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## Cadastral Assessment and Challenging Its Results Today in Russia

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**Abstract.** Today in Russia, one of the main factors in the development of an effective model of the modern economy is an adequate cadastral assessment of land plots and other real estate. However, the problem of improving the procedure for determining it and the system for challenging its results needs to be improved and is becoming increasingly urgent in connection with the introduction of a new real estate tax soon throughout the country, which should replace the land tax and property tax. The article considers the problems of modern system of cadastral evaluation of real estate and the system for challenging its results. It also includes analysis of reports on determination of cadastral cost of real estate in the whole country and more detailed in Moscow, St.-Petersburg, Krasnodar and the Moscow region, presented on the official website of Rosreestr. The results of the study demonstrate the imperfection of the system of cadastral evaluation of real estate and, above all, the methodology of its determination, as evidenced by requests to fix errors in the budget of the organization and overall operation of the system of challenging the cadastral value, serving today is an indicator of the effectiveness of the applied rating models.

#### 1. Introduction

The size of the cadastral value is one of the main components that determine the economic efficiency of the use of land plots and other real estate. Despite this, there is a situation when, on the one hand, the cadastral value is clearly overstated, disproportionate in relation to the market value and its incorrect definition leads to large financial losses for rights holders, on the other hand, there is a problem of self-sufficiency of municipalities – tax recipients who seek to increase budget revenues in order to solve social problems of the population [1-3].

One of the significant changes to the evaluation legislation is the possibility of challenging the cadastral value not only in court, but also in specially created commissions for the consideration of disputes on the results of determining the cadastral value, which were actively created in 2011 and began practical work in 2012. Given that the size of the cadastral value is influenced by two main factors – the type of permitted use of the land plot and a specific indicator of the cadastral value, there were two main ways to challenge the cadastral value. New regulatory documents and guidelines are issued at regular intervals, which significantly change this process and the criteria for an effective model for evaluating real estate. However, the modern procedure for determining the cadastral value still causes a lot of complaints [4,5].

Scientific research in the field of methods of mass valuation of real estate and the procedure for challenging its results has been recently carried out in our country. This issue is poorly studied and is

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considered in the works of Gvozdeva O. V., Kolbneva E. Yu., Pylaeva A.V., Osennaya A.V., Khakhuk B. A., Gura D. A. and other researchers in the field of evaluation. The cadastral value of real estate, as noted by Osennoi A.V., Khakhuk B. A., Gura D. A., Sokolova Yu. F., also largely depends on the urban development value of territories [6-8].

The purpose of the study is to analyze the problems of cadastral valuation of real estate and the system of challenging its results. To achieve this goal, the tasks related to the analysis of the cadastral value presented in the reports on the cadastral assessment on the official website of Rosreestr, as well as the modern system of challenging its results, which is an indicator of the effectiveness of the entire system of cadastral assessment in the country [9-11].

#### 2. Materials and methods

There are two main and relatively independent areas or types of assessment – market (individual) and cadastral (mass). Each of them has its own tasks, goals, organization, and methodology. General guidance on the use of basic market-based approaches for determining the value of real estate (comparative, income and cost) are set in Order of Ministry of Economic Development of Russia No. 226 from 12.05.2017 "*On approval of methodical instructions on the state cadastral evaluation*." They establish the relationship individual assessment methods used mainly to calculate the market value (the above-mentioned approaches and methods are among them) and mass valuation methods forming the basis of cadastral valuation.

The socio-economic value of land is determined by its cadastral valuation. The legal framework for determining the cadastral value of valuation items is currently represented by a number of basic legal documents: Federal law No. 135- $\Phi$ 3 of 29.07.1998 "On valuation activities in the Russian Federation", Federal law No. 237- $\Phi$ 3 of 03.07.2016 "On state cadastral valuation," Order of the Ministry of Economic Development of the Russian Federation "On approval of guidelines on state cadastral valuation" and other legislative and regulatory documents on cadastral valuation, the applicability of which directly depends on the method of determining the value of objects.

The challenge procedure, as one of the options for calculating the cadastral value of real estate, is provided for by Federal law No.  $135-\Phi3$  of 29.07.1998 "On appraisal activities in the Russian Federation" by conducting a dispute resolution procedure on the results of determining the cadastral value in court or a Commission established under the territorial administration of Rosreestr. The cadastral value of real estate established by such Commission or court in the amount of its market value is entered in the Unified State Register of Real Estate on the basis of a relevant decision of the Commission or court.

In this study, the analysis of reports and draft reports about results of the state cadastral assessment of land plots and capital construction sites on land settlements in regions of the country. Information about it is presented on the official website of Rosreestr. In 2018, cadastral valuation of real estate was carried out in 35 regions of the Russian Federation using the new methodology. At the same time, Moscow, Moscow oblast and Saint-Petersburg have the biggest number of evaluated objects of all types of real estate and land categories. This is why they and Krasnodar Krai as one of the largest regions of the country with diverse economic and ethnic composition, as well as the real estate market were chosen as an object of the study. In general, the objects selected for analysis are characterized by a large number of offers on the real estate market for land plots, as well as all types of residential and commercial real estate and tend to increase the cost of objects, which requires constant attention to all segments of the regional market and leads to the need to develop a constantly updated information base and conduct detailed continuous monitoring of its condition [12].

It is worth noting that the determination of cadastral value is based on mass valuation methods, which are the process of calculating the cadastral value by grouping objects based on the fact that they have similar characteristics. In this case, the first stage of analyzing the results of cadastral valuation and, as a result, challenging its results, is tied to a selection of the very factors (type of object, location, degree of market development, transport accessibility, etc.) that allow putting objects of assessment into groups of assessment and identify unique objects that can not be assigned to any of the groups and

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for which, as a result, the cost should be calculated with individual assessment methods. The second, more complex stage of analysis concerns the development of mathematical and other methods of cost modeling based on valuation approaches [13].

#### 3. Results

In recent years, there has been a significant increase in the number of legal disputes related to challenging the results of cadastral valuation, which is associated with cadastral price being higher than the market one. The problem of cadastral valuation and application of its results affects various layers of land relations subjects. This leads to a sharp increase in tax and a decrease in business activity. There is no uniformity in the interpretation and application of legal norms, which results in different approaches of judges considering this category of disputes.

Thus, according to the official data of the Rosreestr, in 2014–2019 in Russia as a whole the commissions for consideration of disputes considering cadastral costs considered 278 194 statements regarding 651 499 properties in the courts of 93 386 claims against 199 304 real estate listings. At the same time for the analyzed period a decrease in the number of applications submitted to the Commission on consideration of disputes on results of definition of cadastral cost is observed only in 2018; in 2016 the courts saw an annual growth in the number of claims due to the implementation of the next round of cadastral valuation, and, as a consequence, the increase in the number of challenged evaluations [14].

On the basis of these reports on the cadastral value of real estate in the analyzed Moscow region and the cities of Moscow, St. Petersburg and Krasnodar, presented on the official website of Rosreestr, analysis was carried out of the number of appeals to budgetary organizations about the correction of technical and (or) methodological errors to the total number of properties that have passed the cadastral assessment; the number of positive decisions on the allocation of the cadastral value was identified, and the ratio of positive decisions to total number of properties that passed the state cadastral valuation (Table 1). The study considered the authority of budgetary organizations to accept requests to correct technical and (or) methodological errors made in determining the cadastral value, followed by providing explanations related to determining the cadastral value and correcting errors made in determining the cadastral value [15].

**Table 1.** Analysis of the results of the cadastral assessment carried out in 2018 by budgetary institutions and the number of requests on errors.

Analyzed cities	Number of	The	The ratio of	Number of	The ratio of the
and regions	real estate	number of	the total	positive	number of
	sites that	demands to	number of real	decisions	positive
	passed the	the	estate sites and	on	decisions to the
	cadastral	budgetary	the number of	recalculatio	number of real
	assessment	organizatio	requests on	n of	estate sites that
	in 2018	ns and	errors, %	cadastral	passed the
		those on		value	cadastral
		errors			assessment, %
Moscow	6,874,853	248	0.004	220	0.003
Moscow oblast	8,376,733	1,547	0.018	763	0.009
Saint Petersburg	3,007,140	329	0.010	80	0.002
Krasnodar region	2,823,928	1,002	0.035	352	0.012

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The smallest number of positive decisions about errors when applying to budgetary institutions to the total number of real estate sites is observed in St. Petersburg with 0.002%, and highest one, 0.035%, in the Krasnodar territory. According to the data of the Saint Petersburg State Budgetary Institution "State Administration of Cadastral Valuation", we analyzed decisions on recalculation of cadastral value with distribution by types of real estate objects (Table 2).

**Table 2.** Distribution of requests for correcting errors, under which the cadastral value was recalculated by type of real estate objects.

n/a	Estate object	The number of real estate sites for which the cadastral value was recalculated
1	Land plot	114
2	Room	32
3	Building	18
4	Construction	2
Subtotal:		166

Studies have shown that the St. Petersburg State Budgetary Institution "State Administration of Cadastral Valuation" also recalculated the cadastral value of real estate for which no requests for correction of errors were submitted. The organization itself initiated this work. At the same time, the total number of real estate sites considered was 1,448, which made it possible to correct the existing inaccuracies and errors at the stage of state cadastral assessment, and thereby reduce the total number of appeals to the Commission under the Rosreestr and to the courts.

#### 4. Discussion

Today in Russia, the institution of contesting cadastral value, designed to balance the interests of the state and society, needs to be improved. The study revealed contradictions in the procedure for performing cadastral valuation in practice, as evidenced by a significant increase in the number of legal disputes and applications considered in commissions related to challenging the results of cadastral valuation. Studies have shown that the main reason is that the cadastral value is higher than the market one. Questions about opportunities and ways to challenge them are among the most difficult from an economic point of view. The main problem is the presence of methodological errors in the mechanism of cadastral assessment and challenging its results.

Problems with cadastral valuation and the application of its results affect various layers of land relations and lead to a sharp increase in tax and a decrease in business activity. The authorities, businesses, and citizens need clear rules, a transparent procedure, and a well-established mechanism that balances the interests of the state and taxpayers. There is no uniformity in the interpretation and application of legal norms, which results in different approaches of judges considering this category of disputes.

#### 5. Conclusion

When calculating the cadastral value, it is necessary to consider the features of a real estate site as much as possible and to bring together the indicators of cadastral and market value, which is very difficult due to the mass production of cadastral valuation. The analysis of results of the cadastral assessment carried out as part of this research allowed us to draw conclusions about the need to develop effective models of calculation of cadastral assessment using a wide range of types of analysis, such as methods of statistical analysis (e.g. correlation and regression analysis, which is applicable in sufficient quantity and quality of market data), methods of fuzzy logic, methods of expert assessments, etc. It will determine an adequate cadastral value that is as close as possible to the market one and reduce the number of appeals contesting the cadastral value. There are still no lists with full parameters of real estate sites at all levels, as well as a clear algorithm for evaluating real estate sites.

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The cadastral value is one of the main components that determine the economic efficiency of using all real estate sites. The institution of contesting cadastral value, designed to balance the interests of the state and society, needs to be improved, and there are methodological errors in the system. We need a transparent procedure and a well-established mechanism for the entire real estate appraisal system.

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