

# INSURANCE INSTITUTE FOR SAVINGS DEPOSITS IN THE FUNCTION OF BANKING SECTOR STABILITY

Slobodan IGNJATOVIĆ

Faculty of Management Zaječar, Serbia  
e-mail: [slobodan.p.ignjatovic@gmail.com](mailto:slobodan.p.ignjatovic@gmail.com)

**Abstract**—Goal of deposit insurance in banks is to provide stability of financial system and to protect the investors in savings deposits in banks in case of illiquidity. Based on the experience of the big crisis in 1930's, it was concluded that, in addition to the risk from bankruptcy of individual banks, there can appear systemic risk that jeopardizes entire banking, as well as financial system. However, deposit insurance can potentially cause moral hazard with managers in the aspect of re-orientation to placements with higher risk that promise higher yield rates. For that reason, it is necessary to find a balance between greater readiness of bank managers to invest in increased risks and readiness of state deposit protection, taking on the responsibility to pay the deponents. State deposit insurance leads to the situation that deposits in banks are formed by somewhat lower interest rates than in case there is no insurance. The aim of this paper is to analyze deposit insurance from theoretic aspect, operationalization of deposit insurance and deposit insurance as anti-crisis mechanism in banking.

**Keywords**—bank risk, moral hazard, deposit insurance, state insurance of bank deposits.

## I. INTRODUCTION

**I**MPORTANT source of bank's funds are deposits and within them there are demand deposits that are particularly sensitive in crisis and unstable business conditions. Banking is based on partial coverage of deposits with reserves, so the bank cannot simultaneously meet the requirements for payment to all its deponents. Withdrawal of deposits is not the only the problem of individual banks that have problems but, due to domino effect, it can easily be spread onto entire banking system. In the situation when there are problems in banking sector, deponents who do not dispose with complete information on banks' business doubt in their upcoming illiquidity, so they will withdraw funds, even in case there is no initial worsening of their balance sheet [1]. Deponents will besiege, both bad and good banks, and thus the downfall of one may contribute to the downfall of other banks. The rush on banks can be avoided or mitigated by introducing deposit insurance in banks.

In case there is no deposit insurance, the bank's downfall

implies that deponents are waiting for the bank to become liquid (until its assets turn into money) in order to return they deposits. Deposit insurance is the guarantee for deponents based on which, to certain amount, the deposits are paid whatever happens with the banks. Due to psychological impact that it has on deponents, the existence of such protection lessens the pressure on banks for payment of deposits in the conditions of crisis. Thus, the existence of deposit insurance system contributes to the preservation of financial system stability [2].

However, the protection that deposit insurance provides the deponents encourages their risk behavior and directly the risky behavior of banks as well. If, encouraged in this manner, moral hazard assumes greater proportions, it can lead to the instability of banking sector. That negative consequence of deposit insurance must be kept in mind when regulating specific system of deposit insurance.

Great diversity of deposit insurance schemes in the world comes precisely from the tendency to lessen its deficiencies through different legal-technical solutions.

## II. DEPOSIT INSURANCE FROM THEORETICAL ASPECT

- 1) Kevin Dawd [3] has taken a critical attitude in the aspect of bank deposits insurance. If in banking system there is no state mechanism of deposit protection, deponents lose money if the bank fails. However, precisely due to this risk that is on deponents, bank managers, in order to draw deposits into banks, must lead a rather cautious business policy. In that case, bankers must avoid excessive risks, which reflects in more cautious placement policy, as well as holding adequate capital amounts. If in such a system, it comes to the rush on some banks in the aspect of deposits withdrawal, it can be interpreted as "rush into quality", so there comes to re-depositing of population funds in case of banks that are financially stronger. In that context, potential rush on banks acts in the direction of strengthening market behavior of all banks in the system. If some bank does not implement the criteria of market banking, it gets punished with deposits

outflow, which can also result in bankruptcy of the bank.

- 2) In banking system in which there is state protection network, deponents do not have any stimulus to rush to the bank, if they doubt its quality and bank manager are not stimulated to lead cautious business policy and keep the quantum at the required level. In that context, it comes to the formation of moral hazard, which implies that bank managements do not get engaged into greater credit and other business risks. Banks gamble with citizens' deposits tending to invest them in the placements with high risk, which generally bring greater yields, because they know that in case of a failure, at least a part of the loss is transferred on state insurance agency. Such banks gladly increase interest rates on deposits in order to attract as higher amounts of funds as possible, which are then invested in risk placements in expectation of high yields. When, after a certain period, this process gets a propulsion and state insurance agency becomes a zombie. The agency does not timely close banks in problems, because there are not sufficient funds to pay insured deponents in all failed banks. Above-mentioned remarks lead Dowd to the conclusion that the very principle of deposits insurance is defective and incompatible with healthy banking system and it is considered that state insurance should be abolished.
- 3) Key issue refers to the evaluation of the possible effect of deposits insurance on bank management behavior, particularly in the aspect of moral hazard. The assumption for such behavior of bank managers is that banks have to be under the impact of efficient regulation measures of the mandatory capital rate of banks, as well as that insurance premium height is related to the height of the risk of individual banks. Through these two mechanisms, the institutional balance is established between the effects of deposits' state insurance and acceptable behavior of banks on the plan of risk.
- 4) We can ask a question whether current tendency of strong emphasis of deposits insurance on formation of banks' moral hazard has a hidden goal to support long term redirecting of the funds from banking sector on open financial markets and particularly the investments in state bonds. Therefore, the valid axiom is that investments through financial market in shares and bonds of the companies imply greater risks of investors than investments in case of bank network and therefore, they are not attractive for broad groups of non-sophisticated transactors. Banks collect funds into savings deposits, primarily from medium layers and these citizens invest money in banks accepting lower interest rates and with assumption that the state formally or informally guarantees for these deposits.
- 5) Interesting analytical argumentation for the thesis that range of insurance premiums should be established that would be related to the height of the bank's risk is given by Anjon Thakor [4]. Initial thesis is that deposits insurance mechanism contains two significant problems. The first is related to so-called private information, i.e. that bankers know better than state regulatory agency what kind of risks their portfolio really contains. Other problem is many times emphasized moral hazard that acts in the direction of forming risk assets in banks that have insured deposits in state agency.
- 6) In his analysis, Thakor divides the banks in two categories. Banks that invest in low-risk projects and banks that invest in high-risk project. Therefore, probability of success is greater in case of banks that invest in low-risk projects than those that invest in high-risk project. But the yield of successful projects is higher in banks that invest in high-risk projects than those that invest in low-risk projects. Starting from such bank structure, regulatory institutions offer the banks to choose among two different contracts on deposits insurance. The first type of deposit insurance contract contains low insurance premiums (per monetary unit of deposit) with high rate of mandatory amount of capital. The second type of deposit insurance contract contains high insurance premium and low rate of mandatory capital. It is expected that the banks that invest in low-risk projects will choose the first combination and the banks that invest in high-risk projects will choose the second one, where their choice discovers their private information. Based on this, we can build such premium system where each bank would be burdened with the height of the insurance premium that covers the average loss that the bank of that type will transfer on insurance fund.
- 7) Marc Flood [5], has given a critical analysis of premium system insurance that is related to risk height. This system has both advantages and defects. Specifically, the amount of the risk premium, which a concrete bank must pay, reveals rating of the bank, which could even lead to a rush on the bank. Theoretically, the risks should always be associated with the expected amount of yield. However, in practice, the main problem is that some banks do not form an adequate compensation for portfolio risk.
- 8) Flood concluded that the main factor leading to increased wave of bankruptcies in the context of deregulation is linked to inferior management in many banks. Therefore premiums based on risk can not solve the problem of bankruptcies of banks. Logic of premiums based on risk requires that banking managers take into account the insurance premium when performing risk selection in the formation of optimal portfolios. But incompetent banker can not perform the evaluation of risk and return of assets. To reduce bankruptcy banks need to

*create an appropriate mechanism of prudential supervision and licensing of bank managers, which would reduce the rate of bankruptcy.*

### III. . OPERATIONALIZATION OF DEPOSIT INSURANCE

There are different legal-technical solutions for deposits insurance in countries throughout the world although the purpose of their insurance is the same. There is a big number of methods for deponents protection that countries throughout the world apply: entirely explicit guarantee of deposits, explicit limited coverage of deposits, deposits insurance with unlimited coverage, legal basis of payment instead of deposits insurance, entirely relying on market discipline.

Explicit insurance of deposits represents a mechanism that governments use for the promotion of financial system stability. Deposits insurance is explicit if it is founded by some legislative form. When there is a lack of formal arrangement, it is assumed that the state has implicit deposit insurance [6].

Explicit deposit insurance was introduced for the first time in the USA in 1934, and then it was spread throughout the world, especially in 1970's and 1980's due to a great number of bank crises in this period in greater number of countries.

Number of countries that offer explicit deposit insurance was rapidly increasing in the last decades. Among the last are the transition countries of Eastern Europe that have implemented it with tendency to satisfy the Directive of EU on deposits insurance. Introduction of explicit deposit insurance has become one of the main advices that external experts gave the countries that implement the reforms. However, the question is whether that is a good solution if there are weaknesses in institutional environment (which is precisely one of the characteristics of those countries) [7].

From the standpoint of legal form of deposit insurance system, we distinguish private-legal system and state-legal system. In the first one, the banks see the interest in system establishment and, as a rule, it is voluntary (deposit protection is provided only for the banks that are in the scheme). In state-legal system, which is regulated by the law, membership is, as a rule, mandatory and the state affects its establishment and functioning.

From the standpoint of authorizations, there is a great diversity of deposit insurance system in the world. In one end of the range, there is a model in which Federal Deposit Insurance Corporation (FDIC) has a great number of jurisdictions:

In addition to deposit insurance and payment of insured amount in case of bankruptcy, they also include the supervision, as well as re-organization of problematic banks. On the other end of the range, there are so-called „pay box” models that limit the jurisdictions of insurer to the payment of deponent's liabilities. Between them, there are models that give authorizations to the insurer between these two models. „Cost reduce“ model provides

the insurer to, in specific circumstances, intervenes by undertaking preventive or corrective measures in order to preserve deposits and reduce costs and externalities. „Resolution facilitator” models provide proactive support to the banks that fall in problems (help in their sale, recapitalization, etc) [8].

By the manner of funding, i.e. time for collecting the funds for compensating the deponents, we distinguish two main deposit insurance systems: ex-ante and ex-post systems.

Ex-ante deposit insurance implies to establish a fund in advance for payment of insured deposits. Funds are collected before there is a need for compensating the deponents, through payment of premiums for deposit insurance. In case of ex-post models, fund is not created in advance, but the money is collected at the time when it is required to pay insured deposits. When there is a need to compensate the deponents of some bank, the funds required are collected from other banks in appropriate determined proportion. Having in mind the characteristics mentioned of these two models, we can conclude that the first model offers greater security to deponents and financial system. The funds collected in advance are immediately available and the option that compensating deponents of one bank overflows the crisis on other banks is avoided because of the strike on their liquidity, the pressure on the state is reduced in the aspect of compensating deponents with fiscal funds.

Having in mind the position in the market, we distinguish:

- 1) *Deposit insurance system with monopolistic position – carrier of one deposit insurance system has exclusive right to carry out the function of deposit insurance.*
- 2) *if the function of deposit insurance is left to market rules, then there is no monopolistic position*

However, if there are several subjects that perform the function of deposit insurance in such a way that it is clearly distinguished which subject insures deposits of particular banks, in such a manner that they are not in competitive position among each other, then we are talking about monopolistic position.

Coverage of deposits by insurance is distinguished in particular schemes and depends on several factors:

- a) *limit per individual deponent in one bank – as it is not prohibited for a an individual to have accounts in several banks, the total amount of guaranteed deposits is potentially determined by the number of banks in the country and limit per individual deponent (guaranteed deposit amount per a deponent is, for example, in Great Britain 85.000 \$, Germany 100.000 \$, USA 250.000 \$.[9].*
- b) *Coverage of deponents – usually the insurance refers to deponents-physical entities, but there can also be included the deposits of legal entities, while, as a rule, the deposits of financial institutions are excluded.*

- c) *Coverage of deposits – usually the insurance refers to current, savings and other transaction accounts and it does not include the investments such as bonds.*

#### IV. DEPOSIT INSURANCE AS ANTI-CRISIS MECHANISM IN BANKING

Protection of deponents by the state has an important role in managing banking crises. Its role is crucial when the confidence of public in banking sector decreases and when there is a danger of the “rush on the banks”. Deposit insurance by the state affects the return of confidence in banks and reduction of risks against deposit outflow. However, the state does not provide security for deponents only through deposit insurance, but also credit support to problematic banks by the Central Bank or government, as well as taking over the banks by the state [10].

Efficient state security network has an important role in the control of system risk that occurs, primarily, with specificities of financial mediation that is characterized by deadline transformation of funds and mutual relatedness of financial institutions. In periods of crisis, systemic risk is manifested as: general rush on deposits, general illiquidity of financial sector and loss of confidence in financial system.

In 19th and at the beginning of 20th century, bankruptcies of banks were a serious problem in each 20 years. In the period 1929-1933., about 9.000 banks have failed and public has lost the trust in banks. After FDIC was founded, the number of banks that have gone bankrupt annually was decreased [10]. Due to concern for stability of banking systems in their countries, since the 1950's countries throughout the world began to insure their deposits.

Up to the 1980's, it was believed that deposit insurance performs its function perfectly. In that period, discussions on justification of the existence of state deposits insurance were led. The focus of attention was the issue whether state deposits insurance (with credits for liquidity of Central Bank) responsible for widespread appearance of moral hazard, i.e. that systemic risk is overrated. In USA, FDIC was the subject of severe criticism that resulted in the Law on improvement of FDIC from 1991. The experience has shown that readiness of the state to help the banks (regardless whether the deposits are insured or not) can affect the increase of moral hazard. Financial crisis that began in the middle of 2007 in real estate market and financial sector of the USA has, due to high globalization level, spread throughout the world causing sudden decrease of aggregate demand, which led to global recession. Global character of contemporary financial crisis has stressed the issue of systemic risk. The crisis has enlightened fundamental weaknesses in the field of regulation and supervision of financial systems in states throughout the world, particularly in USA and European Union. In addition, negative effects of financial crisis has once again emphasized the role of deposit insurance as anti-crisis mechanism.

In conditions of crisis, very important is the psychological role of deposit insurance as an instrument for financial stability preservation. When it comes to crisis, the task is to regain the trust and prevent panic. Sudden, reactive measures are undertaken which are believed to be inevitable in the situation given. Usual measure in crisis is raising the amount of insured deposits. In the beginning of October 2008, in USA there was an increased number of deposits per deponent of the bank from 100.000 USD to 250.000 USD. Before the crisis, EU regulations have prescribed that limit for deposit insurance is 20.000 EUR. Speed of the reaction of EU members has conditioned the lack of mutual coordination, and there were differences in the aspect of coverage and amount of insured deposits. In October, Ministers of Finances of member countries have agreed for the minimal insurance sum to be increased from 20.000 to 50.000 EUR.

The opinion of ECB was that insured amount must be further increased in order to keep the trust of deponents and financial stability. Raising of insured amounts is rapid anti-crisis medicine that “cures” not the illness, but its symptoms. In the long run, this measure implies the increase of potential obligations for the country and healthy banks. In addition, moral hazard of bad banks is increased (because potential obligations of banks' owners are reduced), which in final instance can have a negative effect of financial stability. Thus these measures must be accompanied by adequate exit strategy. In this case, primarily, it is important to limit the duration of these measures. In the USA, current limit for deposit insurance (250.000 USD) will be valid until the end of 2013, since when it will be 100.000 USD.

Significant international initiatives also include the establishment of Main principles for efficient system of deposit insurance. These principles that have been, in June 2009, jointly published by IADI (International Association of Deposit Insurers) and Basel Committee for banking supervision, represent a particular guide for reform or establishment of efficient system of deposit insurance. Further initiative is aimed towards establishment of Main principle as authoritative international standard for deposit insurance (IADI, together with IMF and World Bank, works on development of methodology for evaluation of compliance of individual deposit insurance system with Main principles, which would enable it).

#### V. CONCLUSION

The significance that deposit insurance system has for financial stability preservation is clearly pointed by initial response of many countries to emergence of contemporary global financial crisis: by raising deposit insurance limit and abandoning the share of deponents in insurance, have mitigated the pressure for payment of deposits that the banks were exposed to.

Measures undertaken as initial response to banking crisis can be useful in prevention of further impairment of deponents' confidence. Financial crisis has enlightened the weaknesses of pre-crisis schemes of

deposit insurance and thus with considering the exit from ad hoc anti-crisis measures, the process of their reform also develops. In the basis of regulatory changes in countries throughout the world is the idea that based on “lessons learned” the stable deposit insurance system should be constructed that will act preventively on continuation and expansion of future financial crisis. Efforts to define main rules and principles, at international level, for reform and establishment of efficient deposit insurance system have the aim to facilitate those processes and contribute to regulation harmonization.

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