MODELS OF MORTGAGE LENDING: CROSS-COUNTRY EVIDENCE

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ABSTRACT

The purpose of this article is to consider different types of mortgage lending and determine the most favourable one in the context of current economic conditions. European (USA, Germany, United Kingdom and Russia) experience analysis has shown that creating and developing cooperatives makes it possible to improve the efficiency of housing market financing systems. Construction savings system implementation that allows increasing the level of affordable housing provision is regarded as an essential process. The use of mechanisms of a balanced autonomous model is substantiated. The study has showed that housing market financing tools analysed can be divided according to the degree of priority. Mortgage is used for real estate purchase while construction savings system when a person has time for accumulation of money. The latter also brings its participants an additional income in the form of deposit interest payments.

Keywords: Mortgage Lending, Building Cooperative, Mortgage List, Construction Savings System, Credit Risk.

INTRODUCTION

Currently, providing citizens with affordable housing is one of the urgent social and economic problems (Suarez & Vassallo, 2004; Piazzesi et al., 2007; Chen et al., 2010). In the world practice, there are various models of mortgage lending designed to solve this problem. European and US experience is fairly meaningful (Goodman & Woluchem, 2014; Miznikova, 2015; Smith, 2015; Vojtech et al., 2016).

Mortgage lending is the activity of lending money to buyers of houses and other property. Mortgage systems of modern states have specific features conditioned by various mortgage models (Carragher & Webster, 2011; Sitek, 2013). These models are based on the process of implementing certain schemes of interaction among participants in the system.

The current world practice is especially relevant for Russia. The elements of existing mortgage systems can be adapted with due account for its features (Zhurkina, 2007; Sergeev, 2008).

Socio-economic development strategy for national economy of particular countries (specific legislation, certain mortgage mechanisms, etc.) is determined mainly by the inherent features of modern mortgage lending systems (Piazzesi et al., 2007; Chen et al., 2010).

In this case, it is necessary to note the differences in legislative regulation in countries with Romano-Germanic and Anglo-Saxon legal systems, as they have predetermined the set of approaches towards formalizing the relationship between the mortgage contract parties.

In all countries of continental Western Europe (except Denmark), mortgage systems are alike. In these countries, notarial act certification, cadastre or land registry, data publication on mortgage transactions and other significant formalities are mandatory (Aalbers, 2017). It is important to note that Russia has also introduced the mandatory notarial certification for transactions.

In the countries with the Anglo-Saxon legal system, mortgage systems are more liberal and less formalized. In the Anglo-Saxon mortgage system, one is able not to notarize the act.

At the same time, the subject of a pledge is not clearly defined (sometimes there is even no publication regarding this matter) (Blackwell & Kohl, 2017). The Danish mortgage system can be based on both the first and the second approaches.

American mortgage system is one of the most important mortgage systems, since the securities market is significantly developed and many debt obligations are secured by a mortgage. Changes in the stock market strongly affect mortgage lending, as mortgage development affects the financial market, as it is evident from the global financial crisis, when many market segments, including mortgage market, collapsed (Aalbers, 2008).

The purpose of this article is to analyse different types of mortgage lending existing in foreign countries and to determine the most favourable one in the context of current economic conditions.

METHOD

Concepts generalizing the principles and mechanisms of mortgage lending transformation in foreign countries (USA, Germany, United Kingdom, Spain, and Israel) are regarded. Mortgage lending models in developed countries were divided into three groups and summarized in table. Ways of state regulation of Russian economy and mortgage models formed on their basis were developed in accordance with cross-country evidence and principles of multiple criteria decision analysis (AF Ferreira et al., 2014). One-tier mortgage model analysis was made in order to single out its advantages and disadvantages in comparison with the two-tier model. The methodology of the study includes general and individual methods of research and materialistic dialectics, formal and logical, historic and legal, system and analytical.

Analysis

Economic performance of different countries allowed us to allocate several mortgage models presented in Table 1.

Table 1
MORTGAGE LENDING MODELS IN DEVELOPED COUNTRIES

No	Model	Countries implementing the model	Description
1	Reduced open model	United Kingdom, Israel, Spain	Bank's own capital, deposits and interbank credits-money sources used for granting mortgage loans. The rate is determined by the current business climate.
2	Expanded open model	USA	Banking organization issues a loan to the client depending on his/her income level and credit history (Bricker et al., 2017).
3	Balanced autonomous model	Germany	Citizens create a co-operative and make contributions for a certain period of time. As soon as half of the cost of future residential real estate is accumulated, co-op participant gains the right to purchase real estate in the order of priority. The rest is paid within 10 years (Carragher & Webster, 2011).

Financial market environment has an impact on how a balanced autonomous model is being built due to the fact that loan proceeds are accumulated by attracting the savings of future borrowers (mutual aid fund principle). This model may be of interest for Russia, since the cost of residential real estate in new buildings is lower than in the secondary market. Besides, in Russia, construction costs are significantly lower than the market value of real estate. There have already been attempts to create cooperatives in Russia. However, this practice is poorly developed and requires a more complex multi-structure system, so that these structures will be maximum efficient. Taking into account Russian pre-revolutionary experience is also important, since the cooperative system has been successfully implemented during that period.

Another level of mortgage lending systems involves a one-tier and two-tier mortgage models. The choice of this or that model depends on the specific features of national development and state’s history of financial/mortgage system development. Implementing the loan refinancing procedure is also an important process (Goodman & Woluchem, 2014).

Based on the foregoing, it is commonly believed that a two-tier model is applied in the US while a single-tie model in European countries.

The two-tier mortgage model was formed historically due to the aroused need in credit transactions fixed at the national level. These measures were introduced in order to increase loan liquidity and refinance it in the future.

In the case of a two-tier mortgage model, it is expected that loans of the primary mortgage market will be transferred to the open market under the state mortgage agency support.

Mortgage agencies have the right to form a mortgage pool based on alike loans and sell them (or their shares) to secondary investors. The received money can be immediately assigned to secondary investors (Kirpichnikov, Davydov & Nikolaeva, 2016).

Cash received from such transactions can also be used to issue and place mortgage securities. This conditions the stock market development and operations with mortgage-backed securities. These operations ensure a constant movement of financial flows in the world financial market.

One-tier and two-tier model has showed that they have significant differences based on their historical development.

The look-back analysis of a US two-tier mortgage lending model development has showed that this mortgage system has been forming as an effective (one of the leading ones) model for a long period of time. However, its development has been slowed down because of wars and crises. American mortgage lending model analysis allowed us to identify six major stages of its development. At the first stage (30s of the XX century), mortgage has been actively developed until the Great Depression that has entailed a housing market collapse. Thus, the percentage of unpaid mortgage loans has sharply increased. The US Government had to take urgent steps to restore the situation. The next important event the creation of the Federal Housing Administration was in 1934. This step has partly solved the mortgage debt problems (Leathers, Raines & Richardson-Bono, 2015).

Let's analyse a one-tier model of mortgage lending used mainly in European countries. Its essence is that the bank that issued a mortgage loan independently issues loan securities that are secured with issued mortgage loans on the one hand and with mortgaged real estate on the other (Arkhangelsk Regional Operator for Housing Mortgage Lending). Mortgage list business is regulated by special legislation. The issuer specified in the legislation (mainly banks) can issue mortgage lists. Mortgage bank activity is strictly controlled by the state and banking supervisors.

In the framework of this model, the State is expected to support the participants of a mortgage mechanism, establish the rules of a game and turn the mortgage into an effective tool of economic development.

In recent years, several European countries activated capital-based macroprudential instruments affecting capital requirements for real estate exposures. Thus, 25 percent risk weights (RW) floor on mortgage loans in Sweden, tighter criteria for the application of preferential RW to residential property in Croatia, Ireland and the UK, increased RW for exposures secured by commercial real estate properties in Ireland, Norway, Romania and Sweden can be taken as an example (Ferrari et al., 2017; Luque & Mello, 2017).

The primary mortgage lending institution has been forming in the XVIII-XIX centuries. In this period, there appears a concept of pledge and guarantees for this type of loan. At the next stage (30s of the XX century), there are special institutions created to organize mortgage lending operations and secondary mortgage market performance by means of securities. The third stage (the end of the XX century the beginning of the XXI century) was marked by the improvement of existing market tools and mortgage market performance within the framework of the model. The global financial crisis has slowed down the market development: interest rates have increased and the list of programs got shorter. For example, certain European mortgage products were cut down or their requirements for potential borrowers were tightened. However, now we can speak about the European post-crisis model development, market restoration, enhanced lending, and greater (in some countries, for example Austria) opportunities for citizens to subsidize their real estate purchase. The interest rates range about 3-8% depending on the country and loan terms (Luque, 2017).

A one-tier model of mortgage lending is being implemented in Hungary, Germany, Denmark, Poland, Slovakia, France, the Czech Republic and other European countries.

One-tier mortgage model analysis has made it possible to single out its advantages and disadvantages in comparison with the two-tier model.
Its advantages:

1. low implementation cost;
2. Simplified legislative regulation.

At the same time, two-tier mortgage model also has advantages that are considered disadvantages of a one-tier model:

1. Credit risks not covered by insurance and guarantees are apportioned among all loans due to forming mortgage pools;
2. State institutions provide guarantees for certain types of mortgages and help the specific categories of citizens to get preferential mortgages;
3. State authorities implement a specific policy to stimulate the provision of insurance and guarantees both for citizens and other model participants through the legislative and financial support. Simultaneously, the government is developing a system of regulation and control in order to stabilize model's effect;
4. Model allows entering the stock market and using more transparent pricing mechanisms. This allows market participants to measure risks and benefits of investing in certain mortgage products.

In the one-tier mortgage lending model, construction savings system is the most widespread system.

Its cycle includes several stages. At the first stage, money is accumulated: saver enters into an agreement with the construction savings bank, and the latter raises funds. Thus, housing construction savings system is independent of the securities and banking markets, interest and securities rates fluctuations. Money is being accumulated for 5-10 years. As a result, the saver accumulates 40-50% of the amount specified in the contract. Paid savings deposit percentage is significantly smaller than the market one. A mortgage is issued in the order of priority. Its interest rates are significantly lower than market rates. Construction savings system will function even in the case of no mass demand for mortgage loans among cash people thanks to low interest rates (Federal Assembly of the Russian Federation the Russian Federation Today).

German mortgage system is the most developed one, since the state has mortgage banks, which have the right to issue mortgage lists only if they are valuable. Such banks can serve as mortgage absorbers. In Germany, construction savings system is also well developed. It is a prototype for similar systems in other countries implementing it.

In addition to general guarantees of mortgage bank reliability inherent in the European model, the German system has two additional advantages:

1. Banking supervision system making spot checks from time to time;

2. Mortgage bank manager is appointed as a supervisor for this particular bank.

Loan issuance in the amount of 100% of the real estate purchase price (less often - 98%) is an essential advantage of the German model. However, loan amount does not exceed 80% of the mortgaged property value, and the interest rate is 4-7% per annum. The loan rate is fixed for the effective period of a contract, but may be lower than for the period provided for the full loan repayment. In this case, the lender can offer a new rate at the end of the agreed period, and the borrower determines whether there is a need for its adoption. It is also necessary to take into account the pledge paid when getting a mortgage loan.

RESULTS AND DISCUSSION

Banks can play a decisive role in the financing of real estate through mortgage financing. They lend for the purchase of land for development and existing buildings; they finance construction projects; they lend to non-bank and they lend to non-financial firms based on real estate collateral (Davis & Zhu, 2011). Thus, in USA residential construction is peculiarly dependent on mortgage loans: almost all one to four-family housing are being bought with the aid of mortgage loans and this has led to a tremendous growth in the real estate sector in this country (Snowden, 1997; Leathers et al., 2015).

It is pertinent to point out that in 1935-1981, there were created such large companies as Fannie Mae and Freddie Mac, which have been the most important financial structures of the mortgage market for many years (Carr & Anacker, 2014; Shapiro & Kamarck, 2015). In the late 80's, there was a new type of securities issued by mortgage investment intermediaries. They have made the mortgage market bigger and strengthened its position. However, the 1998 and 2008 crises have dent the situation, especially in 2008, when the housing bubble burst and the US mortgage market collapsed (Mazure, 2012).

However, the US experience has shown that the mortgage system, which began to develop actively during the Great Depression after serious crises, moved from a mechanism with strict state regulation to a self-regulating economic system. The State supports the mortgage system due to the need in providing citizens with affordable housing. The US mortgage system is one of the fastest recovering and developing models. Despite the 20% drop in house prices during the global financial crisis, American citizens impoverished by almost USD 5 trillion (NEWSru.com). Reliable borrowers have faced the problems with lending quite quickly (Real Estate Market) (Hwang, 2014). Thus, mortgage crisis affected almost 40% of total market loans. However, the US mortgage model is functioning effectively now. In 2016, the minimum loan interest rate was 2.81% compared to the previous minimum recorded in May 2013 (2.86% for a 15-year loan) (INTERFAX Agency official website) (Bricker et al., 2017). Based on the above, despite the serious consequences of the crisis, the US mortgage market has recovered at a rapid pace. However, we cannot say the same about the the Russian market, which still has quite high mortgage interest rates.

There are being made attempts to use the construction savings model in the Russian practice, but the system is not widely used. Construction savings system is implemented through private cooperatives (Mazure, 2012). Despite a significant risk reduction, more liberal lending terms, Russian citizens are reluctant to become participants in such cooperatives. They believe that the mortgage system is more protected and less risky in terms of interaction with builders and building owners, and loan issuance procedure.

However, obtained data indicate that construction savings system can bring significant progress in providing citizens with affordable housing and banks with additional resources – loan products, including mortgage loans, can be provided with long-term money.

Thus, there can be successfully implemented two areas: mortgage lending and construction savings system.

Construction savings system can be offered to citizens, whose need in real estate purchase is not an emergency. Money received from savers can bring them additional revenues and provide additional money to creditors, who can use these resources to make a profit by offering them as various loans (for example, consumer loans, etc.) for a shorter period. Banks can allocate the rest of money in the form of a mortgage, but with more liberal lending terms.

Those citizens who need money on an urgent basis can fill out a mortgage application. Accordingly, urgency will cost him/her higher interest rate and hard terms. Thus, citizens in need of real estate will be divided into two groups by products they can use. These measures can allow strengthening Russia's positions in the world financial market, solving a number of social problems and reducing social tension by providing citizens with affordable housing.

CONCLUSION

To sum up, national mortgage models (reduced open, expanded and balanced autonomous models) have been forming for a long period. Comparative functional analysis has made it possible to identify the advantages and disadvantages of each model. We have also determined that a balanced autonomous model can be implemented in Russia, since prices in the primary housing market (new buildings) are lower than in the secondary market. Besides, construction costs are much lower than the market price of real estate. The network of construction cooperatives has to be expanded, as this will improve the housing market financing system. We advise to use the elements of each considered model to improve the housing market financing system. There are two major models of mortgage lending, namely – one-tier and two-tier models. Two-tier model is popular in the US. Its essence is that mortgage loans available in the primary mortgage market are assigned to agencies created with state support. As for one-tier model, it essence is that the bank that issued a mortgage loan independently issues loan securities that are secured with issued mortgage loans on the one hand and with mortgaged real estate on the other. Models have differences emerged during their evolution. In our opinion, German construction savings system will be effective in Russia. This system allows gradually accumulating money for real estate purchase. This system can serve as a tool of the housing market financing system. If the borrower has no need in purchasing real estate immediately, he/she can join the construction savings system and gradually accumulate money by earning a small savings deposit percentage. If a citizen needs money immediately, he/she fills out a mortgage application. However, urgency will cost him/her higher interest rate and hard terms.

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