## SUMMARY

The existing limitations of the real estate market, insufficient research on the spatial approach to determining value-creating factors, the need for reliable diagnostic and forecasting methods and information, as well as existing methods that are relatively rarely used for real estate market research, were the direct motivation for the topic of this dissertation.

The main objective of the research was to develop a substantive basis for constructing spatiotemporal models of prices, activity, demand, and supply in the property market. The models created included phenomena, conditions and factors shaping the values and prices of dwellings. A concept and principles of spatial real estate market analysis were presented to achieve the specified aim, including identifying value-creating processes and factors, collecting necessary data, and developing and verifying descriptive and spatial models of relationships and processes occurring in the real estate market.

The work was carried out starting from the presentation of the issue and existing research against the background of the literature on the subject and ending with experimental research using, supplemented by spatial autocorrelation analysis, classical regression models, spatial autoregression models and panel models, including spatial panel models. The obtained series of mathematical, descriptive, and cartographic models reflect the process of shaping prices, values, and activities in the residential properties market.

Including spatial and temporal horizons and the presented methods and models, especially considering the spatial hierarchy, in the research on modelling spatial phenomena may help achieve better transparency of the analysed processes and more efficient space management.