

**EXPERT MONETARY APPRAISAL OF A LAND PLOT WITHIN THE  
BOUNDARIES OF KYIV ACCORDING TO A METHODOLOGICAL  
APPROACH**

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**Abstract.** *In connection with the rapid development of the land market in Ukraine, the justification of approaches and methods of monetary valuation of land plots is of great importance. The article presents the results of an expert assessment of a separate plot of land in the city of Kyiv using the market method, which is used under the condition of a developed and active land market, when information on the sale of land plots is reliable and available. Determining the value of the assessed land plots is carried out by comparing them with the price of similar land plots by*

*factors that affect their value. Five similar land plots in one district of the city were identified and selected. The plots were selected based on the proximity of the location, area, date of sale, and the same purpose. Thus, a methodological approach was used to determine the market value of the land plot, based on the analog or comparative method. All the characteristics of the factors used for the monetary evaluation of each plot were indexed according to the analogue plots. The cost of the land plot was determined as the median or modal value of the obtained results and amounted to UAH 3155.45 per m<sup>2</sup>. The results of using the method of expert assessment with a market approach showed its effectiveness.*

**Keywords:** *land plot, land valuation, land market, expert monetary valuation, market approach.*

**Formulation of the problem.** "Land is the main national wealth under the special protection of the state. Land ownership is guaranteed. This right is acquired and exercised by citizens, legal entities and the state exclusively in accordance with the law" - Article 14 of the Constitution of Ukraine [1]. "Land assessment is an integral part of the state land cadastre and is important for understanding the role of land in modern society, in obtaining the necessary knowledge for effective land use and land resource management" [2].

The land market in Ukraine is developing at a rapid pace, and therefore the importance of approaches to determining the expert monetary valuation of land is growing. The market price is determined by many factors - the location of the studied territory, the ratio of supply and demand, the size of the plot. Without an expert assessment of the land, it is impossible to rent a plot of land, register it as a property, buy or sell it, etc. Approval of private ownership of land gives the right to manage, own and use it, which is the most important condition for the formation of a full-fledged land market [3, 4].

According to the Law of Ukraine "On Land Appraisal" - "expert monetary valuation of land plots is the result of determining the value of a land plot and related rights by an appraiser (an expert on land valuation issues) using a set of approaches,

methods and evaluation procedures that provide collection and analysis of data, calculations and preparation of results in the form of a report" [5]. "Expert monetary valuation of a land plot is the market value of a land plot (or lease rights for it) taking into account factors that affect the value of the object of evaluation: location, influence of external factors, demand and supply in the land market on the date of the assessment" [5]. The law defines the legal principles of land valuation, professional activity in the field of land valuation in Ukraine.

**Analysis of the latest scientific research and publications.** The works of many scientists are devoted to the expert monetary valuation of land plots in Ukraine, which differ both in terms of approaches and methods, as well as in terms of purpose.

For example, in the writings of Malakhova S. [6] it is emphasized that "establishing the best and most effective use of a land plot is a necessary and mandatory stage in determining its market value."

Kasperevich L.V. "proposed to take into account the environmental effects that occur when using agricultural land, as well as negative environmental factors that occur as a result of the activities of agricultural enterprises" [7].

In the work of Zharikova O.B. and Pashchenko O.V. "presents the materials and methodology for calculating the expert monetary valuation of an agricultural plot of land (arable land) using the capitalized income method and shows the feasibility of using this approach to carry out expert monetary valuation in some regions of Ukraine" [8].

For the expert monetary assessment of lands occupied by pasture and haymaking, Zharikova O.B. it is proposed to use the nature-metric model "Ukrainian lan", which is already widely used in monetary valuation of arable land, including taking into account environmental and economic factors [9].

Buyak L.M. etc. "the peculiarities of the development of agricultural land valuation methods in different periods have been studied and methods of land valuation of Ukraine have been given, which will best allow determining the value of the country's national wealth" [10].

In the article Maksimenko O.A. [11] analyzed the historical features of the evaluation of agricultural land in Ukraine, considered its main stages, revealed the advantages and disadvantages of types and directions of land evaluation.

**The purpose of the research** presented in this article was to analyze the obtained results of the expert value of a separate land plot using a methodical approach of comparing the prices of land plots that are similar in terms of a number of factors - analogues.

**Materials and methods of scientific research.** To calculate the expert value, data on offers for real estate objects from the source <https://dom.ria.com> were used. From this source, information was taken about the offer for sale of one land plot located on Tupoleva Street in the Podilsky district of Kyiv and the sale of 5 land plots in the same district, located not far from the object of assessment with a similar purpose. Selected characteristics of land plots were summarized.

The value of land plots is based on a comparison of prices and is established by making corrections to sales prices, which are determined on the basis of statistical analysis of market data or pairwise comparison of similar plots. Also, the cost is influenced by the characteristics of various factors.

"The adjusted sale price of this land plot is determined by the formula:

$$L_{3a} = L_a + \sum_{j=1}^m \Delta L_{aj}$$

where:  $L_{3a}$  – the adjusted price of the sale of a similar plot of land (in UAH);  $L_a$  – the actual sale price of a similar plot of land (in UAH);  $m$  – is the number of characteristics of factors that are compared;  $\Delta L_{aj}$  – the difference (correction) in the price (+,–) of the sale of the  $a$ -th similar land plot in relation to the evaluated plot, according to the  $j$ -th characteristic of the comparison factor" [12].

**Research results and discussion.** Determination of the market value according to the chosen methodical approach was carried out for the land plot of the Podilsky

District of Kyiv. Podilsky District is characterized as a highly developed industrial district with a developed cultural sphere.

A land plot located in the city of Kyiv, Podilskyi district, Tupoleva street, was chosen as the object of evaluation. The land area is 700 m<sup>2</sup>. The plot is for sale from 04/06/2023. The purpose of the site is for the construction and maintenance of a residential building, farm buildings and structures B.02.02. The type of plot ownership is private ownership. Terms of sale are free. The presence of restrictions, engineering and geological conditions - there are no restrictions (table 1).

Let's consider the main characteristics of five land plots - analogues, which are located in the semi-peripheral zone within the settlement:

1. Sale of a plot of land for residential development on Akademika Palladin Avenue with an area of 600 m<sup>2</sup>. Selling price - UAH 1,685,393.
2. Sale of a plot of land for residential development on Sadova Street with an area of 1,000 m<sup>2</sup>. Selling price - UAH 1,685,393.
3. Sale of a plot of land for residential development on Bilytska Street with an area of 800 m<sup>2</sup>. Selling price - UAH 5,767,790.
4. Sale of a plot of land for residential development on Syretska Street with an area of 1,000 m<sup>2</sup>. Selling price - UAH 6,367,041.
5. Sale of a plot of land for residential development on Sadova Street with an area of 6,700 m<sup>2</sup>. Selling price - UAH 1,685,393.

In the table 1 presents the results of a comparative analysis of the characteristics of factors that affect the value of a land plot being prepared for sale and 5 land plots - analogues, including the amount of amendments. At the end, the results of calculating the value of the land plot are provided.

**Conclusions.** So, an expert monetary valuation of the land plot located in the city of Kyiv, Podilsky District on Tupoleva Street was determined by comparing it with five analogues. The methodical approach of determining the market value of the land plot was used for the evaluation. Each characteristic was indexed. Indexing was introduced to level the difference between the characteristics of the plots and to obtain the most approximate true and actual sale price. The cost of a plot of land for

Table 1. Determining the value of a land plot using a methodical approach based on comparing the sale prices of similar land plots

Comparison factors	Objects of comparison					
	Akademika Palladin Avenue	Sadova Street	Bilytska Street	Syretska Street	Sadova Street	Tupoleva Street
1	2	3	4	5	6	7
Area, m <sup>2</sup>	600	600	800	1000	700	700
Selling price of 1 m <sup>2</sup> , UAH	2523,57	3323,72	7109,08	6278,14	2637,88	
Amendment	1,00	1,00	0,75	0,6	0,86	0,86
Adjusted price of 1 m <sup>2</sup> , UAH	2523,57	3323,72	5331,81	3766,88	2268,58	
The level of engineering and technical equipment	Communications are carried out partially (there is a possibility of gas, sewerage)	Communications are carried out partially (there is a possibility of gas, sewerage)	All communications are completed	Communications are carried out partially (there is a possibility of sewerage)	Communications are carried out partially (there is a possibility of gas)	All communications are completed
Amendment	0,80	0,80	1,00	0,90	0,90	0,70
Adjusted price of 1 m <sup>2</sup> , UAH	2018,86	2658,98	5331,81	3390,20	2041,72	
Date of sale	20.03.2023	22.03.2023	26.03.2023	23.03.2023	30.03.2023	06.04.2023
Inflation index	1,17					
Adjusted price of 1 m <sup>2</sup> , UAH	2362,06	3111,00	6238,22	3966,53	2388,81	2362,06

the construction and maintenance of a residential building was calculated and substantiated, which is UAH 3155.45 per 1 m<sup>2</sup>. The results of the calculation of the expert assessment of the land plot using the market approach showed its convenience and efficiency.

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## **ЕКСПЕРТНА ГРОШОВА ОЦІНКА ЗЕМЕЛЬНОЇ ДІЛЯНКИ В МЕЖАХ М. КИЇВ ЗА РИНКОВИМ ПІДХОДОМ**

***Анотація.** У зв'язку зі стрімким розвитком в Україні ринку землі важливе значення надається обґрунтуванню підходів і методів грошової оцінки земельних ділянок. В статті наводяться результати проведеної експертної оцінки окремої ділянки землі м. Київ за ринковим методом, який використовується за умови розвиненого й активного ринку землі, коли інформація про продаж земельних ділянок є достовірною й доступною. Визначення вартості земельних ділянок, що оцінюються, здійснюється шляхом зіставлення їх з ціною подібних земельних ділянок за факторами, які впливають*



на їх вартість. Було виявлено та обрано п'ять аналогічних земельних ділянок в одному районі міста. Відбір ділянок відбувався за умовами близькості розташування, площею, датою продажу, однаковим цільовим призначенням. Таким чином, використовувався методичний підхід визначення ринкової вартості земельної ділянки, що базується на аналоговому або порівняльному методі. Усі характеристики факторів, що використовувалися для грошової оцінки кожної ділянки, були проіндексовані відповідно до ділянок – аналогів. Вартість земельної ділянки визначалася як медіанне або модальне значення отриманих результатів та склало 3155,45 грн за м<sup>2</sup>. Результати використання методики експертної оцінки ринковим підходом показали її ефективність.

**Ключові слова:** земельна ділянка, оцінка земель, ринок землі, експертна грошова оцінка, ринковий підхід.