Securitization of Bank Assets as a Source of Financing the Innovation Activity

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ABSTRACT

The paper justifies the features of securitization of bank assets (SBA) as a process and as a source of financing of innovation activity. The place of securitization among financial innovation instruments is defined for this purpose, the basic distinctive features of the securitization model from other financing models are set out, peculiarities of application of three models of securitization (classical, synthetic, corporate) in solving problems of optimization of bank assets and reduction in the risks of banks and in financing of innovation are established. The efficiency of using the model of SBA is defined. It is justified that not only the bank that manages credit risk receives the new possibilities in securitization operations, but also so does the client who is interested in reducing the cost of the loan funds used, as well as the investor who receives a highly profitable and at the same time low-risk financial instrument in the implementation of innovative projects at their disposal.

Keywords: Securitization Models, Bank Assets, Bank Risks, Innovation Activity, Innovative Project

JEL Classifications: G11, G21

1. INTRODUCTION

The last decade of the market economy is characterized by the emergence of new financial instruments on the financial market. Asset Securitization, which allows to raise investments to finance innovative projects, is one of the effective financial instruments. The possibility of using Asset Securitization as a source of financing of innovative projects has led to a growth of the innovation activities of enterprises, which in turn will contribute to economic growth. Thanks to securitization, new classes of debt instruments have emerged, which gave access to the market to new participants, including corporations, which contributed to the expansion and deepening of the capital market (Battaglia and Gallo, 2013).

Asset Securitization is a financing tool that can be used to raise financial resources for innovation activity, as well as act as a flexible investment object. Issue of securitized assets is emission of securities backed by cash flows from the objects of the securitized assets.

Since 1968, the Federal National Mortgage Association (Fannie Mae) has begun issuing mortgage-backed securities (MBS); Asset Securitization has become a common instrument of financing. According to the Securities Industry and Financial Markets Association, the volume of the issue of backed securities with securitization of assets only in 2014 amounted to more than 7,800 bln euros in the US. In Russia, the securitization of assets has been actively used since 2004; the volume of issues of securitized assets by major Russian banks only in the 2013-2015 period exceeded 800 bln euros. Until recently, the list of objects of securitized assets used in the Russian Federation was limited and included income from mortgage loans, car loans, lease payments and future export revenues. Currently, the list of objects of securitized assets has considerably expanded.

National Banking Magazine notes that, according to the Housing Mortgage Lending Agency estimates, the accumulated portfolio of residential mortgage loans (3 trln rubles) characterized by a high quality (share of loans without any delay is more than
95%) is a good guarantee for operations of Bank of Russia on liquidity provision. However, its potential is virtually not used: The Lombard list of Bank of Russia, the securities from which can serve as collateral for loans, includes MBS in an amount not more than 210 bln rubles (< 7% of the total mortgage debt).

This estimate suggests that the market of securitized assets has a great potential as a source of financing to be used in innovation and regulation of the financial market liquidity in general. The imperfect models of raising funds for the use and expansion of the objects of securitized assets impede the use of these sources of financing.

The authors justified the use of models of securitization of bank assets (SBA), which are innovative models of a wide range of application in the solution of problems of optimization of bank assets and reduction of the bank risks in the financing of innovation activities of enterprises and allow investors to have a highly profitable and at the same time low-risk financial instrument in the implementation of innovative projects at their disposal.

A fairly wide range of publications in the foreign economic science are dedicated to the problems of securitization, written by such researchers as Bar, Gorton, Jobst, Lopakki, Case, Mukherjee, Seru, Jordan, Tett, Fender, Mitchell, Schwartz. The works of Kothari are of particular note. In recent years, the securitization issues also began to be discussed in Russian literature (for example, in the works of Menshikova, Batueva, Kachalina, Gazman, Aleksandrova, Mirkin, et al.). Among the studies on the prospects and problems of development of securitization in Russia, we should note the works of authors such as: Kazakov, Melnikas, Magomedov, Yablonskaya, Iseeva, Suvorov, Soldatova. The studies of these authors mainly deal with possible application of the Western experience and problems of the existing regulatory support for securitization transactions, they do not pay enough attention to fundamental economic conditions of development of the domestic securitization market, as well as the analysis of new legislative initiatives of regulators, in particular the “Law on securitization,” which came into effect on July 1, 2014.

The works of the following Russian authors are of particular note: Suchkov, Penkina, Gekht, Natasha, Ivanov, Nikiitin, Korovin, Dzhantuhanova, Sinitsyn, Aksenov, Bois, Saus, Kaduk, Shcheglov, Faizullin, Kalinin, Ushakov, Filchurov; some of their works can be found in the periodical edition of “The encyclopedia of Russian securitization.” The authors manage to analyze various aspects of the modern Russian securitization market, identify problems and suggest their solutions in these studies. Most of the abovementioned scientific publications are devoted to the analysis of the positive aspects of securitization transactions, assuming their absolute effectiveness as one of the innovative technologies to raise financing. A critical approach to securitization transactions (with the analysis of the risk universe inherent in such transactions and well-developed market of securitization transactions) is contained in the works of foreign authors such as Kettering, Koopman, Rakesh and some others, while such an approach is almost not represented in the domestic literature. It should be noted that a number of scientific publications are dedicated to the assessment of the economic effects of securitization application, including the works of Kazu, Nadauld, Mitin, Ivkin and some others.

Before starting to analyze the process of SBA as a source of financing of innovation activity, the following should be noted. The relevance of the topic under study, considered from the standpoint of innovation and securitization pragmatism, is confirmed by the facts that the organization (bank) using instruments of (bank) Asset Securitization receives new possibilities: The ability to improve the effectiveness of its activity, while optimizing the structure of assets and sources of their financing, as well as to reduce the inherent risks. This is a basic development strategy of each organization in today’s economic conditions. Moreover, it is important to emphasize that not only the bank that manages credit risk receives the new possibilities in securitization operations, but also so does the client who is interested in reducing the cost of the loan funds used, as well as the investor who receives a highly profitable and at the same time low-risk financial instrument in the implementation of innovative projects at their disposal.

2. METHODOLOGICAL BASES OF BANK ASSET SECURITIZATION

2.1. Place of Securitization among Financial Innovative Tools

The term “securitization” was first introduced into scientific terminology by Lewis Ranieri, head of the Mortgage Department at Salomon Brothers in 1977 (Heyre, 2007).

Let’s consider the most common definitions of securitization given in foreign scientific sources.

1. Asset Securitization is the structured process whereby interests in loans and other receivables are packaged, underwritten, and sold in the form of “asset-backed” securities (Comptroller’s Handbook on Asset Securitization, 2016).
2. Securitization is a process of averaging and packaging of financial instruments in the new instruments that can be sold (Black’s Law Dictionary, 9th ed. Garner, 2009).
3. Securitization is a financial transaction in which assets are collected in a single pool, and then securities that reflect the interest payments in the pool are issued (Risk-glossary, 2016).
4. Securitization is backed lending, in which the company gets a loan backed by assets or group of assets (Peter, 2006).
5. Securitization is a process of formation of the pools of financial obligations and their shaping that allows financial assets to freely circulate among many investors. Thus, securitization allows to turn the original obligations in the purchase object (Davidson et al., 2003).
6. Securitization is packaging of loans or receivables in a pool using mechanisms of credit enhancements and the subsequent sale of the packed assets to investors. Investors buy repackaged assets in the form of securities or a loan that are backed by this pool of assets. Thus, the securitization transforms illiquid assets into liquid (Garner, 2009.)
7. Securitization is financing or refinancing of any assets of the company that generate revenues – for example, claims that arise in the ordinary course of business, by means of...
“conversion” of such assets in the tradable, liquid form through issue of bonds or other securities. In doing so, the company (originator) transfers a pool of its assets to a specially established entity, which in turn issues debt securities backed by the transferred assets (Securitisation in Russia, 2005).

As a result, we can conclude that the securitization of assets can be regarded both as a process and as a source of financing. A famous Swiss banker, doctor of economic sciences at the University of Zurich, Bar, in his monograph (Bar, 2006) considers the Asset Securitization as a financial innovation and cites the scheme (Figure 1). According to this scheme, the SBA refers to one of the types of innovation of financial processes.

In the study, the authors performed an analysis of securitization as a process, the implementation of which is carried out using three models of securitization that form innovative sources of financing of innovation activities.

At the moment, maintaining liquidity is an objective need of the banking sector. It is fair to note that the need for long-term resources is particularly significant. The problem is that the deposits, interbank loans and other classical sources of funding are limited, which leads to the need to develop new methods or the use of international experience in the area of raising financial resources (Riachi and Schwienbacher, 2013). According to the provisions set out in (Kirgizov, 2013), the SBA is one of the ways that allow the bank to maintain liquidity and have a great potential to spread in the practical use.

2.2. Peculiarities of Application of Three Securitization Models

According to the approach of the International Financial Corporation, there are three basic models of securitization: Classic securitization through a “true sale,” synthetic securitization and securitization of business.

1. In accordance with the provisions set out in (Sekyuritizatsiya Aktivov, 2013), in accordance with international approaches, as well as the definition formulated by Bar (Bar, 2006), a classical securitization model refers to an innovative technique (method) of financing, in which:
   • A diversified pool of assets (a portfolio of loans or mortgages) is allocated and deducted from the balance of the credit institution;
   • Acquires legal independence through a transfer to a specially created legal entity (special purpose vehicle, (SPV);
   • Which carries out its refinancing on the capital market and the money market through the issue of securities Asset-backed securities, (ABS).

It may be noted that this securitization model originated from and is most prevalent in countries with Anglo-Saxon type of economy, so the traditional model was also called the American model of (real) securitization.

The simplified basic model of securitization is shown in Figure 2 (Sekyuritizatsiya Aktivov, 2013).

2. Securitization that implies a real sale of assets had success in the global financial markets. However, there were legislative and legal difficulties or constraints in some countries that did not allow banks to use this method of financing. European countries faced this problem.

The synthetic model of securitization of assets emerged in the 1990s. The main reasons for its emergence were not only limitations that did not allow to use the previous method, but also an active development of the market of credit derivatives.

Thus, the synthetic model of securitization was generated as a result of use of the derivatives of the credit financial instruments in the transaction structure – credit derivatives, and is an innovative method. Credit derivatives are financial instruments based on which the protection seller makes a payment to the protection buyer in the event of a risk event (Kharitonchik, 2012). The most popular credit derivatives used in the structure of the synthetic model of securitization are: Credit note, credit default swap, swap for a total return, and others.

The cornerstone of a synthetic model of securitization is the mechanism by which the securitized asset from a legal point of view is not sold but is kept on the bank’s balance sheet, while the
3. Whole business securitization is the model of business securitization or a corporate securitization model, according to the provisions set out in (Tagaev, 2012), which implies the issue of debt securities backed by assets that generate cash flows and reserves.

Having considered three models of securitization, let’s proceed directly to the analysis of the effectiveness of the use of SBA.

2.3. Efficiency of the Use of the Model of SBA

Based on the above and according to the provisions presented in (Ulyukayev, 2013), the definition of the model of SBA can be formulated and its characteristics can be defined. The model of SBA is a way of raising funds by the bank through the issuance of securities backed by a certain combination of banking assets and cash flows generated by them, which is followed by partial or complete write-off of a specified set of assets from the balance of the initiating bank (Hanson and Sunderam, 2013).

As the international experience shows, as well as taking into account the provisions laid down in (Krolivetskaya, 2009), it may be noted that the following could act as the securitized assets in the banking sector:

- Loans (mortgages, corporate, and car loans);
- Receivables;
- Rights of claim on credit cards;
- Rental and leasing payments;
- Export proceeds and proceeds from the sale of goods, works and services;
- Other projected cash flows.

Summarizing the situation outlined above, the basic distinctive features of the model of securitization from other models of asset financing can be formulated:

- The first distinctive feature is the alienation of the assets from the balance of the initiator. This allows to separate the economic risks of the organization from the asset risks, as well as to achieve substantial savings on equity;
- Secondly, it is the use of financial instruments and availability of security for the issuance of such instruments. The warranty mass is determined by the amount of the transmitted pool of rights of claim (assignment of collateral or sale of the warranty in case of need), as well as by additional credit support;
- Thirdly, it is the incoming and outgoing payment flows. Capital and interest payments on refinancing instruments are carried out at the expense of the capital and interest payments on a pool of assets. Payment flows are consistent with each other over time, currencies and payment sizes using derivative financial instruments, special reserve accounts and other instruments to increase liquidity.

The financial transaction can be classified as a model of asset securitization only if all three features are present. In the case of absence of any of them or incomplete compliance with the above features, the use of the concept of asset securitization will not be entirely appropriate.

Below is a list of the characteristic features of the securitization model, which are as follows:

- Process of securitization is accompanied by the issuance and placement of securities;
- Payouts on the securitization securities are carried out from the funds generated by the predetermined assets. Only assets that represent direct monetary claims or securities certifying them may be used as the basic assets for securitization;
- There is a direct correlation between the securities issued during the securitization and assets involved in the process of their issuance and servicing. Packaging of assets generate funds, it is a major target of formation of the parameter of securities, while there is a need to ensure the security and integrity of the asset pool.

Model of business securitization. Fedorov defines the model of securitization of business as follows: “In fact, it is a loan secured by all assets created by the business of the concerned company. The SPV uses the proceeds from the emission of securities to issue the loan, and the company encumbers all or most of its assets in favor of the holders of the securities. Thus, the isolation of the securitized assets from the originator’s insolvency risk occurs by separating the pool of financial assets from the total insolvency estate in the event of bankruptcy of the originator and by enshrining in law a priority right of the holders of securitization securities for this pool of assets as compared to the other lenders.”

Based on the above, it can be noted that the main function of the classical model of securitization is to provide a cheaper and more long-term resources, whereas the main function of a synthetic securitization model is hedging of credit risks (Nikolova et al., 2015). The model of securitization of business is characterized by lending secured by all assets with minimal risk of bankruptcy of the originator. This lending is mostly inherent in borrowing at innovation activity.

3. RESULTS

Having substantiated the place of the securitization model among financial instruments of innovation activity and defined the peculiarities of application of the three securitization models, we can confidently conclude that securitization is an innovative source of financing and can be used for innovative projects in the first place. It is important to note that all three securitization models can be used as a source of financing of innovation activity.

This statement is supported by the author of the publication Krolivetskaya, who notes that the model of SBA can be described as multi-faceted innovation, as the following is achieved through using its mechanisms:

- Creation of a long-term resource base for investment lending purposes;
- Timely regulation and management of the credit portfolio through the securitized “sale” of loans;
- Maintaining liquidity with the limitation of other sources of financing and refinancing;
- Optimization of the bank’s portfolio (through the joint management of assets and liabilities of the bank);
• Redistribution, elimination and hedging of banking risks, including through credit derivatives and other derivatives of financial instruments;
• Compliance with standards and norm on the profitability and capital adequacy in view of the fact that the sale of the securitized assets increases the rate of capital adequacy, other things being equal, taking into account the level of risks.

The latter postulate can be described in the analysis of the capital adequacy indicator, which in general terms is as follows:

$$H_1 = \frac{C}{\sum A*k + MR + OR + OB}$$

Where C is capital;

\(\sum A*k\) is the sum of assets weighted according to level of risk; MR is market risks; OR is operational risks; OB is the risks of off-balance sheet transactions.

Given the provisions of the economic theory, the conclusion is made in the formula analysis that the assets weighted according to level of risk are the major component of the denominator, which in turn affects the value of the indicator as a whole. The specifics of the securitization mechanism implies that the assets “written off” the bank’s balance sheet are replaced with funds – absolutely liquid assets, the risk of which is zero. Accordingly, the amount of assets taken into account in the calculation of the capital adequacy indicator is reduced. Thus, due to the inverse relationship, with a decrease in the value of the denominator for the value of securitized assets, the standard indicator increases. Obviously, through using the model of asset securitization, the bank gets an opportunity to implement new lending operations through the release of the regulatory equity.

Thus, the model of SBA is a flexible instrument of managing the credit risks of the bank assets portfolio, which allows to release the part of proprietary funds to continue lending activity by getting rid of the risks taken by the bank, which gives the bank an indirect opportunity to reduce the borrower’s risks in innovation activity.

Having considered the essential characteristics of the model of SBA, as well as the economic effect of using this mechanism in the bank, the economic benefits and advantages of the securitization process for each of the main parties to the transaction can be formulated.

4. DISCUSSION

Economic benefits and advantages of the securitization process for each of the main parties to the transaction are determined by their essential characteristics. A SPV acts as an intermediary and on behalf of the owner of the assets. In this case, the main motive for participation in the transaction is the opportunity to generate additional income. Indirect participants in a securitization transaction – in the first place, the company serving the debtor’s account, the underwriter, as well as the provider of liquidity and credit protection – receive the corresponding percentage of the commission for the service.

As noted above, most of the securitization transactions in Russia are carried out in the interests of financial institutions. The volume of the provided financing in the fast-growing market of banking services directly depends on the factor’s ability to provide the necessary resource base. A variety and costs of sources of financing, as well as the quality of managing assets and liabilities are the most important determinants of the company’s interest in securitization transactions. Originators, business companies, banks, etc. use a model of securitization of their assets focusing on a number of economic benefits (Kiseleva, 2012) presented below.

Diversification of the sources of financing. The securitization model allows the originator to diversify the sources of financing of assets and obtain a direct access to capital markets without having to issue their own securities. Diversification is particularly important, because fluctuations in time that occur on the market of any source of borrowing may limit the ability of the bank to get long-term financing. The use of multiple sources of financing will allow to securitize the portfolio and thereby to hedge it against changes in interest rates.

1. Reduction in the cost of financing. The weighted average cost of securitization may be lower than the current cost of raising financing through traditional borrowing. The attractive cost of financial resources is the main competitive advantage of this source of funding. It should be noted that this advantage of securitization is most evident when the credit quality of the assets involved in securitization is higher than the credit quality of the balance sheet of the originator in general, which results in a higher credit investment rating and a lower interest rate on ABS than at the placement of not backed ones. It is obvious that the difference in the ratings lays down the basis for the direct economic benefits of securitization.

2. Flexible funding source. Many banks continue to use securitization program even during the decline in lending. This is especially evident in times of economic slowdown when the banks are forced to carefully consider the issuance of new loans and the extension of previously opened credit lines.

3. Increase of liquidity. Securitization allows banks to vary the size and composition of the financial portfolio depending on the changes in market interest rates, lending conditions, availability of funds, etc.

4. Effective risk sharing. The model of asset securitization allows to distribute the risk between the owners of assets, investors, providers of credit and liquidity support. It is fair to note that securitization also reduces risks for investors, as the new legal entity has a clear and specific set of assets with fairly predictable cash flows. As a result, the risk for the investor becomes lower as compared with direct investment in the company.

5. Improvement of the balance indicators. As noted above, in the securitization through the “true sale,” the assets could be deducted from the balance sheet of the originator and replaced with monetary funds, which will lead to an improvement in the relevant balance sheet indicators. For accounting purposes, securitization is seen as a sale of assets rather than a loan, which allows to disguise the debt in the balance sheet (off-balance sheet financing) as it would be with a different source of financing.
6. Asset-liability matching. The securitization model provides a more flexible tool for asset-liability matching. It also provides the most efficient way to adjust the cash flows of assets and liabilities and thus reduce interest rate risk and prepayment risk. It should be noted that the traditional bond issuance does not resolve this problem.

7. Improvement of financial performance. The increase in return on assets (ROA): At a constant value of the bank’s revenue, the decline in assets on the balance sheet leads to an increase in ROA, thereby improving financial performance.

8. Growth in return on capital (ROC). Capital not required to maintain the securitized assets will boost the ROC at the constancy of the income earned.

9. Business expansion. The funds resulting from the securitization can be invested in other assets, contributing to an increase in lending volume and generating additional revenue. The acceleration of capital turnover will help to optimize cash flows.

The definition of the benefits of securitization is of particular importance for investors. The result of securitization for investor is innovative products with a particular set of assets and fairly predictable proceeds: Investments are made for specific, well-tested transactions, and risks associated with the securitized assets are easier to estimate for investors than the risks associated with the collection of all tangible and intangible assets of the issuer. Another advantage for the investors of innovative projects is the use of securitization model at the development and exit stages of the life cycle (Figure 3), because these stages of implementation of innovative projects are characterized by uncertainty and the risk of decreased cash flow, which are reduced with a model of asset securitization.

As a result, based on the provisions set out in (Kiseleva, 2012), a number of advantages for investors purchasing asset-backed security for the financing of innovative projects can be defined:

1. Investors may choose to invest in different types of assets carrying varying degrees of risk and receive the relevant income. This gives investors the opportunity to optimize the structure of their portfolios and enter the markets where they otherwise would not be able to make investments;

2. ABS are historically less vulnerable to price fluctuations in comparison with corporate bonds;

3. It is known that ABS offer a higher return than the government, bank and corporate bonds with a comparable rating;

4. ABS are usually not exposed to event risk or the risk of being downgraded by a single borrower.

Offering the new innovative product on the market of banking products – the SBA, the banks provide the innovative companies with the ability to get another lucrative source of financing of innovative projects.

5. CONCLUSION

The research results considered from the point of view of innovation and pragmatism of securitization are confirmed by the fact that the organization (bank) using instruments of securitization of (banking) assets gets new opportunities: The ability to improve their efficiency while optimizing the structure of assets and sources of their financing, as well as reduce the inherent risks. In today’s economic conditions, this is a basic development strategy of each organization. Moreover, it is important to emphasize that not only the bank that manages credit risk receives the new possibilities in securitization operations, but also so does the client who is interested in reducing the cost of the loan funds used, as well as the investor who receives a highly profitable and at the same time low-risk financial instrument in the implementation of innovative projects at their disposal.

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