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**SECURITIZATION OF LOANS AS A MECHANISM FOR THE
FORMATION OF SPECULATIVE BUBBLES AND LAUNCHING
FINANCIAL CRISIS OF GLOBAL PROPORTIONS**

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***Abstract:** The intensive development of technology and the trend of financial globalization contributed to that the volume of transactions in the financial market surpasses by several times over the volume of transactions in the real sector, which has identified a growing trend of separating financial from the real economy. In the race for ever-increasing profit, financial institutions have succeeded to, due to the so-called informal deregulation, acquire through a variety of financial innovation greater de facto freedom of action in the financial markets. Securitization is seen as the biggest financial innovation of the 20th century, which, based on the contractual assignment of receivables, transformed the less liquid claims (based on loans, credit cards, etc.) into more liquid forms, so-called mortgage-backed securities. Hereby issuers of securities are coming to liquidity at a lower cost and the risk of holding long-term bank loans (mainly mortgage) passes to the buyers of mortgage securities. Despite the indisputable benefits of this financial innovation, the need for performing a number of iterative actions and involvement of a number of institutions makes this a very complex mechanism. The crisis that hit US mortgage market in 2007 was initiated just by securitization of "bad mortgages". Therefore, the securitization of loans has been distinguished as a mechanism for the formation of "speculative bubble", thus causing the financial crisis of global proportions. In this sense, the question is whether the solution should be sought in the re-regulation of securitization of loans or it will only delay solving the problem?*

***Keywords:** securitization, speculative bubble, financial crisis, re-regulation*

Introduction

The intensive development of technology and the trend of financial globalization contributed to the volume of transactions in the financial market to exceed the volume of

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transactions in the real sector by several times, which identified the growing trend of separating financial from the real economy. In the race for ever-increasing profit, financial institutions have managed to provide greater de facto freedom of action in the financial markets by so-called informal deregulation, through a variety of financial innovation.

Securitization is seen as the biggest financial innovation of the 20th century. Despite its indisputable advantages, performed without a clear regulatory framework, securitization is increasingly identified as the crucial cause of the current financial crisis. So, it implies regulatory initiatives on various grounds.

I Regulatory and De-regulatory Processes in a Globalized Financial Sector

Late seventies and early eighties of the last century were marked by a wave of the financial sector deregulation stimulated by numerous financial innovations (Krstić, 2003). In this context, financial institutions strived, through the so-called informal deregulation, to ensure greater actual freedom of operation in the financial market than that allowed by the existing regulations. Thereby the informal deregulation occurred as an introduction to the subsequent formal deregulation of the financial sector.

Formal deregulation in the globalized financial sector has been achieved by adopting a set of laws in the US banking such as: Depository Institutions Deregulation and Monetary Control Act of 1980 - DIDMCA), which allowed performance of mergers between banks and a higher degree of freedom in the conduct of business, primarily interest rate policy of banks; Garn-St. Germain Depository Institutions Act, enacted two years later, whose main purpose was to revitalize residential development by strengthening the financial stability of the savings and credit associations for housing and by securing loans for housing construction (GSGDIA, 1982); Community Reinvestment ACT - CRA, adopted in 1997, aimed to resolve housing problems of customers with medium and low income by departing from standard credit-standing assessment criteria in the process of approving mortgage loans; and the Gramm-Leach-Bliley Act, adopted in November 1999, which repealed the Glass-Steagall Act of 1933, thus officially terminating separation of American investment and commercial banking, as well as lifting the ban on non-banking activities for bank holding companies.

In such an environment, securitization has found its place as a mechanism by which indirect credit relationship gets increasingly replaced by direct credit relationship. With this, through the securitization of loans, primarily mortgage securitization, banks attempted to prevent a wave of disintermediation that proceeded simultaneously with deregulation and marked the reduced participation of banks in financial intermediation (Krstić, 2003, p. 493). Although it has brought considerable benefits to many participants in the process, securitization of loans in a deregulated environment was the subject of much abuse, which eventually resulted in the mass of unrepaid mortgage loans, worthless mortgages and huge losses suffered by financial institutions and the economy as a whole.

The global financial crisis revealed fundamental weaknesses in risk management, inadequate regulations and low quality of supervision of the financial systems, particularly in the USA, EU, and in other countries around the world, as well. In this regard, the financial crisis is accompanied by increased regulatory activity. At the global level, there is the ongoing process of regulatory reform that aims to set a new framework in which financial institutions and financial markets can function freely and thereby reduce the likelihood of a new financial crisis.

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II Securitization of Loans and Formation of a "Speculative Bubble"

Securitization is the process of converting debts (based on loans, credit cards, leasing, etc.) as less liquid forms of assets into securities, by which intermediary relationship is replaced by direct credit relationship between the owners and users of financial surpluses. Securitization of bank loans is a narrower term, given that it involves the transformation of bank loans, most often mortgage loans, to bonds issued on the basis of pooled mortgages (Lowell, 1991, quoted from Juhas, 2011, p. 13). In this regard, securitization of loans offers the bank a possibility to obtain alternative sources of funding through the transformation of previously approved loans into marketable securities. However, despite the rather simple approach to define securitization of loans, the necessity for performing a number of iterative actions and involving a number of institutions, makes this a very complex mechanism.

The mechanism of securitization involves several groups of activities: approval of loans in the primary mortgage market and their sale; repackaging of cash flows; issue risk reduction; issuing securities and selling them to investors; and service. Key institutions in the securitization process are: the issuer of the loan (loan originator), special purpose legal entity (Special Purpose Vehicle or Special Purpose Trust, or SPV), rating agencies, investment banks and investors (Marinković, 2011).

The roots of securitization may be found in the US, where it started with the securitization of mortgage loans during the 70's of the 20th century. In fact, it is a so-called straight or off-balance sheet securitization, in which the securitized assets are derecognized from the bank balance sheet, allowing the bank to release of claims relating to capital adequacy and to provisioning for risky placements, and only up to the amount of the loan (Šoškić, Živković, 2007, p. 292). This way the entire credit risk is transferred to investors, while credit rating of asset-backed securities is determined by the rating of the underlying assets (Juhas, 2011). In Europe, on the other hand, there is the so-called on balance sheet securitization, in which the loans representing security of mortgage bonds are not derecognized from the balance sheet of the bank that is issuing mortgage bonds, which offers potential investors a safer form of investment.

Traditionally, banks have funded long term placements in mortgage loans from long-term deposits. This, of course, highly restricted the scope of these loans, since resources were limited and placements were fixed on many years. The limitation of traditional sources of financing mortgage loans forced banks to take an active role in the financial market in order to provide greater financial potentials. Banks have adopted a new model of financing (more precisely, refinancing) mortgage loans, in which they continue to have primary contact with the customer (at the conclusion of the contract and in most cases in loan servicing), but their funds are not the primary source of financing for these loans. This qualifies the bank as just one of the mediators in the process of securitization, in which it does not have available funds prior to granting loans, but it specifically mobilize them in order to approve the loan (Vujović, 2008).

The essence of the idea was to approve, on the basis of relatively lower-cost funding sources, mortgage loans that will enable purchase of houses and apartments to the so-called middle class. This way, banks and other financial intermediaries can quickly and easily earn commissions, while transferring substantial risks to new niche markets of securities based

on real assets (asset-backed securities). It was necessary to process the application for loan as soon as possible, to approve a mortgage loan and to provide refinancing in order to repeat the process with the next client. However, numerous potential real estate buyers were unable to provide the participation and were not financially reliable to obtain classical mortgage loans. To overcome this problem, it was necessary to relax the restrictions on debt and participation amounts and to lower the cost of servicing mortgage loans. So-called subprime mortgages appeared to be a solution. Such mortgage loans allowed for clients to borrow more easily and in bigger sizes in relation to their income. They are characterized by a very low fixed interest rate in the first couple of years, after which the interest rate will be formed freely, according to market conditions. At the beginning of 2007, these loans already accounted for one-fifth of all active mortgage loans (Vujović, 2008).

Banks were selling mortgage loans to investment banks, which then "packaged" and forwarded them to rating agencies that analyzed their risk level. These packages (which included: asset-backed securities - ABS, residential mortgage-backed securities - RMBS, commercial mortgage-backed securities - CMBS, collateralized-debt obligations - CDOs and collateralized mortgage obligations - CMOs) were attributed AAA rating by rating agencies, although their complexity was not very clear to them (O'Quinn, 2008). In addition, the rating agencies were in a conflict of interest because they were paid by the issuers to whom, besides the rating evaluation, they also gave advice. The issuer was able to address the rating agency to model for him the assets that would later receive the best rating of the same agency. Payment to rating agencies, made by those investment banks to whose instruments they assign ratings, enabled the so-called "rating shopping". Issuers could opt for the rating agency which offers them the most favorable rating conditions, that is, which will provide the highest rating (Spasojević, 2011, p. 100). The three leading rating agencies in the area of determining the credit rating of issuers worldwide, Moody's Investors Service, Standard & Poor's and Fitch Ratings, gave the highest rating estimates to the financial instruments created in the process of securitization of low-quality mortgage loans. High rating of risky securities created conditions for investment in bad securities by major financial institutions.

The multiannual boom in residential construction and real estate market was fueled by the interest rate policy in the United States in that period. Interest rates were kept at very low level in order to overcome the recession of 2001-2002. Low interest rates raised the demand for real estate, which had dual effects in the sense of growing prices of real estate and of construction of new apartments and houses. Artificially increased demand led to an unsustainable rise in real estate prices, that is, to the creation of price "bubble" in the mortgage market (Vujović, 2008). The average price growth in this market, which was only 0.67% until 1998, went up to 10.4% in the period from 1998 to 2006 (O'Quinn, 2008). The price growth overrates the expectation of return, which in turn stimulates further growth of real estate prices, until the "speculative bubble" bursts (Hellwig, 2009).

With the burst of price "bubble", investors were trying, by assuming the "short sale" position, to free themselves of worthless securities held in their portfolios, having thereby additionally accelerated the depreciation trend. In such an environment, the Fed began since 2004 with a more restrictive monetary policy, through the progressive increase in the interest rate (from 1% in 2004 to over 5% in early 2007). In June 2006, real estate prices started to decline, at first slowly, and then, in the period from 2007 to 2008, quite dramatically, by over 15% (Hellwig, 2009, p. 156). With the rise in interest rates and a decline in real estate prices, the number of clients unable to fulfill the obligations to banks increased.

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Due to the rapid decline in the value of mortgage securities, banks registered huge losses on securities that they possessed (Spasojević, 2011). In a situation where bank capital is not sufficient to absorb the shock, the price decline is converted into a write-off and sale of assets. The amounts of own capital in many banks did not provide an adequate response to the problems created, which could be proved by the following facts:

- relative decline in capital adequacy rate in the nineties, partly because of the option provided by the amendment of the Basel Accords of 1996, which relates to the determination of regulatory capital for market risks based on their own quantitative models of risk assessment;
- Small size of the equity capital buffer in excess of regulatory requirements, allowing banks to increase the level of financial leverage in an attempt to ensure the highest possible rate of return on their own capital;
- According to Basel II, an investment in securities with AAA rating may be supported by a moderate level of capital. Namely, a high rating of these securities allows for a lower level of regulatory capital and a higher level of financial leverage.

The problem was further illuminated by multiple interventions of the monetary authorities which, even after repeated pumping of liquidity, failed to establish stability of the financial system. After these failed interventions of the central bank, it became crystal clear that the main problem of this crisis was not a short-term disproportion of cash inflows and outflows, but the solvency of financial institutions.

In early 2008, the crisis shifted from the mortgage market to the stock and bond market, which already in September 2008 caused an escalation of the financial crisis and the collapse of American giants. From the US market, against the domino effect principle, the crisis spread not only to countries that had a similar mechanism of mortgage lending but also to all the world's stock markets. In this respect, the securitization of mortgage loans was designated as a factor of international credit risk. Stock market panic was replaced by banking panic, followed by accelerated withdrawal of deposits and a growth of interest rates, which ultimately led to the freezing of the inter-bank market. The rise in cash prices has further destabilized the investment activities in the real sector and thus resulted in a global economic crisis.

III Re-regulation of the Securitization of Loans

Many believe that regulatory weaknesses played a major role in the emergence and spread of the crisis because they encouraged market players to take excessive risks. These problems have forced various regulatory initiatives aimed at preventing systemic risk and ensuring the stability of both the national and the global financial system.

Regulatory rules are revised towards better capitalization of banks and alleviation of the pro-cyclicality of the banking business (Basel III), creation of safe and stable systems of deposit insurance, establishment of adequate regulation of systemically important institutions and the like. Since the beginning of the crisis is associated with the sub-prime mortgage market in the USA, the redefinition of the rules is also related precisely to the area of securitization of loans.

In the United States all regulatory changes are directed toward a higher level of consumer protection from hidden fees, abuse and possible deception with which they are faced in the process of trading. For this purpose, the Dodd-Frank Wall Street Reform and Consumer Protection Act was enacted in mid-2010, which provides for the establishment of a special independent authority for consumer protection in order for them to receive timely and accurate information in the process of application for mortgage loans, credit cards and other financial products. New solutions are trying to repeal the practice of rescuing institutions designated in the system as "too big to fail", so that the taxpayers' money would not end up in financing their losses. Such institutions are anticipated for liquidation, and during their business operations they are obliged to honor strict capital requirements, thereby controlling the level of financial leverage. In addition, so-called Volcker Rule was enacted, which requires from the regulator to secure that banks, their affiliations and holding companies may not trade for their own account (proprietary trading), or enter into any form of partnership with hedge funds and venture capital funds. Dodd-Frank Act on financial reform from 2010 still did not restore the separation of commercial and investment banking, but the Volcker Rule was brought to limit the possibility for the banks that receive deposits with state guaranty to be engaged in high-risk investments.

The global financial crisis has highlighted the problem of inadequate regulation of the activities of rating agencies. Rating agencies have played an important role in the promotion of new financial products globally, while unrealistic evaluation of issued securities contributed to the development of the global financial crisis (McVea, H., 2010). In order to protect investors, new stricter rules are introduced to increase transparency and responsibility of the operations of credit rating agencies, and are related to the licensing and enhanced regulation and supervision of rating agencies. To reduce the conflict of interests of rating agencies, the regulatory agency SEC (Securities and Exchange Commission) shall have the authority, according to the Dodd-Frank Act, to determine the eligibility of a rating agency to assess the standing of an issue. This potentially reduces the possibility of the issuers to select an agency that suits them best, i.e. that is most permissive and that will offer the highest rating.

The European Commission has adopted a set of measures focused on the work of rating agencies. These measures make sure that the services of establishing a credit rating stay incompatible with advisory services. Also, rating agencies are obliged to publicly announce models and prerequisites for determining credit ratings, annual reports on transparency and the like. (Pavković, Vedriš, 2011). To solve the problem of "buying" a rating, which is especially apparent in the securitization instruments, the following is proposed: greater involvement of investors when paying fees to rating agencies, limitation of the number of ratings assigned per issuer, introduction of subscription payment by the user of services, restriction of the number of years of service delivery and the like. (Pavković, Vedriš, 2011).

The introduction of greater transparency in the securitization process is amended by the requirement for the initiators of securitization to retain risky exposure to the tranche that bears the greatest risk. Regulatory changes involved also the change of the principles of preliminary credit analysis in terms of their aggravation, especially when it comes to approving mortgage loans. In addition, it should be noted that the introduction of fair value accounting for loans and mortgages increased the scope of systemic risk. Due to the weaknesses discovered in accounting methods of evaluation of financial assets at fair value, there has been a change in the relevant international accounting standards and in financial

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reporting on financial instruments (Kikanović, Milošević, 2012). Changes opened up the possibility that financial institutions do not recognize the decline in market value of financial assets as a real loss in the conditions of crisis, given that this decline may be caused by temporary panic of market participants.

Conclusion

The actual global financial crisis emerged as a consequence of excessive deregulation of business operations of financial institutions and of abusing the securitization mechanism in the absence of clearly defined rules to regulate this area in the American mortgage market. In this regard, the need arose for redefining the existing concepts underlying the process of securitization of mortgage loans, so that it would not become the cause of future financial crises.

Regulators have recognized the problem and focused especially on the protection of consumers in terms of their better information, on the process of securitization in terms of its greater transparency, as well as on the work of rating agencies. Particular need arose for a stricter and more precise regulation of rating agencies because, by assigning extremely high ratings to nontransparent and structured financial instruments, these institutions contributed significantly to the emergence and development of the financial crisis.

Appropriate regulation should allow the introduction of greater transparency in the securitization mechanism and prevent excessive risk-taking in financial markets. On the other hand, the tendency of the regulator to limit as much as possible the likelihood of a repeated "abuse" of securitization of loans would lead to maybe excessive "bureaucratization" in some of its segments, thus raising the question of the quality of these regulatory changes that could only be answered in time to come.

References

1. Dodd-Frank Wall Street Reform and Consumer Protection Act (Enrolled Final Version – HR 4173): <http://www.sec.gov/about/laws/wallstreetreform-cpa.pdf> (01.05.2013)
2. Hellwig M. F. (2009) Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis, *De Economist* 157:129–207
3. Juhas, G. (2011) Sekjuritizacija kredita i uzroci hipotekarne krize, *Ekonomski pogledi*, 1: 101-125
4. Kikanović R., Milošević S. (2012) Uticaj finansijske krize na reformu računovodstva sa posebnim osvrtom na stanjeu Republici Srbiji, *Škola biznisa*, Broj 1/2012:113-127
5. Krstić, B. (2003) *Bankarstvo*, Ekonomski fakultet, Niš
6. Marinković, S. (2011) *Finansijska tržišta*, Ekonomski fakultet, Niš
7. McVea, H. (2010). Credit rating agencies, the subprime mortgage debacle and global governance: the EU strikes back, *International & Comparative Law Quarterly*, Vol. 59, Issue 3: 701-730
8. O'Quinn, R. (2008) The U.S. Housing Bubble and the Global Financial Crisis: Vulnerabilities of the Alternative Financial System, *Joint Economic Committee Study* United States Congress, Washington, DC (1-51).

9. Pavković, A., Vedriš, D. (2011) Redefiniranje uloge agencija za kreditni rejting u suvremenom finansijskom sustavu, *EKON. MISAO PRAKSA DBK.*, god. XX, br. 1: 225-250
10. Plank, E. T. (2010-2011) Crisis in the Mortgage Finance Market: The Nature of the Mortgage Loan and Regulatory Reform; *Tenn. J. Bus. L.* 135
11. Spasojević, J. (2011) Uloga kreditnih derivata u tekućoj finansijskoj krizi, *Bankarstvo*, vol. 40, iss. 11-12: 92-111
12. Šoškić, D., Živković, B. (2007), *Finansijska tržišta i institucije*, Ekonomski fakultet, Beograd
13. Vujović, D. (2008) Globalna finansijska kriza: poruke i pouke za kasne tranzicione privrede, *Ekonomika preduzeća*, 2008, vol. 56, iss. 1: 28-38

SEKJURITIZACIJA KREDITA KAO MEHANIZAM FORMIRANJA SPEKULATIVNOG MEHURA I POKRETANJA FINANSIJSKE KRIZE GLOBALNIH RAZMERA

Rezime: *Intenzivan razvoj tehnologije i trend finansijske globalizacije doprineli su da volumen transakcija na finansijskom tržištu višestruko prevaziđe volumen transakcija u realnom sektoru, čime je identifikovan rastući trend odvajanja finansijske od realne ekonomije. U trci za sve većim profitom finansijske institucije su uspele da tzv. neformalnom deregulacijom, kroz razne finansijske inovacije, osiguraju veću faktičku slobodu delovanja na finansijskom tržištu. Sekjuritizacija se ocenjuje kao najveća finansijska inovacija 20. veka koja, zasnovana na ugovornom ustupanju potraživanja, doprinosi pretvaranju manje likvidnih potraživanja (po osnovu kredita, kreditnih kartica, i dr.) u likvidnije oblike, tzv. hipotekarne hartije od vrednosti. Ovim putem izdavaoci hartija od vrednosti dolaze do likvidnih sredstava po nižim troškovima a rizik držanja dugoročnih bankarskih kredita (najčešće hipotekarnih) prelazi na kupce hipotekarnih hartija od vrednosti. Uprkos nespornim prednostima ove finansijske inovacije, potreba za obavljanjem brojnih iterativnih radnji i uključenjem niza institucija, čini ovaj mehanizam izuzetno kompleksnim. Kriza, koja je 2007. godine pogodila američko hipotekarno tržište, inicirana je upravo sekjuritizacijom „loših hipotekarnih kredita“. Time se sekjuritizacija kredita izdvojila kao mehanizam formiranja „spekulativnog mehura“ i pokretanja finansijske krize globalnih razmera. U tom smislu postavlja se pitanje da li rešenje treba tražiti u re-regulaciji sekjuritizacije kredita ili će se ovim putem rešavanje problema samo odložiti?*

Ključne reči: *sekjuritizacija, spekulativni mehur, finansijska kriza, re-regulacija*