

Abstract

Influence of technical properties on residential properties' market values with special consideration of energetic characteristics.

In Germany, the legal and normative density of regulations concerning energetic and economic building valuation is very pronounced. These rules and regulations do not correspond to each other and that double regulations do exist.. The investigation of the underlying data shows that calculations of energetic demand may contain system-immanent deviations of more than 30 percent. Thus, the results of energy consumption certificates – no matter if consumption- or demand-based – can only be interpreted within a rough raster. By two field inquiries in Nienburg and Hannover and with the help of the advisory committees' responsible offices, the relation of energy efficiency and purchase price of approximately 400 objects could be investigated. The results show a concrete monetary dependence. However, this dependence has a high correlation to the year of construction.

The results show a specific monetary dependence, which however has a high correlation with the year of manufacture. The bandwidth of the value w' , which describes the change of energy to market value, is, depending on the type of building, using and building category, between 0.8 - 1.0 € per kWh per annum (multi- family houses) and 1.1 to 1.3 € per kWh per annum (single and two family houses) referring to efficiency in the demand of final energy for heating and warm water production.

On the basis of these energetic, economic, and statistical investigations, formulas for the estimation of energetic valuation were developed. The last chapter presents suggestions for the integration of the results into the real asset- and capitalized values methods according to the regulation on the determination of value. In this context, an energetic surcharge/deduction method for the asset value adjustment and the determination of the energetically sustainable achievable rent is introduced. The paper concludes with a summary on the further development and optimization of the existing evaluation tools.