The significant repercussions of the recent crisis in the financial sector and the real economy have led to the development of policies aimed at strengthening the stability of the international banking system. Banking regulatory reforms (Basel III) improve micro-prudential supervision and involve macro-prudential supervision to avoid systemic risk. Capital requirements are tightening up and the quality of core capital is upgraded in order to provide greater coverage of losses and better risk management. In addition, a new framework for liquidity risk is introduced, as well as a complementary tool for limiting leverage.

Recently, an agreement was reached in the EU to establish a Banking Union in the Eurozone, based on uniform regulation, supervision, bank clearing and deposit protection mechanisms. This framework includes a common banking capital for bank consolidation, which aims to reduce the impact on savers.

This study aims to analyse the banking sector's activities and the constituent elements of the existing regulatory framework, particularly those involved in the causes of the financial crisis. It also aims to present the dimensions of the new regulatory framework for joint supervision leading to the European Banking Union and to analyse the pillars that form it, even though they are still in progress. The analysis will also build on the experiences from the recent crisis, in order to reach clear conclusions about the necessity and role of the Banking Union.

**Keywords:** Monetary Policy, Central Banks and Their Policies, Financial Aspects of Economic Integration

**JEL:** E52, E58, F36

*Introduction*

In the last decades, rapid technological, political, social and economic developments have taken place worldwide. The financial sector is at the heart of economic developments. Ensuring the stability and effectiveness of the financial system is of paramount importance for the development of social and economic prosperity. The financial system is constantly evolving and
creating new instruments, new complex products and new markets.

However, this growth and development has led to increased risks and the emergence of new risks, with adverse effects on market participants, as demonstrated by the recent financial and credit crisis (Angelopoulos, 2010).

History has shown that financial crises are the trigger for major changes in the regulatory framework of the banking sector. The Basel Committee has played a leading role in the reforms and in the setting up of supervisory functions, which, on the occasion of the various phases of the economic crisis, has adopted regulatory and supervisory frameworks in the form of Basel I, Basel II, Basel III in chronological evolution.

In particular, in response to the recent economic crisis, a major effort has been made with the Basel III pact, where new provisions have been introduced in the field of banking supervision, with amendments to the current regulatory and supervisory framework and the investigation of its limits. These provisions are aimed at strengthening banks’ resilience in the international financial sector and eliminating any likelihood that such a strong crisis will emerge in the future.

With the spread of the 2007-2008 financial crisis in the European area and uncoordinated national responses to bank failures, the relevant European institutions have decided to move forward with the European Banking Union in the hope of the Eurozone reverting to economic growth, on a more solid basis.

Banking risks and the banking supervision system

The banking system altogether, which is the whole of the financial markets, with individuals and institutions that trade in these markets as well as the regulatory and supervisory authorities of the system, is exposed to risks that can be classified into four main categories: market risks, operational risks, and systemic risk (Gikas, Hyz, 2016, pp. 145-146). Such risks may become severe and lead a bank to bankruptcy (Kyritsis K., Hytis E. 2013; Kyritsis K., Reklitis P. 2015).

The banking system, operating in an uncertain environment, is continuously changing and constantly revising its institutional framework so as to address the emerging risks in order to provide the resources and services required to transfer funds from surplus to deficit units (Gikas, Hyz, 2016, p. 123; Hyz, Gikas, 1993).

In order to ensure the stability of the banking system, it was necessary to adopt a financial safety
net, in other words to create a framework of rules, controls and procedures for the financial stability and protection of the banking sector. The financial safety net includes various preventive measures, as well as intervention and protective policies (Bukowski, 2011).

Prudential measures are adopted to achieve the objective through similar supervisory systems. There are two types of prudential supervision of banks, micro-preventive supervision, focusing on the microeconomic characteristics of banks and linked institutions, ensuring their solvency, adequate liquidity and orderly functioning in full transparency, and macro-prudential supervision, which focuses on the effects of macroeconomic variables on banks' financial data.

The most basic rules used by the appropriate supervisory authorities to limit the accumulation of systemic risks throughout the banking and relevant financial system, concern the supervisory equities and the liquidity risk of a bank. Macro-prudential supervision focuses on addressing the two manifestations that limit systemic risk and these are: "time dimension" and "cross-sectoral". The time dimension is related to the development of systemic risk over the horizon. The cross-sectoral dimension concerns the way in which the risk is spread over the banking and financial system at a given point in time.

Financial safety net intervention policies include designing an effective crisis management framework to minimize as far as possible the effects of a domestic or international crisis on the real economy. This can be achieved through the implementation of a three-step framework: (a) a prevention stage to increase the probability of early detection of problems and to enhance banks' readiness to deal with major difficulties; (b) early intervention, where the monetary authorities can intervene for the exceptional financing of creditworthy banks through the lender of last resort, while supervisors can intervene preventively to mitigate the consequences; (c) a healthy consolidation stage where the healthy consolidation principle, due to the public interest, may trigger some of the conventional healthy consolidation techniques when a bank is bankrupt or is on the verge of bankruptcy, and there is no possibility of recovery with private funds or supervisory interventions.

The protective policies of the financial safety net concern the creation of Deposit Guarantee Schemes. Deposit Guarantee Schemes are in place in most countries around the world. They were established for the first time since the great crisis of 1929-1933 with the aim of minimizing or eliminating the risk of losing deposits in the event of bank failures. A sense of security is important, as deposits for households and small businesses represent savings or significant funds for the execution of transactions.

**Banking Supervision and Basel I, II, III**
The dominant leverage for the progressive development and activation of the supervisory systems of the international financial system in a common line of navigation was the dynamic presence of the Basel Committee on Banking Supervision.

The Basel Committee is not an international governmental organization but a de facto organization without legal personality, operating under the administration of the Bank of International Regulations - BIS (Petrakis, 1999). The decisions taken do not have a legal commitment to their third recipients and are usually formulated as general principles or minimum suggested standard behaviour (Walker, 2001). Among the most noteworthy writings are the Basel Accords, which are widely known as Basel I, Basel II, Basel III, and are the first internationally organized effort to create a common system for calculating the capital adequacy of credit institutions.

The capital adequacy to deal with risk, is considered to be the availability and maintenance of a credit institution's own capital at a level sufficient to deal with possible losses from the risks posed by the activities of the credit institution (Psychomanis, 2009: Gikas, Hyz, 2016, p. 158).

In order to identify regulatory capital items, with which banks may meet their capital requirements against these risks, a solvency ratio or capital adequacy ratio (CR) has been proposed, which must be larger or equal to 8%.

\[ \text{CR} \geq 8\% \]

In Basel I, the weighting of assets was made against credit risk and market risk. The Equity of credit institutions, in the context of supervision, differs significantly from the corresponding accounting equities, which is why Basel I focused on Supervisory Equity, which is divided into two categories: Core Capital Tier I and Supplementary Capital or Tier II, and the first is required to be at least 50% of the total, ie at least 4% of the risk-weighted assets.

Weighted assets include the sum of credit-risk-adjusted assets (RAAs) plus the off-balance sheet items, together with the credit-risk measurement of off-balance sheet items market (Tzavalis, 2010). This method is described as a standardized method of credit risk calculation.

Basel I's supervisory framework created significant distortions and inefficiencies in the capital requirement assessment (Sapountzoglou and Pendos, 2009), as the near-arbitrary classification of assets into risk categories was envisaged, while balancing these categories with factors that did not account for the actual exposure level to the credit risk. The preferential
treatment of government securities, rank them in the lower risk zone. However, the breaches of several public state obligations, particularly in Latin America, have shown that sovereign debt could not be considered a zero risk investment. The result of a possible diversification that could reduce the actual overall portfolio risk was not recognized, as the supervisory framework regarded the total risk of a portfolio as the sum of the risk of its individual assets. It did not take into account other risks, apart from credit and market risk. Banks have gradually begun securitization to obtain liquidity and be able to make new advances.

The contribution of the Basel I Accord was recognized in the effective recovery of a long-downturn in the capital adequacy ratios of internationally-active banks and in the strengthening of the implementation of joint supervisory techniques, clearly diminishing diversity in global supervisory approaches.

Although Basel I imposed strict rules, recommending that they should be followed by all members, in the 1990s new causes emerged that led several banks to bankruptcy. These reasons were linked to the corporate governance of the banks, that is to say their decision-making processes. Thus, the new Basel II regulatory framework had to cover this risk, which was called operational risk.

The Basel II pact or accord, consists of three thematic units or, according to the Committee's phraseology, three pillars.

Pillar I: Capital requirements to cover credit risk, market risk and, for the first time, operational risk.

Pillar II: Firstly, it is determined what is the purpose of the planned process followed by the supervisory authorities with regard to the assessment of the capital adequacy of banks and then the general guidelines governing the envisaged procedure.

Pillar III: Enhances market discipline by disclosing specific qualitative and quantitative data related to capital adequacy.

In the first pillar, the committee sets out the capital requirements for the coverage of credit risk, market risk and for the first time operational risk.

The second pillar review process is one of the main innovations of the new pact. It reflects the shift of supervisory interest from the level of macro-prudential supervision to that of micro-prudential, providing the possibility of personalized supervision of institutions whose activities involve a greater systemic risk.
The new Basel II treaty proved to be insufficient to prevent the crisis that started in 2007. The new treaty was launched in January 2008, with the crisis already beginning to widen. Also, the incorrect supervision of credit institutions for the implementation of the Basel II treaty was a determining factor in the failure of the framework.

Banks were also in a position to conceal and present their risk and capital data in a way that does not show their problems to the general public and the supervisory authorities in particular. This possibility was given to them by the privileges given to them by Basel II in their way of calculating and measuring their risks (Karamouzis, Harduvelis, 2011).

Excessive leverage in the banking system must be considered at least in part as a result of the current regulatory capital adequacy framework because credit institutions, with the aim of reducing the cost of its application, have recourse to excessive securitization and techniques of "regulatory arbitrage" (Gortsos, 2011). We may compare the capital structure leverage of the banks, which is higher than 10, with the average similar leverage of other organizations in the private sector, which is about 3. This high leverage is kept since old times and was initially relevant to the lack of sufficient gold when the rule of gold was used. But now that the central banks can issue freely base currency and all of the banks can create scriptural money (M1,M2,M3), such a high leverage is mainly relevant for the desire of large profits while it creates the highest instability for the banks among the private sector. It is obvious that a drastic reduction of the high leverage from much higher than 10 to lower by some integer units, would solve more easily many of the problems that the Basel packs are trying to solve at the cost of course of the high profitability of the banks.

As the Basel Committee says, while the capital adequacy of most banks was adequate, their quality was low, and with the onset of the crisis, they faced liquidity problems, and the sharp reversal of market conditions highlighted the speed at which the liquidity reserves of credit institutions (Hyz, Gikas, 2015) can be exhausted.

Also, Basel II's current regulatory framework did not contain macro-prudential policies for the prevention, timing and cross-sectoral systemic risk and, as demonstrated by the recent crisis, the systemic risk has been very high.

According to Gortsos (2011), the current regulatory framework for capital adequacy was judged to be one of the factors that prolonged pro-cyclicality, as it urges banks during the course of economic growth to contribute to further enhancement of credit expansion, by means of lower rating criteria in the context of lending, while during the recession to restrict lending by imposing stricter criteria.
It should be noted that in the first two Basel pacts, members of the G-10 participated, while the largest developing economies that are now playing a key role in the financial system were absent. So, the recent financial crisis and the above failures not predicted with Basel II have prompted the committee to start new debates and end on 16-12-2010 in a new pact known as Basel III.

The new prudential framework is an improvement and complement to the existing rather than a new agreement and is intended to strengthen the stability of the global banking system, moving on two levels: micro-prudential and macro-prudential. Basic Basel III innovation is the leverage ratio, which aims to reduce the leverage of banking institutions and the introduction of capital buffer held by banks during good periods for the purpose of using it as an additional cover in times of crisis (Gikas, Hyz, p. 162).

In the absence of macro-prudential regulation rules, Basel III established this innovative element, the so-called capital conservation buffer, which requires that banks should hold and reserve during times of economic expansion, capital in excess of the standard, in order to cover capital adequacy. The use of this reserved capital is appropriate in times of adverse economic developments so as to absorb losses by increasing the capital requirement ratio and strengthening banks' resilience in crisis situations. The reserved capital is derived from the main core equities items, while its amount is set at 2.5% of the total weighted assets of credit institutions. In the context of limiting the pro-cyclicality phenomenon, as observed during the recent crisis, Basel III introduced a macroeconomic measure, the countercyclical capital buffer, as an extension of the reserved capital for maintenance purposes. On this basis, banks will need to form an additional reserve in periods of excessive credit expansion, taking into account the economic environment in the long term, to ensure their future protection.

The countercyclical stock size ranges from 0% to 2.5% of banks' total risk-adjusted assets so as to address systemic risk. Two new indicators are also introduced for the monitoring of liquidity risk. The short-term liquidity coverage ratio must be at least 100% and is defined as the ratio of the stock of high quality liquid assets to total net cash flows over the next 30 calendar days. The ratio of net fixed funding over the long term is defined as the ratio of the amount available to the required amount of fixed funding, and the amount should be more than 100%.

Basel III's changes in banking supervision are pro-active on two levels: microeconomic and macroeconomic. They aim at strengthening each bank separately so that they can overcome the
problems caused by periods of negative developments and on the other hand to address systemic risk. Basel III is Basel II with a macro-preventive wrapper (Christopoulos and Dokas, 2012).

On the other hand, Caruana (2011) argues that the full and timely implementation of Basel III is insufficient to "protect" the global financial system and is not by itself adequate, but actions and reforms are required in all areas of public policy, including fiscal and monetary policy.

Fitch Rating estimates in a report that with the new supervisory framework, 29 global systemic financial institutions (G-SIFI) will need additional capital of $566 billion Dollars to meet the new capital rules. The same house estimates that Basel III will bring a decline in the ROE of banks by more than 20%. The decline in return on equity will occur as credit institutions will face the lack of capital.

Gortsos (2011) points out that credit institutions may be, through the application of the new measures, led to a reduction in the supply of borrowed funds with a direct negative impact on the real sector of the economy and its growth, as they will not distribute profits to their shareholders the following years.

The urgent need to lower banks' costs (Gikas, 1999) is likely to lead them to shifting their activities towards countries with loosely regulated supervisory frameworks or parts of the financial system that are under mild regulatory and supervisory intervention.

At the same time, Byres (2012) reports on the new supervisory framework that securitisations continue to play an important role in providing bank financing. One of the causes of the recent financial crisis was that the supervisors had not identified the risks of securitization. In spite of the lesson we have received in the recent crisis, the new supervisory framework does not hinder the rationalization of securitisations. It should be noted here that securitization is indeed a very significant tool for credit institutions to raise capital and finance their activities. But the abuse of excessive securitization was the one that led credit institutions to liquidity problems.

**The recent financial crisis**

In the current crisis, we can distinguish three phases, which are in fact the waves of "transmission" from their point of creation to the environment through globalization (Christopoulos, Dokas, 2012).

In the first phase a residential bubble was created. The financial crisis originally appeared in the US after the interest rate cut by the Central Bank. This gave cheap housing loans,
which resulted in a rise in real estate prices. To respond to inflation, the central bank raised interest rates, making it impossible to pay home loans so serious problems emerged, and we had a banking and financial crisis.

In the second phase there was a bond crisis. Banks in the US issued bonds based on housing loans in order to increase their liquidity. With the onset of the crisis, bonds lost most of their value. However, these bonds (toxic) had been transferred to banks around the world, resulting in their infecting and spreading the banking crisis (systemic risk).

In the third phase we have the emergence of the public debt crisis. To finance their troubled banks, states issued government bonds, thereby increasing public debt. Of course, the increase in public debt was due to other factors, which differ from country to country. The excessive increase in public debt led to a rise in borrowing rates from international financial markets and so some states could not borrow anymore and so they plunged into a financial crisis (Gikas et al., 2012). So the EU has given financial assistance to these countries, while imposing austerity policies and reforms (memoranda).

The Eurozone member-states in which the economic crisis has grown severely can be divided into two categories: firstly, Ireland, Spain and Cyprus, where the crisis began as a banking crisis and led to a fiscal crisis and a debt crisis. The second category comprises Portugal and Greece, where, although the banking system was experiencing problems, the financial problems and the problem of public debt played seemingly a major role in the emergence and development of the crisis. Of course, other Eurozone countries have high public debt, such as Italy and France, and in many countries there are banks with major problems, such as Monte di Paschi di Siena in Italy and Deutsche Bank in Germany.

**European Banking Union**

The evolution of the debt crisis in the euro area, the fragmentation of markets and the emergence of imbalances in the transmission of a single monetary policy (Gikas, 2004) in the Eurozone opened a new round of discussions on the transfer of security grid elements to a pan-European supervisory authority. The positions have been extended to a wider scope and the priority policies have been focused on forming a "European Banking Union" in which they develop on a consolidated level:

A central banking authority that is exclusively reserved for the banking system and is under the supervision of the ECB under a single ESM - (first pillar).
A transnational instrument for the settlement of unhealthy banking institutions, in the context of a Single Supervisory Mechanism (SSM) and a supranational rescue fund to absorb the exposures that are being driven (second pillar).

A common bank deposit guarantee system under the auspices of a Single Deposit Guarantee Scheme (DGS) (third pillar).

The banking association is a banking and consolidation system operating under EU-wide rules. On the one hand, it guarantees the security and reliability of the banking sector in the euro area and the EU as a whole, and, on the other, ensures that the consolidation of non-viable banks is done without spending taxpayers' money and having a minimal impact on the real economy.

Members of the banking union are all Eurozone members and EU Member States that choose to join. All the states that will adopt the euro in the future will automatically become members of the banking union. Non-euro area countries can participate through a close co-operation agreement.

The backbone of the banking union and, more generally, the regulatory framework for the EU financial sector is the Single Rule Book, which consists of a set of legislative texts which apply to all financial institutions and all financial products in the EU. Its action is supportive in order to establish a common belief in the realization of the European vision, but also preventive, in order to mitigate the possible ups and downs of a banking crisis.

Critics of the project argue that the imposition of excessive regulatory intervention by European authorities is responsible for the emergence of possible distortions in the real economy and limited lending to households and businesses, and is the likely cause of a financial downturn.

Compulsory compliance by banks with the rigorous measures of the new framework may cause both the inability to meet the high capital requirements as well as the increase in operating costs and thus lead to a further contraction in the banking sector, and the creation of a shadow banking system.

The activation of the pan-European surveillance mechanism is believed by many to have a direct impact on the autonomy of banking institutions, and reduction of the nature of national democracies, as at least for the banks there will be also a decrease of the degree of intervention in the financial markets and capital markets, and in particular in the weaker economies, may lead to an informal concession of their national sovereignty.

The EU's insistence on stopping the bail-out, which has cost taxpayers a total of 5.38 trillion euros since 2008, and starting the bail-in (which means that the burden should be borne by private
investors), has led to the formation of a framework of rules where even if a national government wants and can save a state-owned bank, it is forbidden to do so before the individuals pay a large sum, which should correspond to 8% of the bank's liabilities.

The Banking Union at European level can also be a reason for intensifying the conflicts between the North-South countries, creating serious social turmoil on European territory.

Although the estimates were that the final decisions on the creation of the banking union would be made by the end of 2013, we are in 2017 and the union is still unfinished. Progress has been made in clearing troubled banks, although the problems that have recently occurred in Portugal and Italy have shown difficulties both in their operation and in their financing.

Finally, there is a delay in a basic pillar of the banking union: securing deposits. There are objections to both the time and the quality of the implementation of the common sanitation fund, which is expected to be fully funded in 8 years with 55 billion, which is low (the Commission's response is that the new supervisory rules will significantly reduce extreme cases requiring the actuation of the device). It is also noted that state support to a troubled bank is forbidden, but this is not the case for a bank that has not yet been identified as problematic.

**Epilogue**

The implementation of the Banking Union is one of the most important steps for the integration of the states in the context of the European Monetary and Financial Framework and aspires to serve as a springboard for the launch of the Financial Union. Its formulation requires a radical amendment of the European Treaties, not a mere harmonization of the regulatory rules of European banking legislation.

The banking union can be a security mechanism to deal with future crises for the entire Eurozone. A crucial element for the smooth move towards the banking union is the swift conclusion of the consultations on the framework for the single consolidation mechanism as a major tool for managing future banking crises.

The Banking Union is seen as a necessary and key priority for risk-sharing, the depositor protection (and through the "clearance procedure"), and for restoring confidence in the system, and re-granting credit to businesses in all Member States. Consolidation of the Banking Union expects to bring significant benefits and the dimensions are to be multifaceted. From a legal point of view, a rich legislative content with new regulations will enrich the elements of European and banking law. From a financial point of view, the new operating rules reform the way in which
credit institutions operate, and their strategies also, and create a new model for the functioning of the European banking system. From a political point of view, the Banking Union brings the EU closer to the goal of the political integration of its member countries.

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