ALTERNATIVE ROLES OF DEPOSIT INSURERS WITH SPECIAL REGARD TO RESOLUTION PROCESSES[1]

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ABSTRACT

As part of the financial stability safety net, deposit insurers protect depositors of credit institutions and pay compensation to harmed depositors if the credit institution fails or deposits become unavailable for some other reason. The number of countries in the world with institutionalised deposit insurance has been growing and in several cases the deposit insurer does not only have the responsibility to compensate depositors, but it has other alternative roles to play in relation to crisis management. The role of the National Deposit Insurance Fund of Hungary (NDIF) has undergone several changes over the past 25 years of its history. Between 1993 and 2006, the NDIF had the right to take preventive crisis management measures and as from 2014, this institution has also a facilitating role in resolution. This paper through describing the changes to the roles played by deposit insurers focuses on their involvement in resolution exercises, primarily in the context of the regulatory framework in the European Union and Hungary.

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1. INTRODUCTION

The fundamental function of deposit insurance is to pay compensation to depositors in the event of deposits held with a bank becoming unavailable. This helps maintain depositors' confidence in the financial system and it contributes to maintaining financial stability by preventing the spill over effect of the individual institutional crisis.

As a result of various evolution processes in different countries, nowadays, host countries in the world have institutionalised deposit insurance and deposit guarantee schemes are extremely diverse in terms of their responsibilities beyond compensating depositors.

1 The essays included in this publication reflect the views of the authors, which do not necessarily correspond to the official position taken by the National Deposit Insurance Fund.

Credit institutions operated without deposit insurance for centuries. With the failure of banks becoming more and more frequent, an institutional system guaranteeing the security of deposits was first established in the United States of America (USA) in order to prevent the bank run of depositors and the ensuing risk of contagion within the banking system. At the outset deposit insurance systems appeared only at the level of States, first in the state of New York in 1829, then after the establishment of the Federal Deposit Insurance Corporation (FDIC) in 1933 also at federal level from 1934 onwards (FDIC, 1998).

After 1933, national deposit insurance schemes were established in several countries, but it was not before the second half of the 20th century that they significantly spread. The spread of deposit insurers in many cases was driven by major, sometimes systemic banking crises. In 1974, only as few as 12 national deposit insurance systems existed, their number increased to 71 by 1999 (*Demirgüç-Kunt–Kane,* 2002), whereas there were 140 such schemes in 2018 (IADI, 2018a) and further 28 countries are in the process of considering the introduction of such a system (IADI, 2018b) .There are also supranational deposit insurance schemes covering multiple countries.[2]

In Hungary, it is the National Deposit Insurance Fund (NDIF/ OBA with Hungarian abbreviation) that discharges the tasks relating to deposit insurance. The NDIF was established in 1993, this is when domestic deposit insurance was institutionalised. In the history of the NDIF, there were periods of time when the deposit insurance functions were supplemented with other crisis management tasks and in line with the requirements stipulated by European Union legislation, the current activities of the organisation are not limited to the compensation of depositors, either. After the general overview the paper will present the deposit insurers' tasks beyond deposit insurance, taking the example of the 25 years of history of the NDIF, more particularly the role the NDIF might play in resolution processes.

2. ROLES OF DEPOSIT INSURERS

A common feature of the state and federal level deposit insurance systems in the USA was their multiple-pillar framework, in which the compensation function was supplemented with tasks such as the regular control and supervision of affiliated credit institutions from the outset. As a result, FDIC still performs financial

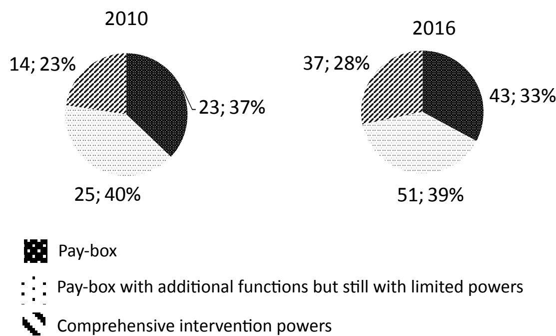
2 Such a system is, for example, the West African Monetary Union Deposit Insurance Fund, providing deposit insurance in eight African countries, but should it be established, the European Deposit Insurance Scheme (EDIS) as the third pillar of the Banking Union will also belong to this category.

supervisory tasks in addition to its tasks as a deposit insurer. The modus operandi of the world's deposit insurers show a significant variety in terms of organisation and roles alike.

There are several deposit insurers that are only in charge of effecting the payment of compensation, other deposit insurers have a broader mandate that includes functions to prevent and manage crises.

The International Association of Deposit Insurers (IADI) regularly conducts broad surveys amongst its memberdeposit insurers, which also cover their functions. Figure 1 presents the changes to the functions performed by deposit insurers between 2010 and 2016. It is clear from the figure that deposit insurers' roles show a high degree of diversity, which in many cases is attributable to national traditions, the foreign example followed and to an increasing extent national and supranational (e.g. European Union) legislation. In addition to the increasing number of deposit insurers that have provided statistics since 2010 (from 62 to 131), in the aftermath of the global financial crisis a shift can be observed from the pay-box function towards deposit insurers with a more extensive intervention toolkit.

Figure 1
The roles of deposit insurers in 2010 and 2016



Note: In surveys conducted in 2010 and 2016 classifications were not identical, therefore, we standardised them. In 2016 in the "broader intervention toolkit" category, the loss and risk minimising function were merged, which in our interpretation corresponds to the category of "risk minimisation" in the survey of 2010. In addition, the "pay-box plus" function in the survey of 2016 corresponds to the medium category.

Source: IADI (2011; 2017)

3. CRISIS MANAGEMENT MEASURES TAKEN BY NDIF PRIOR TO COMPENSATION

Though at present NDIF is not authorised to use its resources to finance alternative crisis management measures, in the 25 years of history of the Hungarian deposit insurer there was a time when it was legally authorised to use its assets not only to pay out compensations but also to finance crisis management measures.

The NDIF from its establishment in 1993 until 2006 did not only perform the so-called "pay-box" function, but it also had the possibility to take measures to prevent the freezing of deposits as an alternative of compensation, whereas as of 1997 legislation expressly required it to consider various alternatives from the perspective of the minimum long-term loss for depositors, credit institutions and the central budget and it was obliged to opt for the solution generating or resulting in the lowest amount of loss ("loss minimising" role), which put prevention and compensation on an equal footing (NDF, 2003; 2008). In order to prevent the pay-out of compensation, the NDIF had a broad range of measures to be taken to financially contribute to and undertake commitments relating to crisis management, including suretyship, providing security for the transfer of deposits, extending senior or subordinated loans or even acquiring a share in a credit institution.

It is to be noted that the commitment undertaken by the NDIF was not allowed to contain any other benefit and the undertaking of the commitment had to be done under usual business conditions (interest, fee, exchange rate), furthermore, it was obliged to cover it with adequate collateral. In addition, the contribution of the NDIF to crisis management had an absolute upper ceiling set, namely the total amount of conditional or unconditional commitments was not allowed to exceed the sum of the expected amount of the compensation to be paid out and the related costs.

There were several credit institution crises when the alternative crisis management role of NDIF had to be performed.

3.1 The first intervention of NDIF other than paying out compensation: managing the crisis at Agrobank Ltd. (1995)

The first preventive action of the NDIF was taken in 1995 with respect to the crisis of Agrobank Plc. (NDIF, 2003). The potential compensation to be paid out by the NDIF amounted to HUF 15 billion, whereas the liquid assets of the NDIF back then fell short of HUF 2 billion. In order to settle the capital crisis of Agrobank, a capital injection amounting to billions of HUF was necessary, whose larger part

was provided by the original majority owner, the Hungarian State, and HUF 500 million was provided by NDIF, which made NDIF a minority owner of the bank.

Following the decision of the Ministry of Finance acting on behalf of the majority owner, Agrobank was merged with Mezőbank and the share of NDIF dropped to 1 percent, which was sold for only HUF 10 million in 1997.

3.2 The silent exit of Iparbankház Plc. (1995)

The NDIF (2003) also refers to the crisis management at Iparbankház Plc. in 1995, requiring the contribution of NDIF, as a breakthrough, where NDIF together with the supervisory authority executed silent exit from the market instead of recapitalisation.

In the course of this action, the NDIF concluded a standby loan agreement of HUF 1.2 billion with the bank, which made it possible to pay insured and uninsured deposits in the business as usual manner, making it possible to avoid the freezing of deposits and the run of depositors on the bank. Simultaneously, the supervisory authority obliged the bank to elaborate an action plan to effect downsizing, at the end of the process the licence of the bank could be revoked without any risk to financial stability. The downsizing of deposits was largely facilitated by cutting the interest paid on deposits first, then terminating deposit and account contracts and transferring the amounts to deposit accounts not bearing any interest.

In 1996, at the time when the bank closed down, the NDIF was obliged to pay a minimum amount of compensation for the low number of remaining depositors. The potential compensation obligation of NDIF would have amounted to HUF 2.8 billion, as opposed to that the bank drew down less than HUF 1 billion from the credit line. The rate of return achieved by NDIF in the course of liquidation was over 90 percent, however, it is to be noted that this was partly due to the abundant liquid assets of the bank, which the NDIF used as security.

3.3 The last alternative NDIF crisis management so far: the recapitalisation of Realbank Plc. (1998–1999)

The next - and the last - crisis management measure taken by the NDIF to prevent compensation dates back to 1998 and was necessary in respect of Realbank Plc. Following the inspection of the supervisory authority identified a shortage of capital in the amount of HUF 3-5 billion at the bank, and appointed a special administrator, which resulted in the bank crisis becoming known to the public and there was an imminent danger of a bank run (NDIF, 2003).

The NDIF had to make a choice between paying out the compensation or recapitalisation resulting in a majority ownership, and due to the tight deadline and the small difference in losses resulting from the two alternatives, it opted for the latter, hoping that not long after recapitalisation, it will be able to sell the bank to a professional investor. In addition, through recapitalisation, the savings (bonds) not protected by NDIF also had a stronger chance of return as compared to the scenario of immediate liquidation (NDIF, 1999). Compared to the potential amount of HUF 12 billion to be paid out in the form of compensation by NDIF (NDIF, 1999), the institution implemented a recapitalisation to the amount of HUF 3.1 billion acquiring a 99 percent share in the bank and took measures to revert to the conditions of normal banking operation and started to prepare Realbank Plc. for sale.

In the meantime, the new management revalued the bank and further losses had to be accounted for against the assets generated prior to recapitalisation, this pushed equity into the negative domain and a further recapitalisation of HUF 4 billion was necessary (NDIF, 1999). This was beyond the absolute ceiling prescribed for the NDIF, a co-financing entity could not be found and potential investors also changed their minds, thus finally at the beginning of 1999 NDIF had to compensate depositors to the amount of HUF 5.1 billion after the recapitalisation amounting to HUF 3.1 billion.

As part of the follow-up of the story, mention has to be made of the fact that during liquidation the amount paid by NDIF in the form of compensation fully returned, at the same time the amount of capital invested was accounted for as a loss (NDIF, 2008).

4. THE REGULATORY BACKGROUND OF ROLES PLAYED BY DEPOSIT INSURERS IN THE EUROPEAN UNION

In 2004, Hungary joined the European Union, therefore after this date EU legislation is to be taken into account in the area of deposit insurance. In 2014, following the EU Directive of 1994 and its amendment in 2010, the European Union adopted Directive 2014/49/EC on Deposit Guarantee Schemes (DGSD) currently in force, and which had an impact on essential and optional roles of deposit insurers in the European Union.

The Deposit Guarantee Scheme Directive stipulates that the key task of deposit guarantee schemes is to protect depositors from the negative repercussions of credit institutions' failure, which primarily they have to achieve by paying out compensation (*this is the so-called pay-box function).* Accordingly, in the event of

depositors not having access to their deposits[3], deposit insurers are obliged to pay compensation on the deposits held with the credit institutions, the upper limit of the deposits compensated is EUR 100,000. A new and mandatory element is that if conditions prescribed by legislation are met - *see later in detail* -, deposit guarantee schemes are obliged to contribute to the financing of the resolution of the credit institution.

The DGSD provides for national options, namely in addition to the above two mandatory tasks, the deposit guarantee scheme may use its financial means available to it for other crisis management functions, e.g. alternative measures to prevent credit institutions' failure, if this helps to avoid the more costly measure of compensating depositors. Though NDIF had such alternative functions between 1993 and 2006, in the course of the transposition of the DGSD into national law the legislator did not have the intention to assign such rights to the NDIF again.

The DGSD furthermore requires deposit insurers in Member States to regularly test their procedures and intervention functions that could be used in case of a crisis. This is necessitated by the fact that the fundamental and alternative tasks of the deposit insurer emerge in a crisis, which optimally happens occasionally only. At the same time, it is very important for the institution to be able to efficiently react to the crisis situation and smoothly discharge its tasks, should the unlikely event of a crisis take place. Stress tests and crisis simulations are an efficient way of preparation.

According to the Guidelines of the EBA (2016), all intervention functions of the given deposit insurer need to be tested, including - in the case of the NDIF - the paying out of compensation and the contribution to the resolution. In line with the above, in 2016 the NDIF drew up a testing schedule covering the period of 2017-2021, on this basis of which tests are carried out annually.

In 2017, the first year of the testing cycle, NDIF tested cross-border compensation jointly with the Austrian and the Czech deposit insurers, in the course of which there was a successful transfer of anonymised data sets through the European DGS[4] to DGS Information Exchange System ("Eddies") established for the purpose of cross-border compensation procedures (NDIF, 2018). As a result of the test, negotiations were started on bilateral agreements of cooperation to ensure the efficiency and effectiveness of a future compensation cooperation, furthermore, proposals for the development of the IT system were formulated.

In the forthcoming years and in line with EBA Guidelines, the NDIF will have to carry out deeper and more complex stress tests, including the testing of the resolution scenario in addition to the compensation scenario.

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3 The phenomenon of deposits becoming inaccessible is also called as the "freezing" of deposits.

4 DGS: Deposit Guarantee Scheme

5. THE INVOLVEMENT OF DEPOSIT INSURERS IN RESOLUTION PROCEDURES IN THE EUROPEAN UNION

The involvement of deposit insurers in resolution procedures may take several forms. In individual Member States of the European Union, the deposit insurer carries out a part or the entirety of the resolution authority function (e.g. Croatia, Poland, Spain), in other cases the involvement of the deposit insurer also includes the managing of the Resolution Fund but without authority functions (e.g. Hungary). What applies to all the deposit guarantee schemes in the European Union is that if legislative conditions are met, deposit guarantee schemes may be obliged to financially contribute to the costs of resolution - other than for the purpose of compensation. In former cases it is organisational and in the latter cases it is functional aspects that are important. The present paper focuses on the latter role, i.e. resolution financing.

5.1 The development of the resolution framework

Traditionally, the failure of a credit institution resulted in the revocation of the supervisory licence and a winding-up procedure. However, liquidation is not the optimum solution to manage the crisis of systemically important credit institutions, because the lengthy procedure and the decline in value originating from the liquidation only amplifies problems and triggers negative repercussions and a ripple effect. For this reason, in the latter case the state frequently nationalises, recapitalises the failing institution or provides liquidity to it in a bank rescue operation (bail-out). However, the bail-out by the state - beyond amplifying the moral risk - may impose a burden on public finances, in an extreme case the tying up public funds could lead to the excessive indebtedness of the state. The bail-out operations following the financial crisis of 2008 resulted in such problems of public finances in the European Union (e.g. Ireland, Greece), frequently necessitating an international rescue package to prevent or manage more severe problems of public finances.

The experience gathered in the process of rescuing banks by the state following the global financial crisis of 2008 shed light on the fact that in many crisis situations the liquidation of a credit institution and bail-out by the state, both included in the existing toolkit, do not bring optimum results. A third solution is required, namely resolution.

Resolution is a crisis management procedure, in the course of which the designated resolution authority is assigned a broader mandate to intervene, which is also accompanied by resolution financing arrangements financed by ex-ante payments of credit institutions and investment undertakings, so that the costs of

crisis management will not have to be shouldered by taxpayers. In certain cases deposit insurers are obliged to contribute to resolution financing, in addition to the separate resolution financing arrangements and supplementing them. To promote the better understanding of the latter, it is necessary to make a brief overview of the main elements of the resolution arrangements of the European Union.

5.2 The major elements of resolution arrangements

In 2014, the same year when the Deposit Guarantee Scheme Directive was adopted, the EU also adopted Directive 2014/59/EC (BRRD – Bank Recovery and Resolution Directive, in short: Resolution Directive)[5]. Member States were required to designate the national resolution authority, in Hungary it is the Hungarian National Bank[6], whereas the national resolution financing arrangements are provided by the Resolution Fund established in 2014.[7]

The Resolution Directive identifies four tools of resolution that the resolution authority in every Member State needs to have in place:

- the sale of business tool (the sale of a part or the whole of the institution to be sold by the authority to a market player),
- the bridge institution tool (the sale of a part or the whole of the institution under resolution to be sold by the authority to a temporary bridge institution typically operational for only a couple of years),
- asset separation tool (transfer certain assets of the institution under resolution to a separate resolution asset management vehicle),
- bail-in (creditors shall be obliged by the authority to share losses and recapitalise the failing institution).

As for internationally active groups, resolution colleges need to be established, which are made up of the resolution authorities, supervisory authorities and ministries responsible for the budget in the concerned Member States, as well as deposit guarantee schemes due to their resolution financing role to be discussed in detail later.

5 Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012, of the European Parliament and of the Council Text with EEA relevance (see page 190 of the Official Journal).

6 The resolution authority function of the HNB is presented in detail in Földényiné– Kómár– Stréda – Szegedi (2016).

7 The Hungarian Resolution Fund does not have a work organisation, pursuant to legislative provisions it is run by the staff of the NDIF.

The financing of resolution is primarily ensured by the Resolution Fund, which market actors contribute to in advance, its sources may be used for the following purposes, even in combination:[8]

- guaranteeing the assets and liabilities of the institution under resolution, its subsidiaries, the purchaser, the bridge institution or the resolution asset management vehicle;
- lending to the institution under resolution, its subsidiaries, the purchaser, the bridge institution or the resolution asset management vehicle;
- purchasing the assets of the institution under resolution or the purchaser;
- capital contribution provided for the purchaser, the bridge institution or the resolution asset management vehicle;
- compensation, if the owner, the creditor or the NDIF would incur a large amount of loss in the course of resolution as compared to winding up.

One may rightly ask, if there is resolution financing arrangements, a fund financed by market actors in advance, then why is it necessary for the resolution to be funded by the deposit insurer as well? This is what we are going to examine in more detail in the following part of the paper.

5.3 Financing resolution by the deposit insurer

One of the major objectives of resolution is to protect the owners of covered deposits, therefore, the deposits under EU deposit guarantee may not be bailed-in. The scope of bail-in by creditors may not include these deposits[9], therefore the depositors may also have access to their deposits up to the compensation ceiling in the course of the resolution procedure. Thus, the resolution provisions provide for an exemption in terms of the rule on loss-sharing and facilitate the achievement of the objective of deposit insurers, namely guaranteeing permanent access to deposits which do not exceed the compensation ceiling.

Article 109 of the Resolution Directive stipulates that the Deposit Guarantee Scheme of the credit institution under resolution is liable to contribute to the costs of the resolution measures provided that the resolution measure concerned ensures that depositors continue to have access to their deposits during the process of resolution. The contribution from the Deposit Guarantee Scheme shall be made in cash.

8 For the full list, see section 126 paragraph (3) of Act XXXVII of 2014 on the further development of the system of institutions strengthening the security of the individual players of the financial intermediary system.

9 The parts of deposits in excess of the compensation ceiling may be involved in sharing losses in the course of the resolution procedure.

The contribution from the deposit insurer to the resolution is proportionate to the loss that would have been incurred by the depositors with deposits not exceeding the compensation ceiling[10], if it was not for the exemption provided for them by legislation. The amount of the Deposit Guarantee Scheme's contribution is not limited by the fact that the assets of the Deposit Guarantee Scheme, the amount in the fund is lower than the required contribution to resolution. In such cases the deposit guarantee scheme is obliged to make sure that necessary financial contribution will be provided from affiliated institutions or from external sources. If an external source is involved in the financing of resolution, the NDIF has the right to state suretyship in line with legislative provisions, the amount depends on the declaration of the minister of finance[11], which facilitates the ensuring of funding.

There is a safeguard that the deposit guarantee scheme avoids incurring excess loss is that in the case of bail-in the contribution paid to protect depositors who are below their compensation ceiling, the deposit insurer's funds may not be used in the bail-in in the framework of the conversion into shares and other elements of capital.

The upper limit of the contribution to be made by deposit guarantee schemes is the 50% of the target level of the deposit guarantee schemes' assets defined in legislation and to be achieved until 2024[12]. In any circumstances, the deposit guarantee scheme's participation shall not exceed the losses it would have incurred in a winding-up under normal insolvency proceeding instead of resolution proceedings, when the deposit guarantee scheme has to compensate depositors. This is the so-called No Creditors Worse Off (NCWO) fundamental principle, which guarantees for owners, creditors and the deposit insurer that they will not incur greater losses due to resolution than they would have incurred if the institution had been wound up under normal insolvency proceedings, and they would have been paid according to the insolvency ranking of creditors. If following the closure of the resolution proceedings concerned the independent, external valuation required by legislation does establish that losses incurred by the deposit insurer due to participating in the resolution exceed the potential losses from winding up proceedings, the negative difference shall be paid to the deposit insurer in the form of a compensation from the Resolution Fund.

In Hungary NDIF funds have not yet been used for the purpose of resolution. During the domestic resolution proceedings so far the losses incurred by the

10 In the case of depositors with a total amount of deposits exceeding the compensation ceiling, the loss absorbed by the deposit protected by the Deposit Guarantee Scheme shall be taken into account.

11 See section 232 paragraph (4) of Act CCXXXVII of 2013 on Credit Institutions and Financial Undertakings.

12 Member States have the discretion to set a higher upper limit as a national option.

credit institution did not reach the level which could have given rise to this type of use. In other Member States, however, such a role has already been performed by deposit insurers.

6. RESOLUTION FINANCING IN THE PRACTICES OF DEPOSIT GUARANTEE SCHEMES: THE RESOLUTION OF THE GREEK COOPERATIVE BANK OF PELOPONNESE (2015)

An example of the participation of a deposit guarantee scheme in resolution proceedings in the European Union is the resolution of the Greek Cooperative Bank of Peloponnese in 2015, which we will summarise on the basis of the decisions of the European Commission (2015) and the Bank of Greece (2015).

Due to economic and financial problems and the political uncertainties after December 2014, the entire Greek banking system went through a critical period in 2015. Deposits amounting to large sums were withdrawn from Greek credit institutions (27.5% of the deposits in six months), furthermore, due to the confidence crisis they did not have access to interbank market financing. Greek economic outlook was bleak, for this reason depreciation had to be accounted for concerning the expected losses on retail and corporate loans. The economic and banking crisis hit cooperative credit institutions especially hard.

The Cooperative Bank of Peloponnese as a cooperative credit institution had a market share of 1.5% in the region and a market share of under 0.1% nationally. Local authorities established a capital shortage amounting to several millions of euros at the Greek credit institution, as a consequence, the authorities obliged the credit institution to restore compliance with capital requirements but the attempt of the Bank of Peloponnese to raise funds failed in December 2015. Greek authorities came to the conclusion that if the licence of the credit institution is revoked, the total amount of deposits not covered by compensation would incur losses equalling their full amount, which threatened with a major wave of the withdrawal of deposits from the other credit institutions, therefore resolution proceedings were launched.

The resolution authority carried out a provisional valuation and decided in favour of applying the sale of business tool, in the framework of which the total amount of customer deposits (EUR 97 million) and a minimum amount of assets (EUR 2.3 million) was designated to be transferred. A further EUR 4.7 million safety buffer was established to cover the difference between assets and liabilities and according to the default scenario it was expected that EUR 99.6 million had to be provided by the Greek collective guarantee funds to support the transfer.

These were the conditions and factors of uncertainty when the resolution authority made an announcement of the stock to be transferred on 11 December 2015, in a closed circuit, for the four largest Greek banks and expected them to bid. Based on the best bid, on 13 December 2015 the resolution authority chose the National Bank of Greece, which undertook to write off EUR 5 million from the financing difference, i.e. the collective guarantee funds had to provide EUR 5 million less to provide the financing difference. The European Central Bank revoked the licence of the Bank of Peloponnese on 18 December 2015 (HDIGF, 2015), on this day in the framework of the resolution, the resolution fund in support of the transfer and reducing the two-thirds of the financing difference established in the provisional valuation by EUR 5 million paid EUR 61.4 million to the recipient, and agreed that the remaining amount established by the final independent valuation would be split between the resolution fund and the deposit guarantee fund.

The independent valuation adopted on 26 May 2016 (HDIGF, 2016) confirmed a financing difference (after deducting the "purchasing price" of EUR 5 million) of EUR 87.6 million, lower than established by the provisional valuation, therefore the resolution fund contributed a further EUR 3.7 million and the deposit guarantee fund contributed EUR 22.5 million, approximately one-fourth of the total cost, to the cost of resolution (HDIGF, 2017). The deposit guarantee and the resolution fund were eligible for the reimbursement of their costs from the winding up of the Bank of Peloponnese according to their positions in the ranking of creditors.

The lesson to be learned from the Greek case is that the resolution was an effective tool to avoid the run on banks, potentially affecting other credit institutions and it was possible to avoid the risk of a systemic crisis; instead of the compensation amounting to approximately EUR 77 million, the Greek deposit guarantee fund had to contribute only EUR 22.5 million to the transfer in the framework of the resolution.

7. SUMMARY

In this paper we have made an overview of the evolution and global spread of deposit guarantee schemes and the variety of roles they may play. Through describing several previous cases of NDIF managing credit institution crises between 1993 and 2006, we also presented practical examples to demonstrate the use of deposit guarantee funds for purposes other than compensation. The Directive of the European Union on Deposit Guarantee Schemes adopted in 2014 also provides the opportunity for Member States to develop and operate such alternative deposit guarantee functions, though the Hungarian legislator did not make use of this opportunity with respect to the NDIF.

The Deposit Guarantee Schemes Directive, having taken into account the EU-level regulation of resolutions adopted in 2014, introduced the resolution financing obligation for deposit guarantee schemes, the background conditions and related safeguards of which we described in detail, furthermore – in absence of a domestic example – we presented the practical implementation of this function through the example of the resolution proceedings of the Greek Cooperative Bank of Peloponnese.

Though in the case of NDIF there has been no resolution financing by the deposit guarantee scheme so far, in the framework of the stress test required by the Deposit Guarantee Schemes Directive from each deposit guarantee scheme in every Member State the NDIF will also test this function in the stress test planning cycle covering the period of 2017-2021, which will enable the NDIF to perform this relatively new function in a crisis situation.

In addition to the independent stress tests performed in regard of the functions of NDIF, we are of the opinion that it is also worth testing cooperation, the exchange of information and the adequate distribution of tasks and decision-making powers between authorities in stress tests and crisis simulation exercises, which cover the whole cycle of crisis management and involve all the authorities concerned. The World Bank - recognising the significant role such exercises play in preparation for crisis situations - has provided assistance in several crisis simulation exercises to authorities regulating the financial sector (*Almansi–Lee–Todoroki,* 2016).[13]. As for crisis simulation exercises *Sánta* (2007) also finds them as an essential element of the permanent development of the crisis management toolkit facilitating fast and efficient decision-making from the perspective of central banks, but according to the article in addition to exercises within the authority, national or cross-border tests also provide valuable assistance in developing the cooperation between authorities.

In our view holistic, comprehensive crisis simulation exercises implemented primarily with the participation of domestic authorities and later with the involvement of foreign authorities might prove useful in respect of NDIF functions, as well. Therefore, comprehensive national crisis simulation exercises of credit institutions should reasonably be extended to include not only supervisory authorities, the central bank and representatives of the government, but also the NDIF, which operates as part of the safety net safeguarding financial stability.

13 The World Bank has participated in 29 such exercises as of 2009, of which 24 were implemented within one single jurisdiction, and 5 were implemented with the participation of authorities from several countries.

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