

## The Development Mechanism of Financial Resources of the Housing Mortgage Lending in Russia

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### ABSTRACT

The urgency of the analyzed issue is due to the priority of state issues of providing the population with affordable and comfortable housing. The purpose of research is to develop the main provisions of the development mechanism of financial resources of the housing mortgage lending and to develop practical recommendations for its implementation. The leading approach to research this issue is a systematic approach, which used such scientific methods as analysis and synthesis, economic and mathematical and statistical methods, logic, and dialectic methods. Key findings of research are to develop the functional model of the development mechanism of financial resources of the housing mortgage lending; to clarify the understanding of mortgage and housing mortgage lending. The article also shows the scheme of public-private partnerships in order to enhance the formation of financial resources for the construction of affordable housing for the population. The contents of the article may be used in the practice of commercial banks in attracting financial resources and regional authorities in order to improve the housing supply.

### KEYWORDS

Financial resources, development mechanism of financial resources, private-public partnership, refinancing; securitization

### ARTICLE HISTORY

Received 11 January 2016  
Revised 20 April 2016  
Accepted 05 June 2016

## Introduction

### *Establishing a context*

The housing mortgage lending is an important component of the financial system. It was developed in most market-oriented countries, and is widely used

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as an effective solution to the problem. As a rule, the estimation of the development level of the housing mortgage lending in various states is determined by its relation to the gross domestic product. Despite the active development of the housing mortgage lending in Russia, its share significantly lags behind the same ones in the countries with developed market economies. The reason for this situation is primarily a low development of the stock market. Its present state does not provide the adequate formation of financial resources in the banking system, both in terms of mobilization of financial resources and their costs.

As a result, the insufficient level of aggregate income of the population and a high cost of housing define another problem, which is expressed in a low availability of the housing mortgage lending for the population.

Thus, the formation of the resource base of the banking system is a first-order condition for a high-quality growth of the housing mortgage lending. For modern Russia this issue is of particular importance. Providing the population with affordable and comfortable housing is one of the key areas of the development strategy of the housing mortgage lending up to 2030 in the Russian Federation.

The identified challenges include the need to develop the development mechanism of financial resources and their effective use for the purposes of the housing mortgage lending.

### Literature Review

The development issues of the housing mortgage lending, the importance and uniqueness of its operations are the subject of active research and are considered both from the standpoint of economic entities of the housing mortgage lending and from the standpoint of the development mechanism of financial resources and their sources.

Fundamentals in research and development of theoretical bases of financial resources have been carried out in works of foreign researchers. We will consider only some of them.

X. An & R.W. Bostic (2009) consider policies to stimulate and expand the housing mortgage lending. C. Gan et al. (2012) argued that a good loan scoring model has the ability to detect bad loans; this could help the bank to reduce the loan losses from loan default. Consequently, it can improve the profitability and the financial stability of the bank. F.A. Ferreira et al. (2014) assess the credit risk of the housing mortgage lending. Dell'Ariccia, Igan & Laeven (2012) also consider the issue of the housing mortgage lending in detail.

J.P. Baire (2007) considers securitization as the development mechanism of financial resources and innovative refinancing technique. T.T. Moldogaziev & M.J. Luby (2012) consider the problem of refinancing.

The development of the mortgage theory was studied by Russian scientists: N.G. Vovchenko & S.A. Litvinova (2014), V.A. Savinova & M.N. Solodilova (2010), and V. Osedelets (2014).

The works of T.P. Varlamova (2015), I.A. Razumova (2015), V.M. Kornev & D.S. Danilin (2015) reflected the issues of refinancing and securitization of mortgage assets.



### Establishing a research gap

First of all, it should be noted that the market of the housing mortgage lending in Russia began to emerge much later than in developed market economies. Its active formation was in 2005. In this regard, in the development of the housing mortgage lending there are some problems to be solved, including on the basis of international practice. The current formation and development of the housing mortgage lending in Russia takes place in the unstable economic situation. Against the background of new economic and political events, Russia is in certain isolation from access to liquid resources and external borrowing, and it causes an internal redistribution of liquid resources to support the banking system (Osedelets, 2014). In the meantime the state housing policy has an active focus on the concentration of financial resources in order to provide the population with affordable and comfortable housing. The practice shows that the housing mortgage lending has gained a rapid development in recent years. However, its share in the GDP of the state remains at a low level (Table 1).

**Table 1.** The growth dynamics of the housing mortgage lending, and its share in the Russian GDP

Year	The volume of mortgage loans		The gross domestic product		
	Billion rubles	The growth rate against the previous year, %	Billion rubles	The growth rate against the previous year, %	The share of mortgage loans in GDP, %
2008	655,8	117,8	41 276,8	124,2	1,6
2009	152,5	23,2	38 807,2	94,1	0,4
2010	380,1	By a factor of 2,5	46 308,5	119,3	0,8
2011	716,9	188,6	55 644,0	120,2	1,3
2012	1031,9	143,9	61 810,8	111,1	1,7
2013	1 353,6	131,2	66 689,1	107,9	2,0
2014	1764,1	130,3	77 945,1	116,9	2,3
2015	1147,3	65,1	80 804,3	103,7	1,4

*Source:* It is calculated according to the official websites of the Federal State Statistics Service ([www.gks.ru](http://www.gks.ru)) and Housing Mortgage Lending Agency ([www.ahml.ru](http://www.ahml.ru))

In our opinion, the housing policy in Russia should be formed in the following areas: 1) promote the construction sector supply of housing on available price parameters to the public; 2) stimulate the demand for housing for the general population, having the financial capacity to participate in the housing mortgage lending. Despite a certain independence of each of the selected areas, they are closely interrelated and interdependent.

In order to solve these problems it is necessary to study the existing issues in the formation of long-term financial resources of the housing mortgage lending. Among the most important issues are the following: 1) a high cost of the housing mortgage lending, which is expressed in the level of interest rates; 2) a

low availability of housing for the general population because of its high market value, and 3) a small refinancing proportion of mortgage loans and securitization of processes. It should be noted that all the above issues are completely determined by the formation of sufficient financial resources for the successful development of the housing mortgage lending at a relatively low cost to mobilize them. The authors consider the content of the mentioned issues.

The general public determines the availability of the housing mortgage lending for the public by the level of interest rates in the first place. In the market economy it is exposed to a significant number of factors both macro and micro levels. These factors include: a general state of supply and demand of financial resources for the loan capital market, the development adequacy of financial markets, the value of inflation and a closely related level of international migration of the capital. In our opinion, inflation has the greatest impact on the cost of credits. Thus, the inflation rate in Russia at the moment, according to the Federal State Statistics Service, is at the level of 7.5%, while its value in the USA is 1-2%, and in the EU countries - less than 1% (according to Internet service Bureau of statistics [www.statbureau.org/ru](http://www.statbureau.org/ru)). The value of the key rate of the Central Bank of the Russian Federation is significantly different (the Bank of Russia). It is at the level of 10.5% (according to the official website of the Bank of Russia - [www.cbr.ru](http://www.cbr.ru)), while in the US it is 0,5% and in the EU countries - 0% (according to the analytical portal - [www.fxteam.ru](http://www.fxteam.ru)). The development strategy of the housing mortgage lending involves a reduction of interest rates as low as 6% in Russia.

The early repayment has a serious impact on the value of the interest rate on the loan. In this case, banks are exposed to the risk of reduced liquidity. However, it is worth noting that in a number of large countries, which have a developed two-tier model of the housing mortgage lending, provide the risk redistribution. So, early repayment risks are taken by investors. Low capitalization of commercial banks and mobilization of financial resources, which are not comparable in terms of duration of the housing mortgage lending, determine the necessity to form the financial base of banks with capital markets via securities and other financial instruments.

A more significant problem in the development of the housing mortgage lending is a high cost of housing. This problem is influenced by the imbalance of the housing market volume with the volume of the housing mortgage lending. According to the basics of the economic theory, if there is an increase in demand for housing caused by an increase in lending inflows, there is an increase in prices of the housing market (Table 2).

The data of the table shows a strong correlation of the growth rate of housing and the growth rate of lending funds allocated for solving housing issues in almost constant supply of the housing market. The dynamics of the housing mortgage lending substantially exceeds the pace of housing construction, which leads to an increase in housing market prices.

The problem of the formation of long-term and relatively cheap financial resources of the housing mortgage lending is one of the most significant. Various forms of the bank's lending resources are used in the world practice. All of them are combined by single or two-tier models. In Russia a two-tier model is adopted at the federal level.



**Table 2.** Comparative characteristics of growth rates of the housing mortgage lending and housing market in Russia

Indicator	Years								
	2007	2008	2009	2010	2011	2012	2013	2014	2015
The volume of the housing mortgage lending, bln. rub.	556,5	655,8	152,5	380,1	716,9	1031,9	1353,6	1764,1	1147,3
The growth rate of the housing mortgagelending,%	By a factor of 2,1	117,8	23,2	B 2,5p.	188,6	143,9	131,2	130,3	65,1
New housing supply, millionm <sup>2</sup> of total area	61,2	64,1	59,9	58,4	62,3	65,7	70,5	84,2	85,3
The growth rate of new housing supply,%	120,9	104,7	93,4	97,5	106,7	105,4	107,3	119,4	101,3
The average cost of 1 m <sup>2</sup> of housing, ths. rub.	47,2	56,6	52,9	60,0	48,2	56,4	56,5	58,1	56,3
The growth rate of the cost of housing,%	129,0	119,6	93,5	113,4	80,3	117,0	100,2	102,8	97

*Source:* It is calculated according to the official websites of the Federal State Statistics Service ([www.gks.ru](http://www.gks.ru)) and Housing Mortgage Lending Agency ([www.ahml.ru](http://www.ahml.ru)), % against the previous year

The most effective tool for solving this problem is the process of refinancing. According to I.A. Razumova (2015) “the mortgage refinancing is a system that develops resources of mortgage lenders by organizing the secondary mortgage market.” The long-term nature of mortgages determines the specificity of resources formation for their provision. Mortgage lenders should be able to solicit resources for a long-term and at a lower cost. This process is characterized by a two-tier model of mortgage lending. It is usually tapped by small in size regional banks. These banks have minor credit portfolios and use refinancing operations in the practice of mortgage lending. It should be noted that regional banks have no access to the refinancing system of the Bank of Russia and form financial resources on the basis of the assignment of lending claims to the Housing Mortgage Lending Agency.

The most effective refinancing method of mortgage assets is securitization. It should be noted that there is a significant number of definitions of securitization in scientific studies. Here are only some of them. “Securitization of assets refers to the innovative technique (method) of financing, in which a diversified pool of financial assets is allotted from the balance sheet of the bank or other entity, that acquires a legal independence by sending to a specially created entity, which carries out its refinancing in the international capital market and the money market through the issue of securities” (Behr, 2006). “Securitization is the concept of the market economy, implying a subset of structured financial instruments. In fact - this is the creation and issue of securities backed by a pool of (portfolio) assets (Tavasiev & Kuchinski, 2010).

“One of the most important reasons for securitization of bank assets is a relatively high cost of the debt capital due to the underdeveloped banking sector and stock market. The entry of credit institutions into the market of mortgage-backed securities allows them to replenish the lack of lending resources,

soliciting funds on more favorable terms” (Varlamova, 2015). However, this method of mobilizing long-term resources is associated with certain disadvantages. In particular it is its high cost due to the complexity of securitization transactions. In addition, in order to achieve the economic efficiency of the transaction it is necessary to create a large pool of mortgage loans (more than 100 US mln. dollars). Therefore, this method is only available to large banks. Mortgage-backed securities are its investment vehicle. In this regard, it should be noted that mortgage-backed securities should have estimating characteristics that allow them to have the investment attractiveness in the stock market. Among these characteristics can be called liquidity, reliability, and adequate value of the coupon profit.

Due to the limited accommodation capacity of mortgage-backed securities in foreign markets, large banks in Russia are currently implementing an internal issue.

**Table 3.** The refinancing dynamics of mortgage lending by the Housing Mortgage Lending Agency in Russia

Year	Issued mortgage loans, bln. rub.	Refinancing of the housing mortgage lending			
		Amount, bln. rub.	Specific weight, %	securitized loans	
				Amount, bln. rub.	Specific weight, %
2008	655,8	26,6	4,1	22,1	83,1
2009	152,5	30,3	19,9	-	-
2010	380,1	54,4	14,3	13,6	25,0
2011	716,9	51,3	7,2	20,3	13,4
2012	1031,9	60,9	5,9	18,5	30,4
2013	1353,6	48,0	3,5	20,3	42,3
2014	1764,1	51,1	5,9	31,3	61,3
2015	1147,3	-	-	-	-
In total	7202,2	322,6	4,5	126,1	39,1

*Source:* It is calculated by the authors according to the official websites of the Housing Mortgage Lending Agency ([www.ahml.ru](http://www.ahml.ru))

The data of the table shows that refinancing transactions of the Housing Mortgage Lending Agency occupy about 20% of the volume of the housing mortgage lending. Thus, it should be noted that the refinancing model of mortgage loans through the operators of the secondary market has not been an active yet. However, as a positive point, it should be noted the increased interest of banks to securitization transactions.

Besides the considered issues in the development of commercial banks' operations to solicit financial resources for the purposes of the housing mortgage lending it is necessary to note the insufficient role of the Bank of Russia. In this context, it is useful to take into account the experience of foreign countries. So, in order to increase investors' interest in mortgage-backed securities in the United States, Germany and other countries, mortgage-backed securities are widely used by central banks in conducting monetary policy. Open market operations with the use of mortgage-backed securities can improve their transferability. The demand for securities is provided by the fact that the yield of mortgage-backed securities is only slightly behind the yield of government



securities, and therefore investors realize that they will not face significant losses in case of default of the issuer's securities. These instruments are not applied in Russia.

The practice of soliciting financial resources to the formation of the housing mortgage lending of so-called conservative institutional investors is not developed well. As prospective investors the world practice considers pension funds, insurance companies, primarily interested in the safety of funds, and the moderate profitability of these operations becomes secondary for them. This category of investors plays a significant role in the structure of domestic sources of investment resources of foreign countries, as a result, about 60% of the resources is taken from financial markets.

The practice of using such a promising tool for securitization as a mortgage participation certificate is not developed enough (MPC). A mortgage participation certificate is a security certifying the share of the owner in the common ownership of the mortgage pledge. For banks, which are developing the housing mortgage lending, this financial tool allows transforming long-term mortgage assets into liquid ones. This makes it possible to improve the balance sheet structure, increase liquidity, and ensure the implementation of regulations of the Bank of Russia.

In our opinion the solution of problems in the development of the housing mortgage lending, in terms of the formation of financial resources first of all, can contribute to the development of areas that are widely used in the western practice. So, one of the common forms to supply the population with housing are deposit models - savings and loan agencies (construction savings banks). In order to focus the significance of this model it is necessary to note its use in the US financial crisis, in order to “compress” the money supply in the country and reduce inflation. The German experience is instructive and intuitive, where this model has been so widely used that about 70% of the population solve housing problems through construction savings banks. The German Government views this model as the most appropriate for the population because of its flexibility and low costs for the middle-income population. “The introduction of the construction saving system in the Russian practice, similar to the German model, can be considered an effective tool for the development of the mortgage market, but this system should provide a significant budgetary support, the volumes of which are difficult to predict” (Vovchenko & Litvinova, 2014). Note that this issue was discussed at the level of legislative initiative, but it has not received the practical implementation yet.

### ***Stating the purpose***

The purpose of this research is to study theoretical and methodological foundations of the development mechanism of financial resources of the housing mortgage lending and to develop a set of measures for its functioning.

To achieve this goal it is necessary to fulfill the following tasks:

- To study and systematize theoretical approaches to the study of the housing mortgage lending and features of its functioning;
- To suggest a model of the development mechanism of financial resources of the housing mortgage lending;

- To provide a comprehensive assessment of trends in the housing market and housing mortgage lending;
- To systematize the development problems of financial resources of the housing mortgage lending;
- To justify the state's involvement in the formation of financial resources of the housing mortgage lending on the basis of the public-private partnership.

### Materials and Methods

The housing mortgage lending is one of the complicated forms of lending relations. Its effective operation is critically determined by the availability of affordable long-term financial resources. However, the banks' resource base in terms of duration of resources mobilization is significantly inferior to the terms of mortgage lending. In this regard, the main objective of the housing mortgage lending is to identify forms, methods and, ultimately, the development strategy of financial resources, taking into account market conditions. However, the adequacy of financial resources is determined not only by the scope of their formation, but also by the accessibility of mortgage programs for all participants, primarily for the population. It determines the priority of the housing mortgage lending. The development mechanism of financial resources of such a complex system as the housing mortgage lending should be based on the agreed set of goals, objectives, criteria, close interaction of its elements, as well as interaction with the environment. Despite the fact that a significant amount of scientific works were devoted to the development of the housing mortgage lending, its essence and content, the issues of the development mechanism of financial resources are not defined well. There is no "the development mechanism of financial resources of the housing mortgage lending", its essence and composition are not developed. There is no clear organizational and functional basis of its development (Solodilova, 2014).

The theory and practice distinguishes two forms of relations: directive and regulatory. Considering financial relations in the same understanding, it should be noted their importance for the housing mortgage lending. Thus, directive financial relationships are formed in the areas of public administration and directive government regulation. Regarding the housing mortgage lending it is possible to allocate such state functions as the use of public funds of all levels, budget financing, financial planning. If there is a directive influence, the state develops a system of measures, which are mandatory for implementation by all parties of this relationship. The regulatory relationships determine basic laws in this segment that do not directly affect the interests of the state. The content of the housing mortgage lending classifies such relationships as directive-regulated. This is due to a high degree of participation and the role of the state in its operation, but at the same time it is due to the independent behavior of participants of mortgage programs in the framework of the regulatory impact on existing operations. Based on these approaches, the authors developed their own attitude to the development mechanism of financial resources of the housing mortgage lending: the development mechanism of financial resources of the housing mortgage lending is seen as a form of directive-regulative relations of participants of mortgage programs for the mobilization of long-term financial resources and the management of financial security on the basis of aggregate





financial methods, tools, and principles of functioning in order to solve housing problems of the population.

Considering the financial essence of the development mechanism as a fundamental component, the authors hold to an opinion that the development mechanism of financial resources should be based on the system of financial principles. The authors consider the following principles:

1. The principle of self-sufficiency. Despite the fact that the initial phase of the development of the housing mortgage lending takes place when there is a large government support, in the future this system should be self-supporting, i. e., operate on the market basis with some state support.

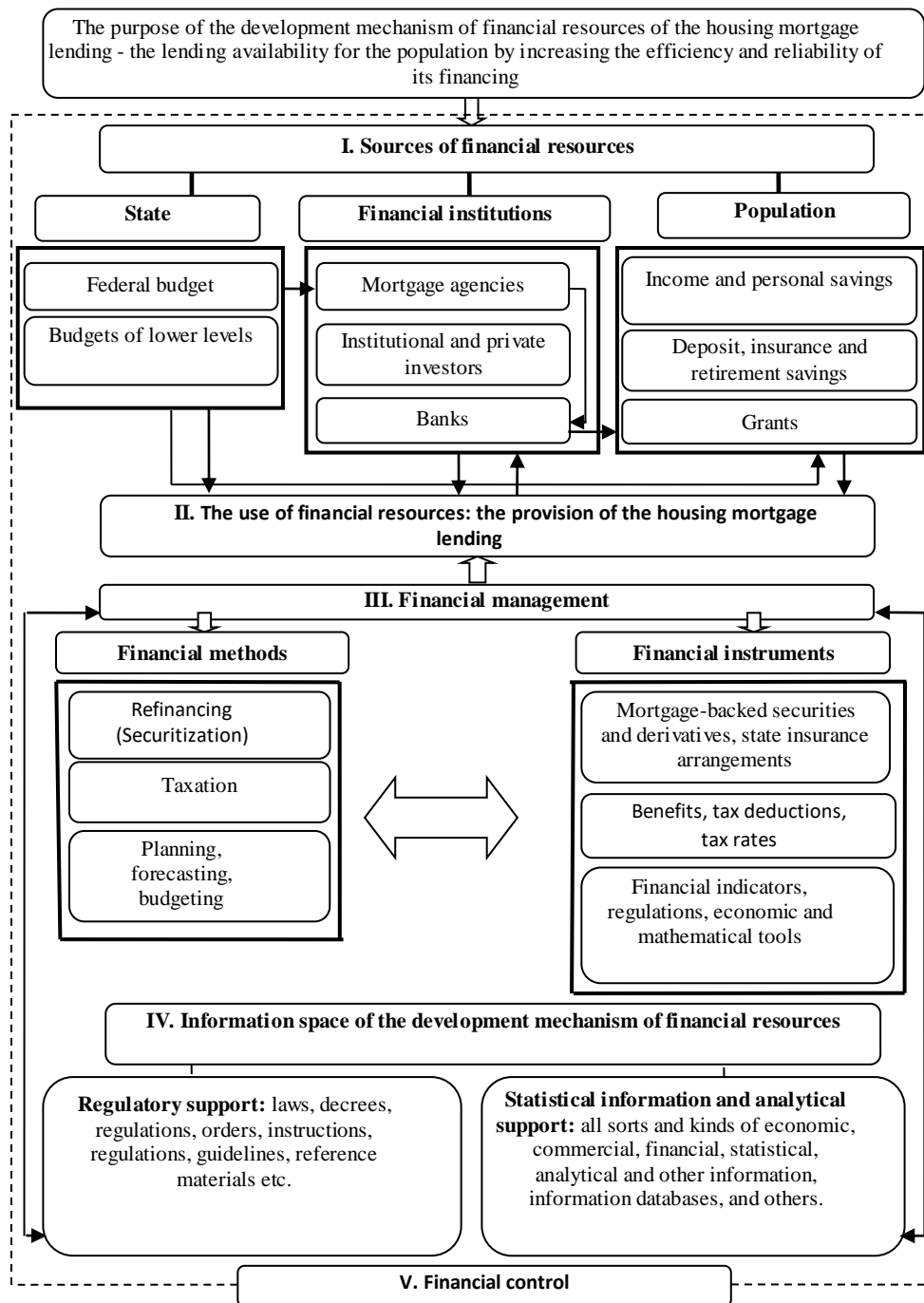
2. The principle of co-financing. Bringing the budget and non-budget sources of financial resources is due to the limited ability of banks to carry out operations at the expense of their own and borrowed funds. This fully applies to borrowers who do not have the ability to solve housing problems independently. In addition, there are benefits that are inhumane to be distributed based on market standards. Housing belongs to these benefits.

3. The principle of coordination. One of the most important conditions for the functioning of the development mechanism of financial resources of the housing mortgage lending is the internal “coordination” of all its elements, which form the structure of the mechanism. However, being a constituent element of the whole, they operate independently, and it requires their constant coordination.

The functional model of the development mechanism of financial resources of the housing mortgage lending consists of five blocks (Figure 1).

Totally the development mechanism of financial resources is determined by mobilization of its financial sources. These sources include: the state, financial markets, the population, that is carried out by block I. It is implemented by the direct participation of state federal and regional budgets in the functioning of mortgage agents, as well as providing insurance arrangements to investors as holders of securities.

The state budget occupies a leading position in this block. Experience shows that, as a rule, all countries, which have adopted the development of the housing mortgage lending, provide significant support and act as its direct participants in the initial stage of its formation and development. The state assumes the risks of mortgage-lending banks, subsidizes people with low-income, insures lending risk (through the state insurance company) of the population, which has no adequate opportunity to participate in the credit transaction in terms of making a down payment. In addition, using the federal budget means that the state acts as a guarantor of investors’ interests in case of financial insolvency of a mortgage agent and, thus, has subsidiary liability. At some point, the state changes its policy, keeping regulatory functions.



**Figure 1.** The functional model of the development mechanism of financial resources of the housing mortgage lending in Russia

Source: Solodilova, M.N. (2014). The functioning of the development mechanism of financial resources of the housing mortgage lending in Russia. Thesis for the degree of Candidate of Economic Sciences, Samara State University of Economics, 14, 49.



A good example is the US experience, where state support was carried out for 30 years. Only when the system of the housing mortgage lending could function without the infusion of the budget, other tools have been developed, which have been presented above. The indirect state impact on the development of the housing mortgage lending is to help the population in the form of subsidies, tax incentives and other.

The second element of this block is extra-budgetary sources of funding. These are: mortgage agencies whose main function is to refinance lenders by buying rights to claim on a mortgage; the stock segment of the financial market, which placed mortgage-backed securities as the main source that solicits financial resources; commercial banks that float funds of individuals and legal entities (income and savings) for corporate bank accounts, current accounts and deposits. In this context, it should be noted that the stock market is the main source of financial resources. Investment tools to solicit them are mortgage-backed securities. Thus, we can conclude that financial resources in the housing mortgage lending are drawn from financial markets and they provide the basis of this mechanism.

The third element of the development block of financial resources includes the population that has sufficient resources to participate in the lending transaction. In addition, here are citizens, who in accordance with applicable law, are entitled to receive financial support as a result of the reallocation of funds of budgets of lower levels.

Block II of the development mechanism of financial resources characterizes its ultimate goal, i. e. to obtain the housing mortgage lending that becomes possible as a result of accumulation of financial resources and distribution processes in block I.

Block III of the development mechanism of financial resources is based on the system of financial methods. The functional purpose of this block is to transfer the cash flows from sources of their development to investors, their transformation into investment resources and the implementation of the regulatory impact on the efficiency of their use. Despite the fact that the understanding of this method as a way to impact on the object in question is already settled in the scientific community, there are different interpretations of this method at specific levels of research. Thus, some authors give a broader understanding of this concept, referring to financial methods such elements as a system of settlements, dividends, and transfer operations, mortgage operations, which are either financial instruments or financial transactions. The content of the financial method is implemented through financial instruments. According to IFRS 39 "Financial Instruments: Recognition, Assessment", the financial instrument is any contract by which one of the parties develops financial assets, and the other one gets financial debt or equity liabilities. Taking into account that contracts in the housing mortgage lending can be both financial and lending, it should be noted that the theory and practice of foreign countries defines the unity of the financial system, brings together elements of independent financial and lending relations. These processes are increasingly reflected in the globalized economy (Savinova, 2013).

The aggregate of financial methods forms the methodological bases for the development mechanism of financial resources of the housing mortgage lending. They define the basic parameters of the development, distribution and use of

financial resources. The financial methods, used in the housing mortgage lending, including the development mechanism of financial resources, are rather diverse. These may include: financial planning and forecasting, investment, refinancing and securitization, financial accounting and financial analysis, taxation and others.

Block IV determines the information space of the development mechanism of financial resources of the housing mortgage lending, and includes legislative, regulatory and legal support, as well as information and statistical and analytical support. The need for this block is due to the fact that the population of relations, arising in the process of functioning of the development mechanism of financial resources of the housing mortgage lending, should correspond to basic regulations, defining its development strategy. A special role of legal support is determined by the need to create conditions for the development of institutional infrastructure, a clear and transparent mortgage lending system for the population, effective supervision and regulation of all participants' activities in the housing mortgage lending.

A special role in the development of the housing mortgage lending, particularly in the formation of financial resources is assigned to public authorities. The Russian government creates conditions for the reliable operation of the housing mortgage lending system. Among its main functions it is necessary to emphasize the following: to define the development concept of the housing mortgage lending; to develop security mechanisms for borrowers of the housing mortgage lending; to provide the tax regime for its members in order to increase the lending availability to the public; to provide insurance arrangements to investors and others.

The decision of major problems of the formation of financial resources is largely determined by central banks. First of all it should be noted that it is necessary to maintain the national currency, and a closely related level of effective demand of the population on the basis of monetary policy. As the market of the housing mortgage lending is a part of the lending market, the Bank of Russia puts a greater emphasis to the use of different tools for a positive impact on the mortgage market.

In the functioning of the development mechanism of financial resources a special focus will be on the fiscal control subsystem (block V). Its content - to control the use of financial resources, with the result that ensures the transparency of the complex transfer system of financial resources in the process of the mechanism functioning. Also, the fiscal control plays an important role in protecting the interests and rights of participants in mortgage programs. The main task of the fiscal control is to reduce financial risks and support the whole process of financial flows.

The development mechanism of financial resources, including the housing mortgage lending, is implemented in the form of financial flows.

## **Results**

The main objective of the development mechanism of financial resources of the housing mortgage lending is to provide a reliable public financing system in order to solve its housing problems. Research of the housing mortgage lending has shown that major problems are the value of the interest rate on the loan and a high cost of the housing construction market. The question of the reduction of



interest rates on the housing mortgage lending is quite often seen in scientific journals and has been raised repeatedly at the legislative level. Emphasizing the need to reduce its size, however, the authors believe that this process should be based on a scientific basis. The possibility of reducing the interest rate on the loan is determined primarily by the state of the financial market. The market price is formed by the interaction of supply and demand of financial resources. The interests of investors in the allocation of capital into mortgage-backed securities are focused at this level. The high cost of resources in the financial markets controls respectively the interest rate on the loan. Administrative regulation of the cost of lending resources may lead to a decrease in investment attractiveness of mortgage-backed securities and to a decrease in their demand in the financial market. The current situation in Russia with regard to financial markets has changed significantly due to the introduction of sanctions by a number of foreign countries. This requires finding internal sources, which were presented in the development mechanism of financial resources of the housing mortgage lending. However, it is essential to consider alternative options - the possibility of reducing the cost of the housing market. The above research showed that an increase in the lending infusion to the mortgage lending system is significantly higher than the dynamics of housing construction, which leads to an increase in its value.

In order to determine the priority of the state policy, the article presented a standard scenario of factors impact on increasing the lending availability to the public.

**Table 4.** Impact assessment of the level of interest rates and the market value of housing on the “availability” of the housing mortgage lending in Russia

Indicator	Initial data	Indicator change	
		Lowering the interest rate	Reducing the cost of housing
The average cost of 1 m <sup>2</sup> of housing in the primary market in 2015, rubles.	51 530	51 530	40 166
The cost of apartments with a total area of 54 m <sup>2</sup> , ths. rub.	2 782,6	2 782,6	2 168,9
Minimum down payment on the loan, 10% of the cost of housing, ths. rub.	278,3	278,3	216,8
Loan period, years	15	15	15
The interest rate on the loan, % **	13,4	9,9	13,4
The loan amount, thous. rub.	2 504,3	2 504,3	1 952,1
The payment of the interest rate	Monthly annuity payments		
The amount of the monthly payment on the loan, rub.	32 348	26 759	25 214

*Source:* It is calculate dusting standard mortgage calculators ([www.irn.ru](http://www.irn.ru), [www.calculator-ipoteka.ru](http://www.calculator-ipoteka.ru)) The weighted average interest rate on issued mortgage loans in rubles since the beginning of 2015 mortgage loans in rubles (according to the Russian statistical yearbooks)

Thus, we can conclude that to a greater extent the lending availability depends on the value of the housing market than on the value of the interest rate on the loan.

It should be stated that at present the construction industry operates separately from the housing mortgage lending system. The unbalanced

development of housing construction and the housing mortgage lending in the current environment requires strengthening the role of public participation in the management of their development. According to the authors, the alignment must be carried out on the development of forecasts and financial planning. The current unstable situation in Russia makes it impossible to forecast the development of indicators under review due to the high volatility of the stock market. And an important role is also given to a careful monitoring of these processes, aimed at revealing and timely resolution of identified problems.

The conducted research of development coordination processes of the housing mortgage market has shown that the acting practice of today to solve these issues does not fully solve the problems facing the region, and it associated with an increase in the mortgage lending availability to the public. In this connection, the authors justified the creation of Regional analysis center of construction and housing mortgage lending, which has to carry out a complex analysis of the housing market and housing mortgage lending in order to balance their performance, as well as to forecast and plan their balanced development.

Currently, the unstable economic situation in the Samara region pays special attention to “economy-class” housing construction as one of the main implementation areas of the housing program. However, it should be noted that in the Ministry of Construction of the region there are no special departments, which would supervise this trend. According to the authors for solving this problem it is necessary to organize two departments, one of which is implementing the housing policy in terms of determining the scope of the budget for its implementation, calculating the demand for economy-class housing volumes, forming lists of participants of this program, amounts, terms and conditions for granting subsidies. The second department specializes in the mentoring of housing economy. To this end, on the basis of received data from the Ministry of Construction on economy-class housing needs, this department calculates the need for adequate financial resources for its construction, attracts construction companies, cooperates with the Samara regional fund of housing and mortgage to develop financial resources and organize the construction process. According to the authors the presented changes in the implementation scheme of the housing policy in the aggregate will allow dealing with the specific problem more effectively, specifying the direction of cash flows, regulating the supply and demand of the housing market.

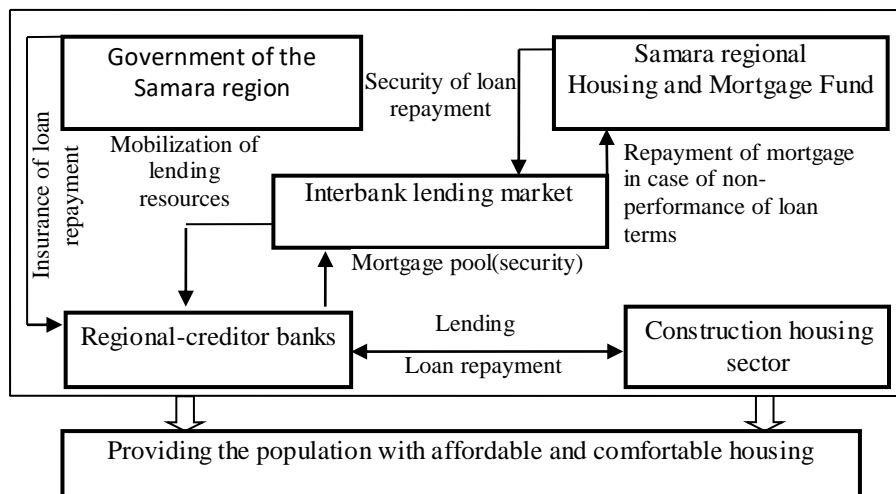
The implementation of this interaction scheme between participants of housing construction and housing mortgage lending is aimed at improving the availability of mortgage loans for the population, which necessitates the development of sources of financial resources.

In our opinion, the financing of economy-class housing construction should be at the expense of lending funds of regional banks in the Samara region. Despite the fact that regional banks occupy a very modest share in the mortgage lending market, they make a significant contribution to the sustainable development of the region. Advantages of regional banks are due to the fact that they know the needs and preferences of clients, and specifics of the regional market functioning better, they are able to adapt to regional specificities and interests of a particular client much quicker.

However, it should be noted that housing is notable for specific features, primarily for industrial nature, and as a result commercial banks do not consider



this type of activity as an attractive investment object. To solve this problem, in our opinion, we can use a mechanism of public-private partnership (Savinova & Solodilova, 2010). The interaction of the state and the private sector to solve socially significant problems has a long history, including in Russia. It becomes particularly relevant in the market economy. The increasing complexity of the socio-economic situation has led to a decrease in capacity of the state, primarily financial, to perform the public focus. At the same time, business entities are interested in new projects to be financed. Such project is the housing mortgage lending. As a rule, these objects are financed at the expense of co-financing, that is, at the expense of private investment and public financial resources. In our view, the involvement of parties in partnership projects may vary, depending on the chosen form. It seems that the public-private partnership should be considered from the perspective of business support by the state, which aims to solve social problems in society. In this case, private sector entities provide funding for the project, efficient management, and professional experience. The state provides the possibility of granting tax incentives, insurance arrangements and carries out its monitoring and controlling of functions in order to comply with the social orientation of the partnership project. According to business valuation, the main function of the state in the public-private partnership should be insurance arrangements. The above problems can be successfully solved within the framework of the types of partnerships (Figure 2).



**Figure 2.** Diagram of the public-private partnership functioning in economy-class housing construction.

Source: Solodilova, M. N. (2014).

The illustrated development scheme of financial resources of the housing mortgage lending shows that the main contribution of the state in solving of the problem must be expressed in the provision of insurance arrangements to commercial banks to return on investment in housing lending in the event of default on obligations under the credit agreement by the borrower - a building complex. State insurance arrangements are provided in the form of unconditional obligations of the state, supported by the partnership agreement of parties, to include the amount of funds allocated by banks to finance housing

construction in the domestic public debt and to repay the funds if the bank is not able to return invested resources under some circumstances.

It seems that the reduction in the lending risk would allow banks to decrease the interest rate on the loan. This position can be supported by the use of financial instruments in the form of benefits to commercial banks – a profit tax relief, received from housing finance as an entity of the Russian Federation. The complex of state and market approaches to solve the problem under consideration would allow bringing together the interests of the state and market structures, as well as giving the missing impetus to the growth of volumes of housing construction. The decrease in tax payments to the regional budget on the income tax will be refunded by their growth in terms of income tax of construction companies as a result of increased construction. The increased availability of housing to the population will increase income and other taxes, such as taxes on property of citizens, as well as the whole complex of taxes from the corresponding development of related industries to the construction industry. This determines the synergies between public authorities and the business as a basic sense of partnership.

According to the authors, the implementation of recommendations and suggestions will allow organizing the process of formation, distribution and use of financial flows, accumulating financial resources of state and commercial organizations, as well as the public funds invested in the housing mortgage lending and housing construction.

## Discussions

The housing mortgage lending in the current environment is the most important institution, which both solves the housing issues of citizens and contributes to the development of socio-economic processes. Its successful development depends not only on sufficient financial resources, but also on the scientific base, providing theoretical, methodological and organizational bases of operation.

However, scientific research has not paid sufficient attention to the study of the economic essence of the mortgage loan as an economic category. There is no common approach to the definition of functions of the mortgage loan, despite the importance and uniqueness of this form of lending relations, and there is also no relationship between the mortgage loan and mortgage lending. Most of authors of scientific papers on this subject are considering the mortgage loan and mortgage lending as synonyms and define them as a long-term loan granted on the pledge of fixed assets to buy some property. The authors of this article have a different point of view and believe that the mortgage loan should be considered as a set of economic relations to develop and transfer the loan capital, performing the functions of the mortgage loan. As an economic distribution category, the housing mortgage lending is a redistribution of financial resources. This feature contributes to the formation of financial resources of participants of mortgage programs, it also provides effective demand for the solution of its housing problems.

In the scientific and educational literature specific features are the social function, the housing market function and the investment function. Following the same position, it should be noted its high dependence on the availability of

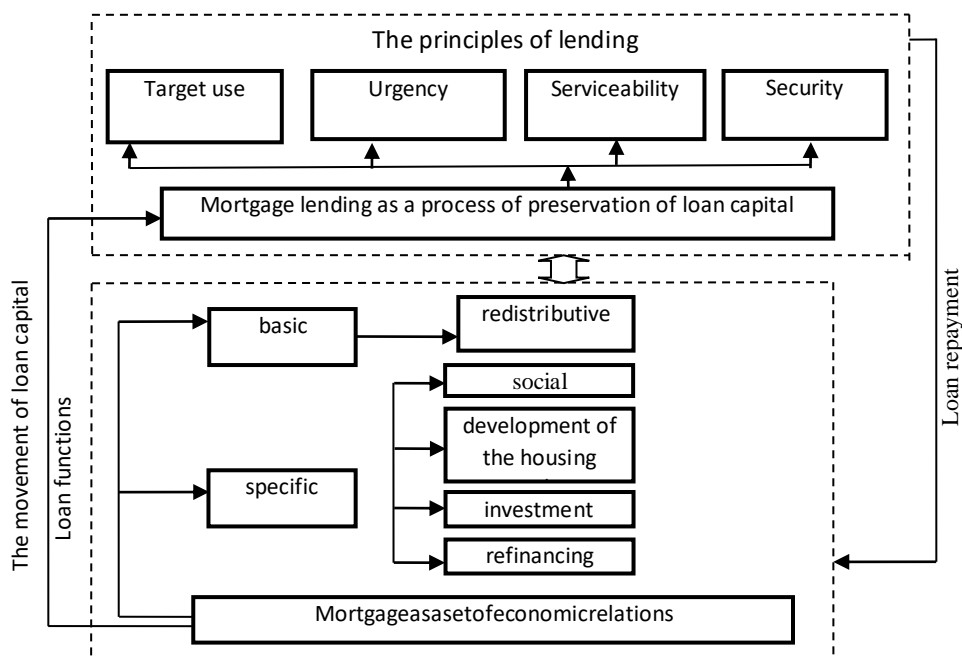




long-term sufficient financial resources. In this regard, the authors highlighted another function - refinancing.

Mortgage lending is a process that implements the essential basis of the mortgage loan. The means of fundamental principles provide loan repayment to the borrower. These are the principles of urgency, serviceability, security, targeted use of loans, differentiation.

However, you may notice that the list of principles of mortgage lending does not have the principle of reflexivity. The authors hold an opinion that the loan repayment is an internal immanent feature of the loan. Thus, it can be argued that the mortgage loan and mortgage lending form a logical unity (Figure 3) (Solodilova, 2014).



**Figure 3.** Logical unity of the mortgage loan and mortgage lending. Source: Solodilova, M. N. (2014).

There are different definitions of concepts in scientific works. The authors considered some of them. I.V. Pavlova's monograph "The housing mortgage lending" defined it as the transfer of the creditor's loan to the borrower on the repayment basis and in order to implement the borrower's housing needs with the provision of housing as a pledge. It should be noted that each author has his vision of the concepts. This concept is not an exception. However, it is sustained within the category.

Modern Dictionary of Economics, (ed. by B.A. Raizberg, L.Sh. Lozovsky, E.B. Starodubtseva) represents the concept of the housing mortgage lending as a long-term loan secured by real estate: land, industrial and residential buildings. In our view, this definition is incomplete and it is difficult to attribute it to any of the concepts in question.

I.A. Razumova (2015) represents the housing mortgage lending – as a relationship on the income movement cost in the area of real estate financing, provided in a long-term loan secured by land, other real estate property or property rights with the preservation of the pledge's right to possess and use them on the principles of repayment, serviceability, urgency, differentiation. It seems that this definition differs by completeness of the content disclosure, but in our view it includes the symbiosis of the mortgage loan as a category and mortgage lending as a process.

The second aspect of the discussion in the theory and practice of mortgage lending affects the determination of the content of the mortgage and refinement ratio of “the mortgage loan - mortgage.” This aspect cannot be called a problem, it is the lack of financial literacy. However, such research is necessary because the mixing of these concepts is so constant, that it is found in scientific publications, regulatory documents, and the average potential borrower of the housing mortgage lending faces it very often. And it is despite the fact that the legal framework in terms of mortgage is developed and is successfully applied in the development of the housing mortgage lending.

1. “At the moment the most important impact on the development of national mortgages by the government is to create financial mechanisms of government mortgage programs.”

2. “The mortgage loan - is a loan, which is provided by the bank and secured by real estate. Mortgage optimally combines the benefits of several entities: the population - to improve their living conditions, the creditors - in profits, housing construction companies - in sustaining demand, the state – to increase the GDP.”

3. “Mortgage is developing quickly and successfully. There is a positive trend: an increasing number of banks that can provide a loan ..... mortgage has become more accessible.”

4. “The currency mortgage - is a type of long-term loans secured by the acquired real estate in foreign currency.”

5. “Mortgage is very important since it can improve the stability and efficiency of the banking system.”

The third aspect of the discussion involves research of the concept of refinancing in the banking business. It is worth noting that the term “refinancing” has universal significance and refers to many processes. The first step is to allocate refinancing operations carried out by central banks as an instrument of monetary control. Furthermore, central banks act as lenders of last resort, and as a result, they carry out refinancing operations in order to maintain the liquidity of commercial banks. In addition, operations of REPO are widespread mechanisms to maintain the liquidity of banks.

The second direction of the refinancing use – is the acquisition of the rights of requirements on the loan in order to develop the creditor's resource base. The main feature of refinancing of this direction - is the end of old liabilities and introduction of new ones. The authors consider some definitions.

Research of presented definitions leads to the following important conclusions: 1) the creditor initiates refinancing operations; 2) the acquisition of credit rights of requirements is funds received from investors when placing mortgage-backed securities; 3) the borrower, involved in the credit transaction, does not take any part in the considered processes.



The third area of the discussion - is the use of refinancing operations. In this case, its essence is revealed in the following way: "refinancing – is a total or partial repayment of the loan by obtaining new loans. Usually these loans are taken under lower interest rates" ([www: glossary.ru](http://www.glossary.ru)). This is called refinancing. In countries with a long history of the housing mortgage lending development, refinancing operations have been widely used. One of the causes of these operations is the use of loans with a variable interest rate. For a more detailed study of this process, the authors considered the stages of its implementation. If the borrower is refinancing under the existing credit agreement, i. e. in the same bank, the bank-creditor reduces the interest rate to the borrower on the basis of the additional agreement. It does not require re-registration of pledge relations of the bank and the borrower. If two banks are involved in the process of lending, the technology of this process is complicated and includes the following stages:

- 1) The borrower receives an approval from the subsequent bank and receives an acknowledgment for the loan in order to repay the debt from the initial bank;
- 2) The borrower requests the primary lender to send the payment of his arrears on the loan in order to justify the loan amount to obtain it in the subsequent bank;
- 3) The subsequent bank provides the loan in the amount that is necessary to repay the loan in the initial bank;
- 4) After the debt retirement on the loan by the initial bank, the borrower and the subsequent creditor bank carry out operations to grant the relief from encumbrances of the subject of pledge and repay the registration in the Unified State Register;
- 5) The borrower and the subsequent bank enter into a contract of mortgage of real property, grant the relief from encumbrances.

Thus, we can conclude that refinancing includes only credit operations, undertaken at the initiative of the borrower. In our view, the considered refinancing technology can be helpful to the borrower, because each of them entails certain costs, the totality of which will allow the borrower to determine whether it is admissible.

Another controversial issue in the article is the authors' proposal to develop financial resources of the housing mortgage lending by public-private partnerships. The discussion focuses on the fact that today this form of funds mobilization has not been implemented yet and it is not considered in scientific sources. Most often you can find a public-private partnership. Interaction of state and municipal authorities and the business is now becoming a more and more priority basis for solving social problems in society. On the basis of foreign and little domestic experience, we can identify the main features of the public-private partnership, distinguishing it from other forms of cooperation between state and market entities. The first step is to identify the role of the state. The state performs regulatory functions in the development of the partnership strategy, determines the relationship with the business, and develops forms, methods and partnerships. As a rule, the projects of the public-private partnership are implemented on the basis of co-financing, that is, at the expense of private investment and public financial resources. The essential feature for

the successful development of this partnership is the competitive environment. Thus, the investor's choice is determined on a competitive basis.

In our opinion, the form of the partnership is determined by the participation degree in the partnership. Being based on this position the article considers the public-private partnership as a tool to develop financial resources of the housing mortgage lending. However, it should be noted that whatever forms the partnership has, the state leads the project. It seems that the public-private partnership should be considered solely from the perspective of support of business positions. In this case, private business entities provide funding for the project, its efficient management and professional experience. In turn, the state provides the possibility of granting tax incentives, insurance arrangements, and also carries out its core functions of control and regulation in order to comply with the social orientation of the project. According to business estimation, the main function of the state should be insurance arrangements. The considered problems of the formation of financial resources can largely be solved within the framework of this form of the partnership.

Thus, the significance of this research is to deepen the understanding of theoretical bases of the housing mortgage lending, including the development mechanism of financial resources and it gives the possibility for their practical use in order to increase their effectiveness.

## Conclusion

The conducted research has led to a number of theoretical and practical conclusions and proposals, the main of which are the following:

1. The housing policy in Russia should be formed in the direction of stimulating supply of the housing construction sector and in the direction of stimulating demand for housing at the same time. The balanced development of these areas will allow decreasing its cost and increasing the availability of housing for the population.
2. The most important issue in the development of the housing mortgage lending is a high cost of lending, expressed in terms of the level of interest rates;
3. The problem of the formation of long-term financial resources is solved in the housing mortgage lending on the basis of refinancing processes, the content of which is assignment of loan claims.
4. To a greater extent the two-tier model of the housing mortgage lending meets the needs of mid-level banks. The lack of significant loan portfolios of banks does not allow them to apply securitization transactions.
5. Securitization is possible at a certain level of the stock market, its infrastructure and housing mortgage lending development, as well if there is an established system of mortgage-backed securities and mechanisms to increase securities reliability.
6. Securitization is the most effective financial tool to solicit financial resources in the housing mortgage lending. However, it is a complex and relatively expensive tool, and in this regard it is only available to major banks, having a solid credit portfolio.



7. Mortgage-backed securities are tools to solicit investment funds. Taking into account the present situation, Russian banks carry out only internal securitization.

8. The insufficient involvement of institutional investors in the investment process is among the problems of formation of financial resources. These investors include pension funds, insurance companies, and mutual funds.

9. The model of construction savings, allowing generating cumulative payment for mortgage loans under available conditions to low income population using contractual savings, has not been implemented yet.

10. The authors presented the model of the development mechanism of financial resources of the housing mortgage lending, and established fundamental principles of its functioning. The basis of this model operation is legal, methodological and methodical support.

11. It was found out that to a greater extent the availability of the housing mortgage lending for the population is determined by the value of the housing market, rather than by the level of the interest rate on the loan. The authors illustrated the scenario forecast effect of these two factors on the lending availability to the public.

12. The authors justified the possibility and feasibility of using the public-private partnership to develop financial resources of the construction sector under state insurance arrangements.

### Disclosure statement

No potential conflict of interest was reported by the authors.

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