

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.



- Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise (Official Journal of the European Communities L 189 of 18 July 2002).
- Environmental Protection Law Act of 27 April 2001 (Journal of Laws of 2008 No. 25, item. 150).

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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.



Graph. 1. Map of long-term average sound level of the road

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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.

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Graph 2. Map of Poland with the cities of developed Noise Strategic Map (NSM) (cities exceeding 250 thousand inhabitants)

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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.

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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.

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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.

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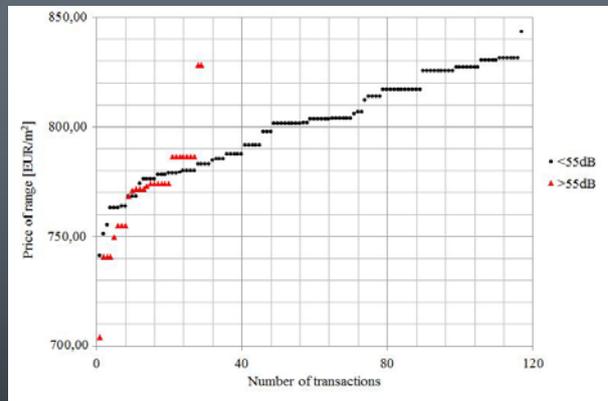


No	Kind of Area	The number of transactions in price ranges			sum
		below 700 EUR/m ²	700 - 850 EUR/m ²	above 850 EUR/m ²	
2	Residential areas meeting acoustic standards (level of noise does not exceed 55dB)	1	47	70	118
3	Residential areas which do not meet acoustic standards (exceeded levels of noise over 55dB)	5	21	2	28

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

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Graph 3. Prices of single transactions in relation to noise factor of the neighborhood

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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

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THANK YOU FOR YOUR ATTENTION

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