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Banking system and international trade in Ukraine during the financial crisis

Bogdan **Adamyk**[i] and Andriy **Skirka**[ii]

Abstract: *Deposit insurance schemes are primarily intended to reduce the risk of systemic failure of banks and, hence, to stabilize the payments and financial system. This paper focuses on present analysis of some problematic aspects of the banking system and deposit guarantee system in 2014-2016.*
There is a problem of effective functioning of the banking and deposit insurance system under the current economic circumstances. The article presents an information about the number of households' deposits in the banks-members of the Deposit Guarantee Fund. It has been emphasized a decreasing influence of banks' deposit base on the Ukrainian economy and the negative trend on savings. We have also analyzed a ratio of savings to the Gross Domestic Product. Our paper pointed to an importance of overseas money transfers. The paper is concerned with a level of dollarization of deposits and the structure of deposits in banks. It has been outlined the existence of a correlation between fluctuations in foreign currency and total amount of deposits.
The paper further indicates on the dynamics and structure of liabilities in banks-members of the Deposit Guarantee Fund. The percentage of the households' deposits has been significantly reduced. We have also analyzed the dynamics of crediting and total non-performing loans in the Ukrainian banking system. Submitted TOP 10 banks by the National Bank of Ukraine's refinancing loans. The results of our study present some recommendations how to improve the performance of the Deposit Guarantee Fund. We also indicated the importance to improve the deposit guarantee system in Ukraine.

Keywords: *savings, deposit, bank, insurance, deposit guarantee, bank run*

JEL Classification: G21, G22

[i] Dr. Bogdan Adamyk is an Associate Professor, Ph.D., and Dean of the Department of Banking Business at Ternopil National Economic University, Ukraine. E-mail: bogdan_fbb@ukr.net
[ii] Andriy Skirka is a Phd. Student, Researcher at the Department of Banking Business, Ternopil National Economic University, Ukraine. E-mail: skirka92@ukr.net

Introduction

To achieve a rapid and sustainable economic growth any country should have at its disposal such a powerful tool as a strong commercial banking system. The Ukrainian financial sector has recently suffered from two interrelated crises: the worldwide credit crisis in 2008 and the domestic financial crises in 2014-2016. The impact of the global financial crisis on many economies indicated that there is a strong need to protect the financial system from external and internal shocks.

As a result of global financial crisis, Ukrainian financial sector has faced with a lot of new challenges: a lack of appropriate banking funding and adequate deposit insurance system to name only a few. An increase in public confidence towards banks, an increase in the number of deposits, the development of the national deposits insurance systems are particularly relevant in the current global financial climate and economic situation (Strielkowski and Bilan, 2016; Bilan et al., 2017).

The question how to improve the effectiveness of the deposit guarantee system (DGS) is extremely important today. The DGS should strengthen the confidence in financial institutions, prevent bank runs and, finally, stabilize the financial system. The paper focuses on the effective management of banking funding. The appropriate banking funding is a key instrument towards economic stabilization in Ukraine. The purpose of this paper is to analyze the funding sources of banks during the financial crisis and an efficiency of the banking system.

This paper is organized as follows: First, the overview of the amount of deposits in bank-members of the Deposit Guarantee Fund (DGF). Second, the analysis of the loan portfolio and non-performing loans (NPL) in the Ukrainian banks during 2014-2016. Third, the identification of some problems in the banking system and management of banks' deposits.

The Data

The data have been collected during 2008-2009 and 2014-2017. The Statistic of the National bank of Ukraine and DGF is the primary source of our data.

The model and its main findings

First of all, we analyze the performance of the domestic banking system and DGS in 2008-2009. Based on this, we argue that the economic crisis has not been not effectively overcome. At first glance, the stabilization of the situation and an improvement in the financial performance of banks are being observed. But, this is only a short-term phenomenon. The main problems and

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negative consequences of the Ukrainian banking system along with fiscal and monetary policies have been disclosed after 2014.

In addition to that, the banking crisis in Ukraine has started as a severe bank run. The amount of the households' deposits in banks-members of DGS has significantly decreased during 2014-2016. This phenomenon is typically a result of panic on the market and is being called a bank run. Consequently, the probability of bank default and insolvency has been increasing. The total amount of deposits has been reduced by 40.3 billion, or by 10.0%, during the analyzed period. Compared to the previous month, the maximum decreased amount of the households' deposits has been observed in April 2015 at the level of 82.4 billion Ukrainian hryvnia`s, or 16.6%. An increase in the total amount of households' deposits in March of 2015 could be attributed to a common growth. We can explain these figures as a revaluation of the foreign currency deposits due to sharp devaluation of national currency. Since, there has been a deposits withdrawal at the same date in national and foreign currencies at the amount of UAH 6,9 bln. and USD 0.7 bln. respectively, the panic was occurring.

In addition, the total amount of deposits in national currency decreased by UAH 59.8 bln. or by 26.6% during the analyzed period. The maximum reduction of households' deposits in the national currency was observed in March of 2014 at the amount of UAH 16.9 bln and in April of 2014 by UAH 10.7 bln. In average, the households have been withdrawing UAH 2,5 bln. monthly for the period 2014 and 2015 years. As a result of such negative households' behavior on the deposits market, the bank run, panic, and lost of confidence in the banking sector has followed.

Moreover, the amount of households' deposits in foreign currencies at banks-members of the DGF has been permanently decreasing for this period. The reduction totaled USD 2,8 bln. The largest figures occurred at the same months – in March and April of 2014. This trend could be explained by currency instability and uncertainty during the extreme fluctuations of foreign currencies. During the analyzed period, the fluctuation of foreign currencies has become a quite negative tendency. The amount of deposits has been reduced by USD 14.1 billion, which totaled 106.8% of foreign-exchange reserves. FX reserves in January of 2016 totaled only USD 14.1 bln. (Statistic NBU, 2017).

Furthermore, deposits as the primary funding sources of Ukrainian banks have been in downward spiral for recent period. This could be attributed to the fact that the households' income has been falling and, simultaneously, the households' costs have been increasing. Therefore, population could not accumulate money especially in foreign currency. The population has been spending its savings on the purchase of goods and services. As a result, the prices have increased and citizens have been losing a propensity to save. Ukraine's Inflation Index (Average Consumer Price) in 2015 has increased and at the end of the year and totaled approximately 150%, though in 2016 this index totaled 112.8%. Ukrainian citizens lost a predisposition to save and to invest their money in the banking system.

It should be noted, that Ukraine has the lowest ratio of savings to the GDP, in comparison with other countries in the world.

The amount of income, expenditures and confidence in financial institutions has an impact on the choice of investment instruments.

In countries with high income, there is the stock exchange market. Since in these countries deposits rates are low, citizens invest their money in stocks and insurance instruments (for example, life insurance, pension insurance, health insurance and other). Investments in foreign currency, bank deposits and real estate are traditional investing tools in Ukraine.

Many experts including the representatives from the National Bank of Ukraine estimate the amount of cash out of banks approximately from USD 90 to USD 120 bln (Ekspres, 2016). Nonetheless, the government prefers attracting the International Monetary Fund's (IMF) loans instead of transforming these funding sources of banks into sustainable economic development. To stop worsening the economic situation and decreasing the foreign exchange reserves, something has to be done to attract these funding sources into a legal economy. Ukraine has to desperately improve an investment climate and to strengthen the confidence in the financial system. As a result of decreasing revenues in UAH, instability in the banking system and foreign exchange market, falling interest rates in foreign currency, the households have not any desire to open deposits in banks. Therefore, the substitution of the primary funding sources of banks into the funds from overseas money transfers has been occurring.

According to the Statistic of the National Bank of Ukraine, the amount of overseas money transfers via a Money Transfer System in 2015 totaled USD 2.52 bln. In accordance with these statistics, in 2014 these figures totaled USD 3.88 bln. or more than 53.8% (Statistic of the National Bank of Ukraine, 2017). This reduction could be explained by the lost of confidence in the banking sector and introduction of new administrative restrictions. According to resolution of the National Bank of Ukraine №540 on the introduction of additional mechanisms to stabilize the money and foreign exchange market of Ukraine, a mandatory conversion of overseas money transfers into Ukrainian hryvnya has been implemented (National Bank of Ukraine, 2014). Although, this rule has been active for less than a month, nonetheless, it has been negatively influencing on money transfers and this has lead to the lost of confidence in banks.

Overseas money transfers via a Money Transfer System in 2016 totaled USD 1.803 bln. We estimate that informal channels of such transfers are much higher than the official NBU's statistics. Therefore, to include these funds into bank deposits is very important for the banking system and the development of the economic potential. This would also has increased the funding sources of the Deposit Guarantee Fund via higher regular fees from banks.

A crucial aspect of our article is an analysis of a change in the structure of deposits in banks-members of the DGF.

Deposits in foreign currency are larger since this amount totaled 50% or more, of the total deposit portfolio. Only in January of 2014 deposits in UAH totaled a higher percentage share. In 2016 fluctuations have been stabilized, but foreign deposits at the end of the year totaled 53.4%.

The structure of deposits is also closely associated with the dollarization. According to the IMF methodology, we calculated the average level of dollarization of the economy of Ukraine. The arithmetic average share of foreign currency deposits in M2 and the share of foreign currency loans in M2. According to IMF methodology, this figure should not exceed by 30% (Mecagni, 2015).

Deposits dollarization has significantly increased from the 30% in the 2014 to 51.5% in March of 2015. There is a high level of dollarization of Ukrainian economy, since it exceeds the limit of 30%. In monetary economics, money circulation is the permanent usage of individual units of a currency for transactions. This circulation of the foreign currency substitutes the national currency, and, consequently, leads to loosing of the main functions of the means of exchange, the means of payment and the means of saving of Ukrainian hryvnia. We believe that this phenomenon complicates any actions to control the inflation. The high level of dollarization will not contribute to the policy of inflation targeting, implemented by the NBU.

Additionally, a great disadvantage of foreign currency is a rising risk of reimbursement in foreign currency to the DGF funds. As a result of depreciation of the national currency, the guaranteed amount will nominally be reduced. This increases a risk for the Deposit Guarantee Fund. The population will not trust the DGF as a credible authority to guarantee deposits. The DGF's assets are denominated in local currency, but much of households' deposits in FX (about 54% in foreign currency).

The unstable and volatile exchange rate has lead to the panic and deposits withdrawals, the reduction in banks' liquidity and, finally, to bankruptcy of some banks in 2014.

Household deposits in the national currency had a relatively linear declined nature trend during the analyzed period. The deposits base in the national currency has declined by 23.4% during December to May of 2014. Progressive devaluation of the hryvnia against the US dollar has influenced the lost of confidence to the national currency and deposits withdrawals.

The correlation coefficient r measures the strength and direction of a linear relationship between two variables. This coefficient is to be considered at the level of 0.855 as high. The coefficient of determination, denoted R2 is a number that indicates the proportion of the variance in the dependent variable that is predictable from the independent variable(s) and totaled 0.731. The largest effect on the household deposits in foreign currency has the exchange fluctuations.

Households' deposits in the national currency since the beginning of 2016 has an increasing trend. Unfortunately, the deposits have not reached a pre-crisis level (the peak was in December of 2013). The households' deposits have increased by UAH 14.6 bln., or by 7.69% (from the beginning of 2014, the deposits have decreased by UAH 50.7 bln.) during 2016.

Let us pay attention, to the variables decline of the household deposits in the national currency. The amount of households' deposits in the foreign currency has sharply declined during the 2016. Deposits in the foreign currency have been decreased by USD 13.8 bln. or by 61.1% from the beginning of 2014.

A crucial aspect of our model is the analysis of the main indicators, which characterize the trends in the banking system and the structure of liabilities. The dynamics and structure of liabilities in banks-members of the Deposit Guarantee Fund have been presented in Figure 5.

Deposits of businesses increased by 5.9% and almost equaled contributions of the households. There is a high risk that businesses' deposits will not be reimbursed. An improvement of the deposits insurance system in Ukraine envisages a guarantee to the individual entrepreneurs (small businesses). However, the DGF does not cover the most bulk of businesses' deposits

The crisis in the banking sector has been due to a significant excess of the lending in foreign currency in comparison with a deposits base of banks. Consequently, there is a problem of an increase in credit debts. Banks, including the government-owed banks, have increased the amount of loans. Banks have also been lending to the related parties and associated persons of the Banking Group. This turned into a debt problem of loans with the certain internal and external factors. This thing is also known as non-performing loans (NPL). A bank loan is considered to be non-performing when more than 90 days passed without a borrower paying out the agreed instalments or interest. It should be noted that a low level of banks capitalization has lead to an increase in NPLs (moral hazard problem). The more the amount of non-performing loans, there is the more likelihood of bank's insolvency and implementation of the DGF functions.

There is an increase in NPLs since the beginning of 2014 in 3 times by 25.3%. Low quality of the loans portfolio remains one of the main challenges in the Ukrainian banking system. During the analyzed period, loans to businesses predominate over loans to the households. This is explained by the decline in lending to the households and complexity in payouts of loans. In the Figure 6 there is a correlation at 0.9855 between the NPLs and foreign exchange rate.

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There are also some differences between the official and the international data. The number of the international data is much higher.

Banks are unprotected creditors in bankruptcy proceedings. The credit risk has been substantially rising for the recent years. It is extremely difficult to lend to the real sector of the economy. It should be noted that almost all banks in the world and the euro area (after the crisis of 2008-2009) faced with an increasing volume of non-performing loans. This is particularly obviously in Greece and Italy as well as banks in the Eurozone.

Financial Times reports the total amount of NPLs in banks of the Eurozone. It has reached EUR 932 bln. (USD 1.02 trln.), including in Italy the NPLs was EUR 360 bln. (USD 396 bln.) (Financial Times, 2016).

The foreign banks have been lending and providing consumer and mortgage loans to the population for the years of 2007 and 2008. This business has been rather profitable, since having a large amount of liquidity in foreign currency, the foreign banks have been lending at higher interest rates in Ukraine. Therefore, the ratio of NPLs has raised due to exchange rate fluctuations and the inability to repay loans.

UniCredit is one of the TOP lending banks in foreign currency to the Ukrainian businesses. Now, UniCredit needs more capital. Part of the reason is that it has one of the biggest non-performing loan portfolios of any bank in Europe, totaling more than €80bn, over a fifth of its entire customer loans and receivables (see a Figure 8).

Facing with a fragile economic recovery in Italy and lack of economic growth on its key markets, UniCredit faces with the likelihood of further provisions to cover additional bad debts (Financial Times, 2016). In addition, UniCredit, has announced a deal to sell of its unprofitable Ukrainian banking business Ukrsotsbank.

During the Ukrainian financial crisis in years of 2014-2015, there was a bank run. The NBU, as lender of last resort, was forced to provide a liquidity to Ukrainian banks.

Also note that almost all banks that have received refinancing from the National Bank of Ukraine, during the 2014-2016, were insolvent and went bankrupt.

To payout the refinancing loans to the NBU, the Deposit Guarantee Fund has to sell assets of bankrupted banks, what is a formidable task since very often these assets are of poor quality. In 2014 the insolvent banks (Table 2) got refinancing loans at the amount of UAH 38 bln and UAH 2,92 bln. in 2015.

It is reasonable to work out a clear mechanism to support bank liquidity and structural analysis of collateral. Before providing the refinancing loans, the NBU has to prevent the wiping out of the assets of still healthy banks by crooked owners. This policy should be agreed with the managers of commercial banks. In addition to that, these loans also had a negative impact on inflation and the money supply in the country. The owners of bankrupted banks had the opportunity to steal assets of insolvent banks even after providing the refinancing loans by the NBU.

Conclusions

The banking system and deposit insurance system requires further development and improvement. Permanent monitoring of banking and deposit insurance is one of the main priorities for the Ukrainian government. The regulator of the banking system needs to focus on households' savings in the banking system and create economic conditions for restoring confidence in the banking system through effective mechanisms of effective banking regulation and banking supervision.

A crucial aspect is to increase the effectiveness of banking supervision and effective monitoring of risky banks by dual supervision: by the National Bank of Ukraine and by the Deposit Guarantee Fund. This will make possible to detect structural changes in the banking system. Such approach will make it possible to apply preventive measures to banks-members of the DGF. Moreover, it is necessary to improve the Ukrainian deposit insurance system. Such measures will return the confidence in banks.

However, the Ukrainian government needs to increase the amount of deposits insurance compensations. They must correspond to the current economic situation in Ukraine. According to international recommendations (International Association of Deposit Insurers - IADI), it should be revised at least 1 time in every 5 years.

This also allows accumulating in the banking system of Ukraine considerable amount of additional funds and resources. In addition, banks will be able to invest these financial resources in the development of the national economy. This would reduce the dependence on the International Monetary Fund's loans and loans from other financial organizations.

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