Real estate finance in the new industrialization: the transformatibility of the content and the contour of the integration transformations

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Abstract— The relevance of this study is caused by the fact that for the state of the development of the real estate market is a priority in the conditions of new industrialization. The real estate market is a key element of the new industrial economy, and the housing stock is part of the national wealth. Its important role is due to the meeting the needs of society in residential real estate and social infrastructure, the sector’s share in the country’s GDP, and the multiplier effect on related industries: the construction industry, the financial market. For the large-scale development of the real estate market in the context of new industrialization, state financial resources are needed, as well as the improvement of the legislative base. The purpose of this study is to identify and substantiate real estate finance as a derivative of the economic category, analyze the current state of the real estate market in the Russian Federation and identify development trends, identify the existing problems in the structure of real estate finance and determine the directions of their development. In the course of the study, the authors examined the theoretical foundations of real estate finance as a derivative of the economic category, determined the functions of the category and the legal foundations of the real estate industry. Built classification of real estate. The assessment of the current state of the national and regional real estate market, the analysis of financial and quantitative indicators of the real estate market in Russia and in the region have been presented. The financial indicators of the primary and secondary residential real estate markets have been evaluated. The trends in the development of the real estate market in the Russian Federation have been defined. The authors studied the activities of economic entities operating in the real estate market; highlighted significant problems in the real estate market in the context of new industrialization and development prospects have been presented.

Keywords—real estate finance; new industrialization; economic category; financial indicators.

I. INTRODUCTION

The real estate market is the basis of the national wealth of the country. According to the number of owners of real estate, it has a mass character. The right to housing is the primary basis for the freedom, independence and a worthy economy. The state determines the development of the real estate market as a priority direction of the economy, therefore real estate finance becomes of paramount important.

The experience of Russia in the formation of the real estate market, as well as the history of the development of market relations in economic developed foreign countries, shows the decisive role of purposeful directive influence on the state and dynamics of the development of this sector. The need for government regulation is due to the development needs of the market system itself, which reveals the positive and negative aspects of functioning. State regulation of real estate is carried out in order to level the negative manifestations of the market mechanism - inflation and others. Government support is needed for the poor and socially unprotected segments of the population who, for objective reasons, cannot independently solve the housing problem (disabled, poor, young families).

The study examined the theoretical foundations of real estate finance as a derivative of the economic category that determines the economic relations causing the drawing, redistribution and use of funds in the real estate sector. The study examined the theoretical foundations of real estate finance as a derivative of the economic category that determines the economic relations causing the drawing, redistribution and use of funds in the real estate sector, during the creation and expenditure of special funds.

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Analysis of the current state of the residential real estate market and identification of the main trends in the development of real estate finance, it has been established.
that the housing fund of Russia requires a qualitative renewal; the dynamics of the increase in the value of primary objects in Russia and the Sverdlovsk region continues under the influence of the following factors: the tightening of legislation in the field of shared construction; adoption of the programs of mortgage interest rates for primary real estate.

Literature review. The presented study is based on the provisions of economic and financial science of foreign and domestic scientists. Of particular importance for research generalizations are the elaboration of strategies for the economic and social development of a country in the framework of institutional transformations described in the works of V.M. Polterovich [19]. Theoretical and practical positions of scientists and economists represent the dynamics of the real estate market, are presented in the works of K. Redfearn, S.A. Smolyakova, V.I. Arkina, A.D. Slastnikova [20, 21]. The study of real estate finance is based on the basic provisions of economic research, evaluation, development, in the works of MA. Fedotova, A.D. Murzina, E.A. Sobolevoj, E.V. Markina, L.A. Chaldaveva, T.Yu. Polkhotvskoy, V.G. Shabalina, E.N. Ivanova [3, 10, 11, 12].

Research Methodology. The basis of this study is the use of general scientific and special methods. The use of a comprehensive list of methods aimed at the study of real estate finance in the context of the real economic situation.

II. PRACTICAL SIGNIFICANCE

All properties form the real estate market. We are going to give a definition of this concept. The real estate market is a system of economic relations. It is in this market that prices are formed from the combination of supply and demand and transactions are carried out to transfer property rights to real estate and related interests from sellers to buyers. In the Russian Federation, the real estate market is a combination of regional and municipal markets that differ from each other in price levels, the quantity and quality of real estate, and the efficiency of investments. We highlight the main factors operating in the real estate market [14]:

- demand;
- supply;
- price;
- market price;
- information infrastructure.

Under the demand refers to the number of plots, buildings, structures and rights to them, which buyers are willing to purchase at the prevailing prices for a certain period of time. It is worth noting that the demand for real estate objects changes in inverse proportion to the price: it increases with a decrease in the value of the object and decreases with an increase in price. There are terms that influence the formation of the demand: economic (economic growth rates, level of business activity of citizens and their incomes, cost of utilities), social (demographic situation, level of education), environment (location, ecological situation, level of development of social infrastructure), administrative (restrictions and terms for the construction of real estate, the order and complexity of transactions), climatic conditions, political (stability and excellence law dative base of the property), national and cultural (traditions and customs of the population).

Based on the terms of the formation of demand, it can be said that it is quite variable in terms of regions, subjects, districts and municipalities.

The offer is the number of properties that the owners are ready to sell in the market at certain prices for a certain period of time. This factor consists of two components: the offer of existing facilities and new facilities. Since real estate is characterized by durability, the offer of existing objects will always exceed new ones. It is worth noting that the more the value of real estate is, the more the proposals for their implementation are.

Price - the amount of money paid for the transfer of ownership of the property during the transaction, reflecting the event and unchanged over time.

Market value is the most likely price at which a property can be alienated in an open and competitive market, provided that the seller and the buyer act reasonably, have all the necessary information, and outside incentives or extraordinary circumstances do not affect the transaction, that is, when:

- the price of the property is expressed in cash;
- all parties to the transaction are aware and act in their own interests;
- acquisition or alienation of the property is a voluntary desire of each party to the transaction;
- transaction price is a rational remuneration for the property and coercion to complete the transaction in relation to the parties involved in the transaction with any party which was not take place [8,9].

Information infrastructure is a legal and financial information base, a system of information services that preserve and transmit the data necessary for the functioning of the markets in general and the real estate market in particular. This factor assumes the content of reliable information:

- on the rules and regulations of work in the real estate market;
- on the structure of supply and demand for various real estate objects;
- on the level and dynamics of prices for real estate in various market segments.

The Russian real estate market has several unique features [13,15]:

- localization;
- the complexity of the transactions;
- a high degree of state regulation of the market and transactions in it;
- high costs of making deals with real estate and owning them.

Localization is highlighted as a specific feature due to the fact that the location of real estate objects is of great importance and is not a subject to be changed: the price and a demand for real estate depends on it. Sometimes transactions with real estate objects are stretched for quite a long time due to the complexity of the current legislation: difficulties may arise with guardianship bodies if interested children under 18 participate in the transaction, with real estate transaction registration authorities, with inheritance of immovable property objects. High costs are associated with the state duty on registration of the transaction and other fees, with the
Fig. 1. Real estate market in the system of national economic circulation

The real estate market is represented as the central and connecting link of the national economic circulation system. Individuals and legal entities create an aggregate supply and demand for real estate, and conduct transactions with them, as well as both categories of persons can engage in the process of investing in this market. Operations in the real estate market can be a source of income for the budget of the Russian Federation. Individuals and legal entities are obliged to pay taxes to the state, but in return, respectively, are entitled to receive benefits and social support measures. The interconnection and interaction of the presented elements in the system of economic circulation of Russia is demonstrated [2,5].

### III. SCIENTIFIC AND PRACTICAL CONCLUSIONS

The development of the real estate market obeys the basic laws of economics. Gradually, the demand and supply of residential real estate are being balanced, the market value of them is being established, new modern types of real estate appear. Both economic development and the real estate market in the regions of the Russian Federation are heterogeneous. In the study the dynamics and structure of the housing stock, offers of real estate, transactions with them, their cost per square meter, the pace of the introduction of new residential space in the countries and in the Sverdlovsk region are examined and analyzed.

The current state of the housing stock of Russia needs a qualitative renewal. Special legal acts to help resolve this issue have legislatively been introduced, funding from the federal and regional budgets to achieve these goals has been allocated.

Under the update one should understand the decline in the share of dilapidated and emergency housing in the structure of the housing stock. In this regard, the dynamics of the housing stock of Russia and the Sverdlovsk region and the change in its structure in the period 2015-2018 are analyzed.

### TABLE I. HOUSING IN RUSSIA AND THE SVERDLOVSK REGION (2015-2018)[16,17,18].

<table>
<thead>
<tr>
<th></th>
<th>In all</th>
<th>Dilapidate d and emergency housing</th>
<th>In all</th>
<th>Dilapidate d and emergency housing</th>
<th>In all</th>
<th>Dilapidate d and emergency housing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia Mln.sq.m</td>
<td>358</td>
<td>89,53</td>
<td>373</td>
<td>85,81</td>
<td>381</td>
<td>81,44</td>
</tr>
<tr>
<td>Sverdlovsk k region Mln.sq.m</td>
<td>108</td>
<td>1,94</td>
<td>111</td>
<td>2,05</td>
<td>114</td>
<td>1,99</td>
</tr>
<tr>
<td>The share of Sverdlovsk k region in the Russian Federation %</td>
<td>3,02</td>
<td>2,17</td>
<td>2,97</td>
<td>2,39</td>
<td>2,99</td>
<td>2,44</td>
</tr>
</tbody>
</table>

According to the table, we can conclude that in Russia there is a dynamic increase in residential properties. The share of housing in the Sverdlovsk region across the country scale is insignificant. The leading regions are: Moscow, Moscow and Leningrad regions, Krasnodar and Altai regions, the Republic of Tatarstan. These subjects are traditionally densely populated and, accordingly, are more attractive to investors in the construction of residential real estate. The construction of new residential properties in the southern regions of the country, in which there are more favorable climatic conditions, is a constant trend associated with the increased demand of the population. In Russia as a whole, a decrease in the number of dilapidated and emergency housing was recorded, in the Sverdlovsk region this indicator began to decrease only from 2016. It can be said that the measures carried out, described in special Programs at various levels, for the resettlement of the population from dilapidated and emergency housing are quite effective.

Let us consider in dynamics the value of the indicator of the area of residential premises, which are on average per resident.

### TABLE II. TOTAL AREA OF REAL ESTATE OBJECTS PER ONE RESIDENT IN RUSSIA AND IN THE SVERDLOVSK REGION (SQ,M) [16,17,18].

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>56</td>
<td>55</td>
<td>53</td>
<td>52</td>
</tr>
<tr>
<td>Sverdlovsk</td>
<td>57</td>
<td>56</td>
<td>54</td>
<td>53</td>
</tr>
<tr>
<td>All</td>
<td>56.5</td>
<td>55.5</td>
<td>53.5</td>
<td>52.5</td>
</tr>
</tbody>
</table>
According to the data presented, it can be concluded that there is a trend towards an increase in residential space per one Russian in the entire Russian Federation and in the Sverdlovsk region. This positive dynamic indicates that many citizens can improve their living conditions by moving to more spacious housing. To further increase of this indicator, it is necessary to build and commission new real estate objects. The leadership of the country has set the task to introduce annually 120 million square meters of new housing by the year 2025. When this indicator is reached, it is possible to count on the general increase in the area of residential buildings, which are on average per the Russian, to 30 square meters on average.

We will continue the analysis with consideration of the structure of the real estate market in Russia and the Sverdlovsk region according to the forms of ownership: private, state, municipal, and others.

<table>
<thead>
<tr>
<th>Type of Property</th>
<th>Russian Federation</th>
<th>Sverdlovsk region</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2015</td>
<td>2016</td>
</tr>
<tr>
<td>Private</td>
<td>24,4%</td>
<td>24,9%</td>
</tr>
<tr>
<td>State</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Municipal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>1%</td>
<td>4%</td>
</tr>
</tbody>
</table>

The figure shows that private ownership of real estate predominates in Russia. Let’s consider the real estate market in the Sverdlovsk region in accordance with the forms of ownership and compare the values obtained.

Table III. Total Comparison of Average Prices Per 1 sq.m. for the Objects of Primary and Secondary Real Estate Properties in Russia (2015-2018) [7,17]

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average price for the primary real estate objects rouble/sq.m.</td>
<td>68353</td>
<td>69764</td>
<td>72190</td>
<td>73106</td>
</tr>
<tr>
<td>Average price for the secondary real estate objects rouble/sq.m.</td>
<td>62254</td>
<td>61795</td>
<td>59343</td>
<td>60024</td>
</tr>
<tr>
<td>Excess of average price for the primary real estate objects versus the secondary ones (%)</td>
<td>+9,8</td>
<td>+12,9</td>
<td>+21,65</td>
<td>+21,79</td>
</tr>
</tbody>
</table>

The construction of new residential properties, its dynamics and volumes is one of the indicators of the socio-economic development of the regions and the state.

IV. THE DISCUSSION OF THE RESULTS

The forecast for 2018 is associated with innovations in the legislation governing the share building. From July 1, 2018 new requirements are imposed on developers:

- the developer’s own funds may not be less than 10% of the planned project construction cost. Financial resources must be in a bank account owned by the organization that carries out the construction, when sending the project declaration for approval to the authorized body;
- the developer is obliged to make mandatory contributions to the compensation Fund in the amount of 1.2% of the price agreed by the parties for each equity participation agreement in shared construction, providing for the transfer of a residential property;
• the developer has the right only to open and maintain one current account, through which all calculations related to the construction of a shared object will be carried out;
• the developer can carry out the construction of a share object (the creation of an apartment building) only for one building permit;
• requirements are imposed on persons occupying the positions of the head, chief accountant, head of the management company;
• the ability of the developer to carry out economic activities and others significantly limited.

All these new requirements are designed to protect the rights of citizens-shareholders. However, they significantly complicate the conduct of the activities of developers, it is expected that the companies engaged in construction will not receive profits as a result of activities, which will lead to a serious reduction in the number of construction organizations.

According to the laws of the market economy - with a reduction in the supply of goods the price for it increases, and since the real estate market operates according to market rules, accordingly, it is possible to predict a further increase in the value of primary real estate.

A promising direction is the introduction of blockchain technology to the real estate market [22]. The Russian Association of Cryptocurrencies and Blockchains has created a working group on the development of digital mortgages. The aim of the work is the standardization of blockchain processes in the design and maintenance of a mortgage loan. As part of the group’s work, mechanisms will be discussed to reduce the costs of selling and servicing a mortgage loan, it is also planned to create transaction records methodology that cannot be changed by fraudsters and will guarantee eligible and fair use, ensuring sales transparency.

The value of real estate finance cannot be overestimated, this category contributes to the development of the economy, improving the welfare of the population by meeting housing needs. The role of the state in the real estate market is manifested in the measures taken, which can help solve emerging problems in both the primary and secondary markets.

Acknowledgment

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