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The Role of Deposit Insurance System in Times of Financial Crisis: Can Increased Coverage Limit Sustain Banking Stability? The Evidence of Former Soviet States

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Abstract

The article aims to observe the effect of Deposit Insurance System (DIS) over the behavior of depositors and their decisions about early withdrawals in times of financial crisis in those former soviet countries where the system already operates. The observation is to find out whether DIS is effective or not in sustaining banking system stability and confidence of depositors toward banking institutions in times of financial crisis if the design of the system is properly modified. In the paper the modification implies extended insurance coverage limit or full coverage. The evidence of countries under the study show extended coverage limit to be an effective stabilizing element of the system in times of crisis.

Keywords: banking system, deposit insurance, financial crisis, insurance coverage limit
JEL: G21, G22

Introduction

The international practice proves deposit insurance system (DIS) to be an effective mechanism to contribute to the protection of depositors and to sustain banking stability. Although the primary objective of the system is social protection, further the system is designed to safeguard commercial banks from panic run of depositors. DIS is considered the most effective if it is able to preserve confidence of depositors, especially in times of crisis. To check the efficiency of DIS in this respect the behavior of depositors in times of global financial crisis of 2008/09 has been observed in those former soviet countries where the system already works. The insurance agencies of these countries already record and announce the positive impact of the system over the banking environment through consistent and steady growth of deposit volumes and the number of household depositors. This can be explained by improved confidence of people toward the banking institutions. But can DIS sustain the same positive stabilizing effect in times of financial crisis? Even if the system cannot be as effective during economic instability as it was in times of financial prosperity and growth then what can be done to preserve its efficiency? Or can modified (increased) coverage limit be considered as stabilizing element of the system in times of financial crisis? To find out all these above the behavior of depositors and the tendency of deposit growth in times of 2008/09 global financial crisis have been studied in seven former soviet countries, in Latvia, Lithuania, Estonia, Russia, Ukraine, Kazakhstan and Belarus. As it turned out the banking environment of all countries under the study experienced deposit outflows and early withdrawals of depositors' savings from banking institutions to some degree despite the presence of deposit insurance system. However,the negative destabilizing impact of crisis could have been much more severe if the system did not operate in these states. Deposit Insurance Agencies of all countries above made decisions to amend the system, namely all of them increased the insurance coverage limit or imposed temporary full coverage to regain the confidence of depositors toward the banking system. The research studied the volume of deposits before and after the introduction of amendments. The aim was to check the behavior of depositors and their confidence level toward banking institutions in times of crises before and after the reform. This intent was to check the effectiveness of decision of deposit insurance agencies and government about extending coverage limit.

Literature review on the capability of DIS to sustain banking stability during financial crisis

The role of deposit insurance system shows to be significantly increasing during a period of economic instability (International Association of Deposit Insurers, 2012). As stated by Hoelscher (2011) the 2008/9 financial crisis has led to re-examination of many fundamental assumptions. Depositors have been seen as more risk-sensitive than expected. Threat of even small losses in principle can lead to destabilizing runs. Therefore, many propose (Steden, Giucci, Kirchner, & Kravchuk, 2008) DIS to be accompanied by other measures in times of crisis, although the system is considered as a right tool to promote banking sector stability in stable times as in a crisis. The same

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assumption is made by Hoelscher (2011) when suggesting that policies needed in stable times should differ from those needed in a broad financial crisis. According to him in systemic crisis deposit insurance was inadequate for stabilizing expectations as no one knows true financial conditions of the system and future profitability of any business model. In this circumstances full guarantees are needed to contain the crisis. As he states the assumptions about the role of deposit insurance in depositor protection and maintaining financial stability has evolved and its role in the safety net has been strengthened, but it underwent important changes in light of the 2008/9 global crisis These changes are leading to a rethinking of the optimal design features of the deposit insurance system to further strengthen depositor protection and hence the role above.

According to Financial Stability Board (2012) extraordinary measures to enhance depositor protection implies the changes in the scope and limits of deposit insurance coverage. These measures were adopted to reassure bank depositors and maintain financial stability in the midst of the financial crisis. European Union member states incorporated common changes to their DISs via the amendment to EU Directive 94/19/EC on deposit guarantee schemes (DGSD). The DGSD increased the minimum coverage limit (FSB, 2012).

Many countries have expanded their DIS in the course of the financial crisis in 2008. Some of the countries have moved to full deposit insurance and some have lifted the ceiling on deposit insurance coverage. The level of coverage is a crucial point that determines the success of DIS. The nightmare of bank run is not limited to risk of withdrawals by small depositors. Flight depositors can pose even greater risk. That can be the assumption why in many countries during financial crisis full coverage was imposed. However, setting the coverage limit is important in order to convince large depositors that their funds are truly at risk. This maintains strong incentives for private parties to monitor banks (Steden, Giucci, Kirchner, & Kravchuk, 2008), but the important point is choosing an optimal level of coverage.

For countries adopting a deposit insurance scheme the IMF recommends to set the limit at one or two times GDP per capita. However, it is obvious that with the economic growth or higher rates of inflation the coverage limit should be indexed. For example the EU legislation provides for revision of coverage limit every 5 year (Directive 94/19/EC of the European Parliament and of the Council on deposit-guarantee schemes) (Mogyl'nyy, 2001). As stated by Manukyan (2003) the capital accumulation social welfare objective provides with a more precise guideline for setting the coverage limits; the reasonable deposit insurance coverage ceiling, consistent with social welfare, is the average amount of funds needed for the establishment one additional working place in the industry. While the coverage limits in each country will be a function of many country-specific factors it is the case that the level of coverage appears to be positively correlated with level of economic development of the country.

Before the crisis, coverage level in Europe averaged 1.4 times per capita GDP, and in Asia, averaged 2.2 times per capita GDP, however, as the crisis spread, many countries believed that these levels were inadequate to stabilize depositor expectations. Almost 50 countries adopted some form of enhanced depositor protection. The majority of countries opted to increase coverage. Over 60% of countries opted to increase significantly protection levels while smaller portion (40%) introduced full guarantee. As a result coverage levels in Europe increased from two to 4.8 times per capita GDP while increases in Asia were considerably high, rising to 26 times per capita GDP (Hoelscher, 2011).

The effect of increased coverage limit over the volume of deposits in former soviet states in times of 2008/09 financial crisis

The volume of deposits at commercial banks of Lithuania before extended coverage limit and after it is displayed by the table 1. Before the reform due to financial crisis the volume of deposits were declining (quarter 3, quarter 4, 2008). To stop the process the government made decision to increase the insurance coverage to regain the confidence of people toward the banking institutions.

Lithuania announced increase in deposit insurance from EUR 22 000 to EUR 100 000 in October, 2008, that is from 2.3 to 12.5 times per capita GDP. The amendment went into effect in November, 2008 (International Association of Deposit Insurers, 2011). As the table 1 displays the volume of deposits stopped falling, and it started increasing from the quarter 2 of 2009 after the coverage limit was raised. The significant increase was already observed from quarter 4 of 2009.

The Bank of Latvia records the similar positive effect of increased coverage limit over the volume of deposits during 2008 financial crisis. The annual report (2008) of the Bank of Latvia announced 3.9% decline in deposits of resident financial institutions, non-financial corporations and households, the declining tendency is illustrated by the Figure 1.

The government of Latvia agreed to increase deposit insurance coverage from EUR 20 000 to EUR 50 000 in October, 2008, that is from 2 to 6 times per capita GDP. The amendment came into effect in February, 2009 (International Association of Deposit Insurers, 2011).

The positive effect of higher insurance coverage was seen just after the amendment came into effect in February, 2009. As the Figure 2 below illustrates euro deposits grew significantly after the amendment while the Lats deposits were observed to decline in the first half of the year. But in general the Bank of Latvia recorded increase of deposits of resident financial institutions, non-financial corporations and households by 87.7 million Lats or 1.7% in 2009 in comparison with a decline of 3.9% in 2008 (Bank of Latvia, 2009).

Table 1
Changes in Deposits held in Banks of Lithuania

	2008		2009			
	Q3	Q4	Q1	Q2	Q3	Q4
Deposits (end-of-period), LTL billions	38.6	36.3	36.1	36.5	36.4	39.3
Deposits; annual percentage change	14.1	–1.3	–1.7	–3.5	–5.9	8.2
Deposits of non-financial corporations (end-of-period), LTL billions	9.3	8.6	8.5	8.4	8.4	9.4
Deposits of non-financial corporations; annual percentage change	9.1	–13.2	–6.9	–5.3	–10.9	8.8
Deposits of households (end-of-period), LTL billions	25.1	24.7	24.4	24.4	24.0	25.5
Deposits of households; annual percentage change	16.0	5.2	3.5	–1.3	–4.2	3.4

Source: Bank of Lithuania, 2009

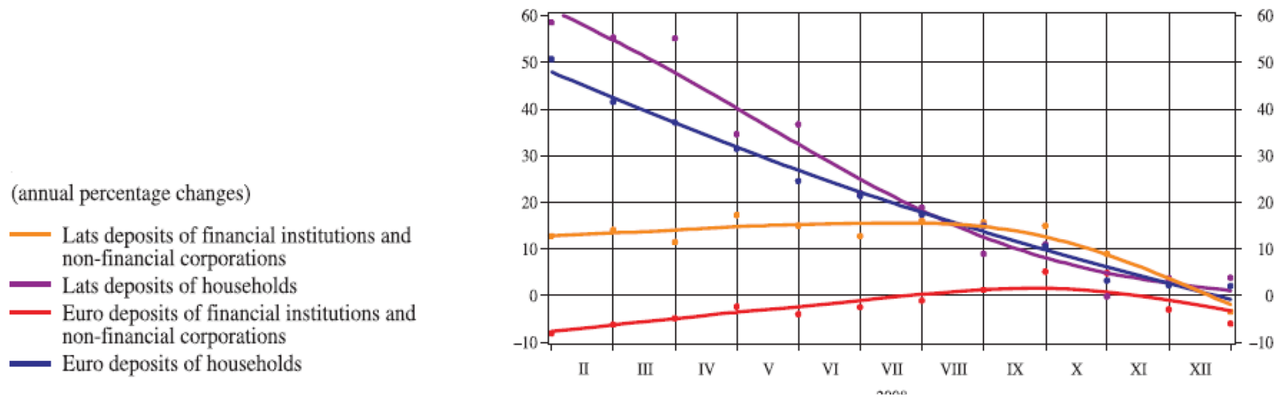

Figure 1. *Deposits of Resident Financial Institutions, Non-financial Corporations and Households in Latvia.*
Source: Bank of Latvia, 2008

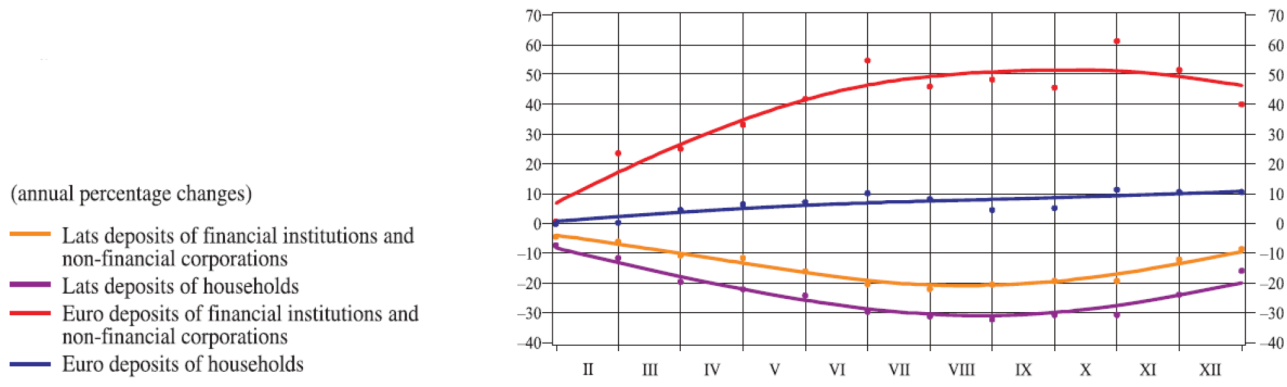

Figure 2. *Deposits of Resident Financial Institutions, Non-financial Corporations and Households in Latvia.*
Source: Bank of Latvia, 2009

Global financial crisis of 2008 had negative impact over the Estonian financial market with no exception, as the Figure 3 illustrates the volume of deposits of residents in Estonia is continuously declining since the January of 2008, and the critical fall down is observed in August of 2008.

The Ministry of Finance of Estonia increased deposit insurance coverage level to EUR 50 000, that is from 1.7 to 4.9 times per capita GDP. The amendment went into effect in October, 2008 (International Association of Deposit Insurers, 2011). As a result of this amendment the growing tendency of deposits have been observed. Although the volume of deposits continued to fluctuate, still the tendency of growth in general was perceived.

Deposit Insurance Agency (DIA) of Russia announced positive stabilizing effect of insurance system during 2008 financial crisis. According to the annual report of 2008, timely increase (since October 1, 2008) of the deposit insurance coverage to 700 thousand rubles (from 1.4 to 2.5 times per capita GDP) and decision to fully reimburse insured deposits up to this new coverage limit became a stabilizing factor for deposit market development in 2008. The second

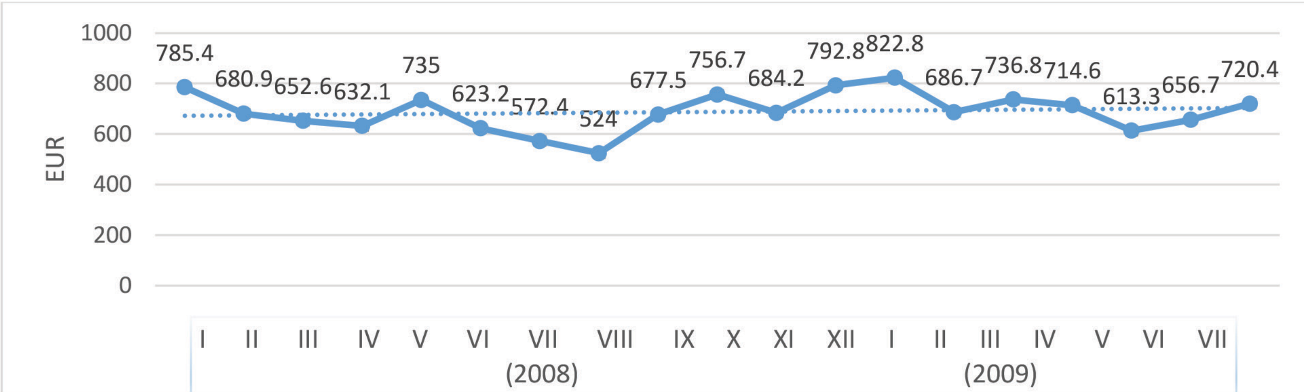

Figure 3. *Turnover of Deposits of Residents in Estonia (EUR million).*
Source: the Figure is constructed based on the data by Bank of Estonia, 2008/09

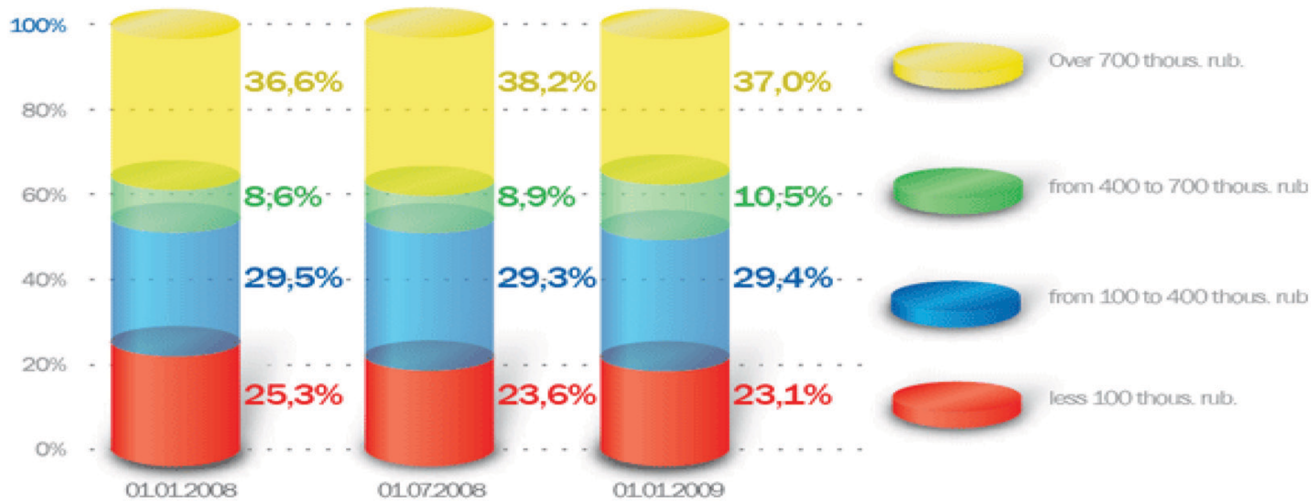

Figure 4. *Structure of Deposits in Russia.*
Source: Deposit Insurance Agency of Russia, 2008

half-year period of 2008 the household deposit market developed under influence of negative news both from the world financial markets and from the Russian market. As a result, deposit growth rates in the second half year amounted only to 3%. As stated by the annual report of 2008 of DIA of Russia in November 2008 the deposit market stabilized and in December it grew by record 396.3 billion rubles almost completely having compensated the previous decline. As a result deposits of individuals in DIS member banks in whole for this year increased by 14.7% (the absolute increase is 753.7 billion rubles) and reached 5 885.2 billion rubles.

The increase of deposit insurance coverage resulted in that deposits with amount from 400 to 700 thousand rubles expanded at the highest rates in the second half-year of 2008 and their volume in half-year increased by 21.4%. New deposits, opened in this period, amounted almost to 200 thousand rubles, and the share of such deposits in general volume grew from 8.9 to 10.5%. The volume of larger deposits, exceeding 700 thousand rubles for that period decreased by 1% (their share declined from 38.2 to 36.9%) (Fig. 4) (Deposit Insurance Agency of Russia, 2008).

DIA of Russia reports important influence of deposit insurance system on maintaining household' confidence in the banking system, and, to a great extent, promotion of quick restoration and continuation of positive trends discernable before crisis in the sphere of household' savings in Russia. According to this report insured household deposits in insured banks in 2009 increased by RUR 1 579 billion. In relative figures they increased by 26.8 %. The increase of deposit insurance coverage in October 2008 resulted in that household deposits with amount from RUR 400,000 to 700,000 and from RUR 700,000 to RUR 1 million were growing at the highest rates in 2009. Their volume grew in the reporting year by 56.2 % and 57 % respectively (increase by RUR 348.6 and 135.3 billion). The proportion of deposits amounting from RUR 400,000 to 700,000 went up from 10.5 % to 13 %, while the proportion of deposits from RUR 700,000 to RUR 1 million grew from 4 % to 5 % of the total deposit amount. Deposits exceeding RUR 1 million grew at a low rate, resulting in their share went down from 32.9 % to 32.5 %. As stated by DIA of Russia fast

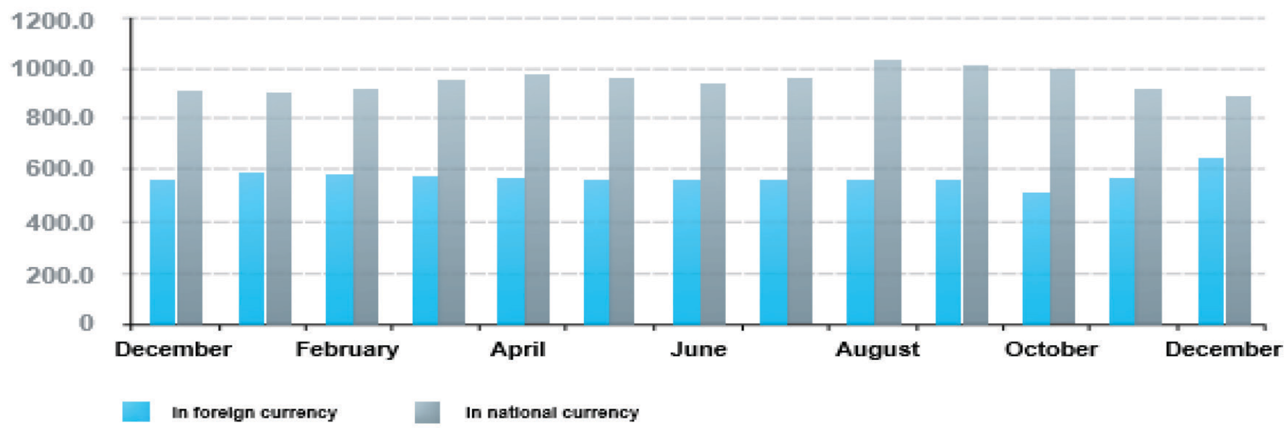

Figure 5. *Individual Deposits held in Second-tier Banks of Kazakhstan (Tenge, billion), 2008.*
Source: Kazakhstan Deposit Insurance Fund, 2008

Table 2
Development of Deposit Market of Ukraine

	2008				For reference: 2007			
Indicators	UAH, billion	Share, %	Growth UAH, billion	% to previous year	UAH, billion	Share, %	Growth UAH, billion	% to previous year
Liabilities, total								
including:	359.7	100.0	75.8	126.7	283.9	100.0	98.0	152.7
		By sectors of the economy						
non-financial corporations	118.2	32.9	22.6	123.6	95.6	33.7	30.0	145.7
households	217.9	60.6	50.6	130.3	167.2	58.9	58.4	153.6
other[11]	23.6	6.5	2.6	112.5	21.1	7.4	9.6	184.0

Source: National Bank of Ukraine, 2008

growth of deposits with amount close to the maximum insurance coverage (from RUR 400,000 to 700,000) testifies to active impact of the deposit insurance system on the households' saving behavior (Deposit Insurance Agency, 2009).

The annual report of Kazakhstan Deposit Insurance Fund of 2008 also explained decreasing deposits base's growth rate by the negative influence of the global crisis on the financial market of Kazakhstan, deterioration of the financial positions of the local banks and as a consequence, flow-out of individual deposits (Figure 5) (Kazakhstan Deposit Insurance Fund, 2008). Kazakhstan also announced an increase in the deposit insurance level from KZT 700 000 to KZT 5 million, that is from 0.7 to 4.8 times per capita GDP. The new coverage level went into effect in October, 2008 (International Association of Deposit Insurers, 2011). After the coverage limit has been increased the volume of deposits in amount of 3-5 million Tenge has been enlarged. During 4th quarter, comparing to the third quarter 2008, the increase of such deposits in Tenge was equal to 35.2% and in foreign currencies – 46.9% (Kazakhstan Deposit Insurance Fund, 2008).

The evidence suggests that since the Fund was established in Ukraine, the deposit insurance system had a positive impact upon the development of the banking sector and significantly contributed to the stability of the financial sector in the country. For instance, as compared with the year of 1999: the number of depositors to the member banks increased by 9.7 times to reach 44.4 m. individuals; the deposit value increased by 91.5 times to UAH 338.5 b.; the average deposit value increased from UAH 806 to UAH 7619.0 (Deposit guarantee fund, Ukraine, 2012).

Deposits attracted from residents as at 1 January, 2009, amounted to UAH 359.7 billion. For the year, the growth rate of deposits was 126.7% against 152.7% by the end of December 2007. Variations of dynamics of the deposit growth were in line with dynamics of the economic growth. A gradual slowdown in the growth rate was notable from April 2008 (National Bank of Ukraine, 2008).

As at 1 January 2009, deposits of the households sector amounted to UAH 217.9 billion. The growth rate of deposits of the households sector during the reporting year slowed down to 130.3% compared to 156.7% (in the annual calculation) in April, when they were the largest, and 153.6% in December 2007. Mass withdrawal of deposits by households and increase in the demand for foreign currency in cash was evident at the beginning of October. At the end of November, observed was the deceleration of the outflow rate of deposits from the banking system. This was contributed to some extent by enlargement of the remuneration on the individuals' deposits, guaranteed by the Individuals' Deposits Guarantee Fund from UAH 50 thou-

Table 3
Deposits of Sectors of the Economy in the Banking System of the Republic of Belarus (BR, billion)

01.01. 2007	01.01. 2008	01.04. 2008	01.07. 2008	01.10. 2008	01.01. 2009	Indicators
14 556.6	20 083.7	21 278.1	23 490.2	24 447.4	26 205.7	Deposits of sectors of the economy
						including:
2 037.5	3 102.4	3 312.0	3 730.8	3 666.8	3 922.8	public commercial enterprises
4 474.4	6 069.1	6 060.9	6 762.8	7 033.8	8 528.9	private sector
7 818.6	10 569.8	11 553.2	12 566.2	13 310.6	13 262.2	natural persons

Source: National Bank of the Republic of Belarus, 2009

sand to UAH 150 thousand (National Bank of Ukraine, 2008).

According to the IMF country report of 2009 (No. 09/30) with the exception of liquidity ratios, financial soundness indicators for the banking sector in Belarus appeared satisfactory, however, the loan-to-deposit ratio showed to be very high (165% as of September 2008), and some individual commercial banks have at times experienced difficulty in complying with minimum prudential liquidity ratios. Even large Belarusian banks were affected particularly strongly by a sudden withdrawal of domestic deposits. Although no significant withdrawal of foreign deposits or contagion to the Belarusian interbank market was observed, a hypothetical withdrawal of 50 percent of liabilities to non-residents would cause short term liquidity of eight banks, including some large banks to fall below the minimum prudential requirement (IMF, 2009). The table 3 below illustrates quarterly deposit growth in Belarus in 2008, as reported by IMF the systemic outflow of deposits was not observed in this period, but the growth rate still lowered by 2.49% (Table 4).

Table 4
Annual Growth Rate of Deposits in Belarus

Indicator	2008	2009
Annual Growth of Deposits	-2.49%	25%

Source: USAID, Partners for Financial Stability, 2011

In November 2008, the authorities extended a full guarantee on all household deposits with a view to preventing a potential run (the old insurance coverage limit of USD 1000 was effective in Belarus till December, 2008). This arrangement is planned to be kept under review, but only once the financial sector and macroeconomic situation stabilizes, will it be appropriate to begin consideration of a removal of the blanket guarantee (IMF, 2009). After the amendment deposit growth rate has been observed to increase significantly (by 25%).

Conclusion

The observations showed that the financial crisis had destabilizing effect to some extent over the banking systems of all countries under the study; the volume of deposits either decreased or the growth rate slowed down. However, if the system did not work in the countries observed the destabilizing impact of financial crisis would have been much more severe and deposit withdrawals more intensive. It is a fact that the systems in these countries are announced and statistically proved by insurance agencies to be effective in keeping depositors confident toward banking institutions in times of economic stability. Even though deposit insurance system could not sustain depositors' confidence to the level before the crisis, still the observation showed that deposit withdrawals were not too dramatic. In some of the countries under the study the volume of deposits did not even decline, but the rate of deposit growth just relatively slowed down (Russia, Belarus, Ukraine, and Kazakhstan). To compare the case with the countries without deposit insurance in place, for instance Georgia, experienced too massive withdrawals of deposits in 2008. Despite the fact that all commercial banks in Georgia were closed for 3 days during the most intensive outflow in August, 2008, depositors still managed to withdraw considerable amount of their savings. According to the National Bank of Georgia (Annual report, 2008) deposit account outflow from Georgian banking system amounted 300 million GEL. Moreover, banks appeared to be unable to re-attract withdrawn funds and to rebuild the confidence of people for long period of time. All the above can be regarded as an evidence of effectiveness of DIS to keep depositors confident and thus sustain banking stability both in times of economic stability and to a certain degree in times of financial crisis as well. However, as the observations show deposit insurance system needs to undergo some modifications to preserve its stabilizing effect over the banking environment in times of financial crisis the same as in times of financial stability. The important point is to identify how to modify the system, or what the stabilizing element of the system is. As viewed above, the governments of all the countries under the study amended insurance coverage limit to regain the confidence of depositors so that it reaches the level before the crisis. The positive impact of extended coverage limit in Q4, 2008 was instant in Lithuania, as deposit withdrawals slowed down just after the amendment. In Q1, 2009 the volume of deposits declined just to LTL 36.1 billion from LTL 36.3 billion (relative to the previous decrease that was much significant from LTL 38.6 billion to LTL 36.3 billion). From Q2, 2009 deposits already started to increase in Lithuania. The volume of deposits in Latvia continued to fall down for the whole year of 2008. As soon as extended coverage limit went into effect in February, 2009 the total volume of deposits started to increase. Although deposits denominated in Lats continued to decline in the first half of the year, in general total volume of deposits increased by 87.7 million Lats in 2009. This was by 1.7% increase relative to 3.9% decline in 2008. Extended insurance coverage worked as a stabilizing element of DIS in banking system of Russia as well. Deposit growth rate returned to its previous level in the second half of the year of 2008, after the increased insurance coverage. One more evidence of effectiveness of extended coverage limit is the highest growth rate of deposits from 400 to the new level of 700 thousand Rubles of coverage in Russia and the increase of deposits in amount of KZT 3-5 million in Kazakhstan just after the coverage limit was announces to be KZT 5 million. The same positive impact of extended insurance coverage has been observed in Estonia as the amendment resulted into more steady deposit growth. The result was much obvious in Belarus; after -2.49% in 2008 the National Bank of Belarus recorded 25% of deposit growth in 2009.

Based on the information about the changes in the volume of bank deposits during financial crisis before and after the reform can be concluded that during 2008/09 financial crisis the coverage limit proved to be a stabilizing element of the system. As the insurance agencies declared about the increased coverage limit or full coverage and the amendment went into effect the deposit withdrawals either stopped, or in most of the cases the volume of deposits started to increase. It can be stated that the amendments about coverage limit reassured the depositors about the credibility of banking institutions.

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