

Model of Increasing the Economic Affordability of Housing When Creating Housing Cooperative

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Abstract: *The housing problem remains one of the most acute and socially significant, since the possibility of acquiring and improving housing conditions for citizens becomes difficult and impossible to achieve without state support. In particular, a decrease in housing affordability is associated with the quality and growth in the cost per square meter of housing, the tax burden and the annual increase in housing maintenance costs. Nevertheless, the main criterion characterizing the growth of reproduction and ensuring the comfort of living is the income level of the population.*

Housing is a social criterion and an indicator of the life quality of the population, affecting labor productivity, growth in gross domestic product, dynamics of demographic processes, and economic activity of the population. Undoubtedly, the availability of housing is the main indicator of the economic and social development of the state. Unfortunately, despite the positive dynamics of the housing affordability indicator, there are a number of problems that need to be addressed within the framework of the formation of comfortable housing. And also, it is necessary to introduce the affordability barriers to understand the complexity of creating an affordable housing market.

In this article, the authors present a model for increasing housing affordability, taking into account an accurate assessment of the possibility of its acquisition.

In addition, we offer a solution to this socio-economic problem by supporting the development of housing cooperation, which shall be expressed in the formation of new legal institutions and instruments that contribute to the guaranteed accumulation of funds by citizens for the acquisition of real estate.

Keywords: *housing, affordability, housing cooperative, construction, barrier, property, income.*

I. INTRODUCTION

Method (from the Greek word) is a way to achieve a goal; a set of techniques, operations and actions forming the way to achieve a specific goal corresponding to this method in the space of measures and actions.

In this article, we consider models of several private methods, using the instrument of cooperative power.

The main way and method to achieve the goal is the use of incentive (motivational) management in combination with the command-administrative component of self-government. We will proceed from the fact that each cooperative member wants to minimize its costs for the maintenance and operation of common property in the household (condominium). This is their need for the desire to live richer and better use their

income and savings [1].

We should take into account that the condominium is owned by the cooperative and is an indivisible mutual fund, from which none of the participants can allocate its share in the common property. We should also take into account that the right to participate in decision-making for all participants in common property is the same.

Our goal is to use the motivational method of management to create motives that encourage the cooperative members to maintain membership in the cooperative and implement general decisions of the meeting. This can be achieved if membership in the cooperative will lead to significantly lower share costs of the homeowner than the costs of a person, who does not obey the decisions of the cooperative meeting. For this purpose, it is necessary to develop and introduce a special economic content of common property into the system of internal relations in the cooperative.

II. METHODS

We used two main methods within the framework of this article: modeling and analysis. Modeling made it possible to identify and evaluate the desired socio-economic patterns of increasing housing affordability. Models were built through the analysis and taking into account that they were adequate to experience. For a qualitative concretization of the elements of the housing construction cooperative model, we applied scientific modeling and systematic generalization of its results, confirmed by experience.

The main theoretical base is reflected in a number of scientific studies [2-5]; however, the practical aspects of the development of housing cooperatives in modern conditions have not been actively applied to Russia. The need for this kind of research is due, first of all, to the fact that housing affordability and comfort is a socially significant problem.

III. RESULTS

The main results obtained within the framework of this study were models for the development of the economic content of common property in the housing construction cooperative (HCC).

Firstly, the following measures were implemented. We clearly identified the boundaries of the common property (condominium) and the assignment of the status of indivisible share fund. It was established that withdrawal from the cooperative can be carried out on the initiative of the cooperative member by assigning ownership of housing to another person in compliance with the rules of the charter, as well as can also be carried out on the cooperative's initiative by expelling a participant from the cooperative in accordance with the applicable law.



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Upon exclusion from the cooperative, a participant is subject to eviction from the cooperative and payment of the share value to him/her in the manner prescribed by law, the charter, cooperative decisions, and court order [6]. Moreover, according to the decision of the cooperative meeting, the participant may retain the right to use the apartment previously owned by him/her on the basis of an agreement with cooperative. In this case, such a user under a lease agreement pays for the services of the cooperative at the market prices that will be established by the agreement. With due observance of the terms and conditions of such an agreement, the cooperative members can again accept this user as the cooperative member. Depending on the rental price and depending on the price difference for the services provided by the cooperative to its members and employers, an "economic motivation" arises aimed at strengthening discipline in the cooperative and consolidating participants in common property. Formation of obligations, the violation of which may lead to the exclusion from the cooperative, and the nature of the specified "economic motivation", are a method of using the cooperative power of the collective.

Secondly, the cooperative members can establish gradation of the value of their internal services by dividing the people living in the cooperative into different categories:

- homeowners (cooperative members);
- family members of homeowners (legally capable, legally incompetent, observing internal rules and contractual relations or not observing such rules);
- third parties, including tenants, etc.

First, the cost of services for third parties living on the terms of legal rent is established. For such individuals, the cost of domestic utilities shall be consistent with market prices. Then, benefits are introduced from the cooperative's budget for other categories of residents [1]. The greatest benefits shall be established for the cooperative members that comply with internal, local acts. The establishment of benefit differentiation has a "flip side" and is a method of incentive for maintaining the internal rules of the cooperative, observing the internal laws of the cooperative and the importance of the co-owner's role of the common property in the cooperative. This is not so much about restrictions, but about benefits that a person living in a cooperative may or may not have. The stronger the economic and other motives are, the more effective and efficient the power of the collective of owners in the territory of a single property complex belonging to them will be.

IV. DISCUSSION

1. The content of the concept of housing affordability.

The purpose of the method used in this article is to increase housing affordability for citizens.

Method is a certain order of necessary measures and actions, which allows achieving the desired goal.

First, let us deal with the essence of the concept of housing affordability. A citizen, who wants to acquire a new, necessary housing, has three main potentials in market conditions:

- current income;
 - savings;
 - and secondary housing that does not suit his/her needs [6].
- Similarly, we can talk about the family (household) potential.

Usually, a citizen shall pay the costs for acquisition of land plot, creation of necessary urban planning documentation and construction of residential building in the part related to the construction of his/her apartment for the construction period. The term of such payments may be 1-2 years.

After completion of construction and its full payment, the homeowner goes over to the fixed cost regime associated with housing maintenance and operation.

The total amount of costs associated with construction characterizes the share size. The level of fixed costs is associated with the "elitism" of home ownership [7-9]. The value of the maximum costs necessary for the housing construction is called the affordability barrier.

If the construction costs are incurred "by installments", the amount of costs is reduced. Thus, the affordability barrier (maximum payout per month, quarter) is less in case of installments.

2. A method of increasing the criterion of housing affordability.

The method of increasing housing affordability lies in the fact that it is taken the methods and actions, due to which the compliance of the temporary regime of income generation by a citizen is ensured:

- affordability barrier;
- volume of construction costs.

Different methods can be used to solve each of these problems. Let us consider the idea of one of these methods on the example of the Republic of Tatarstan. We are interested in how to assess and regulate the housing affordability.

At the beginning of 2018, prices for the construction of new housing were mainly 33 thousand rubles per 1 sq. in Kazan (Russian Federation, the Republic of Tatarstan) [10]. The average family includes 3 people. The average number of working family members is 2 people. During the construction of a one-room apartment of 40 sq. m within 2 years, it would be necessary to pay a minimum of 1,320 ths. rubles, excluding inflation and risk of job losing. With uniform payment of such costs at the expense of current income, the total income of family members shall be at least 70-80 thousand rubles per month. Of this income, 55 ths. rubles should be allocated for housing construction purposes, and 15-25 ths. rubles shall be used to satisfy food needs, etc., forming the minimum consumer budget for the family.

This means that the affordability barrier corresponds to a barrier of opportunities to receive 36 ths. rubles salary per month.

The number of income freedom degrees of the citizens is the number of independent activities in obtaining by the majority of citizens the income they need for life and work, development and procreation. According to the model ideas of the authors, there shall be at least 3 degrees of such freedom in a modern fair society:

- freedom to earn income through service to society;
- freedom of entrepreneurial income;
- freedom to earn income through employment.

Degeneration of freedom degrees occurs not only due to the economic and other legislative prohibition of freedom of these types of activities, but also due to the emergence of a relationship between these types of activities, with the loss of labor freedom and the emergence of mass hidden unemployment [11].



Given this nature of distribution, either rich citizens, or large families with a large number of employees can build housing. For example, if a family consists of 12 people, all of whom work and receive average wages (approximately 36 ths. rubles per each for Kazan [12-17], then such a family will be able to build a two-room apartment at the market prices. Or 4 families, consisting of 3 employees, shall work for the needs of one family.

In order to increase the housing affordability, it is necessary to:

- reduce the affordability barrier for as many citizens as possible, taking into account their real incomes;
- increase employment guarantees for the period of housing acquisition;
- increase the income of citizens.

Increasing housing affordability is a set of measures and actions taken by a citizen, an association of citizens, who want to build housing, as well as municipal and state authorities [13], which is aimed at bringing the current capabilities for as many citizens as possible with their housing needs.

To reduce the affordability barrier within the framework of market relations (without using budget funds), the following methods can be used:

- 1) long-term lending secured by mortgage agreements concerning:
 - existing (old) housing;
 - acquired (new) housing;
 - combined security;
- 2) medium-term and long-term share accumulation, which is called the purchase of housing by installments;
- 3) preliminary (prior to construction) share accumulation; the use of loan and savings deposits;
- 4) housing (municipal, state, commercial) special-purpose loan where loan repayment is ensured by the acquisition of securities secured by square meters of housing and price equivalent;
- 5) "internal lending" in the system of consumer (housing) cooperatives;
- 6) using proceeds from the sale of old housing under the suspensive and dissolving condition at the security price in the construction of new housing (a specific method of lending to new construction);
- 7) combination of these methods.

Most of these methods can be implemented in cooperatives on a private basis to the benefit of the cooperative members and the cooperative as a whole. Wealthy cooperative members can form a special mutual fund for the purchase of housing by the cooperative and the provision of such housing for use (on a rental basis) to less wealthy cooperative members, who acquire such housing as a result of share accumulation [6]. Such an investment will actually be 3-5 times and more profitable and more secure for wealthy cooperative members than depositing money; for example, in the Savings Bank of the Russian Federation. Moreover, economic benefits can be generated in different ways. Some benefits will be equivalent to interest on a loan, others will be related to rental fees, and others will be due to the difference in internal tariffs for users and homeowners, etc.

V. CONCLUSIONS

An important advantage of this method is the fact that this approach does not require a deposit (mortgage) of new

housing. The need for a housing pledge disappears, since the house owner is a cooperative for the period of share accumulation. There are fewer risks, problems with taxation, debt servicing, etc. If this method is accompanied by the purchase and sale of old housing under a condition (under a suspensive and dissolving condition), as a result of which a citizen improves housing conditions by 5-10 sq. m, then the barrier to housing affordability may decrease to the level of 8-10 ths. rubles per employed person [14].

Estimating the distribution model through integration, it is possible to determine the share of citizens to whom the purchase of housing will become available while lowering the access barrier to 8-10 ths. rubles per employed family member. With the development of a cooperative form of organization, methods of share accumulation, various methods of internal lending, as well as the use of old housing for the purpose of financing housing construction, the availability of new housing can be increased by a private initiative regulated by the authorities for additional 50 - 300 ths. people, for example, for the citizens of the Republic of Tatarstan.

Although the authors negatively relate to the mortgage model implemented in Russia [15-18-20], considering it unacceptable and economically harmful, the following should be noted.

The use of a cooperative form of organization of future homeowners shall be of interest to the organizations developing the mortgage lending method. The fact is that a pledge of housing from a legal point of view is unacceptable if a share in the right of common ownership is not simultaneously laid together with housing [16-19]. Communal property, which is part of a single property complex, is a very specific property, in relation to which a share in the right of common ownership does not have any real (monopoly) security.

Organizations involved in loans secured by mortgage agreements either try to artificially determine a share in the right of common ownership, or try to circumvent the requirement of simultaneous pledge of housing and a share in the common property. The majority is trying to somehow determine the share in the common property without the consent of all homeowners living in the common house and without a share in the right to own land. At the same time, as a rule, the registration documents of property rights to the condominium of all homeowners are absent.

All these problems can be circumvented, if the mortgage agreement is secured simultaneously by two owners:

- homeowner (cooperative member) mortgaging his/her home;
- cooperative laying down the right of the participant in the common ownership to the condominium and the right to be the cooperative member.

In this case, a significant condition arises - only a person, who undertakes to comply with the cooperative's charter and who will be accepted by the cooperative as part of its members, can purchase housing in cooperative households. However, for the purposes of mortgage lenders, this condition is not a strong obstacle.

Moreover, over time, Russians will understand the advantages of HCC and the fact that their costs for housing maintenance will be significantly less in HCC than in the partnerships of homeowners (PHO) or in the houses given to managing organizations. In other words, the value of housing in cooperative homes will be higher over time than that in other households.

VI. SUMMARY

Thus, the dissemination of such HCC model is the least risky, less controversial and allows providing the highest guarantees.

The development of a credit system in order to increase the affordability of housing and its operation is inextricably linked with the development of mechanisms for consolidating the association of homeowners, their self-government systems and mechanisms for exercising their power. With this approach, the cooperative members shall introduce gradations of a full cooperative member, who has fully paid his/her share, and other cooperative members with limited rights, if he/she has not fully paid his/her share. In this case, it is necessary to differentiate the rights, duties and responsibilities, that is, the whole range of functions (future or current) of the owner, which are included in the concept of the legal status of a cooperative member. The more effectively such status and its differentiation are used in the interests of the cooperative, the more effective is the power in the cooperative. All costs of services (tariffs), internal costs and burdens in the cooperative shall be related to the legal status of the organization's member and to observance of his/her duties. It is necessary to establish different cost for tariffs and other burdens for the cooperative members that comply with internal rules, and for the cooperative members that do not comply with the charter. Only a branched and strict responsibility for observing internal rules in a cooperative is the basis of collective power in a cooperative.

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REFERENCES

1. Afanasyeva A.N., Guseinova A.A., (2016). Land City District Zoning Areas for the Development and Use of the Unified Management and Operation of the Housing Stock. *Procedia Engineering*, 150, 1941 – 1947. DOI: 10.1016/j.proeng.2016.07.195
2. Ajupov A.A., Kurilova A.A. & Ivanov D.U. (2015). Hedging as an Important Component of the Financial Mechanism of Enterprise Management in the Automotive Cycles (Vol. 6, pp. 45-49). *Mediterranean Journal of Social Sciences*. DOI: 10.5901/mjss.2015.v6n1s3p45
3. Asaul A.N. & Batrac A.V. (2001). Corporate structures in regional investment and construction complex. Moscow: DIA.
4. Bakri A.K., Wong S.L., Zulkefly A.K. & Jais, M. (2012). The Impact of Subprime Mortgage Crisis on Islamic Banking and Islamic Stock Market. *Procedia. Social and Behavioral Sciences*, Volume 65, 3, 668-673
5. Assanova M.A. (2015). Public Policy & Model of Sustainable Development in the Republic of Kazakhstan. *Asian Social Science*, Vol 11, 6, 237-244. DOI: 10.5539 / ass.v11n6p237
6. Lantsov V.M., Shaimardanova A.N., Kireeva T.M., Ustinov A.E. Housing and communal services: bases of the theory and the critical analysis of the Russian experience. – Kazan: Closed joint-stock company «New knowledge », 2008. 504 p.

7. Bessonova O.E. (2011). Housing razdatok and modernization of Russia. Moscow: Publishing House “Russian Political Encyclopedia (ROSSPEN)”.
8. Box G.E.P. & Jenkins G.M. (1970). *Time-series Analysis: Forecasting and Control*. San Francisco: Holden-Day.
9. Cho I. (2014). Homeownership and Investment in Risky Assets in Europe. *Review of European Studies*, Vol 6, 4, 254-268. DOI: 10.5539/res.v6n4p254
10. Federal State Statistics Service [Electronic resource]. Access mode: <http://www.gks.ru/wps/wcm/connect/rosstat/rosstatsite/main/> (Date of the application: 17.03.2019).
11. Khasanov I.Sh. (2014). Three-Sector Structure of the National Economy of Russia. *Asian Social Science*, Vol 10, 20, 217-225. DOI: 10.5539/ass.v10n20p217
12. The territorial body of the Federal State Statistics (1999). Retrieved February 05, 2019, from <http://tatstat.gks.ru>.
13. Krivtsov A.I., Kalimullin, D.M. (2015). The Model of Changes Management Information System Construction. *Review of European Studies*, Vol 7, 2, 10-14. DOI: 10.5539/res.v7n2p10
14. Romanova A.I., Lantsov V.M. & Afanasyeva A.N. (2013). National security: availability of housing rights from the perspective of citizens of Russia to motherhood and childhood. *Publising House FINANCE and CREDIT*, 42, 63-68.
15. Rumaizah M.N., Roshana T., & Abdul H.N. (2012). Transparency Initiatives (TI) in Construction: The Social Psychology of Human Behaviours/ *Procedia. Social and Behavioral Sciences*, Volume 50, 350-360.
16. Sadyrtidinov R.R., Korablev M.M and Vladimirova S.A. (2015). Regional Innovation System Development: Comparative Analysis of the Republic of Tatarstan and Volga Federal District Regions. *Mediterranean Journal of Social Sciences*, Vol 6, 1, 317-321. DOI: 10.5901 / mjss.2015.v6n1s3p317.
17. Selomo, M. R., & Govender, K. K. (2016). Procurement and Supply Chain Management in Government Institutions: A Case Study of Select Departments in the Limpopo Province, South Africa.
18. Martins, V. F., Sampaio, P. N. M., Cordeiro, A. J. A., & Viana, B. F. (2018). Implementing a Data Network Infrastructure Course using a Problem-based Learning Methodology. *Journal of Information Systems Engineering & Management*, 3(2), 10.
19. Mazana, M. Y., Montero, C. S., & Casmir, R. O. (2019). Investigating Students' Attitude towards Learning Mathematics. *International Electronic Journal of Mathematics Education*, 14(1), 207-231. <https://doi.org/10.29333/iejme/3997>.
20. Nuriyev, M., Sovetkanova, D., & Seysenbayeva, Z. (2018). Achievements and new challenges in the area of education of independent Kazakhstan. *Opción*, 34(85-2), 337-352.