## Taxonomy of Commercial Real Estate - Structuring the Substantive Submarket of Commercially Used Real Estate in Germany for the Purpose of Market Observation and Valuation

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## SUMMARY

In an optimal market, all relevant information about a property is accessible to all stakeholders. The more transparent the market is, the better sustainable, ecologically and economically sensible market behavior and comprehensible pricing will develop. Better political and economic decisions can be made. The crucial basis for real estate market monitoring is a common understanding of what types of real estate there are and how to delineate and meaningfully aggregate them.

In Germany, there are currently inconsistent and incomplete classifications of commercial real estate. The present work closes a gap here and comprehensively covers the particular need for definition. A taxonomy was developed with which the commercial real estate types can be uniformly defined and hierarchically classified without overlap nationwide. As a result, the taxonomy differentiates between nine commercial real estate segments, including mixed-use properties.

Real estate market analyses even at the specific property type level benefit from a greater comparability, the quality and verifiability of the published data are improved (e.g. floor space data for office sales). This is of great importance not only for the industries of real estate and banking, but also for political decision-makers and state financial supervisory authorities.

By taxonomy we mean a uniform model (classification scheme) that categorizes objects according to certain criteria. Commercial real estate ("Wirtschaftsimmobilien") is understood to be accessible buildings employed by the user for the creation of a product or service as a factor of production. Users of such commercial real estate are companies in the broadest sense or the public sector.

It should be noted, however, that the taxonomy focuses solely on the substantive (or product)

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The property type was operationalized under the premise of functional use at the time of sale (determining the segment, e.g. office). If more than one use is present at the same time, the area ratio is used to delineate the dominant segment. The hierarchical breakdown into non-overlapping sub-segments was another model rule. The number and, if necessary, further subdivision of the subsegments are based primarily on the results of iterative expert discussions with representatives of various institutions. Additionally checking was made for completeness and consistency with significant national and European classifications.

As a conclusion, the comprehensively reconciled taxonomy contributes to more market transparency in the real estate market in Germany in line with current requirements.

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