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International Conference «Humanity in the Era of Uncertainty»**UNCERTAINTIES IN THE SUBURBAN REAL ESTATE MARKET
(ON EXAMPLE OF SAMARA REGION)**

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Abstract

The article presents the results of a study of uncertainty and risk arising in the suburban real estate market in the Samara agglomeration. The study was carried out by methods of analyzing real estate sales sites, a statistical report of a comprehensive survey of living conditions of the population of the Samara region, as well as collecting expert opinions. The risks arising from the purchase of land for the construction of a house are identified, which are directly related to the plot of land, most often these are legal and natural risks. The characteristics of suburban real estate influencing the class of the cottage community in the Samara agglomeration are studied. It is clear that there are almost no elite-class villages on the real estate market of the Samara region, this is due to the lack of appropriate infrastructure. A large share is occupied by the settlements of the comfort class, which are characterized by large areas of the house. Economy class takes a smaller share in relation to comfort class, the reason is the state of the roads and undeveloped infrastructure. In the pandemic, the demand for economy class suburban real estate has increased. The demand for elite-class and comfort-class real estate has changed insignificantly, since the purchasing power in these conditions has not increased. The presented conclusions will allow determining further directions of development of the suburban real estate market and will be useful for the city administration and construction companies.

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Keywords: Suburban real estate, individual housing, housing construction, uncertainty, risk



1. Introduction

The coronavirus pandemic has had a huge impact on the real estate market, especially on the suburban housing segment. Residents of cities more and more have the opportunity to work remotely—they only need a stable Internet network. In addition, the pandemic has given a tremendous impetus to the development of online services, which makes it possible to reduce the requirements for infrastructure in terms of the availability of shops, pharmacies, and gyms. Since this factor was unpredictable, the real estate market turned out to be unprepared for an increase in demand for rent and purchase of suburban housing. The demand for such housing depends mainly on the location, the availability of modern utilities, places for recreation, as well as ensuring personal safety and the safety of property (Vlasenko & Belokobylenko, 2015). A modern overview of the development of models of concentric zones, taking into account the heterogeneity of housing, income and marital status of residents, the characteristics of the land market, the development of public transport, working hours, is presented in (Duranton & Puga, 2015).

2. Problem Statement

The redefinition of suburban spaces is inevitable, but should take place on the basis of the “productive tension” between the urban and rural environment (Wiley, 2016): not just as a result of the process of displacing the suburban environment from the urban environment, but through the awareness and preservation of the uniqueness of the structure of suburbs and traditional forms of out-of-city settlements. However, the purchase of suburban real estate is associated with a number of problems associated with uncertainty and risk, while they are much higher compared to city apartments, since the purchase of a house and the land on which it is located. The situation of uncertainty in the suburban real estate market is aggravated by the lack of information on living conditions, the development of the district's infrastructure, and the environmental situation. The suburban complex often has mutually opposite requirements: to be a place of solitude and communication, to be compact and “permeable”, to be productive and environmentally friendly, etc. (Khomyakov, 2017).

3. Research Questions

Suburban real estate is a set of spatially limited territory and buildings located on it.

It is quite difficult to classify suburban real estate, since it is not only a building, but also a piece of land on which it is located. The most important criteria in determining the cost of residential buildings, according to which it seems most appropriate, are: the area where the settlement is located, its relevance and remoteness from the city; infrastructure of the area in which the house with the land plot is located; the infrastructure of the land plot on which the house is (or will be built), and the house itself—the area, the absence of a slope or potholes on the land plot, its possible swampiness (Golotina & Kovtunenkov, 2018).

Buyers need to determine for themselves what type of suburban real estate will be purchased:

- a piece of land;
- area with supplied communications;
- plot with a house without communications;

- a plot with supplied communications and a contract for the construction of a house;
- a plot with communications and a finished house (Ledentsova & Pyankov, 2013).

When buying land for the further construction of a house, there may be risks associated with land surveying, the legal regime of the land, geological features, the complexity of bringing communications, remoteness from the city and, as a result, problems associated with the delivery of building materials and work. It is possible to face the problem of limiting the building area, minimum indents from the boundaries of the land plot, etc., the presence of which will impede the achievement of the planned goals, in connection with which this issue needs to be given special attention (Umerenko, 2018).

The land, which is intended for individual buildings, such as a cottage, a summer residence, a manor, can have several statuses: it is divided into categories and by type of purpose. The construction of a house will depend on what purpose the land plot belongs to: it can be allowed, but with certain restrictions, or completely prohibited. Settlement land and agricultural land are suitable for individual construction. Particular attention should be paid to agricultural land, since they can be intended for personal subsidiary farming with the right to build, or without it. If the site is intended for gardening, peasant farming, then building is possible, but there are some restrictions. In addition, you can transfer a plot of agricultural land to another category that does not have such a value under the law, for example, the category of land in settlements.

When planning the construction of a house, there is uncertainty in the choice of materials and technologies. The advantages and disadvantages of a particular technology consist of the characteristics of the materials used, the complexity of installation, its speed, architectural expressiveness and the possibilities of finishing, laying communications, the weight of the wall structure, its durability and bearing capacity, and, of course, the cost of construction (Belik, 2015).

Land plots can be purchased in suburban complexes intended for individual construction, which are equipped with the necessary communication systems.

When deciding to buy a ready-made house, a situation of uncertainty arises associated with the territorial location, namely, to buy a house in a cottage village or a rural settlement.

All existing cottage settlements are subject to classification, which helps a potential buyer make the right choice when purchasing suburban real estate, affects its price and comfortable living outside the city (Kornilov, 2016).

There are the following types of cottage settlements (Rudyk, 2019):

- cottage settlements intended for permanent residence. These settlements have transport accessibility, engineering and social infrastructure. There are preschool institutions, schools, medical and cultural institutions here;
- cottage settlements of the country type. They are exclusively for summer holidays or weekend getaways;
- a microdistrict of low-rise residential buildings. Low-rise buildings—a built-up area that provides for the construction of buildings in which the concept and architectural style of the complex are the same. Typically, the main types of low-rise real estate include townhouses, residential buildings no higher than three floors and, of course, cottages.

The status of a cottage community is primarily influenced by the location of the village and the distance to the city, then the area and design of the house, while the area of the land plot has little effect. Housing with better technical characteristics will be sold cheaper than housing with worse technical characteristics if the value of the spatial location of the latter exceeds this difference (Repkin & Mityagin, 2019). The presence of recreational areas is important: places for recreation and walks, the presence of a water body. Also, cottages on the first line are always in the price, so that you can see the bank of a river or lake from your window. The presence of historical monuments and buildings can also increase the value of a land plot (Dunaevskaya et al., 2015).

Types by class of suburban real estate in cottage settlements of the agglomeration of Samara are presented in Table 1 (Website Cottage.ru, 2021).

Table 1. Types of cottage settlements in agglomeration of Samara

Class of the village	Plot size, 100m ²	Cottage area, m ²	Distance to town, km
Elite class: CV "My Ilyinka"	6-11	87-223	13
Comfort class: CV "Laguna"	10-12	250-360	10
CV "In Dubki"	5-6	241-300	in Samara
CV "AlekseevskayaUsadba"	8-10	140	8
CV "Lesnoy"	9	297-337	12
Economy class: CV "Domino"	10-15	102-264	40
CV "Zvezdny"	12	54-145	10
CV "Mastryuki"	9-15	40-197	35
CV "Ladya"	5-10	40-120	20
CV "Chernorechye"	5-12	84-114	20
Land plots in suburban complexes			
CV "Forest Fairy Tale"	7-25		30
CV "Chernovsky"	6-15		10
CV "Forest Glades"	12		30
CV "Chapaevka"	10		20
CV "Kalinka"	12-46		20

In the agglomeration of Samara, comfort-class and economy-class cottage settlements are mostly represented, the elite class occupies an insignificant part of the suburban real estate market. Elite-class cottage settlements are located in picturesque natural landscapes, this class includes the village "My Ilyinka". As you can see from the table, the area of houses in it corresponds to the area of comfort-class houses. Moreover, the area of the land plot is in the lower bounds of this parameter by class of housing. This is due to the high cost of land in this area. In Russia, the availability of a free land plot has long ceased to be associated with the primary need for the cultivation of agricultural crops for their own consumption (Gareev et al., 2017). Comfort-class cottage villages are distinguished by comfortable housing of a large area within 200-300 sq.m. and the distance to the city is no more than 12 km. Economy class cottage villages are located 25-35 km away from Samara and the area of houses does not exceed 200 sq.m. It is worth noting that elite and comfort class cottage settlements are located in the Volzhsky and Krasnoyarsk regions of Samara, which are distinguished by a beautiful natural landscape and developed transport accessibility.

Buying suburban real estate will solve the problem of the constraint of living. The data on housing conditions based on the statistical report of a comprehensive survey of living conditions of the population of the Samara region are presented in Table 2 (samarastat.gks.ru).

Table 2. Characteristics of the living conditions of households by type of settlement

Indicator	Households total	Total in urban areas	Total in rural areas
The number of households living in all types of dwellings – total	100.0	100.0	100.0
Including households that indicated that when living:			
Do not feel constrained	76.4	74.6	84.3
Feel a certain amount of constraint	18.6	20.2	11.7
Feel very constrained	5.0	5.3	4.0
Total area per household member	23.25	21.45	30.45
Living space per household member	15.49	14.04	21.30
Number of living rooms per household	2.21	2.08	2.79
Number of living rooms per married couple	2.41	2.27	2.92

Following a comprehensive observation of the living conditions of the population on the example of the Samara region in 2018, it was found that the number of households living in all types of residential premises in rural settlements do not experience constraint 84.3% versus 74.6% of the urban population, 11.7% experience a certain constraint in rural areas versus 20.2% of the urban population. The size of the total and living space per household member in rural areas is greater than in urban areas. The number of living rooms per household is also higher in rural areas. Based on these indicators, it can be concluded that in rural settlements the indicators of satisfaction with the size of housing are higher than in urban settlements.

One of the most important conditions for the purchase of suburban real estate is the infrastructure of the area. Based on a comprehensive study of the opinion about living conditions in the settlements of the Samara region, the data presented in Table 3 were obtained.

Table 3. Opinion on living conditions in a settlement by type of settlement

Indicator	Households total	In urban areas	In rural areas
Total persons aged 15 and over	100.0	100.0	100.0
Including:			
I like living in my settlement (area of residence)	92.3	91.3	96.4
I do not like living in my settlement (area of residence)	7.3	8.2	3.4
Undefined	0.4	0.5	0.1
Persons aged 15 years or more, who indicated the presence of problems related to living conditions in their settlement (area of residence), indicated problems:	100.0	100.0	100.0

High Crime Rate (Disturbance Of Public Order)	7.2	8.8	0.4
Unavailability Of State And Municipal Services In The Field Of Medical Care	22.3	19.4	34.6
Unavailability Of State And Municipal Services In The Field Of Preschool And School Education	6.2	6.0	7.1
Great Remoteness Of Retail Outlets	5.1	0.3	25.1
Great Remoteness Of Pharmacies	11.9	1.1	57.0
Great Remoteness Of Cultural Institutions	32.9	30.9	41.3
Great Remoteness Of Places Of Recreation And Leisure	32.8	27.3	55.9
Great Remoteness Of Objects For Physical Education And Sports	29.0	23.1	53.6
Poor Organization Of The Work Of Housing And Communal Services	30.8	31.9	26.2
Poor Organization Of Public Transport	13.1	11.6	19.6
General Lack Of Amenities, Inadequate Landscaping	41.4	40.3	46.3
Road Condition, Road Safety	61.0	58.5	71.7
Vandalism (Deliberate Destruction In Public Places And Residential Buildings)	9.8	11.9	1.0
Drugs Spreading	13.6	16.1	3.2
Spread Of Alcoholism	25.4	28.7	11.7
Environmental Pollution	46.5	57.0	2.7
Other Problems	17.0	16.1	20.9

Only 91.3% of urban residents like to live in their settlement, while 96.4% of residents living in rural areas answered this question in the affirmative. The main problem that worries both rural and urban residents is the condition of the roads. The second most important problem for the urban population is environmental pollution, indicated by 57.0% of respondents. Moreover, according to the results of state environmental monitoring in the Samara region, there are no cities with "high" and "very high" levels of air pollution. The level of atmospheric air pollution in all settlements where monitoring is carried out, except for the city of Samara, was characterized as "low"; in Samara the level is "elevated". On the territory of the region, there have been no cases of extremely high air pollution by individual impurities.

For rural residents, an important problem is the large distance from pharmacies, and more than 50% of respondents noted the problem of remoteness from places of leisure and sports.

Thus, the priority area for increasing the attractiveness of suburban real estate is the construction and repair of roads. The dynamic development of online sales and services, including medicines, will solve the problem of remoteness from pharmacies and retail outlets.

4. Purpose of the Study

The purpose of this study is to determine the uncertainty factors affecting the demand for suburban real estate in the Samara agglomeration.

Research objectives:

- study of suburban real estate of the Samara agglomeration;
- determination of factors affecting the demand for suburban real estate;

- determination of the risks associated with the purchase of suburban real estate;
- analysis of the types of cottage settlements of the Samara agglomeration;
- analysis of living conditions in urban and rural areas;
- study of factors influencing the attractiveness of a suburban real estate object;
- justification of the relationship between research data;
- determination of directions for the development of the suburban real estate market in the Samara region.

5. Research Methods

Studies of the development of territories and the demand for suburban real estate are based on the official figures of Rosstat. The work used the data of a comprehensive survey of the living conditions of the population of the Samara region conducted by the Territorial body of the Federal State Statistics Service in the Samara region. The analysis of the suburban real estate of the Samara agglomeration was carried out on the basis of monitoring the real estate market of cottage settlements as of 2021. By type, the settlements were divided into three classes: elite class, comfort class and economy class. The factors of uncertainty in the suburban real estate market are considered on the basis of expert opinions (Territorial Body of the Federal State Statistics Service..., 2021).

6. Findings

As a result of the study, the risks and uncertainties that may arise when purchasing suburban real estate were identified. The factors influencing the demand for purchasing suburban real estate have been determined.

When buying a plot of land, most often there are risks associated with the eligibility of construction for this category of land, as well as the correctness of the land survey and the reflection of this information in the documents.

The features are highlighted by which suburban real estate, namely, cottage settlements located in the agglomeration of Samara, belong to the elite, comfort and economy class. The main feature that affects the class is the distance to the city and the location of the village. Comfort class cottage villages are distinguished by a large house area from 150 to 300 sq.m. and location in relation to the city. Economy-class settlements are characterized by remoteness from the city, while the area of the plot may even exceed the area of the elite and comfort-class plots.

During the analysis of satisfaction with housing conditions in urban and rural settlements of the Samara region, it was revealed that rural residents have a large living space per family member and the number of rooms per family. This factor contributes to an increase in demand for suburban real estate.

The characteristics of the infrastructure for the living conditions of urban and rural settlements are analyzed. The problems that affect the demand for housing in the village have been identified. The main problem for residents, regardless of where they live, is the condition of the roads. An important problem for urban residents is environmental pollution, which contributes to an increase in demand for suburban real estate. For rural residents, an important problem is the remoteness from pharmacies, because only

entrepreneurs licensed to carry out pharmaceutical activities can be sellers of medicinal products, but at the same time, pharmacy organizations can remotely trade. Consequently, the development of delivery services and the development of the SberEaptekas project will solve this problem.

7. Conclusion

Solving infrastructure problems, namely the construction of roads, bridges, convenient transport interchanges, will give an impetus to the construction of suburban real estate in the Samara region and will increase satisfaction with living in rural areas.

References

- Belik, T. A. (2015). The main technologies used in individual housing construction, their advantages and disadvantages. *Strategy for Sustainable Development of Russian Regions*, 26, 168-171.
- Dunaevskaya, Yu. P., Alekseev, M. Yu., & Simankina, T. L. (2015). Suburban housing categorization *Construction of unique buildings and structures*, 3(30), 49-63.
- Duranton, G., & Puga, D. (2015). Urban Land Use. In: G., Duranton, V., Henderson, W., *Strange, ed., Handbook of Regional and Urban Economics. V. 5.* (pp. 467-560). Elsevier.
- Gareev, I. F., Zagidullin, A. R., & Khusnutdinov, F. F. (2017). Low-rise construction around Kazan: scale, technologies, prospects. *Russian Entrepreneurship*, 18(23), 3815-3826.
- Golotina, Yu. I., & Kovtunenkov, M. G. (2018). Problems of classification of real estate objects in Russia Scientific dialogue: Economics and management: *Collection of scientific papers based on the proceedings of the XV international scientific conference, St. Petersburg, June 08, 2018. - St. Petersburg: Center for Scientific Conferences "International Research Federation" Social Science*", 8-13.
- Khomyakov, D. A. (2017). Regularities of development and optimization of the growth of metropolitan residential suburbs. *Bulletin of Eurasian Science*, 9(2 (39)), 103.
- Kornilov, A. D. (2016). Modern perspectives of the residential real estate market. *Tradition and innovation in construction and architecture. Socio-humanitarian and economic sciences collection of articles. Samara State University of Architecture and Civil Engineering*, 246–249.
- Ledentsova, E. A., & Pyankov, V. V. (2013). Marketing research: analysis of consumer preferences in the suburban real estate market in Perm *Actual problems of the humanities and natural sciences*, 7(1), 188-192.
- Repkin, A. I., & Mityagin, S. A. (2019). Meeting the need for housing: the modern suburbanization of St. Petersburg. *Scientific journal of NRU ITMO. Series "Economics and Environmental Management"*, 1, 68-76.
- Rudyk, N. V. (2019). Features of cottage real estate management in Russia. *Bulletin of the Moscow University named after S. Yu. Witte. Series I: Economics and Management*, 4(31), 103-107.
- Territorial Body of the Federal State Statistics Service for the Samara Region Results of a comprehensive survey of the living conditions of the population of the Samara Region for 2018. (2021). https://samarastat.gks.ru/itog_inspect_smr
- Umerenko, Yu. A. (2018). Analysis of legal risks in the acquisition of land plots (practical recommendations). *Property relations in the Russian Federation*, 12(207), 86-103.
- Vlasenko, T. V., & Belokobylenko, S. A. (2015). Real estate market and its structure *Economics and ecology of territorial entities*, 1, 50-53.
- Website Cottage.ru. (2021). <https://samara.cottage.ru>
- Wiley, J. (2016). Where is the rural in an urban world? *J. Wiley & Sons Ltd. Architectural design*, 86(4), 7-13.