

SUMMARY

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Investment attractiveness and commercial real estate market development in Polish metropolises

The analyzed problem includes issues related to investment attractiveness and the commercial real estate market. The measurement of relationship between these issues required a thorough analysis of each.

Commercial real estate investments are undertaken solely in order to make a profit. They are also treated as a long-term capital investment. This approach corresponds to the general specifics of investing, which focus on the involvement of capital in order to increase it or achieve certain benefits in the future.

The decision to invest in the commercial real estate market is a very complex process. This is primarily related to the specific real estate features: high capital intensity of investments, high operating costs and the lack of real estate mobility. Each investment decision requires observation of many location factors at the same time. Therefore, it is reasonable to use the investment attractiveness indicator when selecting an investment location, which is a set of information about of the site. Despite the complex structure, this indicator is very simple to interpret. Due to the wide range of variables included in the structure, it is a reliable source to assess the investment climate.

The main hypothesis in the dissertation assumes that the level of investment attractiveness of Polish metropolises determines the development of the commercial real estate sector. The study examined the largest Polish metropolises, in particular 18 provincial capitals (Białystok, Bydgoszcz, Torun, Katowice, Cracow, Kielce, Lublin, Lodz, Olsztyn, Opole, Poznan, Rzeszow, Szczecin, the Tri-City, Warsaw and Wroclaw) which covered years 2009-2018. The study used linear ordering methods from the group of multidimensional comparative analysis (WAP) methods, cluster analysis using the Ward method, and econometric modelling using panel data analysis. During implementation, the following programs have been used: MS Excel, Gretl and R Studio.

Three main commercial real estate sectors were analyzed commercial, office and warehouse, which due to their specificity are mainly located in large urban centers. The examined metropolises, being the capital of provinces, are also the most attractive places on the Polish investment map. Although they are the largest agglomerations in individual voivodships

and perform similar functions, it was examined whether they are homogeneous in terms of the level of the commercial real estate market development and investment attractiveness.

The main objective of the research was to build a model of the level of commercial real estate market development in Polish metropolises in relation to their investment attractiveness. The implementation of this goal has divided into several phases. First, the existing knowledge resources in the field of investment attractiveness of regions were assessed, starting from the theory of investment location. Identified the investment incentives available in individual metropolises, such as tax incentives and exemptions, the possibility of financing capital expenditure and prepared investment areas. It was also found, what actions public authorities take to improve the investment climate.

The identification of the key investment factors and the analysis of location values allowed to assess the level of Polish metropolises investment attractiveness using the TMAI measure (Taxonomic Measure of Investment Attractiveness). The diagnostic features set, used in the calculation of TMAI measure consisted of 65 indicators characterizing the socio-economic climate of individual locations. Each of them has appeared in five categories: market potential, labor force, social infrastructure, technical infrastructure and administration.

A synthetic TOPSIS (Technique for Order Preference by Similarity to an Ideal Solution) measure was used to examine the level of commercial real estate market development in selected voivodship cities. It required the identification of groups and types of factors significant for commercial real estate sector and relationship analysis between the real estate market situation and the regional economic situation. The original range of the variables included 31 features. Each metropolis has been described in two categories: socio-economic climate, commercial real estate market. Consequently, it was examined if development trends in individual sectors of the commercial real estate market may suggest changes taking place in the environment, behavior of investors, consumers and entrepreneurs directly involved in this sector.

The results achieved have allowed a positive verification of the main hypothesis, in which Polish metropolises investment attractiveness determines the development of the commercial real estate sector. At the same time, the impact of investment attractiveness from the previous year on the phenomenon examined in current year was excluded.

The analytical work carried out to prepare investment attractiveness rankings for Polish cities and allowed to verify which of the metropolises are the most homogeneous. In the years 2009-2018, the most attractive cities were: Warsaw and Wroclaw. The least attractive places include: Bialystok and Lublin. Considering the degree of similarity of individual metropolises,

it turns out that among the most homogeneous cities were: Lublin, Bialystok, Rzeszow, Kielce and Olsztyn (group 1) as well as Wroclaw, Cracow, Tri-City, Katowice and Lodz (group 2). The variable that has the greatest impact on investment attractiveness is the area of land indicated in the local development plan of land for investment.

It was also examined as to how the level of commercial real estate sector development in the surveyed metropolises was shaped. This gave the opportunity to see hierarchical ordering. Wroclaw, Katowice and Poznan are among the most developed cities. The worst performers in the presented ranking were: Kielce, Opole and Warsaw. As a matter of fact, the presence of new investments in commercial real estate materially affected the commercial real estate market development.

Even when many factors are integrated into analysis, the degree of explanation of the model may not be enough to make an investment decision. Therefore, it is worth considering extension of the model with additional variables which are important in order to assess investment attractiveness and the commercial real estate sector.

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