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Deposit insurance systems of post-Soviet countries: A comparative analysis

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Abstract. The article provides a comprehensive analysis of deposit insurance systems in the post-Soviet countries as of December 2017. The article brings up to date the earlier databases of Demirgüç-Kunt and various co-authors, covering 15 post-Soviet countries exclusively. The analysis shows that post-Soviet countries are on their way developing deposit insurance systems that can effectively protect clients and help establish a stable financial system. Altogether, the most crucial factor which does not allow post-Soviet countries to fully accept the EU deposit insurance regulations is the divergent course of economic development. The findings are further illustrated along the particular case of Ukraine.

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1. INTRODUCTION

After the breaking up of the former Soviet Union, all of its successor countries faced the problem of establishing the institutional framework which is crucial for a viable financial system. Among the organizations to evolve were commercial banks offering savings and loans, leading directly to the problems of the legal status of banking deposits and their effective insurance in cases of bank insolvency. As other firms, banks are exposed to various types of risk. At the same time, particular creditors of banks, i.e.

depositors, are regarded as protection-worthy. Their protection is also based on near-/non-economic considerations such as (in-)justice, but mainly built on the urgency to avoid depositors run on the bank, thus aggravating any crisis. Consequently, depositor protection schemes are designed to complement the preventive supervision of banks. Every nation which resulted from the splitting up of the Soviet Union had to decide on establishing a deposit insurance a) in general and b) in detail. Against this backdrop and frame of reference, this article takes stock and illustrates how the respective countries have dealt with these seminal questions by comparing their systems of deposit insurance.

While the second section of this article provides an introductory review of the existing literature, the thir done considers the existing deposit insurance systems in 15 post-Soviet countries, which share the same origin, but have been developing individually thereafter, and analyzes this particular and well-defined selection in a comparative manner. In general, we hypothesizethat in every of these countries a deposit insurance system was installed, in fact quickly and according to basic design principles. We first introduce the catalogue of criteria we have used for comparison based on seminal contributions that have been made – in particular, by Demirgüç-Kunt and various co-authors under the IMF/World Bank umbrella – to this field of research. Based hereupon, we present a detailed comparison of the deposit insurance schemes in the selected group of countries. The fourth section contributes to the analysis of deposit insurance experience in those of the aforementioned countries which have already joined the EU or are considered its associate members. In this part, the EU Directive on Deposit Guarantee Schemes and its amendments are regarded in brief, including a comparison of its requirements with the current systems in the countries analyzed. The fifth setion of the article evaluates the equivalence between the established EU regulation of deposit insurance and its application to current banking markets. Ukraine is chosen as a case study to evaluate the effectiveness of the existing deposit insurance system, because governing the functioning and effectiveness of the deposit insurance system, which plays a prominent role in the financial system, has been established as one of the priorities for assuring the development, stability and sustainability of Ukraine's economic system, which evolved considerably during the years of Ukraine's independence and also under the recent financial and political crises. In particular, the respective Ukrainian legislation of 2012 on responsibilities of the national Deposit Guarantee Fund and its amendments are considered. Although Ukraine has experienced several amendments to legislation on banking activity, banking regulation and deposit insurance during recent years, the aforementioned legislation does still represent the relevant legal foundation of Ukrainian deposit insurance (Alyeksyeyev & Mazur, 2018). Section six concludes this article.

2. LITERATURE REVIEW AND DERIVATION OF THESES

The beginnings of bank deposit insurance can be traced back to the 19th century (Calomiris, 1990; Calomiris & White, 1994; Golembe, 1960). Since then, deposit insurance has become part of an increasing number of financial systems worldwide. Although comparable protection schemes are possible for other types of financial intermediaries, e.g. insurance companies (seminal, see Cummins, 1988, and further of his contributions; also Lee, Mayers, & Smith, 1997), theory and practice focus their role within banking systems (Demirgüç-Kunt & Sobaci, 2001; Demirgüç-Kunt et al., 2005) and the problem of depositors` protection which is needed to withstand bank runs and consecutive bank failures. Developed countries were the first to introduce deposit insurance systems – and since then suggest their usefulness to developing countries (Demirgüç-Kunt & Kane, 2002; Demirgüç-Kunt et al., 2015). While their mere existence is hardly discussed in practice anymore, economic analysis takes a more skeptical position towards deposit insurance, questioning its necessity and design based on the danger of distorted incentives: As any form of insurance, deposit insurance reduces the risk of the protected party to be harmed by a particular economic risk. And as any form of insurance, deposit insurance thus entails the problems of adverse selection and moral hazard (seminal, see Pauly, 1974; also Masciandaro, 2007). Being aware of their being covered by deposit insurance, bank depositors are less incentivized to screen and monitor their bank (managers and owners), who in turn are incentivized to gamble for high, but individualised profit, while at the same time socialising the inherent risk, although bankruptcy imposes significant monetary costs on the banks (seminal, Demirgüç-Kunt & Detragiache, 2002; also Stiglitz, 1975; on the particular Russian experience, see Chernykh & Cole, 2011; Fungáčová et al., 2017). To overcome this inbuilt flaw, different countries follow different institutional designs of deposit insurance. On a lower level, some deposit insurance schemes attempt to readjust incentives by being incentive compatible, e.g. by deductibles for customers, or risk-based insurance premiums for banks (e.g. Beck, 2003; Demirgüç-Kunt et al., 2008a; Hall, 2002; especially on risk-based premiums, see Chan et al., 1992). On a higher level, the interplay of deposit insurance and bank supervision has to be addressed: As banking regulation aims at system protection and depositor protection (extensively, see Benston, 1998), too, their combination seems only natural.

After their independence, the post-Soviet countries experienced particular institutional change (extensively, Schönfelder, 2012, chapters 1 – 8), including the development and revision of their deposit insurance mechanisms. During the early years of independence, deposit insurance used to be implicit before it was turned into explicit forms, which were considered best practice in many countries around the world (Garcia, 1999). However, bank depositors in the successor countries suffered severe losses due to bank failures and inflation, while they were not covered by existing deposit insurance (see Niinimäki, 2002).

Investigating the causes of bank failures in post-Soviet countries, Palubinskas & Stough (1999) identified that decentralization and transformation processes had led to bank failures that left private clients unprotected. Compared to the majority of developed countries, the crucial impulse to create a deposit insurance system thus was a seminal political turnaround, followed by crises of financial intermediaries. Due to the preceding political meltdown, the institutional framework had to be created out of nothing, while institutions of deposit insurance had been part of the longtime institutional change in most developed countries. From an economic point of view, (governmental) deposit insurance is considered a way of financial regulation that is particularly attractive for rule-makers and regulators alike, because immediate cost is low, while the immediate benefits for these actors are high (e.g. Demirgüç-Kunt & Kane, 2002). Consequently, we hypothesize that deposit insurance schemes were introduced rather quickly after post-Soviet countries gained their independence. With regard to a swift establishment of deposit insurance, we furthermore expect their design to be rather simple and close to Western European blueprints. Meanwhile, several post-Soviet countries have become associate or full members of the EU. This leads to the question in how far the national deposit insurance systems were influenced by EU standards recently, as the continuing institutional change was supposed to affect any EU member state: While concentrating on bank supervision and insolvency avoidance since the 1990s, EU financial regulation put more emphasis on deposit insurance and insolvency management recently. Referring to the individual approaches of the member states, Gerhardt & Lannoo (2011) show that EU deposit insurance should be improved by mitigating differences between national deposit insurance schemes. Recent EU legislation on deposit insurance in fact has been changing along with new challenges materializing in the wake of the financial crises (e.g. Laeven, 2014). In particular, the current Directive 2014/49/EU, which amends prior legislation (Directives 2009/14 EC and 94/19/EC, which explicitly made deposit protection an essential element of the completion of the internal market and of the instruments enforced for the sake of financial system stability) made the establishment of bank-financed guarantee funds compulsory, increased the minimum coverage amount from EUR 20,000 to EUR 100,000 per customer and bank, defined a minimum fund size (of 0.8% of protected deposits) and also shortened time limit for the funds' compensation payments in case of bankruptcy (e.g. Payne, 2015). This means that the new directive addressed all the main categories of deposit insurance design as they are discussed in the subsequent chapter. As of today, all current EU member states have implemented the main elements of a deposit insurance system according to the original directive and its recent amendments, although seminal questions still remain unanswered (e.g. Howarth & Quaglia, 2017).

At the same time, the EU is considering supranational approaches towards deposit insurance. Schoenmaker & Gros (2012) concluded that a European Deposit Insurance and Resolution Authority should be established to stabilize the retail deposit base and resolve troubled cross-border banks. A European Deposit Insurance and Resolution Fund would be fed through regular risk-based deposit insurance premiums with a fiscal backstop of the European Stability Mechanism. At the same time, the most recent change about to take place in future years is the introduction of a European Deposit Insurance Scheme as the third pillar of the EU Banking Union in order to reduce the potential spill-over risk of local bank failures on the financial stability of the economic and monetary union as a whole (Stuchlik, 2016).

Based upon our literature review, we thus hypothesize that deposit insurance systems were established in any post-Soviet country in a quick manner, aiming at depositor protection and system stability (Arzhevitin, 2010; Dovgan, 2012; Kravchuk & Vilkhovyk, 2014; Strassberger & Sysoyeva, 2016). Following the findings of Demirgüç-Kunt & Kane (2002, p. 178) that the 'design of deposit insurance schemes varies substantially across countries [and the] high degree of variation suggests that an optimal worldwide blueprint is not likely to be found', we further expect different institutional designs in detail, but compatibility with the blueprints codified in EU directives on deposit insurance.

3. TAKING STOCK: DEPOSIT INSURANCE SYSTEMS OF POST-SOVIET-COUNTRIES

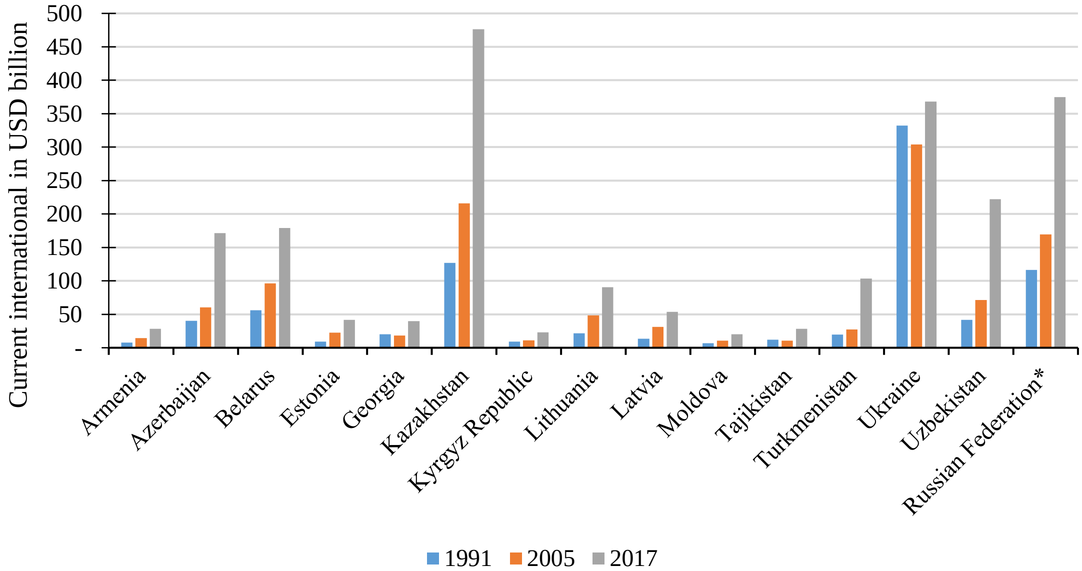
3.1. Evolution of the status quo

In 1991, economic, political, and social structures of the Soviet Union started to dissolve, while 15 post-Soviet countries gained their independence and started their existing as separate communities, starting to evolve their own institutional framework, including a national financial system. The economy of the Soviet Union had experienced stagnation processes before the break-up. The centrally and government-led planned economy had become increasingly inefficient year by year, and recent reforms turned out unsuccessful. By the end of the 1980s, supply problems in consumer industries became as evident as a worsening of medical and educational services, significantly driving a downturn of macroeconomic indicators and growing dissatisfaction of the people, so that economic recession turned into the break-up of the political Union. Hereafter, the independent successor states started adopting political, social, economic reforms and implementing policies individually. The results of these measures were different among the countries, as shown by macroeconomic indicators, especially GDP. To compare the general economic development of the post-Soviet countries, and to eliminate the possible effects of changes in exchange rates of currencies we used GDP rate based on PPP (purchasing power parity) for the period 1991-2017.

Figure 1 shows the positive trend of the GDP of post-Soviet countries during the years of independence. To take into account the considerable differences of populations, subsequent Fig. 2 also shows the GDP per capita ratio (based on PPP) for the same research period.

Figure 2 shows top positions of the Baltic countries (Estonia, Lithuania and Latvia) by GDP per capita, being the countries with the close geographical and economical connections with the European Union. Belarus, Kazakhstan, Russian Federation and Turkmenistan form the next group of countries according to GDP per capita. As of 2017, the bandwidth is considerable, ranging from Tajikistan (3,180 US$) to Lithuania

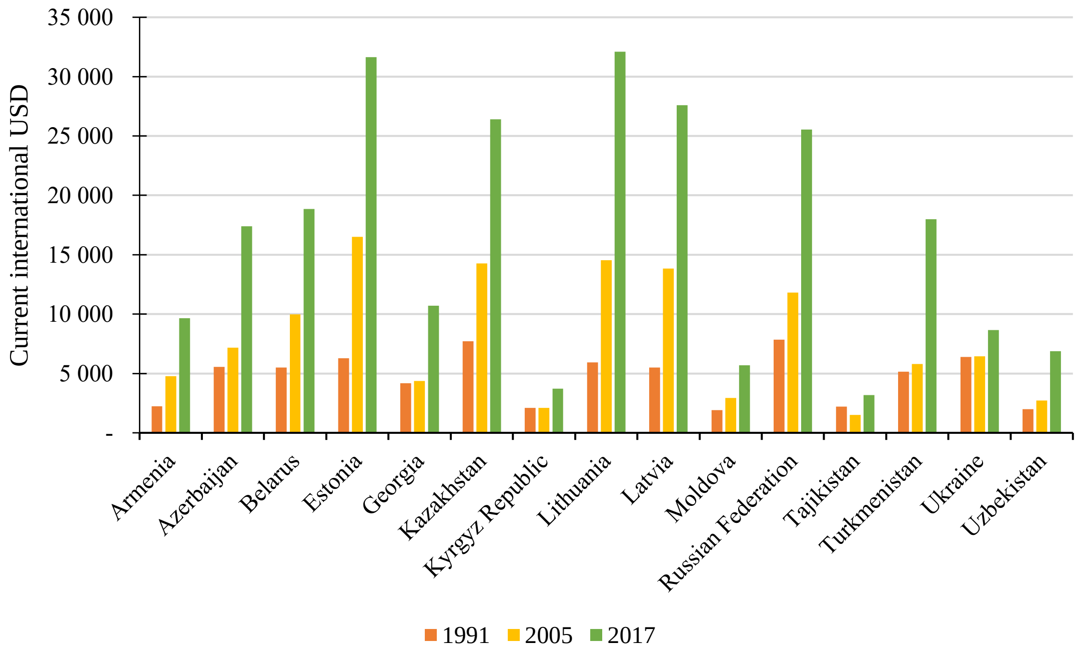
(32,092 US$). Against this macroeconomic backdrop, the post-Soviet countries had to evolve their individual institutional framework.



*Amounts for the Russian Federation estimated in USD 10 billion; first column for Baltic countries and Moldovia as of 1995

Figure 1. GDP PPP for post-Soviet countries (1991, 2005, 2017)

Source: World Bank Statistics (http://data.worldbank.org)



*First column for Baltic countries and Moldovia as of 1995

Figure 2. GDP per capita (PPP) for post-Soviet countries (1991, 2005, 2017)

Source: World Bank Statistics (http://data.worldbank.org)

With the stepwise establishment of banking systems including privately owned (and thus exposed to insolvency risk) banking firms, the issue of depositor protection arose. Frequent crisis events in the 1990s (such as the economic crisis in Russia in 1998) endangered the evolution of sound banking systems in which clients could trust their banks, in particular when deposit insurance was not yet established (Savchenko & Kovács, 2017; Cojocaru et al., 2016, 225; IADI, 2009). One of the traditional institutions to enhance depositor protection (and trust) is the protection of deposits by institutions explicitly designed for this purpose. Ukraine was one of the first successor countries to establish a respective deposit guarantee system for private bank depositors in 1998. Since then, the other successor countries followed suit, as the subsequent timeline of Fig. 3 shows.

Figure 3. Evolving of initial deposit insurance institutions of post-Soviet countries
Source: Authors' own compilation

Although deposit insurance institutions prevail in most of the aforementioned countries today, their designs still differ, meaning that the question of (the appropriateness of) bank depositors` protection has remained one of the most urgent problems for the independent countries which succeeded the Soviet Union (where this topic had not been one at all), because their financial systems evolving turned out to be closer to the (continental) European, bank-/control-oriented prototype than to its market-oriented pendant (as e.g. in the US or the UK; on types of financial systems, see, extensively, Allen & Gale, 2000) so that the banking sector is of seminal importance for ensuring the stability of the whole economic system of the country. Consequently, it becomes an urgent task to prevent banking panics and the subsequent massive withdrawal of household deposits.

Until today, the establishment of deposit insurance systems is still underway in most of the 15 countries. To understand the peculiarities of this slow process and its results, a comparative analysis promises further insights. For this purpose, we built up a database on deposit insurance for the aforementioned 15 post-Soviet countries.

Scientific literature already offers comprehensive databases of deposit insurance systems, which were established by Demirgüç-Kunt and various co-authors under the IMF/World Bank umbrella: initiated by Demirgüç-Kunt & Sobaci (2001) in 1999, and updated by Demirgüç-Kunt et al. (2005, also 2008b), and Demirgüç-Kunt et al. (2015). This IMF-database allows for extensive cross-country analyses of deposit insurance around the world and also takes into account amendments of the former systems which were spurred by the financial crisis since 2007.

With respect to the scope of our analysis, based on the variables used in this database of 2001, 2005 and 2015, we have chosen a set of those which are suitable to carry out a comparative analysis of deposit insurance schemes in post-Soviet countries. We extend this database by adding recent changes adjustments of the systems of several countries as of December 2017, including not only revisions of existing systems, but also initial adoptions of deposit insurance elements in some countries. Consequently, the analysis covers the time period of 1991-2017, the figures for coverage limit, payments, periods, etc. are presented as of December 2017.

In addition to information provided by the database of Demirgüç-Kunt et al. (2015), we extracted additional information from the websites of governmental and deposit insurance institutions of the countries analyzed . Further variables refer to the status of the countries' relation to the EU in particular. Table 1 shows a spreadsheet of our database that allows for a comparative analysis of the current landscape of post-Soviet deposit insurance schemes.

Prior to this synopsis, we describe the variables we used for comparison.

3.2. Criteria to compare the current systems

Systems of deposit insurance are specific organizations which are established according to specific rules. As an organization, they are characterized by three key features: coverage, funding, and managerial / organizational structures (Demirgüç-Kunt & Kane, 2002, 182; Demirgüç-Kunt et al., 2015, 158, 162). According to the seminal contributions of Demirgüç-Kunt et al., these key features can be split up into sub-categories – that allow for a more detailed description and comparison – as follows, whereas we add a fourth and meta-category that refers to the general purpose and specificity of deposit insurance.

1) General purpose and specificity

General purpose (and further functions): According to financial economics (see e.g. Diamond & Dybvig, 1983, Goodman & Shaffer, 1984), the main goal of deposit insurance of any country should be to provide protection for a) clients` deposits and b) the national financial system as a whole. Generally speaking, the goal of every deposit guarantee institution is to provide guarantees to depositors of financial institutions that their savings are safe, and that in the unlikely case of bank insolvency, they will ensure appropriate repayment of deposits. However, the formulations of the general goals of deposit insurance authorities differ according to the respective standards and their enforcement. Besides, there are further functions, mostly on an operational level, that can be taken into account, including the execution of (quasi-)governmental powers. Taking part in banking regulation, the deposit insurance institution could be responsible in particular for: administering bank licences, closing down insolvent banks and organising their liquidation (e.g. Ukraine), supporting the sale of assets of banks which are in the procedure of liquidation (e.g. USA, Argentina, Germany, Poland), creating bridge banks (e.g. UK, Poland, USA).

Specificity: The presence of written law on deposit insurance is the main factor in defining its explicit or implicit form (Demirgüç-Kunt & Sobaci, 2001; Demirgüç-Kunt et al., 2008a). The formal kind of regulation implies the presence of a particular deposit insurance legislation and regulation that is carried out by special authorities such as the national central bank, the banking supervisory authority, or a specialized deposit guarantee fund institution. In particular, the legislative basis and appropriate authorities of deposit guarantee regulation determine such important elements of deposit insurance as categories of insured depositors, coverage limits, triggers of repayment et al. We consider deposit insurance to be explicit if there are elements of a formal legislation or regulation outlining explicit deposit coverage, which are implemented in the country. Otherwise, we identify a deposit insurance system as an implicit one.

2) Coverage

The scope of coverage: In a qualitative sense, deposit insurance schemes differ with regard to the kinds of bank deposits they cover (e.g. Demirgüç-Kunt & Detragiache, 2002). Relevant systematisations of bank liabilities can be tied to a) kinds of deposits (just principal, or interest, too; demand, time, saving, or other deposits; local vs. foreign deposits), b) the kind of depositor (private, entrepreneur, corporate, bank, public, or other), or c) the kind of the deposit-taking financial intermediary (commercial bank, building association, etc.). In a quantitative respect, deposit insurance schemes often name an upper limit of coverage (e.g. Demirgüç-Kunt et al., 2015). This cap can be an absolute number (denominated in currency units) or a percentage (of insured deposits, the bank's equity, or other volumes). Furthermore, it can be applied per depositor or per account. Any type of deductible emerging from these caps mitigates coverage, but also the moral hazard effects caused by the particular insurance type of deposit protection as well as by any other form of insurance.

Time of compensation: Deposit protection institutions are obliged to make compensation payments to depositors within the coverage limits only after a trigger incident occurred. The timeliness of the compensation, however, can vary, from being a particularly quick matter of days to requiring several years (e.g. Laeven, 2014). We distinguish the existence of emergency rules and also the procedures intended before a final compensation can take place, such as an announcement of the bank`s bankruptcy, registering of depositors involved, establishing partner institutions to organize pay-outs, etc., which can be rather time-consuming.

3) Funding

Time refers to the distinction of unfunded and funded systems (e.g. Demirgüç-Kunt & Huizinga, 2004). Unfunded systems do not collect contributions from member banks or third parties ex-ante, but just their formal obligation to contribute money at the very moment a bank insolvency occurs (e.g. Austria, Italy, or the UK, e.g. Laeven, 2014). Funded systems are based on ex-ante premia, which build up a reserve fund of financial resources that can be used for pay-outs to clients in the case of bank failure or other crisis events. Referring to the exact point in time of payment, initial payments at the beginning of a bank`s activity/membership, and regular (e.g. quarterly or annual) payments hereafter can be distinguished. While the former payments are made ex-ante / independently from any incident, additional funding could also take place ex post, i.e. in case of a trigger incident.

Sources: Contributions to the fund can stem from private sources – i.e. particularly the banks which deposits are covered – or/and public sources, which contribute public funds to help the deposit insurance institution function, or a combination of both (e.g. Demirgüç-Kunt & Detragiache, 2002).

Calculation: A bank's precise contribution to any fund usually is calculated as a percentage of a certain charge base, such as the total volume of protected liabilities. From an economic point of view, risk-based premiums were preferable to address the problem of distorted incentives in an optimal way. However, most deposit insurance institutions still lack the expertise and resources to fulfil the extremely complex task of quantifying a bank's probability of default and its respective premium (what has been tried based on option pricing theory in particular, see the seminal contribution of Ronn & Verma, 1986, and, recently, also Lee et al., 2015). Consequently, premium calculation of many deposit insurance systems represent a compromise between precise risk-sensitivity and manageability at best, e.g. by referring to a risk proxy (recently, Lakstutiene et al., 2018, with further references). Actually, the volume of insured deposits reflects part of the risk as seen by the deposit insurance institution, although it stands for the exposure at default only, not the probability of default.

4) Administration

Membership: In most countries, it is explicitly compulsory for a bank to participate in (i.e., contribute to, and have its depositors protected by) the national deposit insurance system (Demirgüç-Kunt et al., 2015). However, voluntary membership is not impossible, so that opaqueness of the membership principle can exist a fortiori.

Administration: Referring to the deposit insurance institution's management, public, private, and joint solutions are possible. Public administration means that the deposit insurance scheme is administered by a governmental authority of the country, which in particular could be the central bank, the supervisory authority, or a (publicly owned) separate deposit protection institution. Private administration implies that the institution administering the scheme is privately owned and that its management decisions are made by private representatives, at least formally without any influence of the central bank or other public authorities. Joint administration represents a middle way including representatives of public as well as private institutions.

3.3. Comparison of current systems

Subsequent Table 1 compares the features of the deposit insurance schemes of the analyzed countries according to the catalogue of criteria we elaborated in the previous chapter.

Table 1

Characteristics of deposit insurance system in post-Soviet countries as of December 2017

	Belarus	**Lithuania**	**Ukraine**	**Latvia**	**Estonia**	**Kazakhstan**	**Turkmenistan**
Date of establishment / revisions	1996/1998/2008	1996/2002/2009/2014	1998/2001/2012/2015	1998/2008/2010/2015	1998/2002/2010/2016	1999/2003/2014/2015	2000
Main goal	Ensuring guaranteed payments for the banking deposits, encouraging trust to the banking system, ensuring its liquidity	Ensuring protection of deposits and liabilities to investors in case of banks' failures, thus contributing to the higher stability of financial markets and society`s trust in financial institutions.	Protecting rights of bank depositors, stimulation of trust to banks, ensuring liquidity and solvency of banking system, calling off insolvent banks from the market	To guarantee that depositors are reimbursed for the deposits placed with the deposit guarantee scheme participants in case of their unavailability	To guarantee the protection of funds of depositors, investors, unit-holders, and policyholders of mandatory funded pensions, and thereby to increase the reliability and stability of the financial sector	Ensuring financial system stability including support of confidence to the banking system by paying out the guaranteed sum for depositors (in the case of bank bankruptcy)	n.a.
Other functions*							
The possibility of taking legal actions against the bank including intervening	Yes	No	Yes	No	No	Yes	No
The possibility of revoking banking license	Yes	Yes	Yes	No	No	Yes	No
Carrying out the resolution of insolvent banks and liquidation of banks	Yes	No	Yes	No	No	Yes	No
Specificity (Explicit/implicit form)	Explicit	Explicit	Explicit	Explicit	Explicit	Explicit	Explicit
The scope of coverage*							
Individuals` deposits	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individuals-entrepreneurs	No	Yes (plus legal entities)	Yes	Yes (plus legal entities)	Not specified	Yes	Not specified
Deposits in foreign currency	Yes	Yes	Yes	Yes	Yes	Yes	Not specified

Type of deposits covered	Bank deposits and bank accounts	Bank deposits, liabilities to investors	Term deposits means on current accounts, deposit certificates	Term and savings deposits	Not specified	Term and on demand deposits means on payment cards and current accounts	Not specified
Coverage Amount	100 % of the total deposit amount in the bank per depositor	up to EUR 100 000 per depositor (the payout limit is calculated for each depositor separately)	UAH 200 000 (per individual, including principal and interests)	EUR 100 000 per depositor of the bank (on separate occasions up to EUR 200 000)	up to EUR 100 000 per depositor of the bank	KZT 10 mln / KZT 5 mln (for national currency deposits / foreign currency deposits per depositor)	100% of depositor's amount in the bank
includes interest*	n.a.	Yes	Yes	Not specified	Yes	No	Not specified
Time of compensation	During 1 month after the applying for the compensation to the Agency. Generally - up to 2 years	within 20 working days from the day of the insured event of deposit; generally up to 3 months	During the period of calling off the bank from the market (an official announcement about the need to register for compensation is made during the 30 days after liquidation date)	up to 20 days	up to 20 days	During 14 working days after the date of bank liquidation	up to 2 months
Funding sources	Private	Joint (private / public)	Joint (private / public)	Joint (private / public)	Joint (private / public)	Private	Private
Contributions to the fund: initial and annual premium (% of base)	Initially 0,5 of regulatory bank capital (normative); regularly 0,3	0,45 of the amount of core insured deposits held with the participant of the deposit insurance system	0,5 in national currency, 0,8 in foreign currency (or the arithmetic mean of the sum of daily balances on the accounts of deposits and interest on them for the calculated period)	Initially - 1,5 of share capital, 0,05 – of the average amount of deposits covered which were attracted in the previous quarter	Initially - EUR 3200, regularly - up to 0,125 (calculated on the basis of the total quarterly amount of deposits)	up to 0,5 (for usual calendar premium, depending on the amount of deposits attracted by a bank per quarter)	n.a.
Possibility of extra funding (special premium)*	n.a.	n.a.	Yes	Yes	No	Yes	n.a.
Membership	Compulsory	Compulsory	Compulsory	Compulsory	Compulsory	Compulsory	Compulsory
Administration	Public	Public	Public	Public	Public and private	Public	Public

* Yes / No means that current option is adopted or established or present / not adopted.
Source: Websites of deposit insurance authorities in post-Soviet countries.

Table 1 (continued)

Characteristics of deposit insurance system in post-Soviet Countries as of December 2017 (Part 2)

	Uzbekistan	Russian Federation	Moldova	Armenia	Azerbaijan	Kyrgyzstan	Tajikistan	Georgia
Date of establishment / revisions	2002/2009	2003/2014	2003/2009/2010/2017	2004/2008/2015	2006/2009/2016	2008/2009/2010/ 2013/2016	2011/2015	from 2018
Main goal	Guaranteeing payment of deposits if the bank loses its license for banking operations	Protecting rights and legal interests of bank depositors, strengthening trust into the banking system, encouraging attraction of individuals' savings into the country's banking system	Guaranteeing deposits of individuals in banks which have a license of the National bank of Moldova	Promote reliable banking system, enhance the public confidence in the banking system, protect the interest of depositors	Protection of financial stability in the country, ensuring the stability of banking system, strengthening depositors` confidence to the banking system	Protection of bank depositors in case of guarantee event realization	Protecting the rights of depositors by paying out insurance sums, strengthening the confidence of society in the banking system	n.a.
Other functions*								
The possibility of taking legal actions against the bank including intervening	n.a.	No	No	Yes	Yes	Yes	Yes	n.a.
The possibility of revoking banking license	n.a.	No	No	No	No	No	No	n.a.
Carrying out the resolution of insolvent banks and liquidation of banks	n.a.	Yes	No	No	Yes	Yes	No	n.a.
Specificity (Explicit/implicit form)	Implicit	Explicit	Explicit	Explicit	Explicit	Explicit	Explicit	Implicit
Scope of coverage*								n.a.
Individuals` deposits	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Individuals-entrepreneurs	No	Yes	No	Yes	No	No	Not specified	
Deposits in foreign currency	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Type of deposits covered	Not specified	Bank deposits means on bank accounts	Not specified	Any amount provided by the depositor, funds on accounts	Not specified	Not specified	Not specified	n.a.
Coverage Amount	100 % of the total deposit amount in the bank per depositor	RUB 1 400 000 (total amount of deposits per depositor in one bank)	MDL 6000 per depositor irrespective of other amounts placed in a bank	Deposits in AMD - AMD 10 mln per depositor, in foreign currency - AMD 5 mln per depositor (denominated)	100 % (but no more than AZN 30 000). In the next 3 years, it is planned to cover 100 % of deposits per depositor without limits	KGS 100 000 per individual	up to 350 indicators of calculation per depositor (determined by separate legislation)	n.a.
includes interest*	n.a.	Yes	Yes	Not specified	n.a.	Yes	Yes	n.a.
Time of compensation	During 10 days after the announcement in media (plus up to 2 months of collecting the reserves)	7 days after the insured accident - for announcing the conditions to register for compensation. 30 days - register for	up to 1 month	up to 3 months	7 days for announcing information in media. After announcement - up to 1 year for registering depositors. Up to 3 months to	up to 1 month after guarantee event	up to 1 year	n.a.

		compensation. 3 days - for compensation according to provided documents			pay out the deposit sum after registration			
Funding sources	Joint (private / public)	Joint (private / public)	Joint (private / public)	Joint (private / public)	Private	Government - 76 %, banks - 24 %	Joint (private / public)	n.a.
Contributions to the fund: initial and annual premium (% of base)	Initially, 0,1 of share capital; regularly up to 0,5 of the number of deposits attracted in the quarter (stops when sum reaches 5% of deposits)	up to 0,15; in emergency up to 0,3 (of the chronological mean of the sum of daily balances on the accounts of deposits for the calculated period)	Initially - 0,1 of share capital, 0,25 - quarterly (payments are made until 7 % of registered deposits in the system is reached)	Initially - AMD 15 mln., 0,05 – regularly of the average daily figure of individuals' including sole proprietors' bank deposits of the bank in a reporting quarter	The first year 0,15 of the daily residual amount of protected deposits per quarter, next years 0,125 quarterly	Initially - 1 of share capital, 0,2 – regularly of total deposit base per year	Initially - 0,5 of share capital, 0,25 – regularly of the average amount of deposit balances in the previous quarter	n.a.
Possibility of extra funding (special premium)*	n.a.	Yes	Yes	Yes	up to 0,2 of the daily residual value of protected deposits	Yes	Yes	n.a.
Membership	n.a.	Compulsory	Compulsory	Compulsory	Compulsory	Compulsory	Compulsory	n.a.
Administration	Public	Public	Public	Public	Joint (private / public)	Public and private	Public	n.a.

* Yes / No means that current option is adopted or established or present / not adopted.
Source: websites of deposit insurance authorities in post-Soviet countries

Source: Authors' own compilation based on websites of deposit insurance authorities of post-Soviet countries

Our basic finding is, that – in contrast to the assumed attractiveness of deposit insurance for policymakers – post-Soviet countries began to include their national deposit protection schemes into their banking systems with considerable delay after gaining their independence. One of the first post-Soviet countries that officially implemented deposit insurance was Ukraine in 1998, although Belarus started the very process in 1996 already, but finished later (About guarantees of saving funds of individuals in foreign currency on the accounts and deposits in banks of the Republic of Belarus, 1998). Finally, Tajikistan adopted deposit insurance not before 2011, while Georgia now prepares a respective rule-making to finally start implementation from 2018 on. Based on this outline history, our first and basic hypothesis of immediate establishment is rejected. Further comparative analysis of current deposit protection schemes in post-Soviet countries shows the coexistence of 15 nationally specific approaches. Being outcomes of the institutional change in independent countries and financial systems, we expect the systems to differ in detail, but similarities of the general patterns comparing the layout of these systems produces findings as follows.

- Economic conditions in all countries after the break-up of the Soviet Union provided equal starting positions for the development of deposit guarantee systems insofar as they started from scratch. Thus, the absence of well-established institutions, knowledge, and processes, combined with a tradition of complicated and slow decision-making, even pressing problems were addressed reluctantly. Consequently, deposit insurance, which depended on the evolution of banking as well as political institutions, evolved with visible time-lags.
- Originally, government and central bank were the main actors driving the evolution of deposit insurance, while non-governmental / independent deposit insurance institutions and their respective legal basis were delayed.

- Countries with large and fast growing economies in general (e.g. Belarus, Russian Federation, Ukraine, Kazakhstan) experienced a faster development of their financial sector in particular, making deposit insurance more urgent, thus reducing delays.
- The geographical position as well as relations with neighbour countries significantly influence the direction and speed of deposit insurance development in post-Soviet countries. For example, the Baltic countries, Ukraine and Moldova have chosen an EU integration vector that stipulated the adoption of the necessary measures of deposit insurance (such as independent deposit insurance institutions, gradual increases of coverage limits, expanding the categories of covered deposits, et al.) to meet the requirements of EU authorities and become closer to world leading standards.

Moving back to the criteria outlined in previous chapter, the results of a detailed analysis of deposit insurance in countries can be summarized as follows:

1) General purpose and specificity

While the most widespread main goals of deposit protection schemes are to support (1) depositors who are considered protection-worthy and (2) the (stability of the national) financial system as a whole, the schemes of some countries are characterized by wider ranges of responsibilities and obligations. In Ukraine, Belarus, and Kazakhstan, the fund is part of the supervisory architecture insofar as it is allowed to carry out functions concerning the procedure of calling-off insolvent banks from the market, revoking their banking license and managing banks which are going bankrupt. Almost every post-Soviet country has an explicit form of deposit insurance system, while only Uzbekistan and Georgia – which has not finished the implementation of its system yet – still have an implicit form. Although institutionalized in most of the countries analyzed, conditions of deposit insurance are changing continuously, leading to revisions of the current system. Thus, 3 out of 15 post-Soviet countries have revised their deposit protection scheme in 2016, including changes in time compensation, public authorities' functions, contributions etc., while in 2017 there were no significant changes among countries.

2) Coverage

Covered claims always include deposits of individual owners, in some countries also those of individual entrepreneurs (Russian Federation, Kazakhstan, Lithuania, Latvia, Armenia, and, since 2017, Ukraine). Only in Lithuania and Latvia, the deposits of legal entities are also covered, making the approaches of these countries significantly different from those of others. Additionally, the coverage limit varies depending on the set of criteria such as type of deposit, type of subject (individuals / entrepreneurs / legal entities), currency etc. Thus, in Kazakhstan and Armenia the coverage amount is twice as high for deposits in national currency than in foreign currency. In Ukraine, Lithuania, Estonia, Russian Federation, Moldova, Kyrgyzstan, Tajikistan, interests on deposits are covered, too, while in Kazakhstan they are not included. Despite international standards, covered amounts in post-Soviet countries mainly relate to banks and do not include other financial institutions (e. g. credit unions). At the same time, the excluding of interbank deposits follows international standards according to banks being financial professionals that are not particularly protection-worthy. Meanwhile, the coverage limit in most post-Soviet countries is not differentiated and presented as a fixed amount of compensation which a depositor will receive in case of insurance case occurs.

In most post-Soviet countries, the scheduled period of compensation of clients is rather short. The shortest compensation periods can be found in Kazakhstan (14 days after bank liquidation) and Latvia and Estonia (up to 20 days, gradually moving to the period of up to 7 days), opposed to the longest in Tajikistan (up to 1 year) and Belarus (up to 2 years). Meanwhile, the average scheduled time of compensation in post-Soviet countries is close to 2 months after the official date of bank liquidation and registering of depositors and their claims.

3) Funding

The majority of post-Soviet deposit protection schemes is funded by governmental and banks' contributions combined. However, the greater part of the funding is supported by the member banks, while governmental contributions are limited to emergencies. Member institutions have to make a compulsory initial, regular, and sometimes even special contributions to the fund. The details of determining the individual premium percentage procedure are part of national legislation. Turkmenistan, Belarus, Kazakhstan and Azerbaijan run deposit insurance systems that are exclusively based on private funding, i.e. payments of banks and other financial institutions only.

Although differing in detail, all of the post-Soviet deposit protection institutions follow a volume-based approach to premium calculation. Consequently, premiums are either not or just tentatively risk-based. However, as a deposit insurance institution is facing a particular expected loss (EL) represented by a covered bank, this implies a severe violation of the principles of insurance. As the EL is defined as EL = PD x EAD x LGD, it is of interest in how far these factors are considered. While the probability of default (PD) of a member bank is disregarded by any scheme, some of them at least refer to the exposure at default (EAD) and the loss given default (LGD) of an insured bank, insofar as the volume of covered deposits serves as the reference basis of the premium. EAD-based-premiums of this kind is collected by the deposit insurance institutions of e.g. Lithuania and Estonia. On the contrary, the systems of e.g. Ukraine, Kazakhstan, and the Russian Federation appear purely volume-based, as they calculate premiums as a percentage of – naturally unprotected – shareholder's capital, but no insured volumes. Although a bank's equity represents its seminal risk buffer, relating it to its PD requires knowledge not only of the amount of equity but also of the risk exposure of a bank. Consequently, referring to the amount of equity only does not create a PD-/risk-based-premium.

4) Administration

In all post-Soviet countries, participation in the deposit insurance system is compulsory for banks. Referring to the administrative body, the third way of joint administration, which involves private and public actors alike used to be the most common among post-Soviet countries. Meanwhile, most of them have switched to public administration, as it is regarded as the most reliable way of maintaining the efficiency of a deposit insurance system in unstable economic surroundings (Talley & Mas, 1980). In detail, the management of deposit insurance mechanisms in post-Soviet countries appears to be complicated, as numerous countries are still revising the relevant rules and organizations. Meanwhile, the deposit insurance institutions of 12 out of 15 countries have an official management body, either as a separate legal entity or as a part of the country's supervisory structure, such as the national central bank, the Ministry of Finance or the Department of Treasury. Only the protection schemes of Azerbaijan, Kyrgyzstan, and Estonia rely on joint management procedures allowing issues of depositor protection to be managed not only by official bodies but in cooperation with representatives of private owners of (the non-insolvent) banks.

Comparative analysis shows a rather heterogeneous landscape of deposit insurance in post-Soviet countries. However, the current heterogeneity could be mitigated in several ways, one of them set by several of these countries attempting to become EU member states. In the case of success, they had to align – among numerous other institutions – their national deposit insurance schemes to respective EU rules and regulations.

Of all the post-Soviet countries, so far only the Baltic states of Latvia, Lithuania and Estonia have become members of the EU (in 2004, see Poissonnier, 2017), while Georgia, Moldova, and Ukraine became associate members in 2014 (as an overview, Nodia et al., 2017).). At first, this helps to explain the similarities of the deposit protection schemes of the three Baltic countries. Secondly, it means that it is worthwhile to analyze in how far the systems of the associate members already comply with EU law – or are destined to be amended respectively. To approximate the EU standard not necessarily means the perfect copying of an EU blueprint: Regulating deposit protection, the EU applies the principle of minimum requirements, allowing member countries to have systems that offer a higher level of protection than the one defined by EU law (in general on the challenge of "customization" ("goldplating") of EU directives, see, extensively, Thomann & Zhelyazkova, 2017). As the Georgian deposit insurance approach is still evolving, so that data on several features is not obtainable yet, we limit our analysis to the systems of Moldova and Ukraine. The results of a comparison of their deposit protection mechanisms with EU standards can be found in Table 2.

Table 2

Main differences between deposit insurance systems in EU member states and EU associate member states (as of December 2017)

Features	EU	Ukraine	Moldova
Legislative basis	Directive 94/19/EC of 30.05.1994, revised 2014	Law of Ukraine 'About the deposit guarantee system of individuals' No. 4452 of 23.02.2012	The Law 'About guaranteeing deposits of individuals in the banking system" No. 575 of 26.12.2003
Sources of funding	Private (no funds of taxpayers)	Joint (private / public)	Joint (private / public)
Coverage amount	EUR 100,000	UAH 200,000 (EUR 5,970)	MDL 6,000 (EUR 294)
Covered deposits	All deposits, including deposits of individuals, individual entrepreneurs, and companies	All deposits of individuals and individual entrepreneurs	All deposits of individuals
Initial and annual premium	By 3 July 2024, the available financial means of a deposit guarantee system should reach a target level of at least 0.8 % of the amount of the covered deposits of its members (or about € 55 billion)	0,5 % in national currency, 0,8 % in foreign currency (of the arithmetic mean of the sum of daily balances on the accounts of deposits and interest on them for the calculated period), the total amount of Fund is not less than 2.5 % of all guarantee deposits	Initially - 0,1 % of share capital, 0,25 % - quarterly (payments are made until 7 % of registered deposits in system is reached)
Time limit of compensation	Up to 20 working days after the date: - on which a relevant administrative authority makes a determination that the credit institution is not able to repay the deposit and it has no current prospect of being able to do so or - a judicial authority has made a ruling for reasons which are directly related to the credit institution's financial circumstances and which has the effect of suspending the rights of depositors to make claims against it.	Up to 1 month after the date of making a decision of the National bank of Ukraine to withdraw the banking license of the bank and start its liquidation	Up to 1 month after the date of withdrawal of banking license of the bank and start of its liquidation

Source: Authors' own compilation based on legislation of the EU (Directive 2014/49/EU), of Ukraine (On the System of Guaranteeing Natural Person Deposits, 2012) and of the Republic of Moldova (About the guaranteeing of individuals' deposits in the banking system, 2003) on deposit insurance

In general, the deposit insurance systems of the two associate EU members appear rather close to EU requirements, while the main differences consist of only a few, but significant points. The subsequent list illustrates that some of the differences are shortcomings, some are over-achievements of EU requirements:

Coverage:

- Deposit insurance in Ukraine and Moldova covers only deposits of individuals excluding deposits of (at least selected) legal persons/institutions.
- While EU rules set a minimum fund size of 0.8% of covered deposits, Ukrainian (Moldovian) rules call for a level of 2.5% (7%).
- The covered amount of deposits per depositor and per bank in Ukraine (UAH 200,000, i.e. about EUR 6,000) and Moldova (MDL 6,000, i.e. about EUR 290) is much lower than the minimum amount, which the directive sets for EU member countries (EUR 100,000).

Funding:

• The EU rules call for contributions of banks based on (1) the volume of covered deposits according to the bank's balance sheet and (2) the bank's risk exposure, so that the contributions are risk-based in a general sense, as they refer to the exposure at default and (a proxy for) the probability of default as seen by the protection scheme. Compared herewith, contributions to the Ukrainian or the Moldavian scheme are a flat rate in the sense of being not risk-based.

Obviously, the Ukrainian and the Moldavian systems undercut EU minimum requirements in several respects, in particular regarding the level of coverage. However, one of the most crucial differences between the EU member states and its current associate members is the level of individual economic wealth – including bank deposits. Therefore, even a lower Euro amount covered by the system could mean that it covers a percentage of deposits that complies with EU rules. We further illustrate the sufficiency of one of the associate member states' systems by exploring the case of Ukraine.

4. COMPATIBILITY OF THE UKRAINIAN DEPOSIT INSURANCE SCHEME

If a country decides to attempt to join supranational institutions, a new institutional framework becomes relevant. Thus, those post-Soviet countries that have decided to attempt joining the European Union, have to take EU law into account. In the context of this paper, the particular question arises in how far current EU-oriented post-Soviet countries have EU-compatible systems of deposit insurance. Respective analysis could include the countries of Georgie, Moldova, and Ukraine.

Recent political events in Ukraine have forced the start of extended economic reforms combined with reformation of the financial sector according to the euro integration direction established by Ukrainian government. Thus, after the Revolution of Dignity of 2014, the National Bank of Ukraine initiated reforming the banking sector based on the Complex Program of Development of Financial Sector of Ukraine by 2020. In 2017, the first stage of reforms was completed. Nearly 90 insolvent banks were removed from the market, the depositors of these banks received compensation from the Ukrainian Deposit Guarantee Fund. Second, significant recapitalizations of banks were carried out, the minimum share capital requirements for new banks were increased from UAH 120 million (EUR 3,8 million) to UAH 500 million (EUR 15,9 million). Internal transformation of the National Bank of Ukraine favored in its contribution of UAH 144,4 billion (EUR 4,6 billion) to the State Budget of Ukraine in 2014-2016. Finally, the design of the Guarantee Fund was improved, including the establishment of an office responsible for the liquidization of assets of insolvent banks.

After excluding Georgia according to the unfinished status of its deposit insurance scheme, we also exclude Moldova due to the lowest level of deposit coverage in Europe and foreseeable amendments of the country's legislation on and design of deposit insurance, which take into account the latest recommendations of IMF experts following the evaluation of the financial system (e.g. pointing at an increase of coverage limits, or expansion of deposit categories covered). Instead we focus on Ukraine for the following reasons:

The Ukrainian system was established earlier and has been adjusted several times, converging international best practices. In particular, the Ukrainian government promptly reacted to the 2008 financial crisis and adopted new rules allowing the national deposit insurance institution the removing of insolvent banks from the market. Since 2014, requirements on informing clients about deposit insurance were expanded. By 2015, the time allowed for compensation payments was reduced. By 2017, the coverage was extended to individuals-entrepreneurs. Finally, although differing from international standards in absolute numbers, the amount covered is meets those standards when put into perspective, i.e. when the ratio coverage amount of deposit / GDP per capita is taken into account.

The basics of the Ukrainian Deposit Guarantee Fund (DGF) are included in Table 1. The DGF's structure, which is closely related to its coverage and funding, is illustrated in Figure 4.

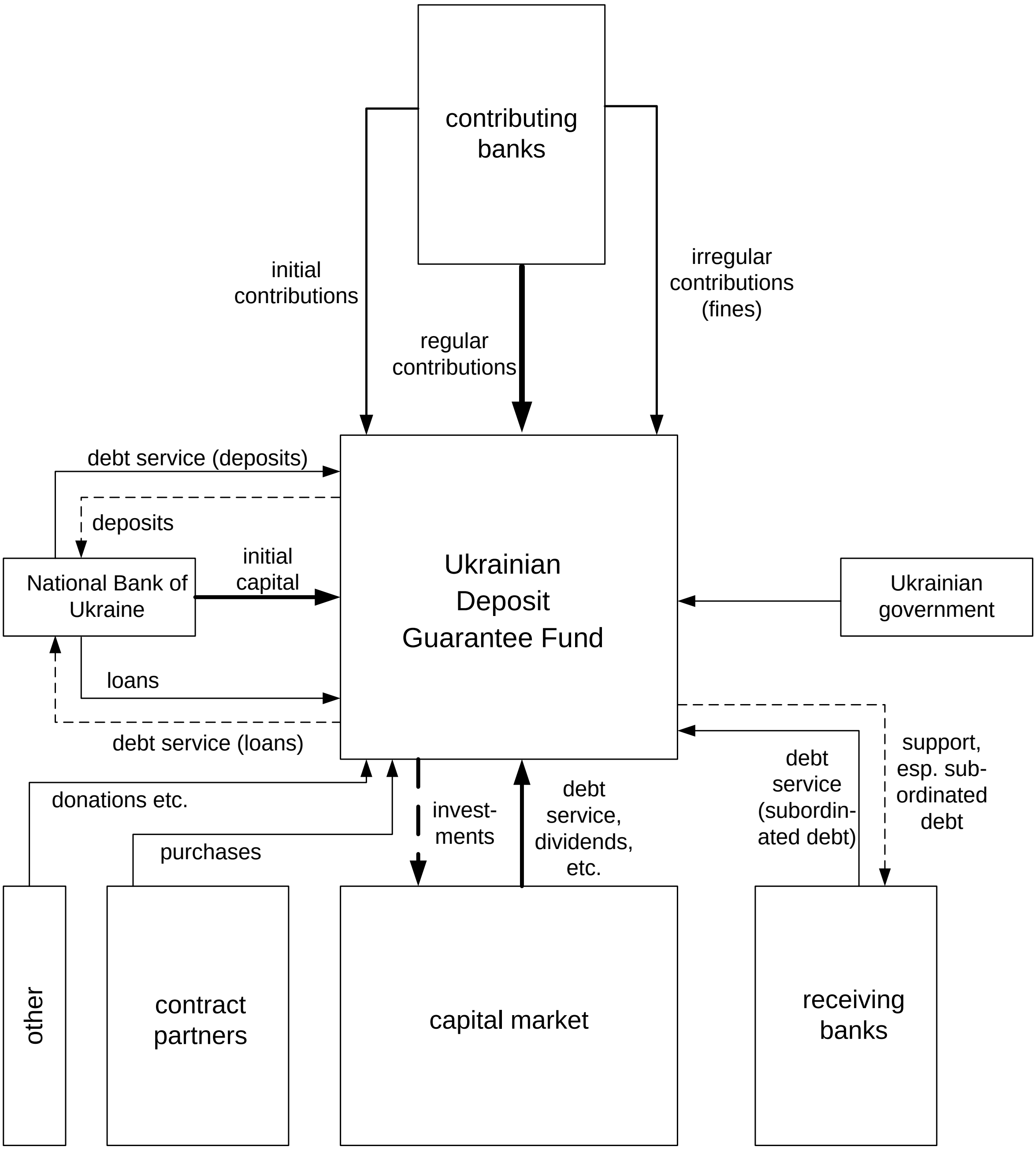


Figure 4. Peculiarities of the Ukrainian Deposit Guarantee Fund

Source: Authors' own diagram

According to Ukrainian legislation (On the System of Guaranteeing Natural Person Deposits, 2012; see also About measures to protect the rights of individual depositors of commercial banks in Ukraine, 1998) membership and contributing to the fund is compulsory for any licensed bank. As of 01.01.2018, the Deposit Guarantee Fund included 83 Ukrainian banks, for whose customers it held a reserve amount of UAH 14,4 billion (i.e., about EUR 477,42 million). While the fund's key ratios grew constantly from the beginning, this development was severely distorted by the annexation of Crimea and the subsequent (economic) crisis, which led to a decline of contributing banks, deposits, and fund reserves. Table 3 provides an overview of selected quantitative features of the Ukrainian DGF which are key to its capabilities.

Table 3

Key ratios of the Ukrainian Deposit Guarantee Fund

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Number of licensed banks	135	157	157	160	165	170	175	184	182	176	176	175	179	163	120	100	82
Number of participating banks	135	152	153	160	163	166	172	183	184	175	175	174	178	161	118	99	83
The volume of deposits (covered), in EUR million	1.93	3.29	4.84	5.80	10.66	15.83	22.42	26.58	18.18	24.09	25.52	32.95	37.92	24.36	14.98	13.50	13.76
Fund reserves, in EUR million	14.30	30.84	40.25	61.50	98.87	136.74	192.91	387.45	395.02	321.24	435.89	593.09	686.99	1075.83	582.23	541.19	477.42
Banks whose customers received fund payments	2	2	4	4	5	8	8	9	9	17	18	22	24	28	33	13	9
Fund payments, in EUR million	6.92	0.50	1.18	0.59	3.14	23.20	15.25	34.45	96.77	217.33	17.26	51.80	111.67	539.39	940.06	415.81	234.78

Sources: Authors` calculations, The Guarantee Fund of Individuals' Deposits (www.fg.gov.ua), National Bank of Ukraine (http://www.bank.gov.ua)

Since the early years, the DGF's nominal coverage amount per depositor has increased from UAH 500 in 1998 to UAH 200,000 (since 2012). Despite this excessive increase, the level of coverage has, in fact, dropped when denominated in EUR, due to the considerable devaluation of the Ukrainian currency, as subsequent Fig. 5 shows. Thus, the Ukrainian coverage level measured in EUR undercuts EU minimum requirements considerably.

While the Ukrainian limit of coverage thus seems not too convincing from an EU(R) point of view, it has to be put into perspective – in particular with regard to the size of average deposits and income. During 2015, the first indicator was within a range of 98.7% – 98.8%, which means that only 1.2 – 1.3% of the total amount of deposits in Ukraine were not covered by the UAH 200,000 limit of the DGF.

To put the absolute coverage level further into perspective, it can also be compared with macroeconomic figures. For this purpose, the amount of insurance coverage usually is put into relation to GDP per capita (Demirgüç-Kunt et al., 2015; Garcia, 1999; Laeven, 2004). As a benchmark, the BIS suggested that the coverage level should be about the triple amount of GDP per capita (Ngo et al., 2016; Financial Stability Forum – Basel, 2001). The current ratio of coverage amount of deposit to GDP per capita in Ukraine is presented in Table 4.

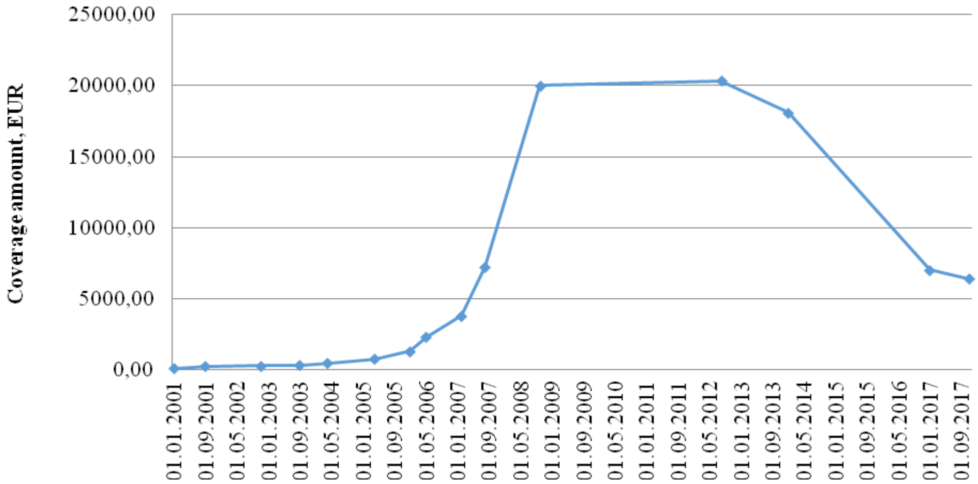


Figure 5. Development of coverage amount by the Ukrainian Deposit Guarantee Fund as denominated in EUR (2001-2017)

Source: The Guarantee Fund of Individuals' Deposits (www.fg.gov.ua)

Table 4

Coverage amount of deposit to GDP per capita in Ukraine in 2001-2017

Date	GDP per capita, UAH	Coverage amount of deposit, UAH	Coverage amount of deposit to GDP per capita ratio, %
01.01.2001	3,441	500	14.53
01.01.2002	4,210	1,200	28.50
01.01.2003	4,685	1,500	32.02
01.01.2004	5,591	2,000	35.77
01.01.2005	7,273	3,000	41.25
01.01.2006	9,372	5,000	53.35
01.01.2007	11,630	15,000	128.98
01.01.2008	15,496	50,000	322.66
01.01.2009	20,495	150,000	731.89
01.01.2010	19,832	150,000	756.35
01.01.2011	23,600	150,000	635.59
01.01.2012	28,488	150,000	526.54
01.01.2013	30,953	200,000	646.14
01.01.2014	31,984	200,000	625.31
01.01.2015	35,834	200,000	558.13
01.01.2016	46,210	200,000	432.81
01.01.2017	56,250	200,000	355,56
01.01.2018	70,210	200,000	284,86

Sources: Authors` calculations, The Guarantee Fund of Individuals' Deposits (www.fg.gov.ua), World Bank Statistics (http://data.worldbank.org)

According to table 4, the coverage amount of deposits to GDP per capita in Ukraine has increased from about 15% as of 01.01.2001 to a maximum of more than 700% in 2009/2010. Although the ratio has dropped since then – as GDP per capita rose, while the coverage level remained stable –, its recent level of more than 4 still more than meets the suggested European standard.

Altogether, the Ukrainian DGF demonstrates its ability to cover deposits in case of banks failures in the country and can be considered an effective element of the countries depositor protection scheme: Today, the reserves of the Ukrainian DFG are sufficient to provide almost complete insurance for depositors of banks and meet international standards. Ukraine is gradually moving forward to the implementation of EU recommendations on deposit insurance, adopting amendments to current legislation continuously.

5. CONCLUSIONS AND RECOMMENDATIONS

Deposit insurance mechanisms represent one of the main pillars of the institutional framework of the development of the financial systems evolving in the post-Soviet countries since the 1990s. Meanwhile, almost all successor countries of the Soviet Union have established a national deposit protection scheme, sometimes even revised it several times. While the details vary, several patterns could be identified, including the prevalence of explicit deposit insurance, compulsory membership, joint private/public funding, and the prominent role of political decision-making.

Only a few of the post-Soviet countries (i.e., the Baltic countries) have already joined the EU and successfully implemented EU regulations, in particular on deposit insurance. As for the EU's current associate members, the national systems of Ukraine and Moldova are at least partly close to EU requirements (while the new Georgian system still awaits completion and evaluation). Put into perspective, even formal shortcomings seem to be tolerable from an economic point of view. Insofar, deposit insurance should pose no serious impediment for the countries' acceding the EU – however, the peculiarities of EU procedures could nevertheless lead to lengthy negotiations in this field. Furthermore, according to instability in the banking sector and decreasing clients` confidence in Ukrainian banks (Ngalawa et al., 2016; Savchenko, 2011; Vasilyeva & Lunyakov, 2013) we can point out key instruments that implementation could further improve the effectiveness of the Ukrainian deposit insurance mechanism:

- Extension of coverage to include deposits of selected (corporate) institutions and other types of deposits under coverage too. In particular, deposits in bank metals are popular among individuals in Ukraine, but their coverage is not guaranteed according to the Law on deposit insurance;
- Inclusion of further financial institutions, especially other bank types (credit unions).
- Implementation of a compensation mechanism taking into account inflation factors, i.e. enhancing repayments in case of delay according to the inflation rate;
- Extension of a differentiated approach to establishing regular contributions by Fund participants. In Ukrainian legislation, it has been already pointed that this approach can be used by the decision of the Fund, but it should be used for all of the banks depending on the risk scale of their activity, not in only in some specific cases. Accordingly, banks that perform risky operations will make bigger contributions to the Fund that will increase its reserves and liquidity.

The Ukrainian experience in implementing the deposit guarantee system to some extent can be used by other post-Soviet countries which currently work on adopting or improving deposit insurance. At the same time, Ukraine needs to continue improving its deposit insurance system, even though it is closer to international standards than the systems of most other post-Soviet countries, to approximate particular EU-standards even closer.

In general, however, the problem of deposit insurance adoption in post-Soviet countries is still an urgent one already on its own. It becomes even more pressing when deposit insurance and banking regulation are considered as complementary parts of a regulatory system (Fungáčová et al., 2017). In particular, those countries which implemented only basic protection schemes so far should consider further revisions to enhance trust in their financial systems and to strengthen their international competitiveness, too. The latter becomes increasingly important in a world of global competition – and would be of extra importance if countries see their EU accession as a long-term option. Consequently, deposit insurance in post-Soviet countries will not cease to show institutional change and thus to offer interesting research questions in the future.

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