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INSTITUTIONAL AND REGULATORY DIMENSION OF THE FINANCIAL SYSTEM SAFETY

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The structure of modern financial safety system is considered, development trends are determined. Peculiarities of financial safety in separate countries' with different historic and institutional development conditions are pointed out. Attention is focused on the necessity to provide safety and stability at financial markets in general, and EU financial markets in particular.

Keywords: financial safety system, credit institutions, capital, central banks, deposit guarantee schemes, financial stability.

Statement of problem. Safety of the financial system is inextricably linked with financial stability, the notion of which is diversely interpreted in publications discussing this subject. It is often understood as an absence of crises [1]. According to the definition used by the European Central Bank, financial stability is a set of conditions under which the financial system (including financial agents, markets and market infrastructure) is capable of overcoming shocks and other deleterious effects of the financial imbalance spread, by means of which the emergence of serious disturbances hindering profitable investing of savings is limited [2]. Stable financial system is a prerequisite of economic growth, stability of prices and completion of other goals assumed for the state's economic policy. Destabilisation of the financial system causes disturbances in the course of settlements, a drop of the national currency value (currency crisis), bankruptcy of numerous entities and losing of jobs by a considerable portion of the given society. Hence a financial crisis equals an economic crisis. However, the financial institutions striving to manage risk appropriately should be resistant, or at least should be able to survive serious disturbances in the reality.

Analysis of recent papers. The history still proves that a financial system crisis has always been interlinked with considerable economic costs. Therefore, financial stability, simply understood as a lack of crisis threatening the financial system, is considered as one of public goods. The high price that the economy and the society must pay due to the crisis occurring in the financial system is enough of motivation to undertake specific actions aimed at protecting the system against destabilisation. There is a common belief that the financial safety net is an outcome of the Great Depression, and the example of USA speaks for such a hypothesis. At the beginning of the 20th century, the US administration first established a central bank, namely the Federal Reserve (FED) [3], and then the Federal Deposit Insurance Corporation (FDIC) [4], both vested extensive supervisory prerogatives. However, the mere perception of financial stability as a public good is not entirely convincing about the financial system's necessity to make use of special attention and support ensured by institutions dedicated to this goal exclusively. Nevertheless, one should bear in mind those special features of the financial system that substantiate the need for additional mechanisms enabling it to be protected against destabilisation.

The main role in ensuring financial stability is played by banks, since their function is of utmost importance as regards credit allocation to the economy, and at the same time, they are the most important parties involved in settlement systems. Both the scale and the range of negative external effects triggered by a crisis a bank struggles with are far more extensive than in other economic entities. The financial market has its own specificity in terms of the effects that may be caused by elimination of individual system participants. In various industries, exclusion of one entity is often beneficial for others, namely for competitors, as they can increase their market share. However, due to a fall of a single bank, other financial market participants may face considerable issues. The reason for such a state of matters is the system risk typical of the financial market. The essence

of this problem is that one bank's crisis may initiate a chain reaction leading to a crisis in other, even appropriately managed banks.

The origins of system risk should be sought at the foundations of strong correlations existing between banks via:

– interbank deposits (unsecured),
– settlement systems and services rendered by a correspondent bank;
– transactions in derivative instruments.

Furthermore, the financial market may suffer from what is referred to as a contagion effect. Banks are strongly dependent on the clients' trust. Hence a fall of one bank may trigger mass withdrawal of deposits from banks. The negative effects of depositors loosing trust in one bank may soon affect the whole banking system due to the aforementioned contagion phenomenon, or a bank run. Compared to other sectors of the economy, the contagion effect influencing the banking sector is definitely stronger and more serious due to a number of reasons:

– it is spreading faster;
– it affects a larger number of entities;
– it causes more bankruptcies;
– it does more harm to creditors (including depositors);
– it spreads upon other sectors to a larger extent, and consequently affects the entire economy and even economies of other countries.

Aim of the paper. This article provides a discussion on the contemporary safety net system architecture and the trends of necessary changes.

Materials and methods. *Institutional structure of the financial safety net.* The financial stability, and hence the financial market safety in most countries, is secured by the financial safety net which comprises a set of both regulatory and institutional solutions. In most countries, the financial safety net is developed by the following entities [5]:

– governments, which prepare both the regulations pertaining to the financial system as well as proper institutional solutions. As parties being in disposal of public funds, they may provide banks with various forms of support in critical situations (government pledges covering the former's liabilities, capital increase and even nationalisation);
– central banks, which perform the classical function of a *lender of last resort* and support the functioning of the settlement system as well as conduct macroeconomic analyses consisting in assessment and early identification of hazards to the financial system stability;
– financial supervision authorities, whose purpose is to assess and control the risk incurred by banks and other financial institutions, and to limit it and interfere whenever a serious safety hazard is revealed;
– deposit guarantee schemes, whose main goal is to protect the funds of banks' clients.

All these entities collaborate to the benefit of financial stability, and their fundamental objective is to protect banks' clients and maintain the trust towards the entire banking system. While establishing the financial safety net, two opposing targets must be reconciled: on the one hand, the negative consequences involved in the weakening market discipline through the abuse temptation (moral hazard) should be constrained, and on the other hand, appropriate counsel should be ensured in critical situations [6].

Table 1

Breakdown of safety net functions

Action/institution	Supervisory authorities	Central bank	Guarantee funds
Crisis prevention	Regulations, control, sanctions	Financial system analyses	System risk reduction
Crisis management	Aid schemes	LoLR	Aid programmes
Crisis solving			Deposit redemption

Hence all the efforts undertaken to support financial stability can be divided into the following stages:

– crisis prevention comprising regulatory solutions and actions performed in order to limit the risk and potential disturbances to the financial system;

– crisis managing and solving which comprise the efforts undertaken to resolve the critical situation and minimise the

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negative effects of its occurrence.

From the perspective of the goals envisaged and the functions performed, financial stability institutions are similar in all countries, however, each of them retains specificity in the institutional scope as well as in terms of the support tasks and activities performed. The foregoing differences are mainly due to the following reasons:
– historical conditions;
– financial system structure (in terms of ownership and predominant entities);
– financial market development level;
– position of state authorities as regards the matters of economic liberty and the state's protection.

The efforts undertaken at the first stage are of preventive nature. They are certainly of primary importance, and they mainly comprise regulatory solutions applied to limit the scope of banks' activity and the risk they incur. A particularly important activity at this stage is the supervision of banks.

The activities undertaken at the second stage may assume various forms and they are aimed to inhibit the crisis and minimise its negative impacts exerted upon both the entire financial system and the real economy. All parties must contribute to this stage, whether they are governments, central banks, guarantee institutions or bank supervision authorities.

The institutional framework of safety nets in the European Union states results from their internal solutions, since there are no EU directives binding in this respect. Consequently, there is considerable diversification of the ways in which safety nets are organised in individual countries. On the other hand, the regulatory efforts are usually identical, since a fair share of the safety related regulations is established on the EU level. The foregoing mainly applies to issuing of permits, minimum risk-related capital requirements or protection of bank clients.

When analysing the banking sector, one may speak of two basic types of crisis:
– solvency crisis, when the activities undertaken are focused on liquidation and bankruptcy or sustaining the activity, and hence aid is provided, particularly to banks perceived as relevant from the systemic perspective. In the solvency crisis situations, all institutions involved in the safety net join their efforts;
– liquidity crisis, when a bank is not in disposal of sufficient liquid assets in which case the central banks play the main role by performing the function of a lender of last resort.

Integration of financial markets in the European Union increases the potential system risk understood as a hazard which seriously threatens the functioning of the entire financial system. Risk may be easily transferred to other institutions, regions and countries, hence the uniform EU market requires specific actions to be undertaken in order to establish a uniform European safety net.

The global financial crisis of the recent years has forced central banks and governments all around the world, including those of the EU, to resort to extraordinary repair measures in order to reduce the system risk and restore trust towards financial systems. Between October 2008 and November 2009, governments of the Eurozone states spent the overall amount of ca. EUR 2.4 trillion (which constituted 26% of the Eurozone GDP) to reinforce their domestic financial systems. The solutions implemented by the Eurozone governments comprised the following in particular:
– extension of the scope of bank deposit security;
– guarantees for banks' liabilities;
– capital feeding;
– aid schemes related to bank assets.

Although the actions undertaken have contributed to improving the banks' financial results, still the banking system's stability in the Eurozone is encumbered with a considerable risk. Therefore, countries collaborate on the European Union level for the sake of information sharing and establishing specific standards to follow.

Supervision of credit institutions

Supervision of banks is the most fundamental function of the financial safety net. Banking supervision comprises the following tasks [7]:
– preparation of prudential regulations aimed at ensuring compliance with the principles of banks' sound economising;
– collecting information and drawing up

analyses on the banking sector;
– conducting inspections and audits at banks in order to establish the actual state of matters;
– influencing banks in order to avoid potential insolvency.

Therefore, the most fundamental purpose of banking supervision is ensuring safety of the funds deposited in banks, whereas in the macroeconomic scale, it is ensuring stability of the banking system.

In the European Union, neither the ECB nor any other body has been vested competences and assigned tasks related to the supervision of credit institutions operating within the Eurozone. The ECB's functions with regard to financial supervision are of consulting and opinion giving nature.

The ECB supports the collaboration between central banks and banking supervision authorities via functioning institutions including the following:
–Contact Group established in 1972 by banking supervision authorities representing the European Economic Area, responsible for micro-scale supervision;
–Banking Advisory Committee established in 1977, whose task has been to comment upon the EU directives, regulations and policies with regard to the operation of banks;
–Banking Supervision Committee established in 1998 to handle situations which may exert negative impact on financial stability.

The legal grounds for supervision of credit institutions in the EU were laid down in a directive of the year 2000, followed by Directive 2006/48/EC introduced in order to harmonise legal regulations in the EU states based on the prudential supervision rule.

In light of the EU legislation, the supervision of credit institutions is based on the following principles [8]:
– supervision of the country of origin, which means that a credit institution is subject to supervision managed from the country of origin, and hence it is controlled by supervisory institutions representing the said country;
– laws of the country of origin as the laws binding for sanctions and liquidation of credit institutions;
– national deposit insurance, i.e. credit institutions' obligatory membership in the guarantee system based in the member country of origin;
– information exchange between supervisory institutions of the country of origin and those of the receiving country, particularly applicable to financial liquidity and solvency of credit institutions, deposit guarantees, limitations etc., strong involvement, accounting procedures and internal control mechanisms;
– confidentiality of the supervisory institutions' activity. The relevant confidential information may only be disclosed in the event of bankruptcy or liquidation of credit institutions.

As a result of the changes taking place throughout years, the financial market structures developed a need for implementation of regulations on consolidated supervision, i.e. a holistic assessment of a capital group's operations. The consolidated supervision matter is currently regulated by Directive 2006/48/CE which defines the units subject to such supervision as well as the role and responsibility of the entity conducting the consolidated supervision and the information acquisition and sharing principles.

The last financial crisis explicitly revealed the efficiency shortcomings of the actions performed so far. Therefore, in September 2009, the European Commission published the new supervision architecture drafts, and the following institutions came into being:
– European Systemic Risk Board, whose task is to provide macro-prudential supervision of the EU financial system,
– European System of Financial Supervision, composed of national financial supervision authorities and three newly established European supervisory bodies, i.e. ones responsible for the banking sector, for stock exchange and securities as well as for insurance and employee pension schemes, the tasks of which include developing high-quality regulatory and supervisory standards, collaboration with the European Systemic Risk Board as well as monitoring of the market condition.

There is a considerable diversity of solutions implemented in various countries with regard to banking supervision. One may observe the following models being applied in the scope of financial market supervision [9]:

–sector model – the supervision is provided by dedicated, specialised supervisory institutions and covers the banking, insurance and capital market (Greece, Spain, Cyprus, Lithuania, Slovenia, Bulgaria, Romania). This model had been applied in Poland by 2006;
–*Twin Peaks* model – supervision over all financial institutions provided by various supervisory authorities, where the basis for the division of supervisory functions and establishment of separate institutions is the very object of supervision (the Netherlands);
–single supervisor model – there is one supervisory institution, referred to as a super supervisor, which performs all functions of the financial market supervision also known as integrated supervision. In Poland, for instance, the institution in question is the Financial Supervision Authority (Komisja Nadzoru Finansowego) which took over the insurance and capital market in 2006 and started supervising banks in 2008.

Not questioning the legitimacy and appropriateness of choice of any of the aforementioned models, one may conclude that the key factor in implementing integrated financial market supervision mechanisms is the progressing integration of financial institutions as well as introduction of new financial products of integrated nature (structured products) which feature elements of risk originating in non-banking markets.

New capital accord. Among the abundance of prudential regulations adopted by supervisory authorities, the one applicable to capital adequacy is particularly important. Its methodology was developed and recommended by the Basel Committee on Banking Supervision in a document known as the New Capital Accord (NCA). The purpose of NCA was to bring the regulatory capital closer to the bank's economic capital via extensive application of internal and external rating. After successive revisions of NCA had been published, the final and binding form was introduced in 2007, and as it entered into force, it set a sufficient period of time for individual countries to adapt to its requirements.

The capital adequacy principles are based on three pillars:

– minimum capital requirements;
– supervisory review;
– market discipline.

Sufficient regulatory capital protects the given credit institution against predictable losses, and hence it reinforces the financial system stability. Sufficient economic capital originates in the principles of good practice in the bank risk management. The 1st pillar, i.e. one concerning capital requirements, comprises a balance of minimum capital requirements resulting from credit risk, market risk and operating risk. Its minimum level should not be lower than 8%.

The supervisory review covers those kinds of risk for which the bank has gathered the economic capital. The quality of capital demand reported by banks is assessed with reference to the risk involved. NCA provides management boards and supervisory boards of banks with instruments enabling them to act for the sake of strengthening the professionalism in the bank's risk management, these including internal models of the capital demand estimation conforming with the risk profile established for the given bank.

Table 2

Logical structure of capital adequacy principles according to NCA

First pillar – minimum capital requirements	**Second pillar – supervisory review**	**Third pillar – market discipline**
Regulatory capital Credit risk Operating risk	Specialised supervision	Financial system transparency
Economic capital Internal rating	Legal risk Liquidity risk Interest rate risk in a bank portfolio	Counterparty risk
Capital allocation in groups	Technological risk	Corporate governance
Internal control	Internal audit	Strategic audit
Standard approach including external rating In-house models Securitisation Market risk of trading portfolio		Set of information and reporting requirements

Source: [10]

Market discipline is the banks' obliga-

tion to disclose information on the risk and the necessary capital value. The public nature of the information in question applies to the capital level, structure and properties.

Central banks. Central banks are institutions with the longest tradition in operations supporting the financial system stability. They started performing this function at the very beginning of central banking as such (as regards the prudential supervision).

A classical function of central banks they perform under the safety net is the *lender of last resort (LoLR)* function. It involves ensuring liquidity to a single bank or the entire banking system as a response to an unfavourable shock causing extraordinary demand for cash reserve. The basic characteristic of this instrument is how rapidly the central bank can become involved in a commercial bank's lack of liquidity.

The opinions on the lender of last resort function changed over time as the financial markets developed and the central banking evolved. They mainly differed in terms of the principles and conditions of the central bank's liquidity support.

This function is currently referred to as an emergency liquidity support. It is envisaged that the liquidity support should only be provided by the central bank to the entire market via open market operations. The grounds for this assumption are to be found in the nature of the market that can perform the liquidity allocation in the best possible manner, assessing the credit score of the borrowing entities at the same time. Feeding banks with liquidity by means of open market operations also eliminates the problem of establishing the interest rate at which the given operation should be conducted, since the market itself is ultimately decisive in this respect.

The lender of last resort function is performed by central banks at the crisis management stage. However, central banks are becoming more and more extensively involved in the financial stability issues already at the stage of the financial system destabilisation prevention. On the other hand, it is an everyday practice that the central bank's activity is focused on analysing the financial system from the perspective of assessment of its resistance to shocks and potential risks.

Deposit guarantee schemes. The direct purpose of establishing deposit guarantee schemes is protection of individual clients of banks. Deposit guarantee funds usually do not become involved in operations until the crisis solving stage. However, acting indirectly, guarantee funds indeed reduce the systemic risk to a considerable extent. Knowing that their deposits are legally protected, banks' clients rarely tend to withdraw funds whenever doubts about the bank's financial standing occur.

The establishment of the Euro system had no significant impact on the functioning of the deposit guarantee scheme. Deposit guarantee funds are usually non-uniform elements of the financial safety net.

The competences to create and manage guarantee schemes have been retained on the national level, however, they are still subject to harmonisation in terms of their basic features.

The directive on deposit guarantee schemes [11] has laid down the relevant principles as well as minimum requirements that should be taken into account by individual countries under their respective guarantee schemes. Below are the general principles individual countries must follow under the solutions they implement:

– the principle of common applicabi-lity – the system must cover all credit institutions, and they are to be treated equally; each country is obliged to establish at least one deposit guarantee scheme;

– the principle of obligatory participation in the system imposed upon institutions receiving deposits. The state is entitled to release the given institution of the participation obligation provided that it is a party to another system ensuring its liquidity and solvency;

– the principle of territoriality – the system covers all liabilities incurred by banks operating in the given country as well as their branch offices in another country;

– the minimum guarantee level established for all deposits of a single depositor equals EUR 21.5 thousand;

– co-insurance must not exceed 10%;

– mandatory exclusion of interbank deposits, equity funds of institutions and deposits from

transactions involving money laundering;
– ensuring promptness and efficiency of payments – within three months from the day when the funds became inaccessible with an option of two deadline extensions;
– obligation to provide the clients with access to necessary information on the system;
– system financing costs covered by its participants, namely the credit institutions;
– the last financial crisis triggered numerous changes applicable to the foregoing elements of the deposit guarantee system, and hence they were defined in Directive 2009/14/EC [12], one that substituted the act of 1994. These changes applied to:
– increasing the level of mandatory deposit security to EUR 50 thousand, and then to EUR 100 thousand by 31st December 2010;
– shortening the period of time assumed for disbursement of depositors' funds to 20 working days (in USA, the repayment of deposits takes place within 1–2 working days after the bank announces insolvency).

Based on the assumption that deposit guarantee systems are truly important elements of the financial safety net, their role in supporting the financial stability and building trust towards the financial system should be reinforced. Hence, the works, that are currently being conducted in order to introduce further changes. The European Commission has proposed to continue the harmonisation and simplify the relevant rules.

Conclusions. Both the international practice and the historical experience imply that the financial system verifies former solutions in the scope of regulations every now again. The foregoing applies to both the kind and the competences of institutions responsible for safety and liberalisation level in terms of regulatory instruments. Due to the variety of historical, political and economic conditions, the safety net is organised slightly differently in different countries, however, individual institutions and the entire system share the same goals.

The preferences assumed for the sake of the former system redesigning, differing from one country to another, have additionally succumbed to yet other pressures, namely the effects of the financial crisis, the latter being only strengthened by the transformations the global financial system has been undergoing all around the world within the recent years. This applies to the following trends:
– transition to market-oriented economy – increasing importance of market instruments compared to traditional forms of financial agency services in allocation of credits and risk transfer;
– consolidation – growing scale of activeness of financial institutions and combining various types of financial services in a single financial institution;
– globalisation – integration of national and international financial markets and growing scale of cross-border activity of financial institutions.

It may be concluded that there is no such thing as an optimum safety net model. Therefore, the basic principle that should apply to all systems comprises maintaining suitable proportions between the market discipline and protection as well as collaboration between the safety net institutions, both on the national and international level.

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У статті розглядається структура сучасних систем фінансового захисту, виявляються тенденції її розвитку та зміни. Вказується на наявність специфіки у побудові систем фінансового захисту окремих країн, що пов'язано з різними історичними та інституціональними умовами їх розвитку. Увага акцентується на необхідності забезпечення безпеки й стабільності фінансових ринків, і, особливо, фінансового ринку Європейського Союзу.

Ключові слова: система фінансового захисту, кредитні установи, капітал, центральні банки, схеми гарантування вкладів фізичних осіб, фінансова стійкість.

В статье рассматривается структура современных систем финансовой защиты, выявляются тенденции ее развития и изменения. Указывается на наличие специфики построения систем финансовой защиты отдельных стран, что связано с различными историческими и институциональными условиями их развития. Внимание акцентируется на необходимости обеспечения безопасности и стабильности финансовых рынков, и, особенно финансового рынка Европейского Союза.

Ключевые слова: система финансовой защиты, кредитные учреждения, капитал, центральные банки, схемы гарантирования вкладов физических лиц, финансовая устойчивость.

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