

UDC 336.7

**Hanna Kravchuk**, Doctor of Economics**Oleksandra Vilkhoviyk**, master

Chernihiv National Technological University, Chernihiv, Ukraine

**PROSPECTS FOR THE DEVELOPMENT OF DEPOSIT INSURANCE IN CONTEXT  
CHANGES IN THE LEVEL OF MORAL HAZARD****Г.В. Кравчук**, д-р екон. наук**О.В. Вільховик**, магістр

Чернігівський національний технологічний університет, м. Чернігів, Україна

**ПЕРСПЕКТИВИ РОЗВИТКУ СТРАХУВАННЯ ДЕПОЗИТІВ У КОНТЕКСТІ  
ЗМІНИ РІВНЯ МОРАЛЬНОГО РИЗИКУ****А.В. Кравчук**, д-р екон. наук**А.В. Вільховик**, магістр

Черниговский национальный технологический университет, г. Чернигов, Украина

**ПЕРСПЕКТИВЫ РАЗВИТИЯ СТРАХОВАНИЯ ДЕПОЗИТОВ В КОНТЕКСТЕ  
ИЗМЕНЕНИЯ УРОВНЯ МОРАЛЬНОГО РИСКА***Prospects of deposit insurance system in Ukraine with the possibility of reducing moral hazard.***Key words:** insurance, deposits, risk, moral hazard.*Досліджено перспективи розвитку системи страхування депозитних вкладів в Україні за умови змін рівня морального ризику через застосування сукупності управлінських рішень.***Ключові слова:** страхування, депозити, ризик, моральний ризик.*Исследованы перспективы развития системы страхования депозитов в Украине с возможностью изменения уровня морального риска при внедрении различных управленческих решений.***Ключевые слова:** страхование, депозиты, риск, моральный риск.

**Introduction.** The effectiveness of deposit insurance in eliminating panic runs varies with the size of coverage and the degree of supervisory involvement of the agency in charge of insurance. When the agency is not involved in the supervision of banks, partial insurance preserves the monitoring role of depositors and reduces the region for which runs occur, but it is unable of completely eliminating them. When the agency has a high degree of supervisory involvement, even with partial insurance panic runs disappear as the regulator's signal becomes more precise. However, the smaller the protection offered to depositors, the higher is forbearance. Deposit insurance induces moral hazard by increasing the equilibrium value of the demand deposit contract in the interim period, though this effect seems to be smaller under a broad mandate. Therefore, a scheme where the insurance agency has more supervisory involvement should be preferred.

When a company becomes insolvent, creditors to that company will usually lose a proportion of their money. In the case of a bank, this would involve depositors only receiving a percentage of the full value of their account. However, in most countries the government guarantees that if a bank fails, the customers of that bank will be able to claim a certain percentage or a capped amount of their deposit back from the government. This guarantee on the money in a bank account is known as 'deposit insurance'. In a country with deposit insurance, in the event of insolvency the insolvent bank will have its assets sold off. Any funds raised in this way are used to reimburse depositors, with any shortfall being made up with funds from taxpayers.

**Analysis of recent research and publications.** Deposit insurance, however, also creates a moral hazard problem by freeing economic agents from the consequences of their actions (Calomiris, 1990; Gennote and Pyle, 1991; MacDonald, 1996) on both the liability and the asset sides of a bank's balance sheet, which may consequently lead to banking instability. On the liability side, depositors feel no longer obliged to assess the credit-risk associated with depositing money in a particular bank and end up choosing a bank based on the attractiveness of interest rates on offer rather than the bank's financial condition; while on the asset side, the knowledge that depositors will not suffer in the event of bank failure persuades banks to pursue high return

risky business strategies more than they otherwise would (MacDonald, 1996). Thus, the discipline of the market is removed, excess risk taking by existing commercial banks is encouraged and depositors of insured institutions have little incentive to discriminate with respect to where and with whom to place their funds (Calomiris, 1990). Demirgüç-Kunt and Detragiache (2002), using data for 61 countries covering the period 1980-1997, show that deposit insurance increases banking fragility, suggesting that the moral hazard component of deposit insurance is dominant in a general equilibrium framework. They further infer from their results that a more generous deposit insurance creates more moral hazard problems, which in turn increase banking fragility. Related work with similar findings has been carried out by Wheelock and Wilson (1995), Carapella and Di Giorgio (2004) and Cull, Senbet and Sorge (2005), among others.

**Unsolved aspects of the problem.** Studies of deposit insurance, given in different years, determine the need to consider changes in moral hazard for complete coverage of this issue. However, the problems of moral hazard changes depending on deposit insurance in Ukraine has not been thoroughly investigated.

**The purpose of the article.** The main purpose of this paper is the description of moral hazard explain why depositors discipline banks is undesirable to show how deposit insurance contributes to regulatory moral hazard, and suggest ways to improve so as to avoid regulatory moral hazard in the banking sector.

**The main material.** Deposit insurance is one of elements of government safety nets that are designed to maintain depositors' confidence by protecting their savings. The reason of the implementation of such schemes is that problems in banking sector may lead to significant disturbances in financial markets affecting a real sector. As a result, a shrinking business activity will hamper the economic development.

Deposit insurance is based on the idea that if depositors know that the government will return their deposits in the result of a bank failure, and then they will not bother attempting to withdraw their deposits even if they find out the bank is insolvent.

The first system of deposit insurance was established in America in response to the Great Depression. Its purpose was to prevent the bank runs that contributed to the depression from ever happening again. Deposit insurance is based on the idea that if depositors know that the government will reimburse their deposits in the result of a bank failure, then they will not bother attempting to withdraw their deposits even if they find out the bank is insolvent. This is intended to prevent runs on banks that are rumoured to be insolvent or experiencing financial difficulty. In addition those banks that are insolvent will not have to undertake a fire sale of their assets in order to quickly raise money. Fire sales are undesirable because they can lead to a crash in asset prices, which can also lead to the insolvency of others (including banks) that hold similar assets. Left unchecked, a debt deflation may result.

In a system without deposit insurance, depositors would have a strong incentive to monitor their bank's behaviour to ensure the bank does not act in a manner that may endanger its own solvency. For example, a depositor would be concerned with the types of loans their bank was making and the amount of capital their bank had (capital acts as a buffer, protecting depositors from losses when loans go bad). Other things being equal a bank with a higher capital ratio would be considered safer and in consequence could be expected to attract more customers than a bank with a smaller capital base. However, in a system with deposit insurance there is no incentive for customers to monitor their bank's behaviour, as depositors are guaranteed to receive their money back regardless of the level of risk taken by the bank. This lack of scrutiny from customers (or the financial press) means that banks are not restricted to taking the level of risk that their depositors would be comfortable with. Instead, they are free to lend as much as they like to whomever they like, in the process lowering their capital ratio (increasing their leverage). Thus the presence of deposit insurance removes one potential constraint on the banks' desire to lend and increases the riskiness of their lending.

However, deposit insurance as any insurance activity has own problems such as moral hazard, adverse selection, or agency problem. These pitfalls represent the major danger to banking stability. Their negative impact can exceed any benefits of deposit protection since such systems are very prone to any shocks. Being insured, customers will take little or no interest in the way that the bank lends and takes risks. This is known as ‘moral hazard’.

A moral hazard exists when a decision maker takes risks that he otherwise would not have taken, because the adverse consequences of the risk-taking have been transferred to a third party in a manner that is advantageous to the risk-taker and, more important, is disadvantageous and potentially even destructive to the party to whom the risk has been shifted. Insurance is such a risk-transferring device; therefore, the potential for moral hazard exists in any form of insurance, not just in deposit insurance. However, insurance presents a moral hazard only when it is underpriced or the insurance contract lacks sufficient safeguards for the insurer. A properly priced and carefully written insurance contract may actually cause an insured decision maker to take less risk or to be more conscious of the risks being taken than if he were uninsured.

This desirable result occurs when the insurer assesses and then monitors the insured’s risk taking and sets risk-sensitive premiums designed to deter unwise risk-taking by the insured. Hence, for example, we expect an insured auto driver to drive more safely than an uninsured one: the insured driver fears losing his insurance if he drives carelessly; the uninsured one has no such concern.

Moral hazard refers to the tendency of a party to take risks with the belief that they will not have to bear the consequences of their actions. In the case of deposit insurance, moral hazard refers to the incentive for increased risk taking by insured institutions that can result when depositors and other creditors are – or believe they are – protected from losses, or when they believe that an insured institution will not be allowed to fail and thus do not monitor the institution’s performance. In the absence of regulatory or other restraints, insured institutions have an incentive to use lower-cost insured deposits to undertake higher-risk projects than would otherwise be optimal. Unless effective steps are taken to curtail moral hazard, excessive risk taking can lead to increased losses to the deposit insurer or taxpayer and to a misallocation of economic resources.

Deposit insurance’s moral hazard is rooted in the very rationale of deposit insurance. Quite simply, deposit insurance exists only because bank failures have caused losses to depositors. If banks (used here as shorthand for depository institutions of all types) never failed or, more realistically, if banks failed with no losses to depositors, then no political demand for deposit insurance would arise. Like any other economic good, deposit insurance is demanded only because consumers feel a need for it. The United States has had a richer experience with deposit insurance primarily because it has had so many bank failures, especially in the twentieth century, compared to other industrialized countries.

To identify the root cause of the moral hazard in deposit insurance, we must first explore the underlying causes of bank failures. By definition, a bank fails when, in going out of business, it imposes losses on its creditors, primarily its depositors and, before the Civil War, the holders of its circulating notes (currency issued by state-chartered banks). A bank that liquidates itself or is acquired by another bank without imposing any loss on its creditors is not a failed bank for the purposes of this article, even though it may have been approaching insolvency.

The idea of protecting depositors appeared in Ukraine in 1995 and in the beginning of 1996 when National Bank of Ukraine approved the creation of Interbank Deposit Insurance Fund.

However this decisions were not implemented since it contradicted existing legislation, especially the Law “On insurance” that did not define deposit insurance among other insurance activities. Therefore instead of explicit deposit guarantee, the NBU enacted licensing of household deposit operations in 1996. Ukraine has established a deposit insurance system in

1998. Though it was enacted by Presidential Decree, the deposit insurance system was first initiated by NBU and the World Bank.

Ukrainian scheme is characterized by very low coverage limit, above average premiums, compulsory membership (but with the exception of State Savings Bank), and existence of insurance fund.

These parameters seem to avoid major problems. In addition, some elements such as fund's management are implemented to avoid political and regulatory captures. Although these parameters look acceptable, absence of risk-adjusted premiums is the major reason of further reforms. As of March 3ed, 2014, the banking system of Ukraine included 181 operating banks, of which 179 banks were members of Ukrainian Household Deposit Guarantee Fund.

The most widely used classification of Ukrainian banks belongs to the NBU and is based on the size of total assets. According to this classification, banks are divided into four groups: largest banks, large banks, medium banks, and small banks. The first bank group possesses more 63,6 % of household deposits having about 50,0 % of all bank assets.

High level of guaranteed deposit amount increases confidence in the Ukraine's banking system, on the other, according to experts of the International Organization insurers deposit guarantee amount must be reasonable, because it significantly overvaluation raises the problem of «moral hazard» (moral hazard), where investors and banks shift the risks to the deposit insurance system, causing significant damage the financial sector.

The main problems in deposit insurance system in Ukraine, today is the imperfection of the financial mechanism, the problem of insufficient powers DGF, the need for regulation of the procedure of payment of compensation to depositors of failed financial institutions, the unresolved issue of the participation of Sberbank in the system of compulsory deposit insurance, lack of information provision, neglect risk of commercial banks in determining the size of bank deposits – DGF website, as well as many other problems that hinder the effective operation of the system.

Of course, any system is not perfect, it must have been continuously improved in view of the realities and challenges of today. So focus on the main shortcomings of the Fund.

1. Extension of the deposit insurance system only to protect the interests of individuals, without considering the interests of individual entrepreneurs and legal entities.

2. Lack of sources of the Fund's resources. Given the financial instability of the NBU is considering a project to increase the regular meeting times (from 0,25 to 0,5 % of the total funds raised). Even the decision to grant the National Bank Fund loan of \$ 1 billion. As well as interim financing payments by annual contributions from the NBU excess of budgeted revenues over budgeted costs (20,0 % of the excess of income over its expenses, but not less than 1 billion).

3. Limited control functions of the Foundation. The Foundation does not control the process of paying compensation to depositors bankamy ahentamy and not supervising the readjustment, liquidation of banks. This is not consistent with international practice, where appropriate structure completely control the process of obtaining compensation for issuing payments to depositors.

4. Perform basic powers of the Fund through various structures. Thus, through the National Bank fund invests resources in government securities through agent banks – pays compensation payments. Now the compensation paid to depositors five banks and about 200 branches. Partners of the Fund are such banks as "Praveks\_bank", "Privat", "Prominvestbank", "AB" and "Ukrprombank". Given the crisis NBU has developed a new scheme for payment of compensation Fund joins NSMEP, so investors will be able to obtain funds through 41 banks and 4,000 branches, and the Fund will be able to transfer funds to the agent bank only at the request of the depositor, that the Fund will be able to dispose of these funds prior to the date of receipt of the depositor.

5. Imperfect structure of the fund. Pretty interesting data on the asset structure of the U.S. Federal Deposit Insurance Corporation (FDIC) and the Fund's assets. In the U.S. 10 % of the assets of the corporation is aimed at corporate general and administrative expenses, 16 % – for

insurance programs, 50 % – on program oversight and consumer protection, 24 % – on revenue management. Ukraine: 5,5 % – on hold 14,2 % – to guarantee payment, 80,3 % – by investing in bonds. All of this suggests that Ukraine lacks protection program of bank customers, which would be based on the implementation of the Fund monitoring of fund participants, resolution of problem banks, suggesting the need to expand the functions and powers of the Fund.

Here some set of recommendations that came from long experience of establishing deposit insurance systems:

- 1) defining deposit insurance system (DIS) in law;
- 2) extension of deposit insurance system to non-bank depository institutions, such as investments, merchant, savings, and cooperative banks, finance companies and credit unions;
- 3) levels of coverage: the coverage limit usually embraces a high percentage of the number of deposit accounts and a relatively small percentage of the total value of deposits. The IMF recommends to set the limit at twice GDP per capita;
- 4) risk-adjusted premiums: the risk premiums imposed by a deposit insurance agency should be based on objective criteria such as capital adequacy and supervisory rating;
- 5) financial target for the fund;
- 6) provision of supplementary findings: it may happen that resources of deposit insurance agency will be insufficient to meet liabilities. That is why some supplementary sources such as government funding should exist. In addition, a deposit insurance agency may also be allowed to borrow money from markets, or from the central bank;
- 7) the composition of administration of deposit insurance agency: Government may be represented in administration of a deposit insurance agency, but its authorities should not dominate;
- 8) back-up power to close trouble institutions and cooperation with supervisors;
- 9) identifying the right time to initiate deposit guarantee scheme.

Enhanced guidance: instruments and good practices that can help mitigate moral hazard:

1. Greater emphasis should be placed on market discipline from large-scale depositors, shareholders and other unsecured creditors (primarily unsecured senior and subordinated debt holders) to mitigate moral hazard; less reliance should be placed on discipline from small-scale (or retail) depositors.

1.1. Depositor discipline is not a completely effective tool for mitigating moral hazard because most small-scale depositors are largely unable or unlikely to monitor and discipline insured depository institutions. This has implications for the design of deposit insurance systems and the financial safety net, including coverage limits (level and scope) in normal times and failure resolution arrangements.

1.2. Market discipline, especially for larger or wholesale/commercial financial institutions, will come primarily from large-scale depositors, shareholders and unsecured senior and subordinated debt holders. To be effective, these stakeholders must be aware that they will bear the losses from the failure of an insured institution.

1.3. Market discipline alone is not sufficient to mitigate moral hazard; it is best used in concert with regulatory discipline from prudential supervision, effective deposit insurance design features and an effective failure resolution regime.

2. Deposit insurance design features can be effective tools for mitigating moral hazard. Deposit insurance systems should have coverage rules that limit the scope and level of coverage and that can, under certain circumstances, instill depositor discipline. Regulatory discipline can also be imposed by deposit insurance design features that directly affect the risk-taking behavior of insured depository institutions, such as risk-adjusted or differential premiums. Depending on its mandate, the deposit insurance system may have other powers or authorities that mitigate moral hazard. These should include, among others, the ability to:

- 2.1. Control entry and exit from the deposit insurance system.
- 2.2. Issue cease-and-desist orders where appropriate.

- 2.3. Terminate deposit insurance coverage.
- 2.4. Utilize early-intervention tools (collect information, request or conduct examinations of insured institutions including on-site examinations and off-site monitoring).
- 2.5. Pursue civil remedies and removal actions against parties at fault.
- 2.6. Conduct least-cost resolutions, preferably as part of an integrated failure resolution regime.
- 2.7. Consider penalties for member institutions which offer exceedingly high deposit rates to attract deposits.
3. Relevant safety-net participants should place greater emphasis on developing and implementing effective, coordinated frameworks for early intervention and failure resolution.
- 3.1. Relevant safety-net participants (including foreign authorities in cases of cross-border resolutions) should work in an integrated and coordinated manner to resolve failed institutions promptly.
- 3.2. Deposit insurers and other safety-net participants should have timely access to and share relevant information.
- 3.3. Early detection and intervention tools should be utilized.
- 3.4. Failed institutions should be resolved at least cost to the deposit insurer and without taxpayer liability for solvency losses.
- 3.5. Shareholders and unsecured creditors, including large-scale uninsured depositors, should be responsible for failed institutions' losses and bear the cost of failure resolution according to the statutory creditor hierarchy.

Improvements in electronic technology increasingly reveal the inherent weaknesses of government banking regulation. The political marketplace has responded with even heavier regulation of those it can most easily regulate, specifically banks, while developing mechanisms that ensure, as a practical matter, that surviving banks and not the general taxpayer will pay for future deposit insurance losses. But this regulatory product warranty has become increasingly expensive for banks, thereby distorting the financial intermediation process by increasing the incentives for regulatory arbitrage. In effect, federal deposit insurance has augmented the societal cost of regulatory moral hazard. Only through the use of market mechanisms can regulatory moral hazard be eliminated. The cross-guarantee proposal represents one way, perhaps the only way, to apply market processes to eliminating regulatory moral hazard – the real moral hazard in deposit insurance.

### References

1. *Core Principles for Effective Deposit Insurance Systems* [Електронний ресурс] // International Association of Deposit Insurers. – Режим доступу : [http://www.iadi.org/docs/Core\\_Principles\\_final\\_29\\_Feb\\_08.pdf](http://www.iadi.org/docs/Core_Principles_final_29_Feb_08.pdf).
2. *Calomiris, Charles W.* Is Deposit Insurance Necessary? A Historical Perspective / W.Charles // *Journal of Economic History*. – 1990. – Vol. 50. – №. 2ю – Juneю – P. 283–295.
3. *Carapella, F.* and *Di Giorgio, G.* (2004), *Deposit Insurance, Institutions and Bank Interest Rates*, *Transition Studies Review*, 11(3), pp. 77–92.
4. *Chari, V.V.* 1989. *Banking Without Deposit Insurance or Bank Panic: Lessons from a Model of the U.S. National Banking System*. Federal Reserve of Minneapolis. *Quarterly Review* 13, pp. 3–19.
5. *International Monetary Fund (IMF)*. 2011. *Contingent Capital: Economic Rationale and Design Features*. IMF Staff Discussion Note. January 25.
6. *Linda M. Hooks* and *Kenneth J. Robinson*. “Deposit Insurance and Moral Hazard: Evidence from Texas Banking During the 1920s” // *The Journal of Economic History*. – Vol. 62. – № 3. – September 2002.
7. *Pecchenino, Rowena A.* (1992), “Risk-based Deposit Insurance: An Incentive Compatible Plan” // *Journal of Money, Credit and Banking*. – Vol. 24. – № 4. – November. – P. 499–510.