

# PRCH Retail Research Forum

Report H2 2016  
English version



PRCH RETAIL  
**RESEARCH  
FORUM**

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R. Knap, E. Czerpak, P. Pieńkos, W. Wojtczak, A. Staniszevska

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### Ladies and gentlemen,

The shopping centre market in Poland has undergone a long way in a relatively short time. By the end of 2016, the stock of modern retail space totalled nearly 11,500,000 sqm GLA. There are still more than 600,000 sqm under construction, mostly in the largest agglomerations, which proves that there still is space for new projects. Also the vacancy rate, which slightly exceeds 3% across the country, is rather optimistic. Every year, Poland attracts

at least a few new brands, and the ratio of new retail chains vs. those leaving Poland is still positive. The volume of real estate investments is satisfactory as well. In 2016, it was more than PLN 2 billion, which is 43% of all funds spent on purchasing commercial properties. The turnover of the retail industry is also growing, albeit slowly. According to the PRCH Turnover Index, by the end of 2016 the average recorded growth of sales from leased premises totalled nearly 2 p.p.

However, there is a shadow looming over the shopping centre industry, in the form of the draft of the Sunday trading ban. Both developers, landlords and retailers associated in the Polish Council of Shopping Centres see major threats resulting from the draft bill. As a representative of the industry, PRCH shall continue its actions to prevent entry into force of this harmful act, or at least minimise its potential, negative effects, which will be discussed herein.

Enjoy the reading!



Radosław Knap, Director General,  
Polish Council of Shopping Centres

#### H2 2016 Report PRCH Retail Research Forum

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Cover photography of Posnania shopping centre is used under kind permission of Apsys Polska Sp. z o.o.

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# 1 CURRENT CONDITION OF THE RETAIL MARKET IN POLAND

*R. Knap, E. Czerpak, P. Pierikos, W. Wojtczak, A. Staniszevska*

## 1.1. STOCK OF RETAIL SPACE, RETAIL FORMATS, VACANCY RATE

### SUMMARY



STOCK  
**11,440,000 m<sup>2</sup> GLA**



VACANCY RATE  
**3,4%**



NEW SUPPLY  
**457,000 sqm GLA**



FLOOR SPACE UNDER  
CONSTRUCTION  
**635,000 sqm GLA**



RETAIL DENSITY IN POLAND  
**298 sqm GLA / 1,000 inhabitants**



AVERAGE FLOOR SPACE  
OF A TRADITIONAL  
SHOPPING CENTRE  
**23,800 sqm GLA**



AVERAGE FLOOR SPACE OF  
A TRADITIONAL SHOPPING  
CENTRE UNDER CONSTRUC-  
TION (only new projects)  
**31,300 sqm GLA**





- As of the end of 2016, the supply of retail space amounted to 11,440,000 sqm.GLA (including specialised and mixed-use centres);
- The share of traditional shopping centres was 88%, and of outlet centres - only 2%;
- The most diversified, in terms of the tenant-mix, are the largest agglomerations, where consumers can choose from all retail formats;
- Small retail parks, usually under 10,000 sqm, which in terms of the tenant-mix are small versions of shopping centres, constitute around 10% of the supply in smallest towns. In the case of the largest agglomerations, the share of retail parks is 11%, mostly generated by 8 assets with an area of more than 40,000 sqm.

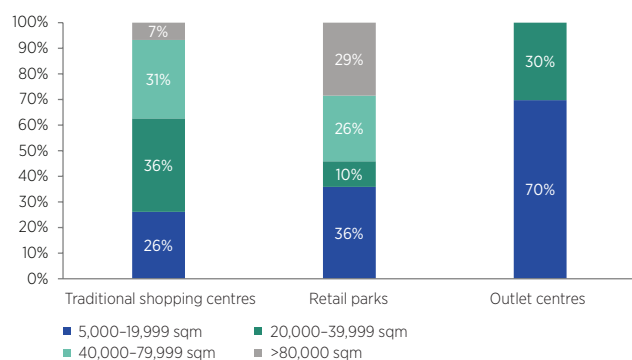
Fig. 1. Retail space GLA by formats and city size



Source: PRCH Retail Research Forum, H2 2016

- Outlet centres are the least diversified retail format in terms of the floor space (70% of them does not exceed 20,000 sqm).
- The largest projects, exceeding 80,000 sqm, comprise slightly more than 8% of the entire stock in the country.

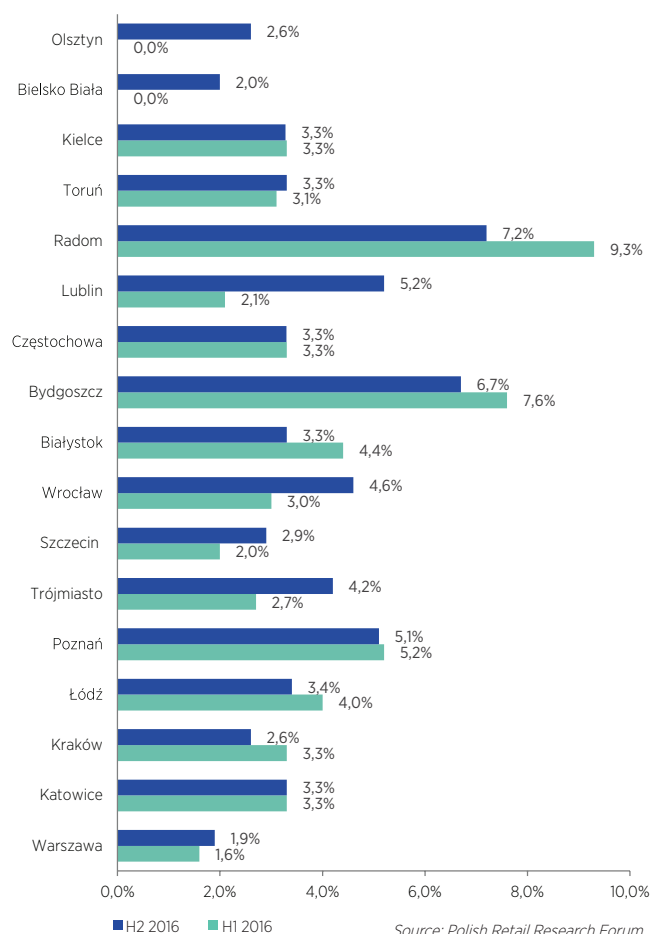
Fig. 2. Retail formats by their floor space GLA (2016)



Source: PRCH Retail Research Forum, H2 2016

- The vacancy rate by the end of 2016 amounted to 3.4%.
- The highest vacancy levels in the largest cities were recorded in Poznań (5.1%) and Wrocław (4.6%), whereas the lowest vacancy rate could be observed in Warsaw agglomeration (1.9%) and Kraków agglomeration (2.6%).
- Among cities with a population between 150,000 and 399,000 inhabitants, the highest vacancy rate was recorded in Radom (7.2%) and Bydgoszcz (5.7%), whereas the lowest - in Bielsko-Biała (2.0%).

Fig. 3. The vacancy rate in cities above 150,000 inhabitants in H2 2016/ H1 2016

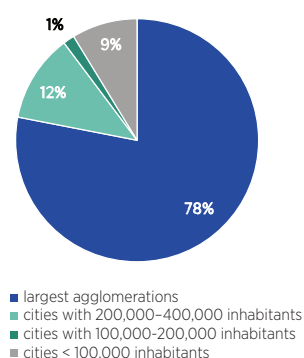


Source: Polish Retail Research Forum

## 1.2. NEW SUPPLY AND RETAIL SPACE UNDER CONSTRUCTION

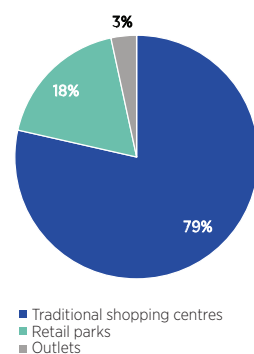
- In 2016, a total of 457,000 sqm of new retail space was delivered, the majority of which (75%) was completed in the second half of the year. The volume of the newly delivered space was 23% lower than recorded in 2015.
- Last year, a total of 33 projects was completed, of which 19 are new projects (367,000 sqm), and 14 are extensions of projects in stock.
- In 2016, developers concentrated on the largest and the smallest cities. The largest asset to be completed last year was Posnania (Apsys), whose price totalled 22% of the entire new supply in 2016. Furthermore the following objects underwent commissioning: Galeria Metropolis in Gdańsk (33,700 sqm), Galeria Navigator in Mielec (25,400 sqm), Galeria Wołomin (25,000 sqm), Galeria Glogovia in Głogów (21,000 sqm), Galeria Hit in Nowy Dwór Mazowiecki (13,000 sqm).
- At the same time, more than 20% of new supply was extensions of already existing projects, such as Atrium Promenada in Warsaw (a total of 7,650 sqm), Galeria Sanowa in Przemyśl (7,000 sqm), Galeria Rynek in Tomaszów Lubelski (2,000 sqm), CH Morena in Gdańsk (8,000 sqm).
- As of the end of 2016, there were more than 635,000 sqm under construction, of which 16% were extensions of projects in stock. Developers are going to complete 74% of space under development in 2017.

Fig. 4. Supply of retail space by location in Poland as of the end of 2016



Source: PRCH Retail Research Forum, H2 2016

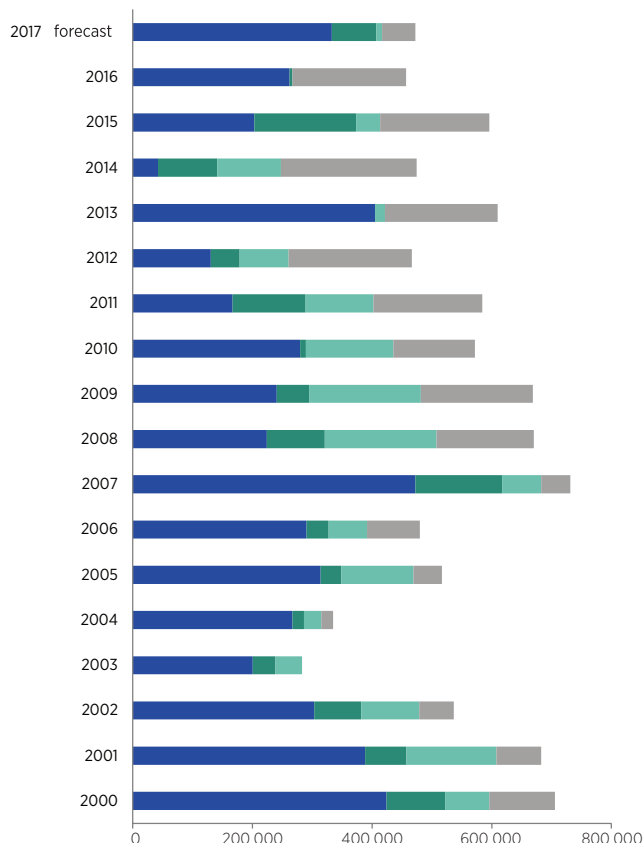
Fig. 5. Supply of retail space by format in Poland as of the end of 2016.



Source: PRCH Retail Research Forum, H2 2016

- The largest projects under construction: Galeria Młociny in Warsaw (70,000 sqm), Wroclavia in Wrocław (64,000 sqm), Forum in Gdańsk (62,000 sqm), Galeria Północna w Warszawie (64,000 sq. m.), Serenada in Kraków (42,000 sqm), Galeria Libero in Katowice (42,000 sqm).

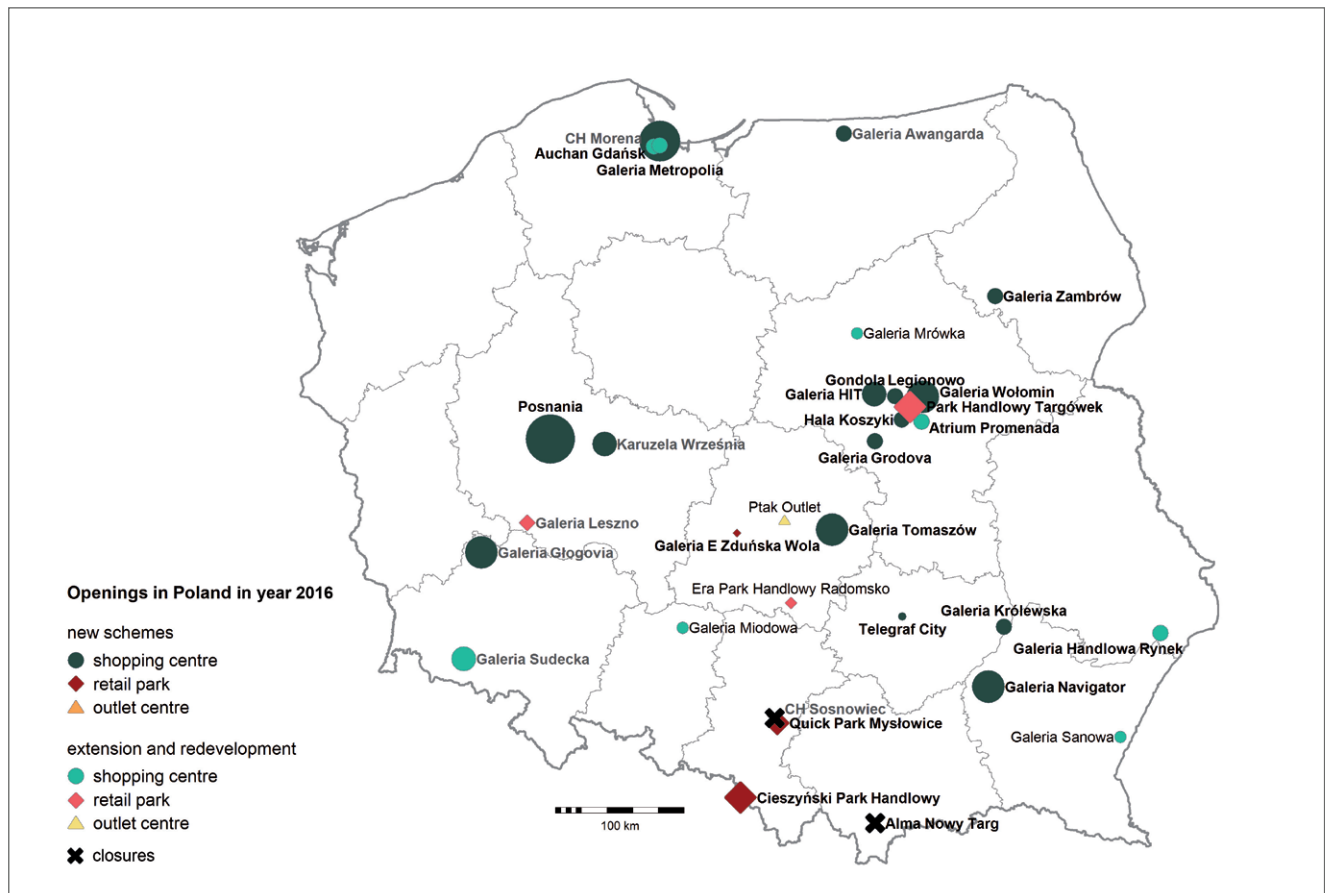
Fig. 6. Supply of retail space by location in Poland as of the end of 2016



Source: PRCH Retail Research Forum, H2 2016

- largest agglomerations
- cities with 200,000-400,000 inhabitants
- cities with 100,000-200,000 inhabitants
- cities < 100,000 inhabitants

Fig. 7. Map of new openings and extensions in Poland in 2016.



Source: PRCH Retail Research Forum, H2 2016

Fig. 8. List of major openings of new projects in H2 2016

|    | Name of the project      | City                 | Format | GLA     | Q 2016 | Developer                        |
|----|--------------------------|----------------------|--------|---------|--------|----------------------------------|
| 1  | Posnania                 | Poznań               | SC     | 100 000 | Q4     | Apsys                            |
| 2  | Galeria Metropolia       | Gdańsk               | SC     | 33 700  | Q4     | PB Górski                        |
| 3  | Galeria Navigator        | Mielec               | SC     | 25 400  | Q4     | Rank Progress                    |
| 4  | Galeria Wołomin          | Wołomin              | SC     | 25 000  | Q4     | Rockcastle JV Acteeum            |
| 5  | Cieszyński Park Handlowy | Cieszyn              | RP     | 22 500  | Q4     | ADV Por Property Investment S.A. |
| 6  | Galeria Glogovia         | Głogów               | SC     | 21 000  | Q1     | Saller Sp. z o.o.                |
| 7  | Galeria Tomaszów         | Tomaszów Mazowiecki  | SC     | 16 100  | Q4     | PORR Polska                      |
| 8  | Quick Park Myslowice     | Mysłowice            | RP     | 13 100  | Q4     | Real2b                           |
| 9  | Galeria HIT              | Nowy Dwór Mazowiecki | SC     | 13 000  | Q3     | Portico Investments              |
| 10 | Karuzela Września        | Września             | SC     | 12 000  | Q2     | Boza Inwestycje                  |

Source: PRCH Retail Research Forum, H2 2016

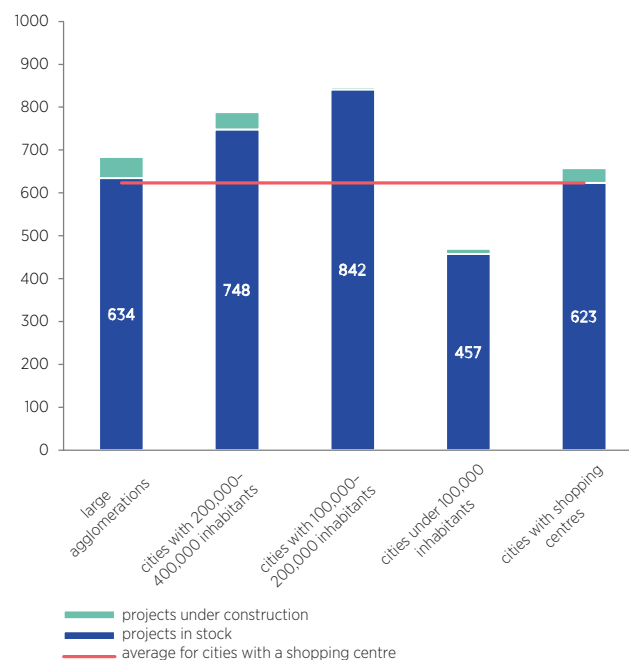
### 1.3. RETAIL SPACE DENSITY AND SUPPLY AGAINST THE PURCHASING POWER OF CITY INHABITANTS IN 2016

As of the end of 2016, the retail space density throughout Poland was 298 sqm / 1,000 inhabitants. Compared to the end of 2015 we have recorded an increase by more than 11 million sqm, of which less than 3 million sqm fell for H1 2016, and nearly 8.5 million sqm fell for H2 2016.

We expect that after the completion of the projects under construction, the density in Poland will have reached 314 sqm / 1,000 inhabitants.

Currently, the retail density in all cities with shopping centres is 623 sqm / 1,000 inhabitants, whereas for the largest agglomerations it is 634 sqm / 1,000 inhabitants. The largest increase of density was recorded in Poznań agglomeration. After the opening of Posnania, the retail density level increased by 131 sqm, which means that until the opening of Wroclavia, the result of 888 sqm / 1,000 inhabitants will be the record among all agglomerations. In Tri-City agglomeration, the launch of Galeria Metropolia resulted in an increase of density by 45 sqm, to 734 sqm / 1,000 inhabitants.

Fig. 10. Average retail space density in sqm per 1,000 inhabitants in each city size category



Source: PRCH Retail Research Forum, H2 2016

Fig. 9. Retail density of shopping centres in stock and under construction per 1,000 inhabitants in 2016

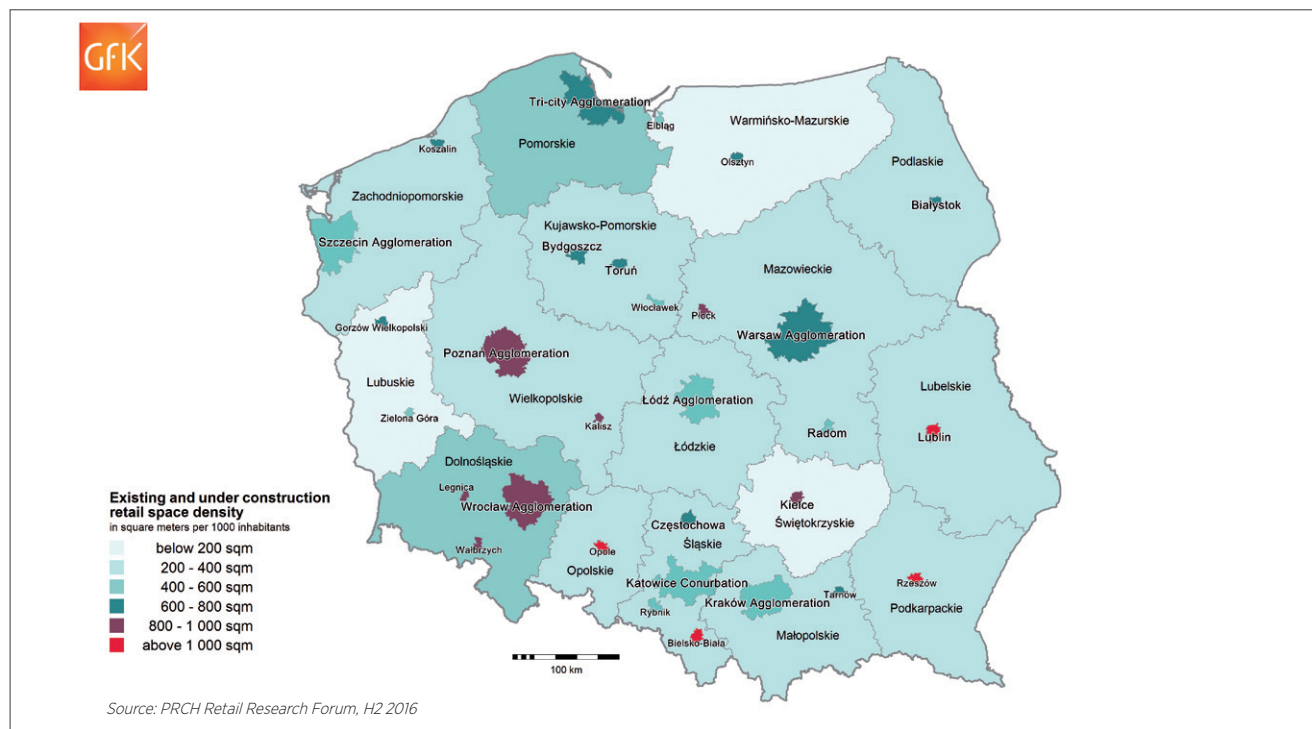
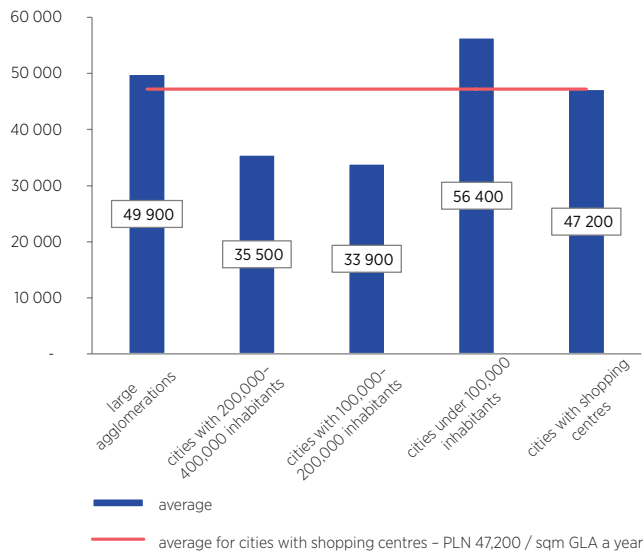




Fig. 11. General Purchasing Power in H2 2016 in thous. PLN against the retail space (in stock and under construction) by city-size category



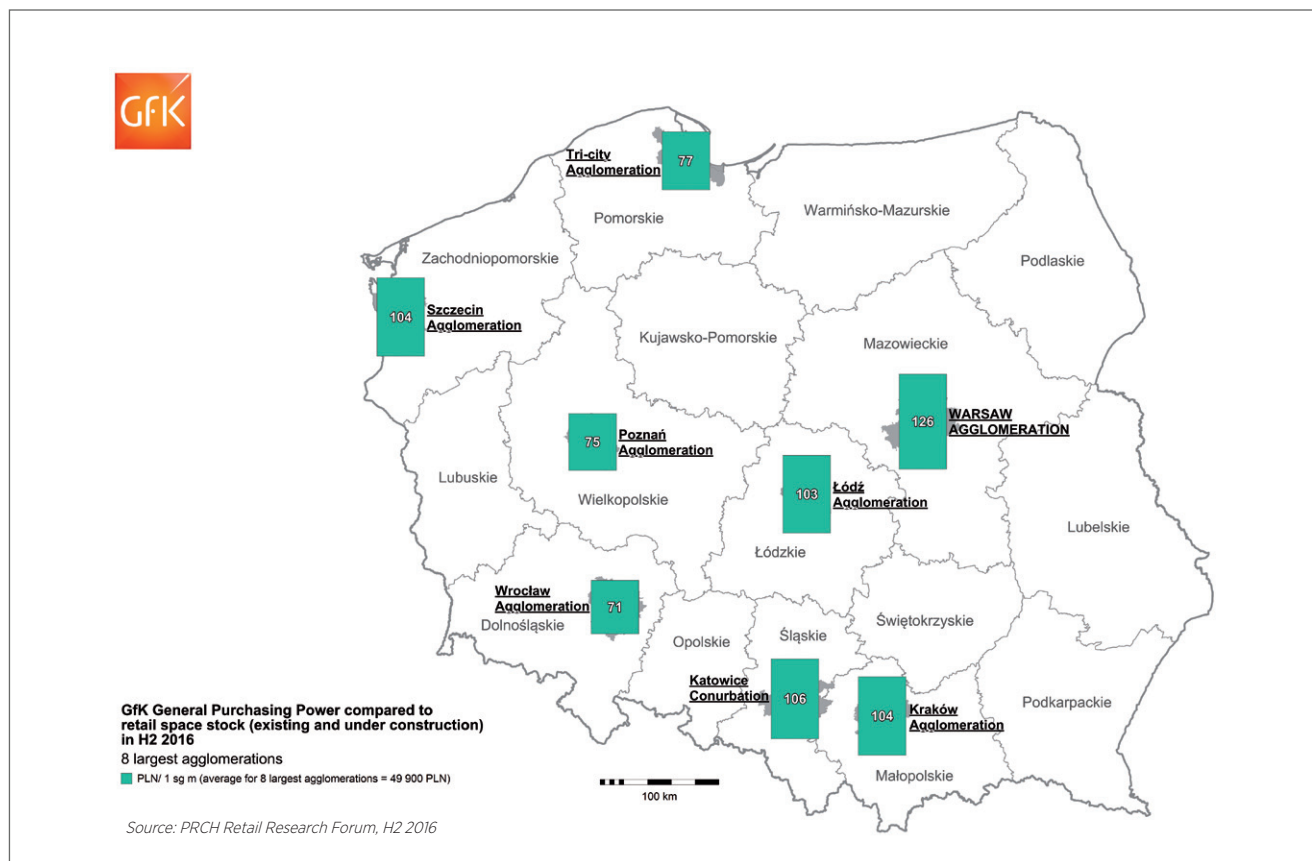
Source: PRCH Retail Research Forum, H2 2016

There are currently PLN 47,200 a year per 1 sqm of shopping centre space on average. In some cities, especially in selected largest agglomerations and towns under 100,000 inhabitants, this value is much higher.

The value is calculated on the basis of GfK General Purchasing Power index and is one of the basic indicators when estimating the retail market potential.

**PURCHASING POWER**  
 **47 200** PLN A YEAR  
 PER 1 SQM OF RETAIL SPACE

Fig. 12. General Purchasing Power per 1 sqm of floor space in stock and under construction in H2 2016.



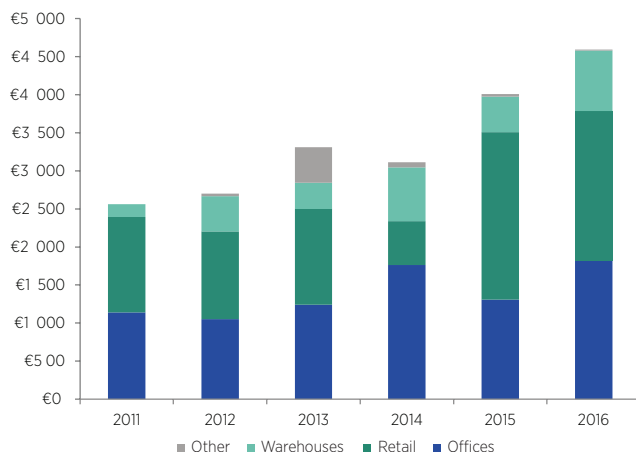
## 1.4 INVESTMENT TRANSACTIONS IN THE SHOPPING CENTRE MARKET IN POLAND IN 2016. SUMMARY AND TRENDS

### Summary

Of EUR 4.6 billion spent in Poland for purchases of commercial properties in 2016, 43% accounted for investments in the retail sector. The second place goes to offices, which attracted nearly 40% of capital. Last place goes to warehouses with their share of 17%.

The majority of EUR 2 billion spent on retail projects accounted for the purchase of 75% of shares in Echo Prime Properties by Redefine Properties fund from RSA for around EUR 668 million. The remaining part of the investment volume accounted for purchases of single retail projects in large agglomerations and medium-sized cities, e.g. Bonarka City Center in Kraków, Jantar in Słupsk, or Nova Park in Gorzów Wielkopolski.

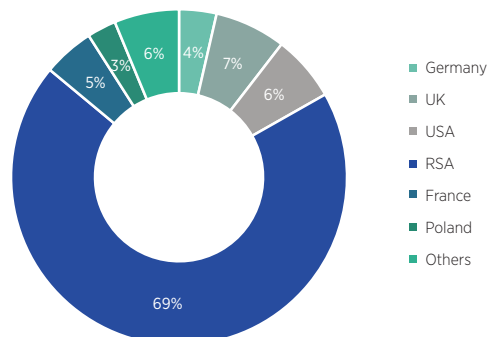
Fig. 13. Volume of investment transactions in Poland by sector (in EUR million), 2011-2016



Source: BNP Paribas Real Estate

When analysing the source of capital, the majority of the funds invested in the retail segment come from the RSA, due to the above-mentioned portfolio transaction. A major part was also played by funds from the USA, i.e. Rockcastle, CBRE Global Investors and from Germany, namely Union Investment. Smaller assets, including “value add” projects offering a potential to increase their value by means of extension or modernisation, were of interest to investors from the UK, Israel, as well as Poland.

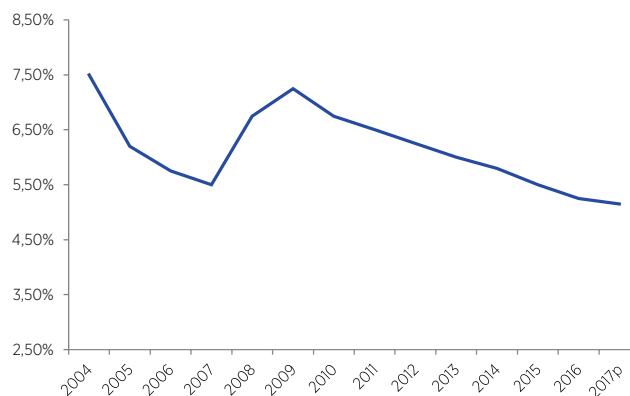
Fig. 14. Source of capital for investment transactions in the retail sector in 2016



Source: BNP Paribas Real Estate

For a few quarters, we could have observed a strong upward pressure on yields for prime assets. The competition between funds was high, which resulted in an increase in prices. In the case of prime shopping centres, as of the end of 2016, yields oscillated around 5.25-5.50%. Remaining projects' appraisals were lower, with yields ranging between 6.50 and 7.50%. There were also offers above 8.00-9.00%.

Fig. 15. Yields for prime retail spaces in Poland 2004-2017



Source: BNP Paribas Real Estate

### Trends

Despite uncertainties related to medium and long-term economic consequences of the announced reforms directly affecting the retail segment (tax on large-area stores, ban on Sunday trading) and a precarious situation in terms of investing in real estate, foreign investors continue to actively look for interesting assets in Poland. This is mostly caused by good economic forecasts, the growth of retail sales, as well as attractive capitalisation rates, which remain at a level 1-1.5 p.p. higher than in Western European countries. This trend is likely to continue in the medium-term.

We expect the investment transaction volume in the commercial real estate market in Poland in 2017 to total around EUR 4 billion, of which 40-50% will be invested in the retail sector. Investors will be still concentrated on looking for the top-quality projects located in large urban centres, although the role of opportunistic investors, looking for projects in need of better management and/or repositioning, will increase. Investors from the USA, the UK, Germany and the RSA will remain the key players in the market. In 2017, we are going to observe a few debuts of players from Asia.

## 1.5 CONSUMER POSITION IN THE MARKET KEY MACROECONOMIC FACTORS IN H2 2016

### MACROECONOMIC

### INDICATORS

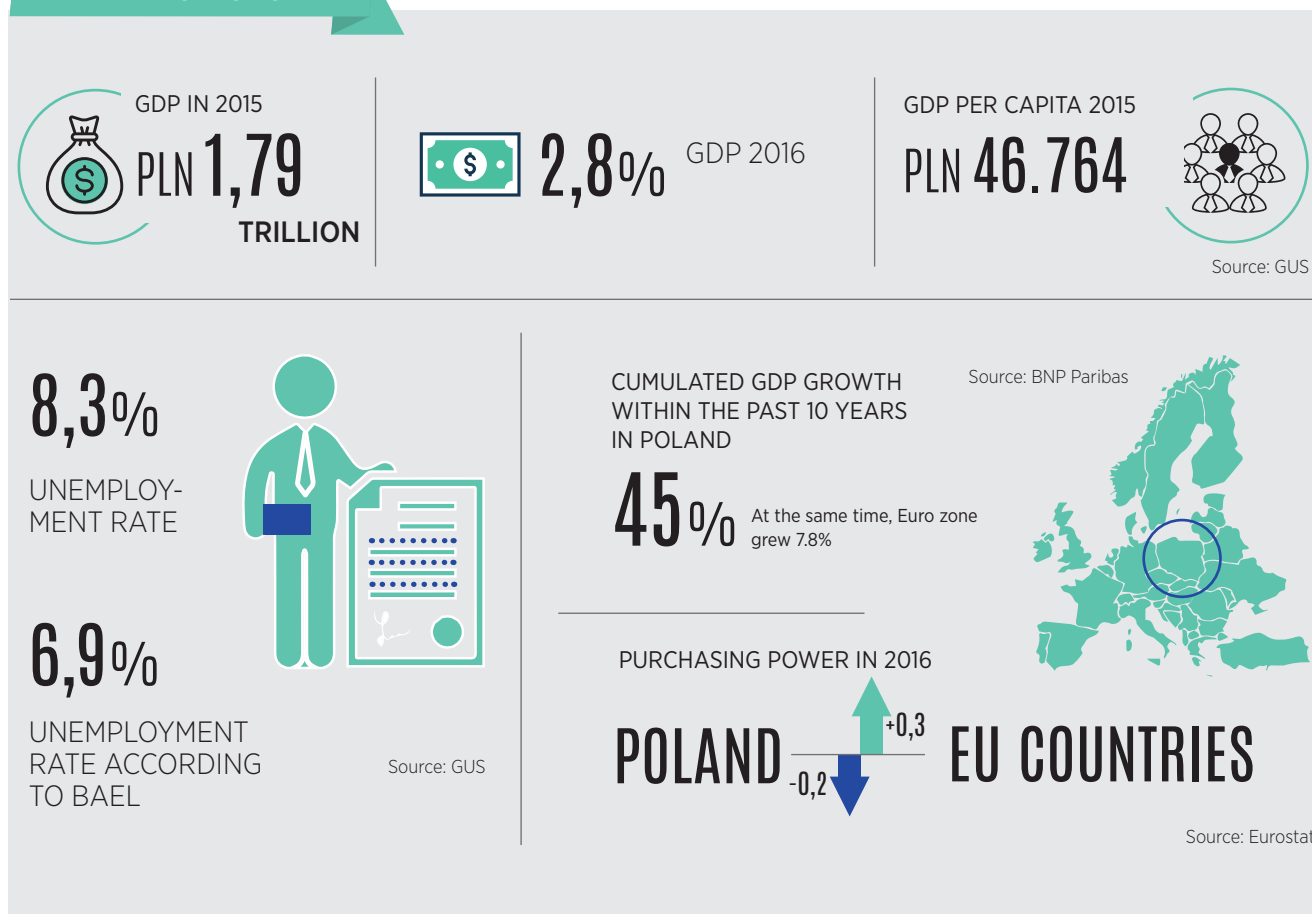


Fig. 16. Minimum wage in Poland compared to other European countries

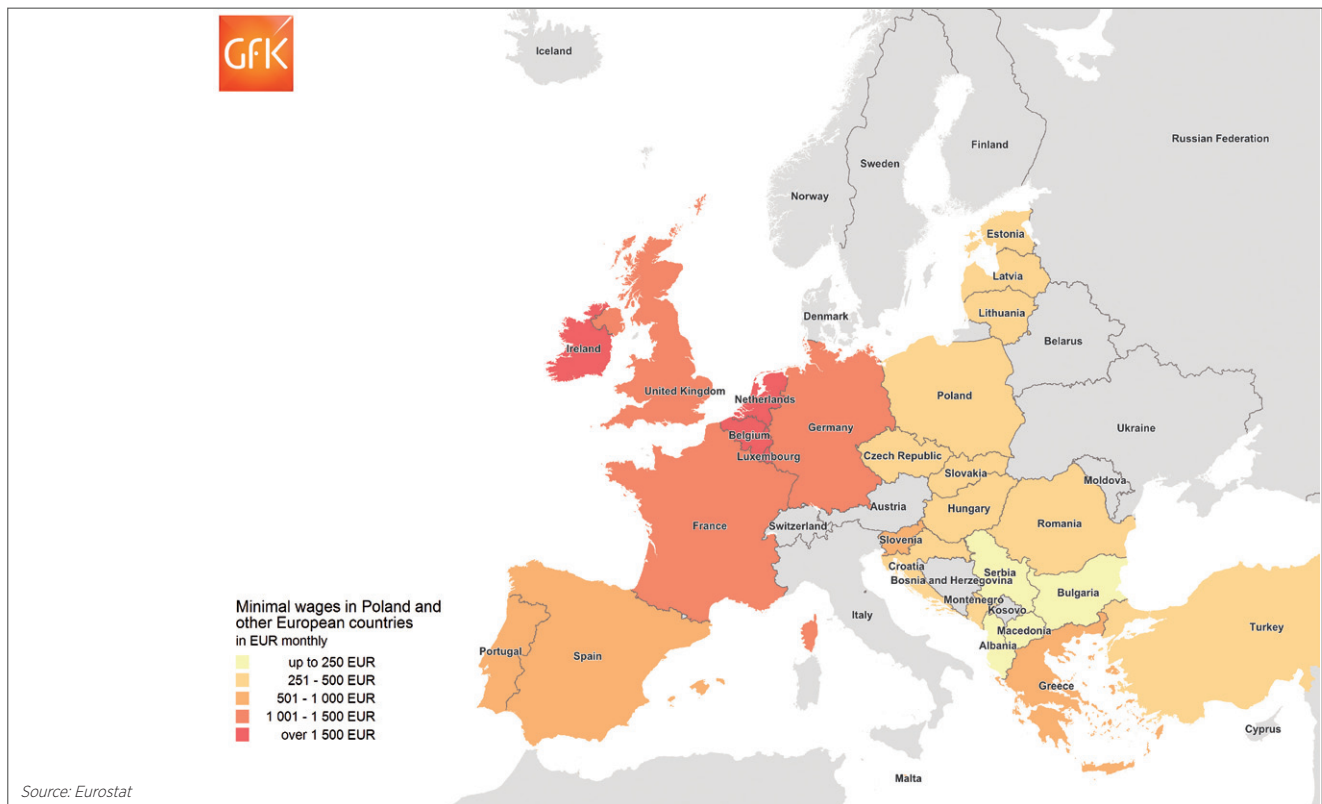


Fig. 17. Purchasing power in Europe- saturation in EUR millions/1 km<sup>2</sup>

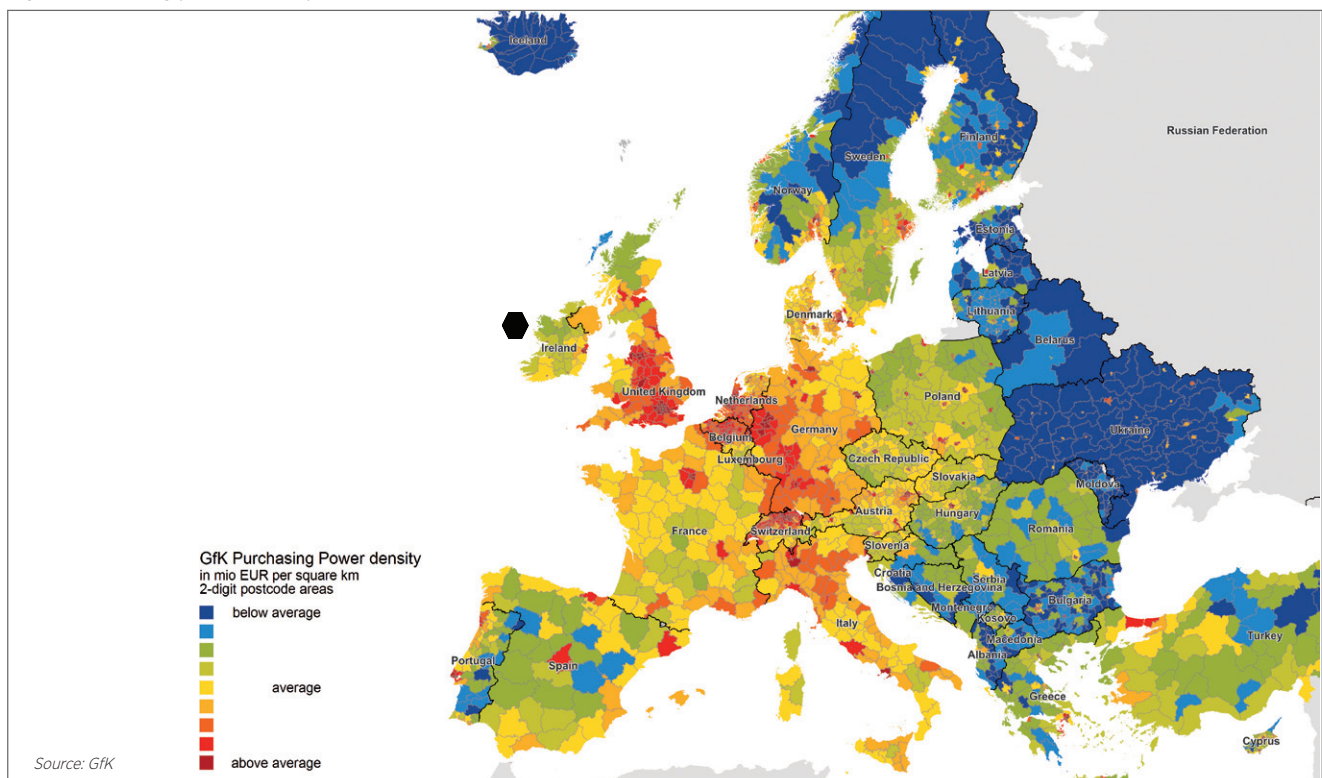
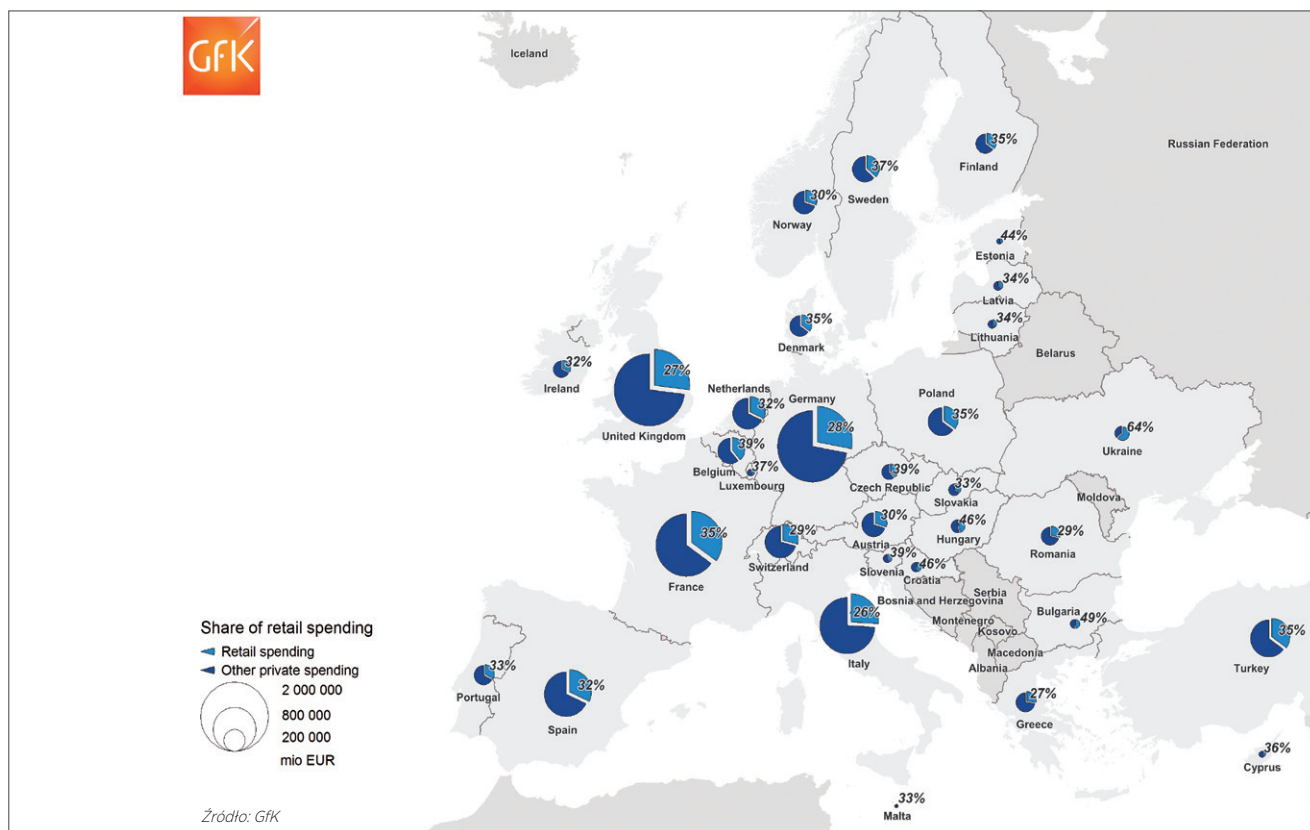




Fig. 18. Share of retail in private consumption



## 1.6 SALES EFFICIENCY AND FOOTFALL IN SHOPPING CENTRES IN POLAND IN 2016

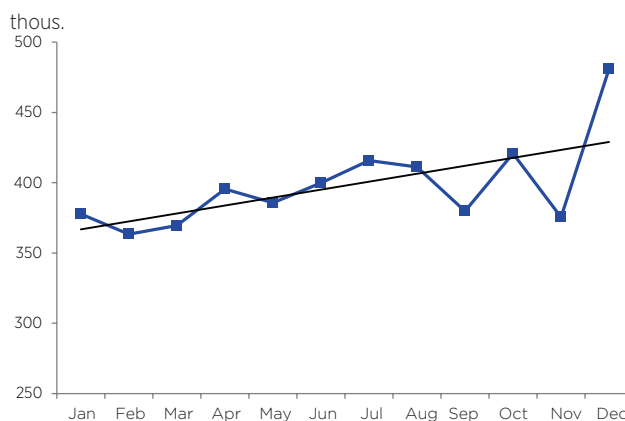
The PRCH Database program was created in 2008; since that time, it has been constantly developing and adapting to the needs of its users. Monthly reports are prepared as part of the program: PRCH Footfall Trends Index, which shows the average shopping centre footfall dynamics, and PRCH Turnover Index, which presents turnover from net sales per a sqm of retail space in eight categories. The footfall dynamics in shopping and entertainment centres in 2016 compared to the previous years follows the already known trends, which are dictated by the calendar of sales and promotions in shopping centres. Differences can be found around the time of movable holidays. The analysis includes monthly cumulative change throughout 2016.

Starting from January, the footfall level was decreasing together with the end of sales, but already in February it was possible to record a slight upward tendency (a monthly cumulative change of 8.5% compared to January 2016), which strongly increased until the end of March as Easter fell at the end of that month. Since May, the indicator was growing steadily (a monthly change of 7.8%), which was caused by the changing season and season sales, which traditionally generate higher footfall. This was also the time of the long May weekend, when some consumers use for leisurely shopping. The upward trend continued to develop together with the sales period (July with a monthly cumulative change of 9.1% compared to June), and by the end of September, it dropped sharply as the season changed and the holiday period came to an end. In October, a traditional upward tendency was recorded, caused by a change of weather and consumers looking for appropriate clothing. Additionally, this was the time when seasonal sales started. The monthly cumulative variation month to month was 9.4% compared to September 2016.

December was traditionally a period of growths (a cumulative change of 8.6%), which is not surprising, as this is the pre-Christmas time and period of many promotions, when winter sales begin.

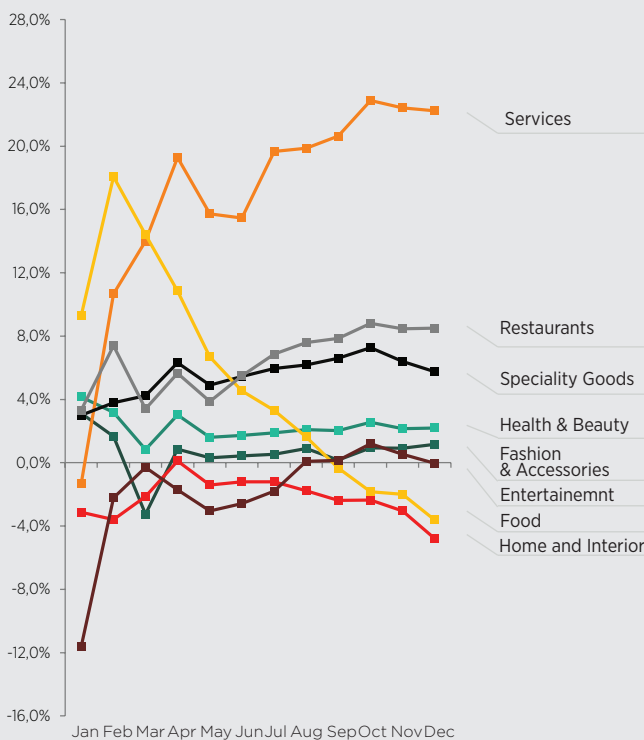
To conclude, the average footfall rate saw a continuation of the upward trend, and the value of cumulative change for 12 months of the year totalled 8.6%.

Fig. 19. PRCH Footfall Trends – average shopping centre footfall dynamics in 2016.



Source: PRCH Retail Research Forum, H2 2016

Fig. 20. PRCH Turnover Index - Poland, all categories cumulative monthly change 2016-2015



Source: PRCH Turnover Index, cumulative monthly change

Fig. 21. The average yearly turnover from 1 sqm in PLN, by categories, and their share in reported GLA space (in %).

| Category   | Average yearly turnover 2016<br>net: PLN / sqm GLA | Share in reported GLA space<br>(in %) |
|--|--|---------------------------------------|
|  <b>Fashion &amp; Accessories</b>                     | 8 412  | 52,90%                                |
|  <b>Health &amp; Beauty</b>                           | 19 740   | 6,30%                                 |
|  <b>Household Appliances &amp; Accessories</b>        | 11 724   | 11,30%                                |
|  <b>Services</b>                                      | 27 240   | 1,30%                                 |
|  <b>Speciality Goods</b>                              | 14 376   | 9,40%                                 |
|  <b>Food/Groceries/Supermarkets</b>                 | 7 800  | 5,60%                                 |
|  <b>Restaurants/Cafes/Fast food<br/>/Food court</b> | 13 524   | 5,60%                                 |
|  <b>Entertainment</b>                               | 1 812  | 7,60%                                 |
| <b>Total</b>   | <b>104 628</b>                                     | <b>100%</b>                           |

Source: PRCH Retail Research Forum, H2 2016

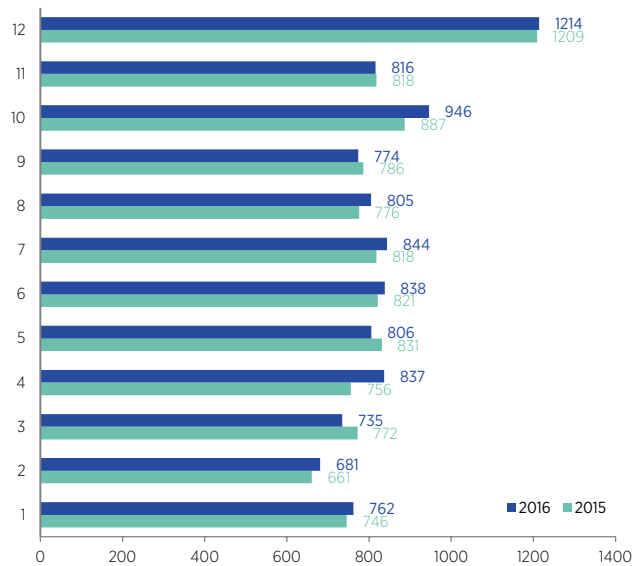
According to the PRCH Turnover Index by categories, we can see that the category Services recorded the biggest growth since the beginning of the year. This means that consumers increasingly often use venues located in shopping centres such as bank branches, GSM operators or travel agencies. The year-to-year cumulative change rate for this category year-on-year was 22.1%, and the average turnover from a sqm was PLN 27,240 net. Comparing month-to-month, a considerable growth in this category was recorded as well (20.2%). This category is characterised by a stable progress and is relatively resilient to season changes throughout the year.

Food is the category which recorded growths month-to-month in the past half of the year; however, it started a series

of decreases in H2 2016. The cumulative yearly change was -3.6%. The average yearly turnover from a sqm in this category amounted to PLN 7,800 net. It is worth emphasising that the PRCH report does not contain data from hypermarkets.

Another surprising category was Home and interior, including Electronic Appliances. Similarly to the Food category, in H1 it recorded a stable growth; however, starting from October, we could record a continuous decrease of the cumulative change rate down to -14.7% in December, month-to-month. Compared YoY, the category recorded a decrease of -4.8%.

Fig. 22. PRCH Turnover Index - Poland, all categories, turnover PLN net / sqm



The Fashion & Accessories category is an example of a completely reversed trend. The first half of the year saw some cumulative change numbers in red, except of a slight increase by 1% in June and by 3.5% in July, which are the months of summer sales, whereas in September we recorded a major variation up to -5.5%. Since October, together with the changing season, it saw an upward trend with a cumulative change of 6.6%, to end the year with 3.2% in December. Fashion & Accessories is the category that is characterised by high sensitivity to season changes and gives the most sinusoid-like results. The average yearly turnover from a sqm in this category amounted to PLN 8,412 net.

Another category that recorded stable growth year-on-year is Health & Beauty. It concluded 2016 with a variation of 2.2% year-on-year and a yearly cumulative change of 1.9%. When analysing its effectiveness throughout the year, we can see a stable level of the change rate.

Restaurants /Food Court – despite major changes throughout the year, in December this category recorded a considerable turnover increase by 7.9% year-on-year. Looking at the cumulative change rate, one can observe major growths in summer months, which is characteristic for that category: June by 5% (a year-on-year change of 13.7%), July with a cumulative variation of 6.4% (a year-on-year change of 14.8%) and August with a year-on-year change of 12.5%. Starting from the second half of the year, cumulative change month-to-month was growing constantly to stop in December with a result of 8.3%. The average yearly turnover from a sqm in this category amounted to PLN 13,524 net.

Entertainment in shopping centres maintained a stable level of turnover from a sqm (the average monthly turnover of PLN 151 net). In 2016, this category recorded short-term growths year to year (August: 15,5% and November: 9,5%), but the first half of the year was full of consistent turnover drops month-to-month and year-on-year.

Another category that recorded a stable growth of 5.7% year-on-year is Speciality Goods. The average yearly turnover from a sqm amounted to PLN 14,376 net.

**When summing up the yearly turnover from a sqm, we can see an upward trend. The cumulative change rate for all categories amounted to 1.8%. Throughout the year, we have observed interesting trends in a few categories, which finished H1 with very goods results, and recorded considerable drops in H2.**



Fig. 23. Contents of reports and presentations in PRCH Database (PRCH Turnover Index & Footfall Trends)

|  | Full report for users who report data | Brief presentation for PRCH members |
|--|---------------------------------------|-------------------------------------|
| Results Year-on-Year and Year-to-Date                                    | ✓                                     | ✓                                   |
| General results charts   | ✓                                     | ✓                                   |
| Excel files with complete historical data                                | ✓                                     | -                                   |
| Reported centres compared to the entire shopping centre market in Poland | ✓                                     | ✓                                   |
| Eight retail categories: reported GLA and average yearly turnover        | ✓                                     | -                                   |
| Turnover Index in retail categories                                      | ✓                                     | ✓                                   |
| Category results by 6 regions (NUTS-1)                                   | ✓                                     | -                                   |
| Category results by 8 agglomerations                                     | ✓                                     | -                                   |
| PRCH Turnover Index by the shopping centre size                          | ✓                                     | -                                   |
| PRCH Footfall Trends by the shopping centre size                         | ✓                                     | -                                   |
| The list of reporting centres  | ✓                                     | -                                   |
| To be downloaded from a secure external server                           | ✓                                     | -                                   |
| Exclusive, free-of-charge access for all PRCH members                    | -                                     | ✓                                   |
| Report from every month  | ✓                                     | ✓                                   |





# 2 THE EFFECTS OF THE SUNDAY TRADING BAN ON SHOPPING CENTRES AND RETAIL

## 2.1 THE EFFECTS OF SUNDAY TRADING BAN ON SHOPPING CENTRES

*Prepared on the basis of a PwC report commissioned by PRCH,  
December 2016*

The study includes a detailed analysis of the impact of imposing the Sunday trading ban as proposed by the National Section of Trade Workers of NSZZ Solidarność on different types of retail activities in shopping centres, especially: generic retail, clothing, footwear and accessories stores, electronics and household appliances stores, and DIY stores, which generate more than of total turnover at SCs. The detailed analysis also includes the impact of the introduced changes on other types of business activity taking place in shopping centres, with a particular focus on food serving services as well as security and cleaning services.

The assessment of the impact of proposed solutions for the entire retail sector in Poland has been made on the basis of the results of shopping centres and the Central Statistical Office (GUS) data concerning the structure of retail in Poland, previous PwC's analyses of the subject, and other such studies in other countries.

**The Sunday trading ban will result in closing entire large retail projects on Sundays.** Even though some tenants would not be covered by the statutory ban, financial factors will make running business on that day unprofitable. In order to justify that, an analysis of potential costs of opening on Sunday only some venues within a shopping centre has been conducted. These costs consist of fees related to operation of facilities which are normally covered by all tenants, whereas on Sundays they would have to be paid only by those who decide to open stores on that day. This effect and its results have been described in details on the following pages. Moreover, it is worth noting that due to the majority of stores closing on Sundays, potential turnover of those that decide to open their stores will also decrease. This is a result of a network and cluster effect reduction (due to a limited offer on Sunday, some people will abstain from visiting retail projects, although they would visit them if the complete tenant-mix was available).

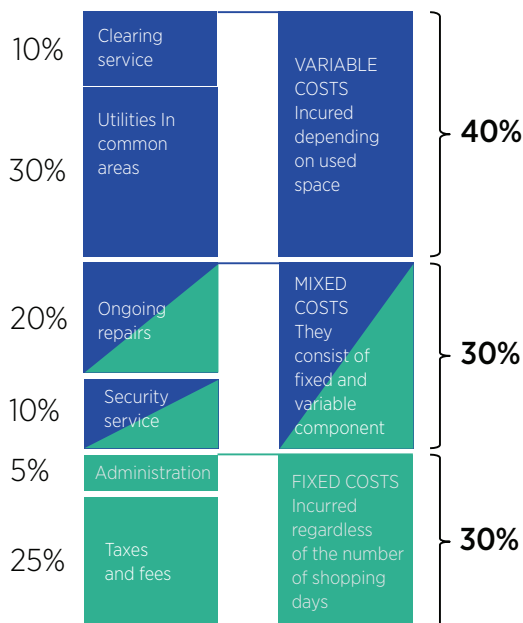
**THE SUNDAY TRADING BAN WILL  
RESULT IN CLOSING ENTIRE LARGE  
RETAIL PROJECTS ON SUNDAYS.**

## ONGOING COSTS OF RETAIL FACILITIES MAINTENANCE, BOTH FIXED AND VARIABLE, ARE BORNE BY TENANTS

### Ongoing costs of retail facilities maintenance, both fixed and variable, are borne by tenants

- Typical share of different types of costs in total service charge was presented in the graph (left).
- The above-mentioned costs can be divided into three categories: variable (incurred only when the building is operating), fixed (incurred regardless of the time the building operates) and mixed (incurred partially in a fixed form and partially in a variable form).
- Fixed costs include administrative costs, fees and taxes.
- Variable costs include fees for cleaning service and utilities in common areas.
- Mixed costs include repair costs and security fees. On non-shopping days these costs are incurred but not in full.

Fig. 24. Cost of building maintenance incurred by tenants in the form of the service charge

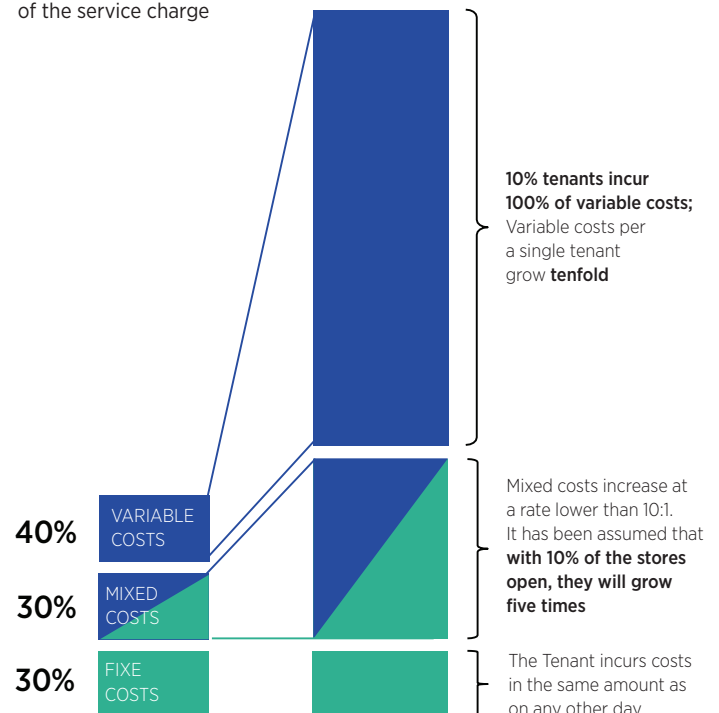


Source: Prepared on the basis of a PwC report commissioned by PRCH, December 2016



## COSTS PER A TENANT ON SUNDAY WILL INCREASE NEARLY SIXTIMES, THUS RENDERING OPENING RETAIL UNPROFITABLE FOR EVERYONE

Fig. 25. Cost of building maintenance incurred by tenants in the form of the service charge



Source: Prepared on the basis of a PwC report commissioned by PRCH, December 2016

## 2.2 THE EFFECTS OF THE SUNDAY TRADING BAN ON RETAIL

**IT HAS BEEN ESTIMATED THAT A DECREASE IN RETAIL SALES WILL TOTAL AT LEAST PLN 9.6 BILLION, WHILE THE DECREASE IN EMPLOYMENT WILL AMOUNT TO AT LEAST 36,000 PEOPLE.**

|  | Turnover reduction (PLN billions) | Labour demand decrease |
|--|-----------------------------------|------------------------|
| All analysed industries                            | 9 616                             | 36 375                 |
| including:   |                                   |                        |
| Stores in Shopping Centres                         | 3 251                             | 11 279                 |
| Services in Shopping Centres                       | 1 255                             | 4 509                  |
| Cleaning and security services in Shopping Centres | 94                                | 3 419                  |
| Stores outside Shopping Centres                    | 4 834                             | 9 952                  |
| Services outside Shopping Centres                  | -                                 | -                      |
| Cleaning and security services outside SCs         | 180                               | 7 216                  |

Source: Prepared on the basis of a PwC report commissioned by PRCH, December 2016

|   |          |
|---|----------|
| Direct losses of the State Treasury (in PLN millions)(mln zł) | 1862,82  |
| VAT   | 1 487,66 |
| PIT   | 85,92    |
| Social security contributions                                 | 289,24   |

Source: Prepared on the basis of a PwC report commissioned by PRCH, December 2016

- The highest share in the general decrease in turnover and labour demand will go to the clothing sector, whose turnover will drop by PLN 1.3 billion, and employment by 6,000–7,000 people.
- Turnover and labour demand reduction in other types of retail and services (which were not analysed in detail) located in shopping centres (e.g. hairdressers, cosmetic parlours,

jewellers, children care centres, opticians, etc.) is respectively PLN 1.9 billion and 6,000–7,000 people. The estimates for these sectors were prepared assuming that 1/3 of them are services points (which lose more), whereas 2/3 are trading venues.

- Direct losses of the state treasury generated by shopping centres, following the potential Sunday trading ban amount to around PLN 890 million, of which the majority, PLN 695 million, is in the form of unpaid VAT tax.

**TURNOVER OF CLOTHING STORES LOCATED IN SHOPPING CENTRES WILL DROP BY PLN 1,352 MILLION, WHILE 6,374 PEOPLE MAY LOSE THEIR JOBS**

|  |                   |
|--|-------------------|
| Turnover                                   | PLN 15.7 billion  |
| Share of Sundays                           | 20%               |
| Estimated turnover reduction               | PLN 1,352 million |
| Estimated labour demand reduction (people) | 6 374             |

Source: Prepared on the basis of a PwC report commissioned by PRCH, December 2016

- It is estimated that the turnover generated by stores in shopping centres constitute a half of the market.
- The fashion market is subject to the strongest compulsive shopping effect in the market, which can generate up to 40% of purchases. To a large extent, this is a result of frequent promotion events and sales.
- The possibilities of organising sales are greater in retail chains (with franchise or own stores), which means that the effect of transferring part of Sunday' turnover to stores which are not subject to the trading ban will be minor.
- It is estimated that following the introduction of the ban, the clothing trade turnover in shopping centres will be reduced by 8.6%, which is around PLN 1.35 billion.
- The decrease in sales and transferring turnover to other days and store formats may result in an 8.6% employment reduction, which in the case of clothing and footwear stores means around 6,400 people.

### TURNOVER OF ELECTRONICS AND HOME APPLIANCE STORES IN SHOPPING CENTRES WILL DROP BY PLN 207 MILLION

|  |                 |
|--|-----------------|
| Turnover                                   | PLN 8.3 billion |
| Share of Sundays                           | 20%             |
| Estimated turnover reduction               | PLN 207 million |
| Estimated labour demand reduction (people) | 222             |

Source: Prepared on the basis of a PwC report commissioned by PRCH, December 2016

- According to PMR's estimated, the value of the Polish electronics market is around PLN 22.3 billion.
- A research by PwC conducted on a sample of 320 stores indicates that slightly more than half of trade in the electronics and household appliances segment takes place in shopping centres. Therefore, the size of the electronics and household appliances market in shopping centres has been estimated at PLN 8 billion.
- The Sundays' share in the turnover of the segment is around 20%.
- The majority of Sunday sales will spread over the remaining days of the week; however the share generated by compulsive shopping will be lost. It has been assumed that in this segment it does not exceed 10%.

### TURNOVER IN DIY STORES IN SHOPPING CENTRES WILL DROP BY PLN 210 MILLION

|  |                  |
|--|------------------|
| Turnover                                   | PLN 10.5 billion |
| Share of Sundays                           | 20%              |
| Estimated turnover reduction               | PLN 210 million  |
| Estimated labour demand reduction (people) | 225              |

Source: Prepared on the basis of a PwC report commissioned by PRCH, December 2016

- According to our estimates, the value of the Polish DIY market is PLN 19 billion.
- A research by PwC conducted on a sample of 70 stores indicates that at least 55% of trade in the DIY segment takes place in shopping centres. The value of the DIY segment in shopping centres is not lower than PLN 10.5 billion.
- The Sundays' share in the turnover of the segment is around 20%.
- Compulsive shopping in this market is unlikely to exceed 10%. Therefore, the sales decrease may amount to around PLN 210 billion and result in a labour demand reduction translating into nearly 230 employees.
- Despite relatively small changes in turnover, it is worth stressing that the majority of sales will shift to Saturdays, which may result in a decreased shopping comfort and deteriorated work conditions for employees.

### TURNOVER IN SHOPPING CENTRE SUPPORT SERVICES WILL DECREASE BY PLN 94,38 MILLION, WHILE 3,418 PEOPLE MAY LOOSE THEIR JOBS

|  | Cleaning services | Security services |
|--|-------------------|-------------------|
| Turnover                                   | PLN 328 million   | PLN 398 million   |
| Share of Sundays                           | 12%               | 14%               |
| Estimated turnover reduction               | PLN 46.82 million | PLN 47.56 million |
| Estimated labour demand reduction (people) | 1 589             | 1 829             |

Source: Prepared on the basis of a PwC report commissioned by PRCH, December 2016

- The security market in Poland may be estimated at around PLN 8 billion. The number of security employees is between 114,000 (GUS) to 300,000 (industry estimates).
- Shopping centres and stores therein, according to our estimates, comprise around 5% of the market and 15,000 security employees.
- Due to the popularity of civil law contracts, when discussing the impact of the ban on the labour market we can talk about lost earnings rather than about lost jobs.



- We estimate that the demand for security employees labour will decrease by 12% as a result of the ban, as there will always be personnel needed to guard the building. It can be said that this equals to work of 1,800 employees.
- The shopping centre cleaning companies market operate according to similar principles. We estimate the value of this market to be PLN 300–400 million and around 11,000 people.
- Closing shopping centres on Sunday will render services provided by these companies redundant; therefore, the turnover decrease will amount to 14%; the reduction rate of employees needed to clean shopping centres will be similar. That would mean an employment reduction by 1,600 people.

**STORES FROM OTHER INDUSTRIES,  
SERVICES POINTS AND EVENT COMPANIES  
MAY LOSE A TOTAL OF NEARLY  
PLN 2 BILLION IN TURNOVER AND REDUCE  
THEIR LABOUR DEMAND BY MORE  
THAN 6,000 PEOPLE**

- Service points operating in shopping centres have a relatively small share in the retail space of merely 1.5–3%, but a quite high share in turnover of almost 9%.
- We estimate that there are around 19,000 people employed in such points in shopping centres.
- Services and trading points that have not been subject to a detailed analysis generate less than a half of shopping centres' turnover and employ up to 180,000 people.
- Services points located in shopping centres are more sensitive to decreased demand resulting from the trading ban, as their customers often visit them while doing some other shopping. Even companies that organise entertainment and charity events in shopping centres will be particularly affected by closing of the latter on Sundays.

|  |                   |
|--|-------------------|
| Turnover                                   | PLN 60 billion    |
| Share of Sundays                           | 15%               |
| Estimated turnover reduction               | PLN 1,910 million |
| Estimated labour demand reduction (people) | 6,340             |

Source: Prepared on the basis of a PwC report commissioned by PRCH, December 2016

## Summary of the international comparative analysis

Full version of report in Polish and English version available on website  
<http://prch.org.pl/pl/baza-wiedzy>

### General characteristics:

Having analysed 30 European countries, it is possible to observe a tendency to liberalise the law regarding the Sunday trading ban. The newest members of the European Union rarely adopted any regulations in this matter in the past. Mature European economies often imposed such bans, however, in time the ban was gradually lifted, allowing for greater freedom to trade.



13 of 30 analysed countries have no restrictions concerning Sunday trading.



5 of 30 countries adopted minimal restrictions on sales of alcohol and trading on holidays



4 of the 13 above-mentioned countries are mature European economies, which have liberated Sunday trading completely



15 countries witnessed a continuous process of deregulation of law and limiting restrictions on Sunday trading throughout the past 10 years



The Czech Republic is the only analysed country, which introduced restrictions; instead of full liberalisation, a ban on labour on 11 selected holidays was introduced



6 of CEE countries have deregulated laws with respect to Sunday trading and have not attempted to tighten them so far

# 3 RETAILERS' DEVELOPMENT POTENTIAL IN POLAND

## RETAILERS' DEVELOPMENT POTENTIAL IN POLAND A FEW IMPORTANT FACTS NOT EVERYONE IS FAMILIAR WITH

*Prepared on the basis of a BNP Paribas Real Estate  
report "GET ENGAGED IN POLAND"*

When analysing the development possibilities of retail chains in Poland, experts often skip factors which indirectly and directly affect the potential for a successful expansion. Apart from standard macroeconomic data, such as GDP growth, retail sales, as well as demographic and economic data on the catchment zone, rent rates and service charges, it is important to look at other elements that may influence future turnover. It is worth considering less obvious indicators, as well as saturation in a particular sector, depending on the positioning of each chain. Such analysis allows to find many undeveloped niches; even among industries that are characterised by high competitiveness, there are possibilities for smart expansion, be it by using the franchising model or by taking over existing chains.

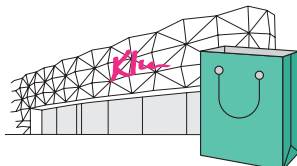


# 1250

RETAILERS  
IN POLAND

In Poland, there are around 1,250 retailers, which is two times less than in mature Western European markets.

**350** largest retailers take up around **75%** of space in stock in existing shopping centres.



# AROUND 50

NEW  
RETAILERS

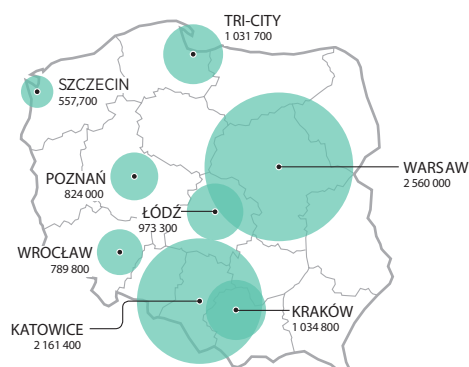
entered Poland throughout 2015-2016. Only 8 decided to withdraw.

# 8

agglomerations with a population of more than 500,000 inhabitants, of which:  
2 urban centres with more than 2 million inhabitants  
2 agglomerations with more than 1 million inhabitants.

Source: Central Statistical Office (GUS)

MAP: POPULATION IN AGGLOMERATIONS



## INVESTORS' TRUST



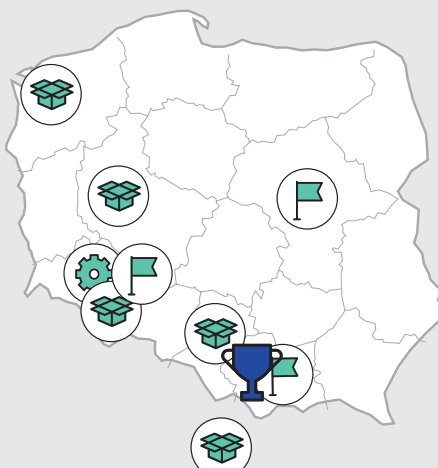
In the Tholons 2015 **Top 100 Outsourcing Destinations** report, Kraków ranked **1st in the Europe and 9th in the world** among the best locations for services centres. The employment level in this segment increases by 20% a year on average.



**Google has three research and development centres in Poland:** in Wrocław (2005), Kraków (2007) and Warsaw (2011). In 2015, Google opened Campus Warsaw, which serves as startup incubator.



According to a report by the international advisory company EY "**2016 European Attractiveness Survey**", Poland ranked 5th in terms of direct foreign investments (FDI), and **the 2nd** in terms of the number of workplaces created thanks to the inflow of FDI.



**Amazon** has already opened **four distribution centres** in Poland. Two of them are located in Wrocław, and one in Poznań and Kołbasków near Szczecin. There is another one under construction in Sosnowiec.



**Daimler will invest €500 million to build a Mercedes engine factory in Poland.** This will be the second production facility of the company outside Germany. Apart from that, factories of other automotive companies operate in Poland, namely Volkswagen, Fiat, Toyota, and General Motors.



The number of students in Poland exceeded **1.4 million**. It attracts investors interested in construction of R&D centres. Samsung Electronics, Sanofi, GE Engineering Design Center, Roche and Delphi already have their facilities in Poland.

## THE NUMBER OF TOURISTS IN POLAND IN 2015

**16,7 M**

Warsaw and Kraków are the leaders in this respect: they were visited by respectively <sup>3</sup> and 2.9 million tourists. <sup>1</sup>



A foreign tourist during his stay in Poland spent an average of

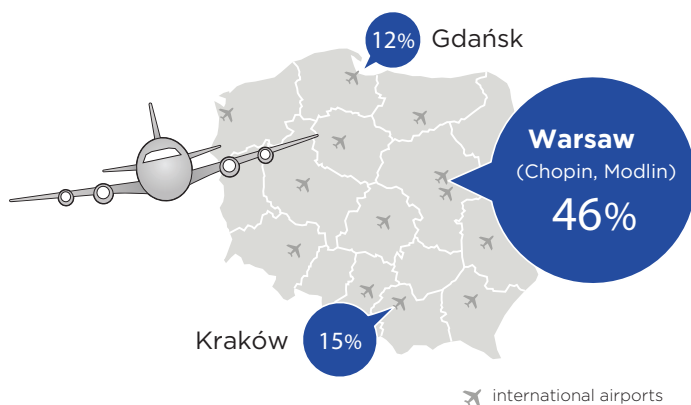
**€ 402**

Some of them, e.g. the Americans, the Canadians, the Japanese or the Australians, spent much more per person – €1,238. About 54% of money was spent on shopping and services. <sup>1</sup>



**34,0 M**

AIR PASSENGERS IN 2016.



THROUGHOUT FIVE YEARS,  
THE NUMBER OF PASSENGERS  
SERVICED BY INTERNATIONAL  
AIRPORTS IN POLAND  
INCREASED BY

**57%**

In the past year alone, passenger traffic amounted to 34m. <sup>4</sup>



## THE BOOM IN THE HOTEL MARKET

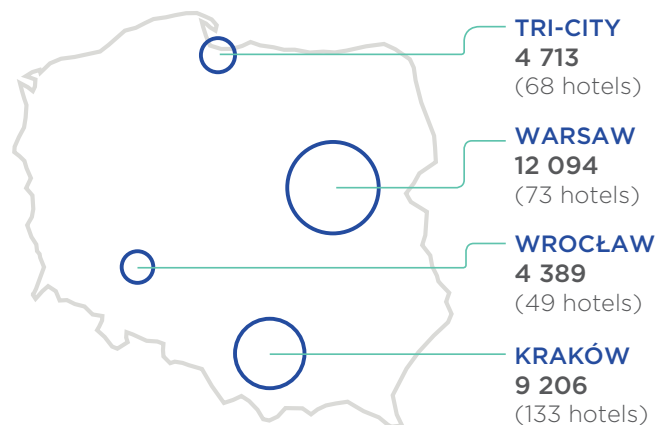
The hospitality sector is in the growth phase. The number of 4\* hotels increased from 180 in 2011 to 321 in 2015. The number of 5\* hotels increased from 45 in 2011 to 57 in 2015

### NUMBER OF HOTELS BY STANDARD

|                    |       |                  |
|--------------------|-------|------------------|
| 45                 | ★★★★★ | 57               |
| 180                | ★★★★  | 321              |
| 845                | ★★★   | 1 108            |
| 518                | ★★    | 565              |
| 174                | ★     | 158              |
| <b>5 YEARS AGO</b> |       | <b>LAST YEAR</b> |

Source: Central Statistical Office (GUS)

## THE NUMBER OF HOTEL ROOMS IN SELECTED CITIES

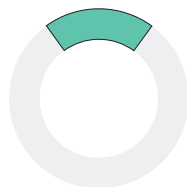


Source: Central Statistical Office (GUS)

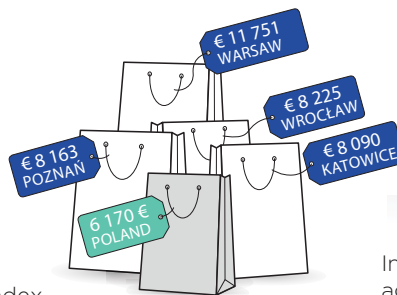
#### YEARLY PURCHASING POWER



The purchasing power in Warsaw is **18%** higher than in Prague, and totals EUR 11,751. <sup>6</sup>



The purchasing power index in Warsaw is **20%** higher than the total purchasing power in Poland. <sup>6</sup>



**PURCHASING POWER IN POLAND AND SELECTED CITIES (2014) <sup>6</sup>**

In the major Polish agglomerations, the purchasing power is between **15%** and **25%** higher than the Polish average. <sup>6</sup>

#### MORE THAN

**47 000**

PERSONS DECLARE THAT THEY HAVE AVAILABLE ASSETS WORTH BETWEEN **1 AND 8 MILLION EURO** - 75% ARE THE INHABITANTS OF THE WARSAW AGGLOMERATION <sup>7</sup>

#### LUXURY GOODS MARKET IN POLAND

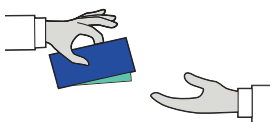


13% increase per year <sup>7</sup>

The sales of luxury cars are growing dynamically. Between 2014 and 2016, it increased by **21%** on average. The largest dynamics were characteristic for Jaguar and Lexus, with 49.1% and 45.9% respectively. <sup>9</sup>

#### TOTAL TURNOVER PER A SQM:

**€ 2 352**



a year

The average turnover in large agglomerations is 15-25% higher than the average turnover from a square metre in Poland, which amounted to €200

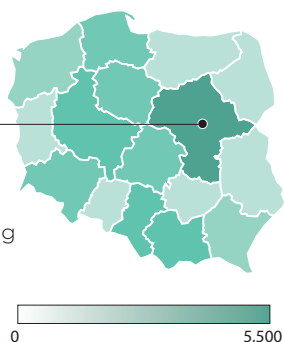
The highest turnover in the retail sector was recorded by shopping centres in Warsaw, especially in sectors, such as services, health and beauty, and specialised food. <sup>10</sup>

**19 827**

NUMBER OF POLES EARNING MORE THAN PLN 1 M A YEAR

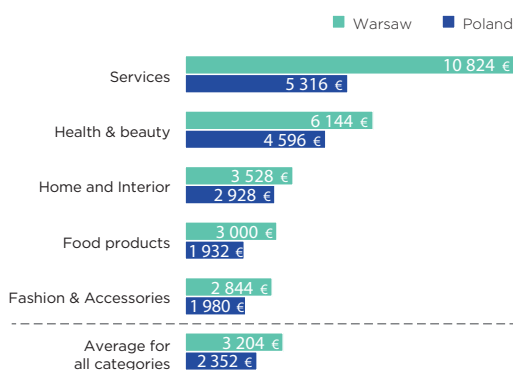
NUMBER OF POLES EARNING MORE THAN PLN 1 M A YEAR BY PROVINCE

There are **3 384** millionaires living in Warsaw <sup>8</sup>



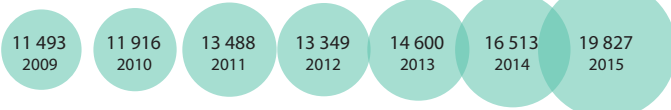
Source: Tax Chamber

#### TURNOVER BY CATEGORY IN 2015 €/a sqm/a year



Source: PRCH TURNOVER INDEX

#### NUMBER OF POLES WITH MORE THAN PLN 1 MILLION OF INCOME A YEAR












Source: Tax Chamber




#### Sources:



- (1) Central Statistical Office (GUS)
- (2) Eurostat
- (3) BNP Paribas
- (4) Civil Aviation Office
- (5) ABSL
- (6) GFK Purchasing Power
- (7) Tax Chambers
- (8) KPMG
- (9) premiummoto.pl
- (10) PRCH



Fig. 26. Development possibilities for separate industries by price

| Consumer                | High income  |   | Average income  |  | Low income  |   |
|-------------------------|---|---|--|--|--|---|
| Point of sales          |              |  |                   |  |             |  |
| Jewellery & Accessories | ●   | ●   | ●  | ●  | ●  | ●   |
| Products for children   | ●   | ●   | ●  | ●  | ●  | ●   |
| Construction Materials  | n/a   | n/a   | ●  | ●  | ●  | ●   |
| Electronics             | ●   | ●   | ●  | ●  | ●  | ●   |
| Fashion - Underwear     | ●   | ●   | ●  | ●  | ●  | ●   |
| Men's Fashion           | ●   | ●   | ●  | ●  | ●  | ●   |
| Women's Fashion         | ●   | ●   | ●  | ●  | ●  | ●   |
| Mixed Fashion           | ●   | ●   | ●  | ●  | ●  | ●   |
| Health & Beauty         | ●   | ●   | ●  | ●  | ●  | ●   |
| Decorative Goods        | ●   | ●   | ●  | ●  | ●  | ●   |
| Leather Accessories     | ●   | ●   | ●  | ●  | ●  | ●   |
| Multimedia              | n/a   | ●   | ●  | ●  | n/a  | n/a   |
| Footwear                | ●   | ●   | ●  | ●  | ●  | ●   |
| Sports Equipment        | ●   | ●   | ●  | ●  | ●  | ●   |

 Low income  
 Average income  
 High income

 Shopping center  
 High street

#### NOTE!

Success depends on a combination of factors

- (I) operating model (own stores, monobrand or multi-brand, entering the market on one's own or taking over and existing chain of stores or the entire chain, franchise)
- (II) product-offer and marketing adapted to local conditions
- (III) existing and potential competition
- (IV) legal environment
- (V) sales network (venue matrix)

# 4 NEW PEOPLE COUNTING SYSTEMS IN SHOPPING CENTRES

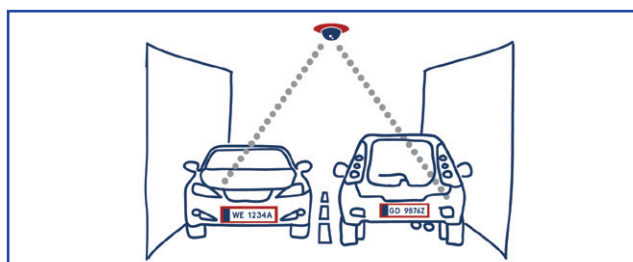


## NEW PEOPLE COUNTING SYSTEMS IN SHOPPING CENTRES

*Marcin Guziński*

The market of counting traffic and footfall is developing very dynamically thanks to new technological solutions, which give more and more options to determine a consumer's profile. The better we know the consumers, the easier it is to fit the tenant-mix to their needs.

It is widely known that shops monitor customers entering the shop. We are also aware that cameras count the number of people entering a shopping centre. But do we realise that our car is also perceived as a "customer" of a shopping centre?



A vehicle number plate recognition and counting system allows to determine a real catchment zone of a project, the time cars spend at the parking lot (the so-called dwell time), or the customers' "loyalty", defined by how often they return. The system can tell us what territorial units and geographic regions customers come from. E.g. in Warsaw, it is possible to identify customers with accuracy of single city districts. The system also compares the footfall with the number of cars; both systems have the same reporting system and both can be integrated. As a result, it is possible to determine the most "popular" parking zone. Combined with the people counting system, it allows to estimate how many customers of all visitors come by car. Data are stored and can be read in real time.

### How does it work?

At every shopping centre's car park entrance/exit, there is a camera which analyses the image in real time and uses an OCR algorithm to read vehicle registration plates. The camera may be installed both above the car park drive and on the side of the road, so that it is unnecessary to build special structures for plate recognition cameras. Information about the plate and entry/exit time are sent to a server. The server automatically assigns geographic location (city/powiat/city-district) to the plate and links it to the same plate scanned at exit to define the average dwell time.

The plate recognition system allows to:

- Determine the average dwell time in the car park – how much time a customer spends in the store, with a possibility to separate couriers and employees, to make the data as accurate as possible,
- recognise provinces (voivodeships), cities, poviats (districts) or even city-districts (in the case of Warsaw) where the customers come to the shopping centre from,
- “personalise” and verify the efficiency of the marketing campaign,
- determine the number of customers coming to the shopping centre from abroad,
- analyse the optimal usage of car park areas,
- analyse the return frequency of particular vehicles/customers, including geographic regions they come from to determine the customer loyalty,
- get information about the number of empty parking spaces,

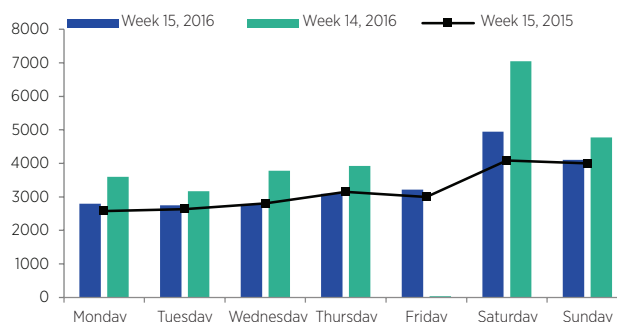
Thanks to a dedicated reporting platform, users have a possibility to generate reports from the system, which also allows to automatically send reports by e-mail or text message to selected recipients at a time agreed upon with the User. It is worth noting that according to managers of shopping centres, data about footfall are key information in the process of negotiating terms of agreements with tenants, as well as during the evaluation of employed marketing activities.

## ANPR reports

Below we present descriptions of the most important reports generated by the vehicle plate recognition and counting system.

The report presents footfall data for vehicles in the car park. It is possible to determine footfall in each month, or to compare weekly change to a relevant period in the preceding year.

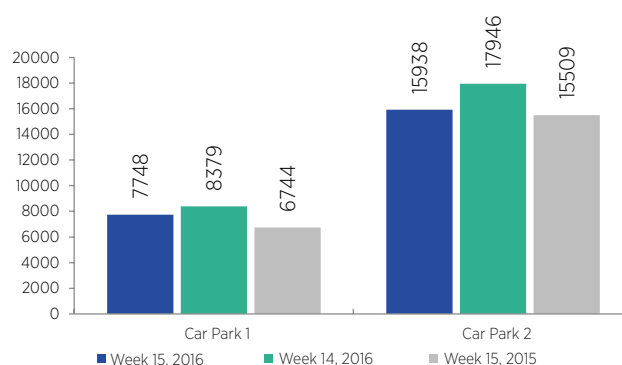
Fig. 27. Comparison of vehicle entries on a weekly basis day-to-day



Source: TOP-KEY, ANPR report

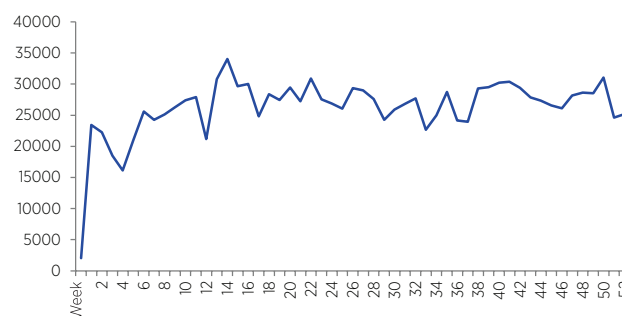
The reports also present the average number of vehicles a week, broken down into days, and compared to the preceding week, in correlation with weather data. The report assigns the number of vehicles to the entrances they used to get into the car park.

Fig. 28. Vehicle entry count comparison on a weekly basis



Source: TOP-KEY, ANPR report

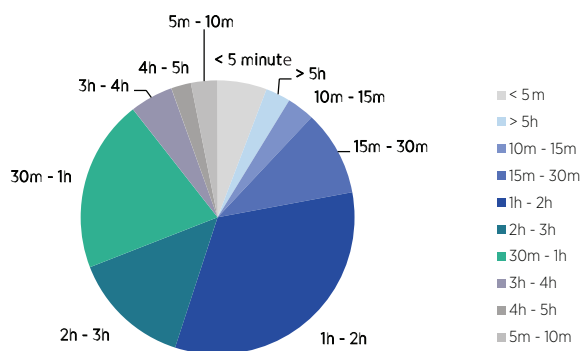
Fig. 29. Vehicle entry count broken down into weeks – yearly summary 2016



Source: TOP-KEY, ANPR report

A pie-chart in the report presents the average dwell time of vehicles in the car park, and the percentage share of particular times against the total number of vehicles.

Fig. 30 The average dwell time in the car park - exemplary data for a selected week



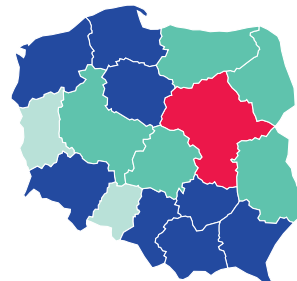
Source: TOP-KEY, ANPR report

The report also presents vehicle footfall data broken down into their origin (province), determining their percentage share. It is also possible to determine the countries of origin of foreign customers visiting the analysed centre.

## ANPR Report - regions

The report presents the number of vehicles that entered a particular car park, including the percentage share of all regions against the total number of vehicles. In the report, a region is understood as a province (voivodeship), district (powiat) or, in the case of Warsaw – even a city district.

Fig. 31. The percentage share of the number of vehicles broken down into provinces (on the basis of vehicle registration plates) - exemplary data for a selected week.



| Province            | Number       | % All vehicles from Poland | % All         |
|---------------------|--------------|----------------------------|---------------|
| mazowieckie         | 64 922       | 86,73%                     | 85,62%        |
| lubelskie           | 1 870        | 2,50%                      | 2,47%         |
| podlaskie           | 1 129        | 1,51%                      | 1,49%         |
| łódzkie             | 981          | 1,31%                      | 1,29%         |
| warmińsko-mazurskie | 811          | 1,08%                      | 1,07%         |
| wielkopolskie       | 788          | 1,05%                      | 1,04%         |
| śląskie             | 691          | 0,92%                      | 0,91%         |
| świętokrzyskie      | 635          | 0,85%                      | 0,84%         |
| małopolskie         | 588          | 0,79%                      | 0,78%         |
| kujawsko-pomorskie  | 509          | 0,68%                      | 0,67%         |
| dolnośląskie        | 474          | 0,63%                      | 0,63%         |
| podkarpackie        | 441          | 0,59%                      | 0,58%         |
| pomorskie           | 424          | 0,57%                      | 0,56%         |
| zachodniopomorskie  | 268          | 0,36%                      | 0,35%         |
| inne                | 112          | 0,15%                      | 0,15%         |
| lubuskie            | 105          | 0,14%                      | 0,14%         |
| opolskie            | 105          | 0,14%                      | 0,14%         |
| <b>Total</b>        | <b>74853</b> | <b>100%</b>                | <b>98,73%</b> |

Source: TOP-KEY

Fig. 32. Percentage share of vehicles by districts of the Mazowieckie Province (on the basis of vehicle registration plates) - exemplary data for a selected week.

| District            | Number        | % All vehicles from Poland | % District    |
|---------------------|---------------|----------------------------|---------------|
| białobrzezski       | 63            | 0,08%                      | 0,10%         |
| ciechanowski        | 384           | 0,51%                      | 0,59%         |
| garwoliński         | 322           | 0,43%                      | 0,50%         |
| gostyniński         | 65            | 0,09%                      | 0,10%         |
| grodziski           | 346           | 0,46%                      | 0,53%         |
| grójecki            | 126           | 0,17%                      | 0,19%         |
| kozienicki          | 111           | 0,15%                      | 0,17%         |
| legionowski         | 4 270         | 5,70%                      | 6,58%         |
| lipski              | 52            | 0,07%                      | 0,08%         |
| łosicki             | 79            | 0,11%                      | 0,12%         |
| makowski            | 351           | 0,47%                      | 0,54%         |
| miński              | 647           | 0,86%                      | 1,00%         |
| miński              | 170           | 0,23%                      | 0,26%         |
| nowodworski         | 1 242         | 1,66%                      | 1,91%         |
| Ostrołęka           | 904           | 1,21%                      | 1,39%         |
| ostrołęcki          | 159           | 0,21%                      | 0,24%         |
| ostrowski           | 400           | 0,53%                      | 0,62%         |
| otwocki             | 538           | 0,72%                      | 0,83%         |
| piaseczyński        | 438           | 0,59%                      | 0,67%         |
| Płock               | 209           | 0,28%                      | 0,32%         |
| płocki              | 113           | 0,15%                      | 0,17%         |
| płoński             | 447           | 0,60%                      | 0,69%         |
| pruszkowski         | 728           | 0,97%                      | 1,12%         |
| przasnyski          | 220           | 0,29%                      | 0,34%         |
| przysuski           | 78            | 0,10%                      | 0,12%         |
| pułtowski           | 605           | 0,81%                      | 0,93%         |
| Radom               | 303           | 0,40%                      | 0,47%         |
| radomski            | 140           | 0,19%                      | 0,22%         |
| Siedlce             | 218           | 0,29%                      | 0,34%         |
| siedlecki           | 112           | 0,15%                      | 0,17%         |
| sierpecki           | 73            | 0,10%                      | 0,11%         |
| sochaczewski        | 160           | 0,21%                      | 0,25%         |
| sokołowski          | 214           | 0,29%                      | 0,33%         |
| szydlowiecki        | 24            | 0,03%                      | 0,04%         |
| warszawski zachodni | 2 389         | 3,19%                      | 3,68%         |
| węgrowski           | 420           | 0,56%                      | 0,65%         |
| wołomiński          | 7 513         | 10,04%                     | 11,57%        |
| wyszkowski          | 692           | 0,92%                      | 1,07%         |
| zwoleniński         | 44            | 0,06%                      | 0,07%         |
| żuromiński          | 77            | 0,10%                      | 0,12%         |
| żyrardowski         | 84            | 0,11%                      | 0,13%         |
| <b>Warsaw Total</b> | <b>25 530</b> | <b>34,09%</b>              | <b>39,33%</b> |

Source: TOP-KEY

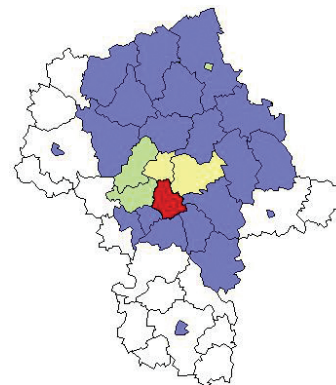
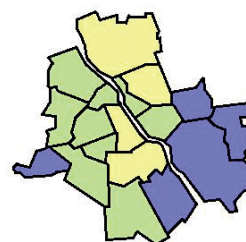


Fig. 33. Percentage share of vehicles by city-districts of Warsaw (on the basis of vehicle registration plates) - exemplary data for a selected week.

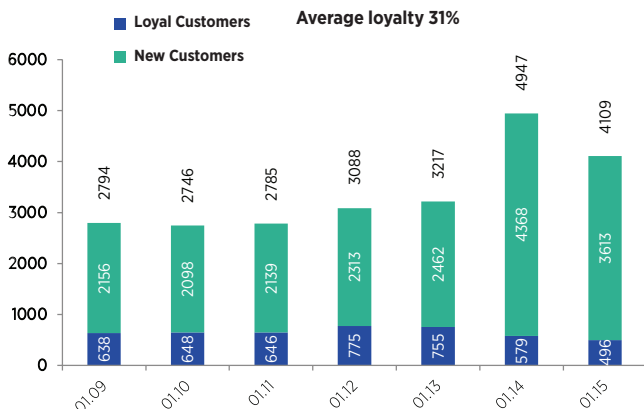
| Districts of Warsaw   | Number of entries | % All vehicles from Poland | % City        |
|-----------------------|-------------------|----------------------------|---------------|
| Bemowo                | 2 761             | 3,69%                      | 4,25%         |
| Białołęka             | 6 324             | 8,45%                      | 9,74%         |
| Bielany               | 2 472             | 3,30%                      | 3,81%         |
| Mokotów               | 4 746             | 6,34%                      | 7,31%         |
| Ochota                | 1 442             | 1,93%                      | 2,22%         |
| Praga-Południe        | 2 719             | 3,63%                      | 4,19%         |
| Praga-Północ          | 1 264             | 1,69%                      | 1,95%         |
| Rembertów             | 530               | 0,71%                      | 0,82%         |
| Śródmieście           | 4 601             | 6,15%                      | 7,09%         |
| Targówek              | 5 371             | 7,18%                      | 8,27%         |
| Ursus                 | 364               | 0,49%                      | 0,56%         |
| Ursynów               | 962               | 1,29%                      | 1,48%         |
| Wawer                 | 921               | 1,23%                      | 1,42%         |
| Wesoła                | 224               | 0,30%                      | 0,35%         |
| Wilanów               | 435               | 0,58%                      | 0,67%         |
| Włochy                | 746               | 1,00%                      | 1,15%         |
| Wola                  | 2 068             | 2,76%                      | 3,19%         |
| Żoliborz              | 1 242             | 1,66%                      | 1,91%         |
| <b>District total</b> | <b>39 192</b>     | <b>52,38%</b>              | <b>60,38%</b> |

Source: TOP-KEY



The report also allows to determine customer loyalty by measuring their return frequency. The User can also define, how many times a customer needs to enter the car park in order to be identified as "loyal".

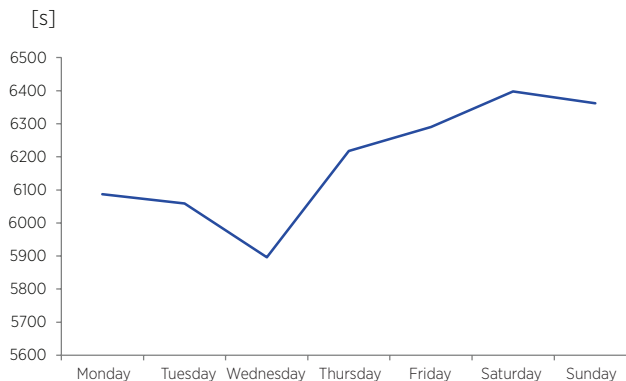
Fig. 34. Percentage share of vehicles by city-districts of Warsaw (on the basis of vehicle registration plates) - exemplary data for a selected week.



Source: TOP-KEY

The report also presents the average shopping time. In order to make the result as reliable as possible, only those vehicles that have spent more than 15 minutes in the car park are taken into consideration. Thus, it is safe to assume that their owners are actual customers and not e.g. deliverymen.

Fig. 35. The average shopping time (on the basis of vehicle registration plates)



Source: TOP-KEY

|                           | Monday | Tuesday | Wednesday | Thursday |
|---------------------------|--------|---------|-----------|----------|
| Average time week 1 [s]   | 6 087  | 6 059   | 5 896     | 6 218    |
| Average time week 1 [min] | 101    | 100     | 98        | 103      |
| Average time week 2 [s]   | 5 296  | 5 384   | 5 164     | 5 511    |
| Average time week 2 [min] | 88     | 89      | 86        | 91       |

|                           | Friday | Saturday | Sunday | Week  |
|---------------------------|--------|----------|--------|-------|
| Average time week 1 [s]   | 6 290  | 6 398    | 6 362  | 6 220 |
| Average time week 1 [min] | 104    | 106      | 106    | 103   |
| Average time week 2 [s]   | 5 580  | 5 674    | 5 733  | 5 512 |
| Average time week 2 [min] | 93     | 94       | 95     | 91    |

Source: TOP-KEY



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He aims to support the development of retail property industry in Poland in order to respond to the PRCH members needs with high quality programmes and projects in such areas like: education, networking, market research.

As a retail property market expert he has been a speaker and panelist promoting Polish retail real estate and its best practices. He is internationally involved in co-operation with ICSC and EPF and other NGOs as well as governmental organisations.



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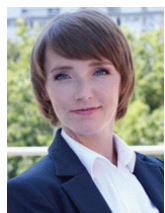
Elżbieta is a valuer and a graduate of Sheffield Hallam University and Cracow University of Economics. Elżbieta joined Knight Frank in 2004. She started in the Capital Markets department, where she was responsible for conducting market analyses, participated in due diligence and commercial real estate investment transactions. For 4 years she has been responsible for heading the team of consultants that prepare analyses of the Polish commercial market.



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Marcin is the Operating Director at TOP-KEY, which has been involved in creating and implementing analytical systems in shopping centres, retail chains and cultural institutions for 26 years. He has been working in the IT and security systems sector for years. Marcin has extensive expertise in implementing the company's strategy. He is responsible for maintaining lasting business relationships.

## METHODOLOGICAL REMARKS

For the needs of the supply and retail density statistics published in PRCH RRF reports, the following cities and towns were included as part of agglomeration and conurbations:

**Warsaw Agglomeration:** Warszawa, Brwinów, Konstancin-Jeziorna, Łomianki, Marki, Piaseczno, Piastów, Podkowa Leśna, Raszyn and Błonie, Grodzisk Mazowiecki, Józefów, Kobyłka, Legionowo, Milanówek, Otwock, Ożarów Mazowiecki, Pruszków, Radzymin, Sulejówkę, Wołomin, Ząbki, Zielonka, as well as Halinów, Izabelin, Jabłonna, Lesznowola, Michałowice, Nadarzyn, Nieporęt, Stare Babice and Wiązowna.

**Katowice Conurbation:** Katowice, Bytom, Chorzów, Czeladź, Dąbrowa Górnicza, Gliwice, Knurów, Mikołów, Mysłowice, Piekary Śląskie, Ruda Śląska, Siemianowice Śląskie, Sosnowiec, Świętochłowice, Tarnowskie Góry, Tychy, Zabrze, as well as Będzin, Jaworzno, Radzionków, Gierałtowice, and Wojkowice.

**Kraków Agglomeration:** Kraków, and Niepołomice, Skawina, Wieliczka and Zabierzów, as well as Biskupice, Igołomia-Wawrzeńczyce, Kocmyrzów-Luborzyca, Koniusza, Liszki, Michałowice, Mogilany, Świątniki Górne, Wielka Wieś, and Zielonki.

**Łódź Agglomeration:** Łódź, Pabianice, Rzgów and Zgierz, as well as Aleksandrów Łódzki, Andrespol, Brojce, Konstantynów Łódzki, Ksawerów, Nowosolna, Ozorków, and Stryków.

**Poznań Agglomeration:** Poznań, Swarzędz and Tarnowo Podgórne, as well as Komorniki, Kórnik, Luboń, Mosina, Puszczykowo, Rokietnica, Suchy Las and Czerwonak, Dopiewo, and Kleszczewo.

**Szczecin Agglomeration:** Szczecin and Kołbaskowo, as well as Dobra, Goleniów, Gryfino, Kobyłanka, Police, and Stare Czarnowo.

**Tri-City Agglomeration:** Gdańsk, Gdynia, Rumia and Wejherowo as well as Pruszcz Gdański, Reda and Sopot, as well as Cedry Wielkie, Kolbudy, Kosakowo, Szemud, and Żukowo.

**Wrocław Agglomeration:** Wrocław, Kąty Wrocławskie and Kobierzyce, as well as Czernica, Długołęka, Miękinia, Oborniki Śląskie, Siechnice, Wisznia Mała and Żórawina.

The common database developed by the companies representing PRCH Retail Research Forum allows for publishing consistent information concerning the supply of modern retail space in Poland, and shopping centres under construction (in the latter category, RRF includes all shopping centres the construction of which started and continues).

## BIBLIOGRAPHY

PRCH TURNOVER INDEX

Report PRCH FOOTFALL INDEX Report

PwC report commissioned by PRCH "THE EFFECTS OF THE SUNDAY TRADING BAN ON SHOPPING CENTRES AND RETAIL"

BNP Paribas Real Estate Report „GET ENGAGED IN POLAND"

ANPR Reports by Top Key

## ABOUT PRCH RETAIL RESEARCH FORUM

PRCH Retail Research Forum was created as an initiative of the Polish Council of Shopping Centres in 2009. Forum may be participated in by those members of PRCH, who devote a considerable part of their business activity to market analysis and research as well consulting in the field of commercial real estate. Members of PRCH RRF participate through their official representatives: experts with a long-term track record in the industry, who have key positions in their companies.

### **PRCH RRF goals:**

- Regularly share the knowledge of and exchange views on the retail market in Poland;
- Regularly publish opinions and reports on the retail market, pursuant to the standards and definitions of the ICSC (International Council of Shopping Centers);
- Coordinate and promote experts and researchers involved in the shopping centre market in Poland;
- Regularly publish opinions and reports in order to provide consistent and transparent data about the condition of the market;
- Organise research seminars and discussions promoting exchange of knowledge and experiences.

PRCH RRF meetings take place at least once a quarter. New members are recommended by current members of PRCH RRF of the Director of PRCH, and approved by the Management Board of PRCH. Those interested in becoming involved in our activities are kindly requested to contact PRCH RRF.

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An index co-created with the participation of managers and landlords of shopping centres. The research shows the latest footfall trends analysed shopping centres in Poland.

### **THE CATALOGUE OF SHOPPING CENTRES (on-line)**

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**More information at [www.prch.org.pl](http://www.prch.org.pl)**

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