Noise Level in Relation to Real Estate Prices in Selected Settlements in Poland

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NOISE is defined as any undesirable, disturbing and harmful sounds causing environmental discomfort.

ACOUSTIC CLIMATE existing in a given area should be a major factor taken into consideration in an investment process of an urbanized area due to its significant contribution to inhabitants' quality of life, especially regarding residential real estate.


NOISE STRATEGIC MAP (NSM) is an averaged map of noise generated into environment by various groups of sources, which enables holistic evaluation of a level of noise exposure within an urban area, provides the possibility to determine the origins of such phenomena as well as the opportunity to prepare general prognoses of alterations of its levels.
According to art. 7 of Directive 2002/49/EC member states were obliged to compile Noise Strategic Maps for all their agglomerations:

- until June 30, 2007 – for agglomerations exceeding 250 thousand inhabitants;
- until June 30, 2012 – for all the agglomeration within their territory.
RESIDENTIAL PROPERTIES IN POLAND

Residential properties in Poland have been categorized into:
- apartments in residential buildings,
- detached houses,
- semi-detached and terraced houses,
- tenement houses.

Residential real estate in Poland is a consumer market to the greater extend and only relatively small part of it is an investment market.

RESEARCH PROBLEM

- whether the acoustic climate of the surroundings of a selected research area influences the residential real estate market has been made;
- whether the noise level should be the quality influencing the market value.
RESEARCH AREA

- The research area is located in the city of Bydgoszcz,
- The period of prices examination included the period of 2009-2010,
- Were gathered information of 156 residential unit transactions.

Average prices of apartments in the buildings have been grouped according to the following price ranges:
- those of average prices placed in the range up to 700 EUR/m² of useable floor area,
- those of average prices placed in the range from 700 EUR/m² to 850 EUR/m² of useable floor area,
- those of average prices placed in the range exceeding 850 EUR/m² of useable floor area.

Table 1. The number of transactions in price ranges depending on meeting acoustic standards by resident areas

<table>
<thead>
<tr>
<th>No.</th>
<th>Kind of Area</th>
<th>The number of transactions in price ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>below 700 EUR/m²</td>
</tr>
<tr>
<td>2</td>
<td>Residential areas meeting acoustic standards</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(level of noise does not exceed 55dB)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Residential areas which do not meet acoustic</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>standards (exceeded levels of noise over 55dB)</td>
<td></td>
</tr>
</tbody>
</table>

TS 9A – Real estate valuation
Małgorzata Krajewska and Kinga Szopińska
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CONCLUSIONS

- Most of multi-family residential buildings in the area of the study in Poland is located outside the zone of excess traffic noise levels
- The claim that real estate market participants take unfavorable acoustic climate of the surrounding area into consideration while purchasing residential properties, which results in lower price of a given apartment
- The behavior of local real estate market participants considering noise level in their decision-making allows to believe that it is a market feature and should as well be taken into consideration by real estate appraisers in the process of property valuation