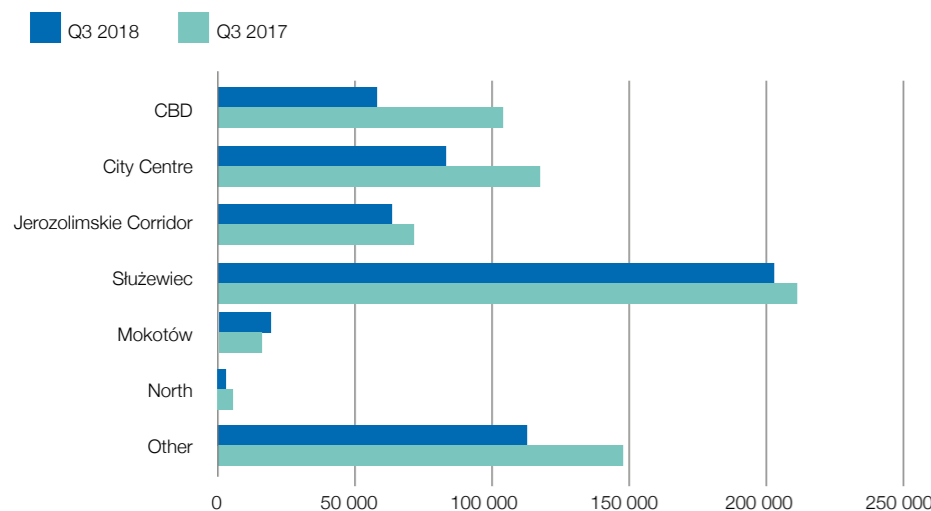
Since the beginning of the year, fifteen office buildings with a total area of 190,000 sq m have been delivered to the market, of which approximately 60% were in central locations. In line with developer schedules, about 86,000 sq m is planned for completion by the end of 2018 and, if deadlines are met, the new supply at year end will be comparable to the volume of new supply delivered in 2017 (275,000 sq m). The largest office schemes completed since the beginning of the year include: Koneser – Centrum Praskie (21,100 sq m (H,O,P,C buildings), BBI Development, Liebrecht&Wood), Proximo II (20,000 sq m, REICO Ceska Sportelna), Equator IV (19,000 sq m, Karimpol Polska), Graffit (17,000 sq m, Hines Polska). In the same time period, the construction of nine new office buildings totaling 233,000 sq m commenced. As a result, by the end of September 2018, there was over 805,000 sq m of office space under construction. Such a large volume in the Warsaw office market has only ever been recorded once, in the same period of 2017 (820,000 sq m).

Over 70% of new supply under construction is situated in central locations. Dynamic development is being particularly observed in the vicinity of the Daszyński roundabout, where some 270,000 sq m office space is currently under construction. The largest office schemes in progress in this area include: Skyliner (43,600 sq m) developed by Karimpol Polska, the Generation Park complex (Y – 42,000 sq m, X – 20,300 sq m) constructed by Skanska Property Poland and Spinnaker Tower (40,000 sq m) and Warsaw HUB (76,000 sq m), both developed by Ghelamco Poland. The majority of office space under construction in this area will be completed in 2019/2020. It's worth mentioning that the office space under construction in the vicinity of the Daszyński roundabout constitutes not only over 30% of the total office space under construction in Warsaw, but also constitutes more than the volume of space under construction in all non-central locations.

Strong take-up is still being observed in the Warsaw office market, with the level in the first

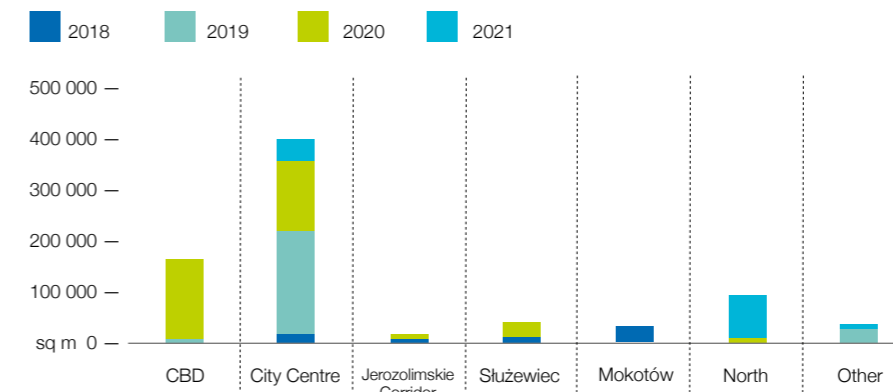


CHART 1
Available office space by location
(Q3 2017 vs. Q3 2018)



Source: Knight Frank

CHART 2
Supply under construction by location and planning completion date
Q3 2018



Source: Knight Frank

three quarters of 2018 reaching almost 632,000 sq m. It's worth noting that the transaction volume between January and September 2018 is at a historical high for the office sector.

In the first quarters of 2018, the strongest leasing activity was recorded in central locations, in the Służewiec area and along the Jerozolimskie Corridor. New lease agreements in existing buildings accounted for 47% of the take-up volume, while pre-lease transactions represented 15% of all agreements. The remaining take-up volume consisted of renewals – 28%, and expansions – 10%. The largest lease agreements included the renewal and expansion of the Deloitte lease agreement in Q22 (22,100 sq m), the pre-lease transaction of WeWork in Mennica Legacy

Tower (14,200 sq m), and the pre-lease agreement for Cambridge Innovation Center in Varso II (13,500 sq m).

A new trend currently being observed in Warsaw are the numerous co-working operators entering the market and opening offices in new locations, especially in A-class office buildings in central locations. According to Knight Frank's estimates for 2017, lease volume concluded by co-working operators in Warsaw amounted to approximately 32,000 sq m, while in Q1-Q3 2018 the corresponding figure was already double. New co-working companies in Warsaw include: WeWork, MindSpace, MeetDistrict and Spaces.

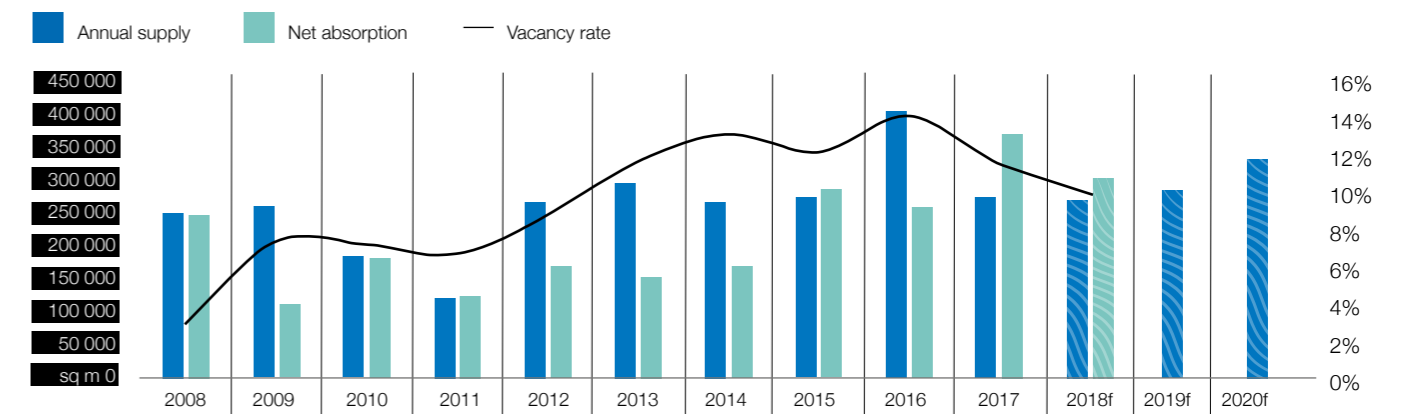
Since the beginning of the year, a decrease in the Warsaw vacancy rate has been observed,

standing at a level of 10% (543,000 sq m of available office space) at the end of Q3 2018. This result is the lowest recorded since 2013. When compared to the previous quarter, the vacancy rate in Warsaw decreased by 1.1 pp. (a 1.3 pp. decrease in central locations). Compared to the corresponding period of 2017, the vacancy rate decreased by 3 pp. (4.5 pp. in central locations). The vast majority of vacant space was situated in the Służewiec district – 204,000 sq m, and in central locations – 141,000 sq m.

The decline in the vacancy rate was influenced by significant net absorption, which exceeded 263,000 sq m after three quarters of 2018, and was 5% higher than the annual average net absorption registered in 2013-2017. This affirms the growing demand for office space in Warsaw. In consequence, taking into consideration the strong take-up and developers' schedules for new projects, a further decrease of vacancy rate is expected in the upcoming quarters.

At the end of Q3 2018, asking rents in most locations in the Warsaw office market have remained stable. At the end of September, the asking rents in prime buildings in the Central Business District ranged between EUR 20-24 per sq m per month, while asking rents in other central locations varied from EUR 13 to EUR 21 per sq m per month. The asking rents in buildings outside the city centre were quoted at between EUR 9-15 per sq m per month. Effective rents remained lower than the asking level by 15-20%.

CHART 3
Net absorption, annual supply and vacancy rate on the Warsaw office market
2008-2020f



f - forecast

Source: Knight Frank

OFFICE MARKET IN REGIONAL CITIES

The first three quarters of 2018 has been a period of exceptionally intensive development in the office markets of the largest regional cities. Since the beginning of the year, over 400,000 sq m of office space have been completed. This result is twice as high as the corresponding figure for the Warsaw office market. Taking into account the volume of office space planned for completion in regional markets in Q4 2018, 2018 seems set to be a record-breaking year in terms of new supply, which for the first time may exceed 0.5m sq m. Additionally, due to the high volume of supply under construction in regional cities (930,000 sq m), the total office stock in three cities will exceed 0.5m sq m in the forthcoming year. Despite the volume of lease agreements signed in Q1-Q3 2018 being lower in three cities when compared to the same period of 2017, tenant activity has remained high. Asking rents in major regional cities remained relatively stable.



KRAKÓW

Kraków, as ever, remains the largest regional office market in Poland. The office sector in the capital of Małopolska has been developing dynamically for several years now, on top of which the coming years will be record-breaking in terms of new supply and demand. At the end of Q3 2018, the total office stock in the city amounted to some 1.22m sq m, of which 85% was located outside the city centre. In the first three quarters of 2018, new office supply totalled 125,000 sq m, of which 50% alone was completed in Q3 2018. Furthermore, at the end of September 2018, there was 290,000 sq m of office space under construction in Kraków – 30% of the total volume in the six largest regional cities. In line with developer schedules, some 50,000

sq m was planned for completion by the end of 2018. The largest project under construction in the city is Unity Centre with 46,000 sq m of office space (GD&K Group and Verity Development). Such a dynamic pace of growth in the amount of office space in the city is a result of the lively demand which has been clearly observed for a number of years now. The average annual take-up within the most recent 3 year period reached 190,000 sq m. In the first three quarters of 2018 the volume of lease transactions amounted to approximately 123,000 sq m. This result was comparable to the volume of lease transactions registered in the same period of the previous year and strongly suggests that

Total stock:
4.5m sq m

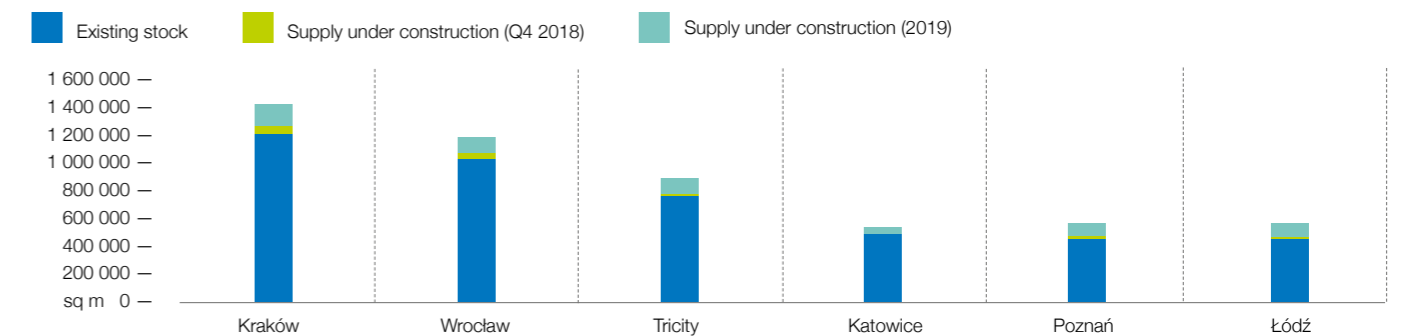
New supply (Q1-Q3 2018):
407,000 sq m

Take-up (Q1-Q3 2018):
400,000 sq m

Net absorption (Q1-Q3 2018):
370,000 sq m

this year's volume of contracts will reach a high level. The great level of interest in Kraków office space is further confirmed by the net absorption indicator which, between January and September 2018, amounted to some 102,000 sq m. That said, a significant volume of new offices not fully leased upon completion resulted in an increase in the vacancy rate, equivalent to 10.6% of total stock. The vacancy rate increased by 1.3 pp. q/q and 0.8 pp. y/y. In the upcoming quarters an increase in vacancy rate is expected due to the completion of a significant volume of new office space, which is unlikely to be fully leased upon completion.

CHART 1
Existing stock and supply under construction in major regional office markets in Poland Q3 2018



Source: Knight Frank

WROCLAW

Wrocław remains the second largest regional office market in Poland. At the end of 2018, the total stock exceeded almost 1.04m sq m. Since the beginning of the year, approximately 130,000 sq m has been delivered to the market, none of which was in a central location. Developers show no signs of slowing down – as of the end of September 2018 some 210,000 sq m were under construction, of which some 34,000 sq m is due to be delivered to the market in Q4 2018. The largest project under construction in Wrocław is the next phase of the Wrocław Business Garden, with a total of 77,000 sq m of office space (Vastint Poland). If the projects under construction are completed in line with developer schedules, 2018 may be a record-breaking year for the Wrocław office market.

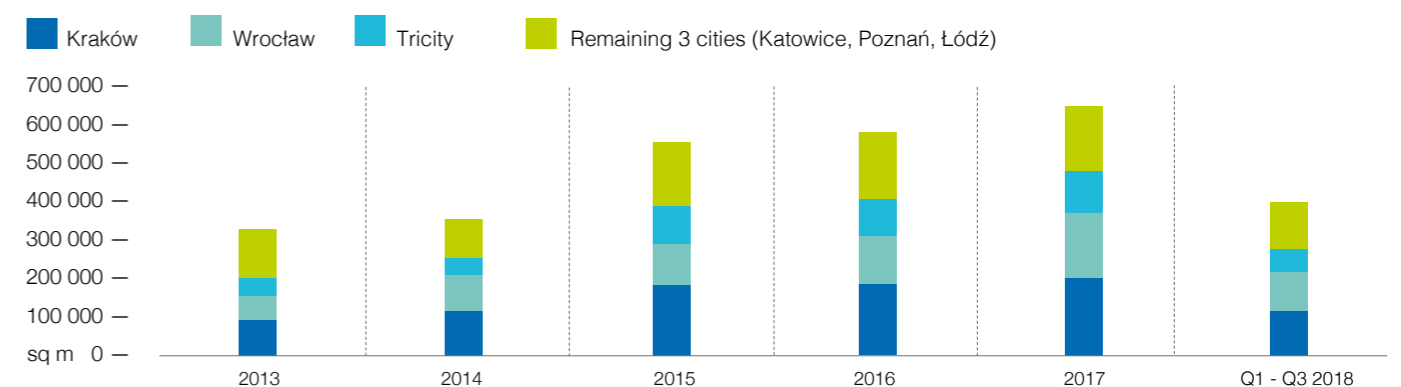
In Q1-Q3 2018, tenant activity in Wrocław weakened slightly. During this period, some 97,000 sq m of office space was subject to lease, a 27% fall compared to the

corresponding period of what was a record-breaking 2017. If the leasing of available office space remains at a similar level to previous quarters, the annual take-up is expected to be comparable to the average annual take-up of the most recent 3 years. As with Kraków, positive market sentiment is reflected in the net absorption level, which in Q1-Q3 2018 amounted to almost 115,000 sq m, higher than the previous annual record of 2016.

A significant volume of new supply in buildings not fully leased upon completion resulted in an increase in vacancy rate. Compared to the previous quarter, the vacancy rate remained stable and, at the end of Q3 2018, constituted 9.7% of the total stock. However, compared to the analogous period of 2017 it was higher by 1.2 pp. In the forthcoming quarter an increase in vacancy rate is expected, due to the significant volume of new office space that is to be delivered to the market.



CHART 2
Volume of lease transactions in major regional markets (2013 - Q3 2018)



Source: Knight Frank

CHART 3
New supply, office take-up and vacancy rate in regional markets
Q1-Q3 2018



Source: Knight Frank

POZNAŃ

Modern office stock in Poznań amounts to 468,000 sq m, which sees the city ranking fifth among regional office markets in Poland in terms of total stock. Although in Q1-Q3 2018 only 12,300 sq m of office space was delivered to the market, the city's office sector is currently undergoing a phase of dynamic growth. At the end of September 2018, approximately 126,000 sq m of office space was under construction, of which 17,000 sq m is set to be delivered in the final quarter of 2018, with a further 90,000 sq m due for completion in 2019. As a result, the city's total stock will significantly exceed 0.5m sq m by the end of 2019, making Poznań the fourth largest regional office market in

Poland. The largest office project under construction is the next phase of the Poznań Business Garden with 44,700 sq m of office space (Vastint Poland).

2018 saw a continuation of high tenant activity. In Q1-Q3 2018, some 50,000 sq m was subject to lease, 20% higher than the corresponding result for the same period of 2017, and constituting 75% of the average annual take-up for 2015-2017.

The relatively low new supply delivered to the market in Q1-Q3 2018 resulted in a significant decrease in the vacancy rate in Poznań. At the end of September 2018, the vacancy rate was 6.6%, the lowest among regional office markets (a decrease of 1.1 pp. compared to the previous quarter and by 3.5 pp. y/y). Due to the significant volume of new office space that is to be



Zielona 3, Poznań

delivered to the market in the coming quarters, an increase in vacancy rate is expected.

to lease. However, considering the growing interest in Łódź from potential tenants and the wide range of office space under construction, an increase in demand is expected in the forthcoming quarters.

At the end of Q3 2018, the vacancy rate in Łódź stood at 9.7%. Due to the completion of buildings not fully leased, the vacancy rate increased by 1.1 pp. q/q. The limited new supply planned for completion in Q4 2018 will see the indicator stable at the end of 2018.

ŁÓDŹ

Łódź, with a total office stock of 465,000 sq m, remains the smallest of the major regional office markets in Poland. Since the beginning of the year, 31,000 sq m has been delivered to the market, a similar level to 2017's corresponding period. However, due to the significant supply under construction being much higher than in previous years (100,000 sq m under construction), the office sector in the city is currently undergoing a phase of highly dynamic growth. Only 8,500 sq m office space under development is likely to be delivered by the end of the year, with the remaining office projects due for completion

in 2019. The largest office project under construction is Brama Miasta with 38,000 sq m of office space (Skanska Property Poland). If the projects under construction are completed in line with developer schedules, the total office stock in Łódź will significantly exceed 0.5m sq m in 2019, seeing Łódź leapfrog Katowice.

Tenant activity in Łódź in Q1-Q3 2018 was comparable to the corresponding period of 2017, but almost 50% lower than the average annual take-up for the most recent 3 years. For the January-September 2018 period, over 32,000 sq m of office space was subject

KATOWICE

At the end of September 2018, modern office stock in Katowice amounted to 490,000 sq m. Current developer activity in the city is slightly lower than in other regional markets. However, in Q1-Q3 2018, office stock in the city expanded by 31,000 sq m. This result is almost double the new supply registered in the whole of the previous year. At the end of September 2018, there were approximately 56,000 sq m under construction, of which only 6,600 sq m are planned for completion in Q4 2018. If the projects under construction are completed in line with developers' schedules, the total office stock in Katowice will significantly exceed 0.5m sq m in 2019.

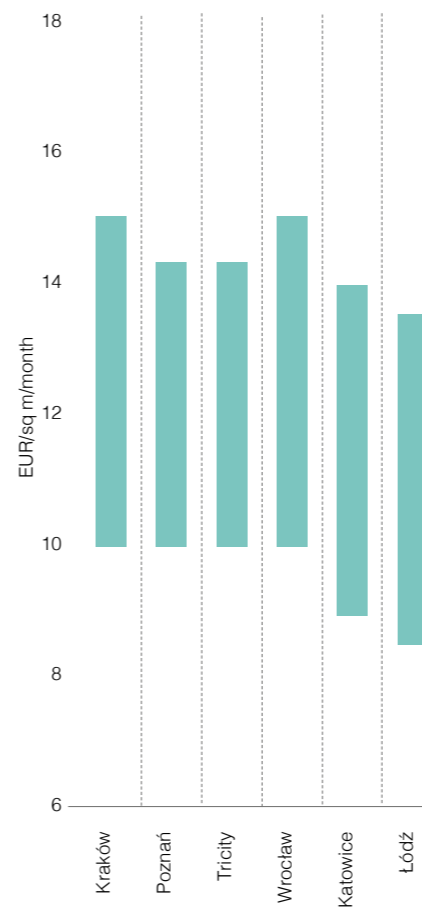
The largest office scheme under construction was the first phase of Face2Face (20,000 sq m, Echo Investment).

Taking into account the limited new supply in the city and high developer activity in Łódź and Poznań, the office market in Katowice is set to become the smallest of the major regional markets in 2019. That said, the Katowice office market is showing signs of a revival in terms of demand. In Q1-Q3 2018, lease agreements amounting to 33,300 sq m were signed; 40% higher than for the analogous period of 2017, and constituting 85% of the average annual take-up recorded in 2015-2017. Additionally, the net

absorption indicator in the city confirmed a systematic uptake of office space. In the period of Q1-Q3 2018 it amounted to over 28,000 sq m (a level close to the volume of new supply).

At the end of September 2018, the vacancy rate in Katowice amounted to 11.2% the highest such indicator among the major regional markets (a slight increase by 0.4 pp. q/q). Despite this, a systematic decline in the vacancy ratio in the city has been observed for several years now.

CHART 4
Asking rents in major regional markets
Q3 2018



Source: Knight Frank



Arkońska Business Park, Gdańsk

TRICITY

With its total stock amounting to 775,000 sq m (75% of which is located in Gdańsk) Tricity is currently the third largest office market in Poland. Since the beginning of the year, approximately 77,000 sq m has been delivered to the market. This result was higher than the annual new supply registered in 2017. Additionally, at the end of September 2018 some 135,000 sq m of office space was designated as being under construction, of which only 10,000 sq m is due for completion in Q4 2018. If the projects under construction are completed in line with developer schedules, 2018 is set to be a record-breaking year in terms of new supply in Tricity. The largest office project under construction is the next phase of Alchemia – Neon building (33,700 sq m, Torus).

Between January and September 2018, tenant activity in Tricity weakened slightly.

In Q1-Q3 2018, lease agreements amounting to 63,500 sq m were concluded. This result was 30% lower than in the corresponding period for 2017, and 30% lower than the average annual take-up recorded in the most recent 3 years.

Positive market sentiment is evidenced by a high level of net absorption, which in Q1-Q3 2018 amounted to 80,100 sq m. Consequently a systematic decrease in the vacancy rate is being noted. At the end of September 2018, the vacancy rate stood at 6.9% of total stock. This indicator is comparable to the vacancy rate noted in the previous quarter, although lower by 1.6 pp. y/y. This result is one of the lowest (after Poznań) of the major office markets in Poland, as well as being the lowest result recorded in Tricity for years.

INVESTMENT MARKET

2018 might be already perceived as a record-breaking period in the Polish investment market. After Q3 2018 the volume of acquisitions reached EUR 5bn, which was at the similar level as in 2006 which was the most successful year so far in terms of transactions volume in Poland. The highest investors' activity was observed in the retail and office sector both in Warsaw and the regional markets. The investors were steadily interested in portfolio transactions, particularly in the retail and warehouse sector. Taking into account investors' activity, the end of the year might be as busy as previous months in terms of transaction closing and the total investment volume in Poland may reach nearly EUR 6bn.

EUR 5 mld
record-breaking investment volume within Q1-Q3 2018

59%
total investment volume constituted retail transactions

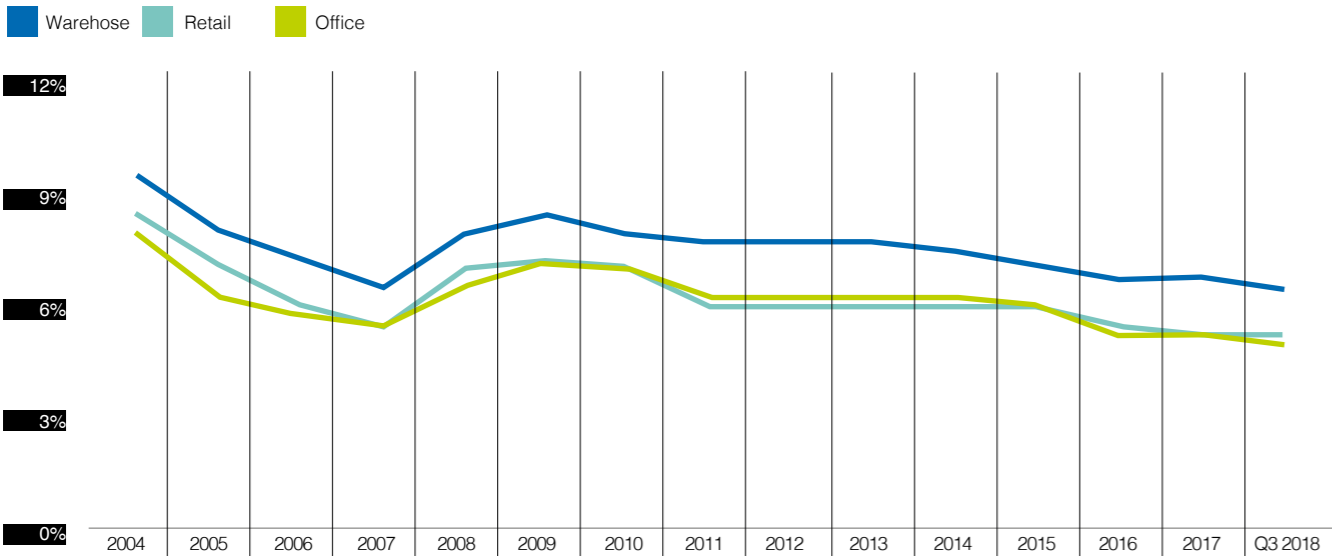
office prime yields compression

Since the beginning of the year, the retail sector was characterized by high investors' activity. Within the period of Q1-Q3 2018 the value of retail acquisitions exceeded EUR 2.1bn which represented 90% growth when compared to the same period previous year. Several portfolio transactions have been finalized in the last months, including purchase of HopStop projects by CPI Property Group, the sale of the M1 portfolio to Chariot Top Group and the Newbridge acquisition of Aerium Group retail facilities. What is more, the most significant deals were disposals of projects such as Galeria Katowicka, Centrum Haffnera or Galeria Malta.

In Q1-Q3 2018 transactions volume in the office sector amounted to nearly EUR 1.98bn

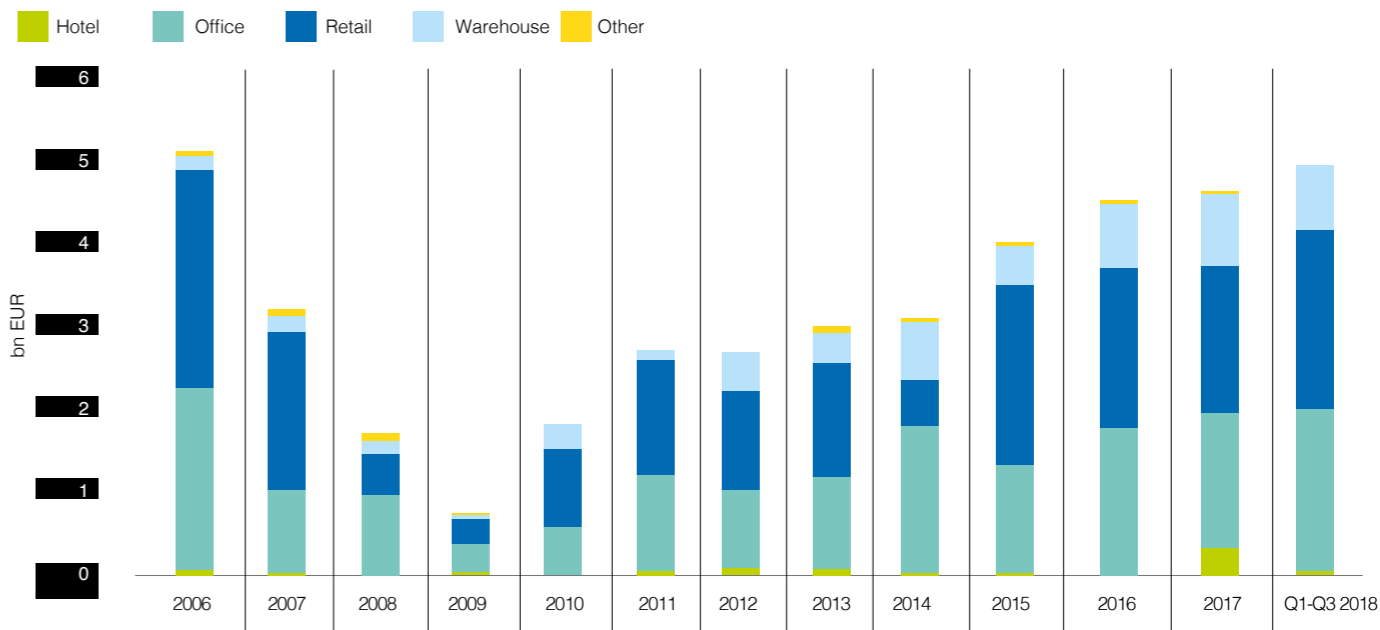
which accounted for 40% of total invested capital in Poland. This year, the vast majority of the office assets acquisition contracts were concluded in Warsaw while during the last years the investors' interest was mainly focused on the regional markets. Some significant office buildings in Warsaw has changed the owner and the total volume of investment in this sector in Warsaw amounted to EUR 1.1bn which has doubled when compared to results achieved in 2017. The largest transactions in terms of allocated capital were acquisition of Gdański Business Center (phase C & D) by Savills IM, the purchase of Spektrum by Globalworth, the disposal of 50% shares in the Warsaw Spire A to Madison fund and Plac Małachowskiego to Generali Europe Investment Holding.

CHART 1
Prime yields by sector in Poland
2004 - Q3 2018



Source: Knight Frank

CHART 2
Transaction volume in Poland
2006 - Q3 2018



Source: Knight Frank

High investment activity was also observed in the warehouse market where the most sought-after products were portfolio assets. Good market condition is a main driver for investors' interest and steadily growth of investments. Within the period of Q1-Q3 2018 the total value of invested capital in the warehouse sector amounted to EUR 806m and was at the similar level as reached in 2017. The largest transactions were the disposals of Zalando and Amazon in Szczecin to DWA and Vestas respectively and the purchase of 9 Panattoni warehouse assets by European Logistic Investment.

Good commercial market condition in Poland results in the gradual prime yields compression which for the office assets in the Warsaw city centre are valued at 5.00%-5.40%, while outside the city centre are expected to be at the level of 7.00%-7.50%. On the other hand, prime office yields in the regional markets vary between 6.00% and 6.75%. Prime retail assets are valued at 5.25%-5.50%, while the yields for multi-tenant warehouse assets remain at 6.50%-6.75% and for BTS projects are ranged at 5.50%-6.50%.



Wratislavia Center, FLE GmbH, Wrocław

RETAIL MARKET IN POLAND

194,000 sq m
new openings within Q1-Q3 2018

450,000 sq m
under construction in Q3 2018

3.2%
vacancy rate in mid-2018

200,000 sq m
due for completion in Q4 2018

12%
share of extensions in new supply

stable demand or retail space

Over the period between Q1 and Q3 2018, in excess of 194,000 sq m of retail space was delivered to the market in Poland (only 20,000 sq m of this volume entered the market in Q3 2018). This appeared to be only slightly higher result than in the corresponding period of 2017. The largest project opened within this period included Forum Gdańsk (62,000 sq m). Along with new projects, there was a noticeable volume of extensions to existing schemes which accounted for 12% of the new supply. Among the largest of these was the extension of Regionalne Centrum Janki (9,800 sq m).

Due to the fact that two largest retail schemes opened in 2018 were located in Gdańsk and Tychy (Katowice agglomeration), 8 major agglomerations accounted for some 70% of the new supply delivered to the market since the beginning of 2018.

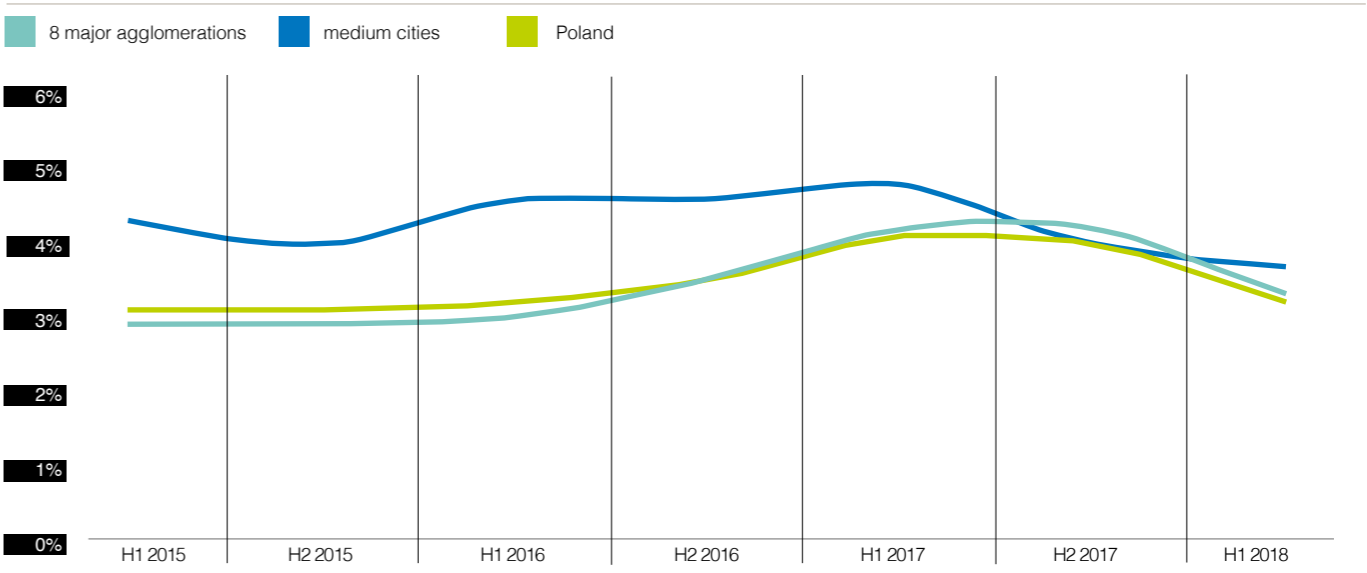
2018 is expected to end with even higher results than 2017. Over 200,000 sq m of the 450,000 sq m under construction is due for completion in Q4 2018. These include (among others) Galeria Libero in Katowice and Nowa Stacja in Pruszków (the Warsaw agglomeration). The 8 major agglomerations

still dominate supply under construction (55%), followed by small-sized cities (37% supply under construction) and medium-sized locations (8%).

The vacancy rate in the 18 largest retail markets in Poland decreased by 0.8 pp. over the first 6 months of 2018 to 3.2%. The trend resulted in large part from from OBI's leasing of several large-scale units vacated by Praktiker in 2017. Additionally, the rate was positively impacted on by the completion of a number of new large shopping centres with high pre-lease figures prior to opening. In the 8 major agglomerations prospective tenants could choose from some 3.3% of retail stock, while in medium-sized cities the vacancy rate stood at 3.7% (cities between 200,000 - 400,000 inhabitants) and at 2% (in 4 cities with less than 200,000 inhabitants).

In 2018, the Polish market welcomed a few brands previously absent from the country: Tedi (Vendo Park Dąbrowa Górnicza), Dealz (ETC Swarzędz) and Fissman (Wola Park in Warsaw). Moreover, the landlord of Galeria Młociny in Warsaw which has been constructing now, announced winning of the British Primark who pre-leased some 7,000 sq m in the project. Additionally, there

CHART 2
Vacancy rate by location
2015-2018

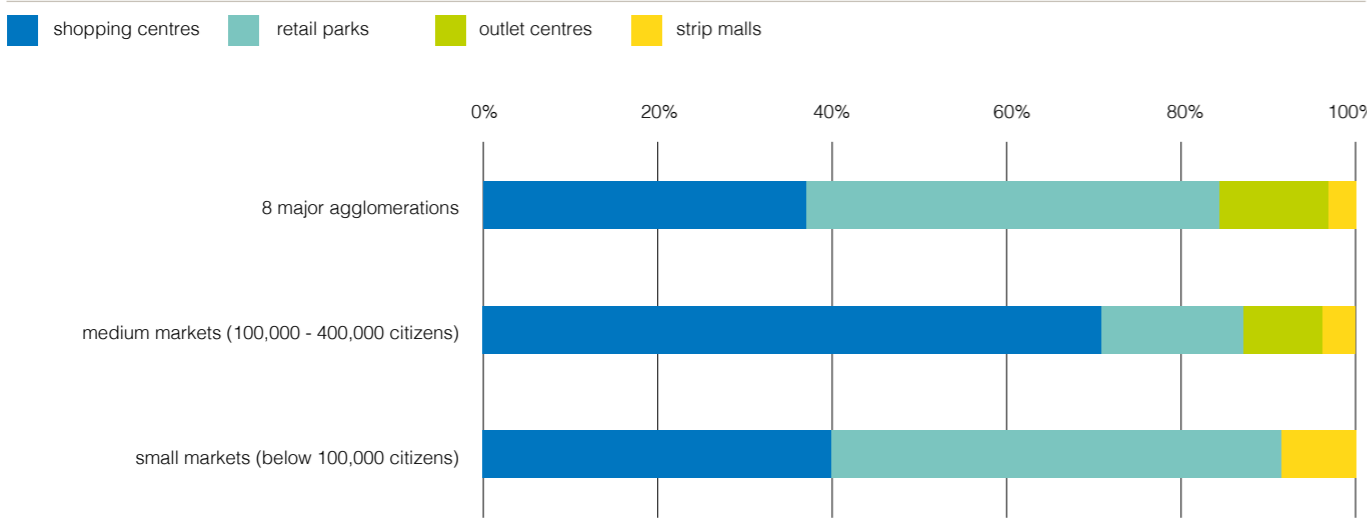


Source: Knight Frank, CBRE, Colliers, Cushman & Wakefield, JLL, Savills

are also other brands monitoring the Polish market, their entrances depend on the operating results of existing shopping centres following the implementation of the new Sunday trading laws. Regulations have been in force since 1 March 2018, introducing heavy restrictions on trade on

Sundays and national holidays, along with limited trading hours on selected other days. In 2018, trade is forbidden on two Sundays a month, a figure which will extend to three Sundays a month in 2019, and all Sundays in 2020.

CHART 1
Structure of retail stock in Poland by format
Q3 2018



Source: Knight Frank



Galeria Ostrowiec, First Property Poland



COMMERCIAL
MARKET

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