

# LAW AND ECONOMICS YEARLY REVIEW

ISSUES ON FINANCIAL  
MARKET  
REGULATION,  
BUSINESS  
DEVELOPMENT AND  
GOVERNMENT'S  
POLICIES ON  
GLOBALIZATION

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## **Risk, regulation, supervision and crises in the European Banking Union**

Fabiano Colombini\*

**ABSTRACT:** *This paper aims to analyse risk, regulation, supervision and crises in the framework of the European Banking Union, considering commercial banks and the evolution of the banking business.*

*Identification, measurement and management of all the risks linked with the financial instruments and business areas constitute the premises for a sound management. This is the key and strategic issue for banks and financial intermediaries, involving positive results and therefore profits or negative results and therefore losses.*

*Financial crises, particularly severe in Europe over a long period of time starting in 2007, and related economic crises have given rise to non-performing loans spreading through European banks. This paper underlines the need to deal with and to solve this problem, which still has negative repercussions on the economic growth of the European Union mainly because it has meant fewer loans to the economy and especially to small and medium-sized enterprises.*

*The paper pays particular attention to the introduction and spreading of the so-called 'bad bank', which takes the bad assets and at the same time leaves the good assets in the previous bank in a sort of "cleaning up" of the asset side of the banks' balance sheets. The "cleaning up" and the full return to good banks represent the steps towards better conditions for the financing of the economy and economic growth. The greater the rates of return on investments for the good banks in the European Union the better will be the premises for lending.*

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*Regulation and supervision are typical aspects of the complexity and distinctive features of the banks. It is worth pointing out the over implementation of rules and constraints on the banking business and especially on capital levels, which are important from the point of view of covering losses but not from the point of view of a rational and sound management of banking risks and business areas.*

*In this context, the single supervisory mechanism and the single resolution mechanism, which has brought into operation the so-called 'bail-in' from the beginning of 2016, are considered focusing weaknesses and critical aspects for the evolution of commercial banks, singling out confidence risks and instability risks. The financial crises have been the cause of many critical points and instability factors, and the application of the 'bail-in' can recreate financial instability. In the past years, states did spend a large amount of money for rescue purposes and now there is an incorrect use of state aid according to the European Commission interpretation, which considers many cases as state aid when they are not, in fact, state aid. This is misleading as it tends to increase the financial instability risks arising from the application of the bail-in.*

*This paper examines risk management issues in the context of the bank and evolution of the banking business, by focusing on non-performing loans and bad bank to remove obstacles to economic growth on a European scale and, at the same time, on rules and single supervision for the removal of excessive restrictions and its inner irrationality on a European scale, identifying critical points and weaknesses.*

*Such circumstances show remarkable importance where banks' reinforcement is concerned, as well as their capacity to lending credit to the economy, which represents the point of return to satisfactory rates of economic growth in the European countries, particularly the weaker ones.*

*Therefore, this paper aims to analyse relationships between risk management, non-performing loans, regulation, supervision and banking crises in the framework of the European Banking Union, taking into account the bad*



*bank solution, and the bail-in resolution mechanism and focusing critical remarks and guidelines for the future.*

**SUMMARY:** 1. Introduction - 2. Risk and bank - 3. Risk management: function and processes - 4. Risk management: objectives - 5. Enterprise risk management - 6. Evolution of the banking business - 7. Non-performing loans and bad bank - 8. Regulation and supervision - 9. Single supervisory mechanism and bail-in - 10. Final remarks

1. In an increasingly global competitive context which presents several changes and financial innovations, banks are experimenting with risk management.

The net interest income reduction forces bank intermediaries to reinforce the non-interest income through a range of products which is wider and has a higher added value. This causes a broadening of instruments and business areas, with the consequent increase in risks and mutual interrelations.

It is therefore indispensable to have an adequate risk management function which can manage complex factors through processes able to transform risks into profit opportunities. There are, however, two unavoidable elements to take into account in order to achieve this target: competence and tools.

To take a closer look, these are two sides of the same coin as each propels the other. It is worth pointing out that mathematical and statistical knowledge is the *condicio sine qua non* for the carrying out of the tasks attributed to risk managers, but at the same time they have to be supported by adequate human resources. Competence and tools must perfectly align in order to maximise the benefits achievable from their synergies.

Financial engineering has achieved remarkable progress, originating tools for a real leap in quality in the results obtainable through risk management strategies. Among these, the main one is represented by derivatives which, despite their origins dating back a long way, still find wide usage in the bank of to-

day. Their diffusion has been, to say the least, very impressive, as attested by the growth of the markets of reference.

As well as being used for different purposes, the aforementioned financial instruments play a key role in covering risks, there being several hedging techniques in use. In a bank context in which risk management represents the heart of all existing activities, derivatives find an almost natural collocation, to the point that their use has become an almost everyday procedure. Thus follow risk management policies which allow banks to carry on their risk-taking function over financial markets and, at the same time, to use these financial instruments to reduce their risk exposure.

Hence the need for adequate managing skills to prevent negative outcomes related to experimentation with derivatives, as the ratio of assets to capital, as is generally the case in the financial sector, will be very high. It implies the measurement of the leverage including fears of excess of hedging and therefore pursuing in the end not hedging objectives but speculation objectives, increasing and not reducing the range of risks.

2. Risk identification, measurement and management represent the heart of bank enterprises, and the ability to control them in a situation of asymmetric information is a fundamental bank function for the attainment of managing results<sup>1</sup>. Going further into what is meant by risk is not strictly necessary, but it is translated into a determining element to trace precisely the frame of reference for the bank.

In economic theory, risk tends to identify the variability of results around an expected value, and its existence relates to the presence of uncertainty. The latter constitutes a push towards progress, although progress through change generates uncertainty in return. Despite there being a close relation between

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<sup>1</sup>See COLOMBINI, *Intermediari, mercati e strumenti finanziari. Economia e integrazione*, Turin, Utet, 2008; ID., *Financial crises. Where do we stand?*, "Law and Economics Yearly Review", 2, 2012; COLOMBINI - CALABRO', *Crisi finanziarie. Banche e stati. L'insostenibilità del rischio di credito*, Turin, Utet, 2011; ID., *Risk management e derivatives. Strategie bancarie*, "Banche e Banchieri", 4, 2010.



the concepts of risk and uncertainty, it is necessary not to confuse them. This labelling issue has been discussed in economic theory since the beginning of the twentieth century, and only around the 1920s was it given an exhaustive explanation by identifying two different types of uncertainty, characterised by their being measurable (measurable uncertainty) or unmeasurable (unmeasurable uncertainty)<sup>2</sup>.

The verification of a phenomenon and the period of its manifestation are not known beforehand according to clear results, but can carry several values depending on a determined probability distribution. The calculation of probability has to lead to a result other than zero as it would represent a cost and not a risk, and at the same time different from 1 as it would mean a certain event.

Being able to estimate it and identifying as a matter of fact the possible event deviation from the expected value, we can talk about risk, otherwise about uncertainty. Along the same lines are the remarks of other economists, those who believe similarly that it is only risk to constitute an element of investigation in the economic discipline because of its being quantifiable, unlike uncertainty<sup>3</sup>. These assumptions can be seen as part of the neoclassical financial theory, which, since the 1970s, has been supposing the absolute rationality of economic agents, limited only by the lack of knowledge about the possible risk manifestations due to the randomness of events. The spread of studies around the theory of information re-assesses uncertainty, as it tries to take into account the effects of a limited human rationality within a system where the role of information and of its acquisition becomes pre-eminent.

Hence it follows that risk or stochastic variability pertains to the randomness of inner events, where instead uncertainty concerns the lack of knowledge or information. The distinction between risk and uncertainty can seem to be lacking practical outlines, but not if we take into account an interesting con-

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<sup>2</sup>See KNIGHT, *Risk, uncertainty, and profit*, Boston, Houghton Mifflin, 1921.

<sup>3</sup>See ARROW, *Alternative approaches to the theory of choice in risk-taking situations*, "Econometrica", October, 1951; LUCAS, *Studies in business-cycle theory*, Cambridge (Massachusetts), MIT Press, 1981.

sideration according to which choices presuppose distribution of probability depending, at least partially, on subjective elements, so that even in the presence of the same event decisions taken are different according to the operator<sup>4</sup>. This is due not only to the different attitude to risk characterising each individual, but also to the different professional skills in identifying, measuring and managing a specific risk.

It is helpful to underline the importance of bank intermediaries which, thanks to both their resources and their skills, are better able than others to adequately manage risk-related issues.

The binomial risk-bank is something inseparable, which can result in a variety of results depending on the rate of accuracy of the risk assessment process by the risk management function. Despite the association of the common concept of risk solely with the negative side of event distribution - that is, concerning unfavourable situations - in reality the risk factor of a certain scenario can represent an opportunity of revenue compared only to financial, rather than pure, risks.

The importance of risk managers becomes even clearer, as not only can they prevent the destruction of value through correct risk management, but also create it until risk management becomes the real "profit engine" of the bank activity<sup>5</sup>.

3. The true discriminating factor in identifying successful banks lies in the capacity to deal correctly with the evolution of risky phenomena, according to 89 percent of the senior banking executives of the major world banks<sup>6</sup>.

In financial literature it is easy to find two different approaches to this theme: one refers to the organisational description of risk management func-

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<sup>4</sup>See ARROW, *Alternative approaches to the theory of choice in risk-taking situations*, *supra* note 3.

<sup>5</sup>See MASERA - MAZZONI, *Una nota sulle attività di risk e capital management di un intermediario bancario*, "Quaderno di Ricerca", 62, Rome, Ente Luigi Einaudi, 2007.

<sup>6</sup>See ERNST & YOUNG, *Basel II. The business impact. Global Basel II Survey*, "Research Paper", 2006.



tion, the other more related to the processes which the latter causes<sup>7</sup>. In reality, organisation and processes are two sides of the same coin, as it is only through their correct co-penetration that the best results can be achieved.

Risk management by a bank intermediary implies the function of risk management. Located in the organisation chart as an autonomous unit, the risk management function is related to the whole organisational structure in a transversal way, acquiring strategic information from the top management and gathering information from each single business unit to identify risk exposure, about the suitable levels of capital to allocate and about any critical issue relating to any of them. In the first instance we could define "top down" the processes affecting it, as in fact they are traced by the board of directors. Though not completely wrong, this consideration needs to be reformulated, because the definition of certain strategies implies the strict relation between the board of directors and risk management.

Strategies cannot avoid considering the capacity of risk managing on specific financial instruments and business areas, because otherwise it would be possible to start a determined operation in the wake of a great commercial idea without then being able to manage the critical issues related. It is a *modus operandi* which does not give sufficient value to the theme of risk, even though for years this has represented the way many banks work. The current context does not allow the top management to start any strategic operation without considering risk management peculiarities, both for the exponential increase in the range of risks and for the acquired awareness of correct risk management in the production of value.

The role attributed to the latter can be seen as that of a crossroads. It represents the main barycentre of the whole complex structure of the banking organisation chart<sup>8</sup>.

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<sup>7</sup>See SCHROEK, *Risk management and value creation in financial institutions*, New York, Wiley, 2002.

<sup>8</sup>See BESSIS, *Risk management in banking*, New York, Wiley, 2015.

Its being autonomous allows the risk management function not to be linked to a specific business. This makes it possible to approach risk management from an integrated perspective. Setting a determined area to control each risk factor is not in fact farsighted because due to the possible correlations among the different factors, this would only cause more expense, and also lose its evaluative effectiveness.

In risk management, and in all related capital allocation issues, it is necessary to take into account the processes linked to the management of risk:

1. identification;
2. measurement;
3. monitoring and reporting;
4. management.

As may be readily guessed, the execution of strategies implies the preventive risk identification for their measurement and management<sup>9</sup>. This consideration might seem banal, but very often in operational practice it is from this first step that difficulties arise. Often the polyhedral nature of banking activity means that a single operation can be subject to several risks which can be confusing. The correct match between risks and business lines represents a key element to risk management success<sup>10</sup>.

Each identified risk has to be classified according to event frequency and potential impact, this being an important reference parameter for the final passage: management itself. During identification and classification all data are gathered and organised into informative databases. This sets the following risk measurement, the heart of the whole process quantifying the risk exposure of the business units and of the bank as a whole. Usually the tendency is to make what risk managers do coincide with this activity, following for each one a particular logic which makes risk analyses which tend to follow during the life of a

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<sup>9</sup>See MIKES, *Risk management and calculative cultures*, "Management Accounting Research", March, 2009.

<sup>10</sup>See MASERA, *Rischio, banche, imprese*, Milan, Il Sole 24 Ore, 2005.



bank homogenous and comparable. This is done with the introduction of *ex-ante* screening and *ex-post* monitoring.

Monitoring allows one never to lose track of the risk exposure of single business units, constantly allocating the correct amount of capital and identifying for each the most appropriate risk-return profile according to the targets fixed by top management.

It is necessary not to disregard the reporting phase which provides useful information to risk managers, with results coming from the adopted measurement system. This allows accurate assessment of the whole process and the correction of any gaps. As can be understood, risk management activity is something dynamic which needs to take shape according to market scenarios and related risk-events, following the bank business in its entirety<sup>11</sup>.

4. Risk management plays a role of primary importance in the creation of value in bank intermediaries. As can be imagined, the focal issue in the understanding of the importance of such a complex - and thus so proportionally expensive - structure, is to identify the benefits.

To understand the logic connecting the production of value to risk management, it is necessary to consider the reason which prompts a bank intermediary to deal with risk management, and even more about the pursued targets. The latter are contained in the following categories:

1. adoption of the most appropriate strategy for risk management;
2. reduction of the variability of economic outcomes;
3. capacity for a suitable response to stakeholders' expectations.

The most appropriate strategy for risk management implies the link between risk management and the production of value which can come down to whether or not to hold a certain risk in the balance sheet. On this matter, with special regard to the capital level for supervisory purposes, being able to assess

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<sup>11</sup>See CROUHY - GALAI - MARK, *The essentials of risk management*, New York, McGraw-Hill, 2014.

the convenience of holding a specific risk suggests to the bank the adoption of diametrically opposite managing strategies. The moment a specific critical issue is analysed, it becomes fundamental to understand its cost in terms of capital and - above all - the possible benefits.

This phase, despite being inserted in the risk identification, measurement and management process, involves elements of monitoring and reporting. It should be noted that a good deal of the costs to be borne with the acquisition of a certain risky position is related to its control *ex-post*. This further expense needs to be added therefore to the initial evaluation, and parameterised to the possible scenarios capable of influencing the position in question.

With regard to the supply of management skills, the overall cost of a risk-taking strategy needs to be estimated, and the more skills the bank proves to have with regard to that specific business risk, the lower the cost that will result. However, there are risks for which a taking strategy will turn out to be more expensive than a covering derivative strategy. In such contexts it is necessary to have recourse to the practice of hedging. One can understand that the dynamic modelling between risk taking and risk covering allows the activation of a flexible and dynamic managing policy, which can optimise capital and producing value<sup>12</sup>.

Thus, risk identification and management, transfer and removing choices are related to the bank management strategic competences with regard to the financial instruments, business areas and operations to be considered central for the bank intermediary mission. The final decision is something which tends to incorporate both business strategy and risk strategy, which need to operate together in order to achieve the solution that best suits the bank in question.

Risk management activity, as empirical evidence makes clear, has a deep impact on the reduction of cash flow and profit volatility. The way strategies whose aim is the reduction of serious financial shocks arising from financial markets are set tends to ease the potential losses which, as well as eroding

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<sup>12</sup>See CULP, *Risk transfer: derivatives in theory and practice*, New York, Wiley, 2004.



profit margins, cause instability in the worse scenarios, with heavy repercussions on investing strategies<sup>13</sup>.

The fact that there are fewer resources available to lend credit means that the main bank activity is penalised, with all the effects that may result. As in a vicious circle, such a circumstance has repercussions on the profits and on the level of the bank's competitiveness. Not only does the bank experience a rise in the cost of the funds' raising for the market's confidence deterioration, but – in the search for a higher net interest income – tends to the increase of the bank's lending interest rates, with the effect of - once again - losing existing customers and not acquiring potential ones. The conclusion of all this is that the bank's level of competitiveness tends to decrease, and with it the production of value.

Therefore the effects of a mismanaged risk trigger mechanisms and impacts which are not limited to the current procedure, but basically produce effects - and this is the worst aspect - also in the medium and long term.

If there is not an adequate risk management system, not only do cash flows and profits erode due to the losses attributed to an underestimated risk, but it is also necessary to cascade a revision of the business strategies projected to intervals of a much larger scale. The reduction of cash flow and profit variability is a primary target which can be achieved only with a sound risk management.

There are a number of categories of stakeholders to whom risk managers, so to speak, need to find answers. Considering that the bank institution's target is value maximisation, the first to be affected by risk reductions are the shareholders. To confirm this, it is enough to consider that in rating each single bank's performance, more and more often risk-adjusted performance meas-

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<sup>13</sup>See GATZERT - SCHMEISER - SCHUCKMANN, *Enterprise risk management in financial groups: analysis of risk concentration and default risk*, "Financial Markets and Portfolio Management", 3, 2008.

urement (RAPM) indicators are used, which identify in the risk adjustment the discriminating element in a comparison among different banks.

It would be pointless to consider on equal terms two banks which imply completely differing risks, because in this case we would not approach the logic at the base of different investing strategies played out by operators with different risk profiles. Even in this case an adequate risk management system becomes the determining factor to align shareholders' performance expectations to the actual achieved results.

As indicated, the reduction in profit volatility is a primary target for a bank that wants to be competitive in financial markets, so much so that many authors aim at this reduction to achieve the maximisation of value<sup>14</sup>. This aspect may not be equally important for all types of shareholders. For instance, especially for the so-called scalpers, a higher exposure to the bank risks would increase the profile risk-return and would better fit an investing logic which is purely speculative and oriented to the short term. With regard to this, considering a small portion of shareholders, it is to be believed that risk reduction and profit stabilisation are key elements for a correct response to the majority of shareholders' expectations.

The maintenance of a certain risk profile permits the achievement of a financial reputation to all stakeholders, a critical factor for success in banking. The activity in question arises from the idea of trust, and the lack of this, caused by an increase of default probabilities, can lead to a decrease in the standard business areas.

One might think, for instance, of a depositor who feels there is a problem in the financial solidity of his own bank, and even before ascertaining the possible seriousness of the situation, he hurries to the cashier's desk to withdraw what he has previously deposited. A correct and sound risk management represents the founding element of a bank which wants to enjoy a healthy relationship with all its stakeholders.

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<sup>14</sup>See ROUHY - GALAI - MARK, *The essentials of risk management*, *supra* note 11.



5. Models which can be framed into enterprise risk management (ERM) lead to an integrated risk approach, pursuing more effectively the following targets<sup>15</sup>:

- a. more efficient capital allocation to single business units;
- b. identification of the relations between various risks and the performances achieved by the various areas of banking business;
- c. better planning and control of banking and financial products which include many and complex risks focusing the attention on an active monitoring of the interrelations.

Integrated risk management allows a relation between the concept of value and the concept of regulatory capital. Basel III application maintains a risk-based approach between allocation of capital and risk. This risk-based logic brings with it a re-think of the whole organisational and managing structure, which needs to be moulded in order to effect more manageable and flexible risk management actions. The strict link between the function in question and the internal audit needs to find its maximum expression in the ERM.

Risk becomes, as it were, the key variable retracing the whole organisational and management structure of the control procedures. Risk management and internal audit are two sides of the same coin onto which management and event control give continuous feedback between resources' cost and means' expense and their effectiveness. Such a relationship becomes the crucial element on which to base bank strategies and managing policies, especially in order to re-mould those controls which proved to be inadequate and/or reinforce them if they already successfully support the evolution of the intermediary's capacity of operation. The truly crucial element to achieve all this is something that goes beyond risk management function and processes. This is the spread-

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<sup>15</sup>See BESSIS, *Risk management in banking*, *supra* note 8; NOCCO - STULZ, *Enterprise risk management: theory and practice*, "Journal of Applied Corporate Finance", 4, 2006.

ing of a "culture of risk" such as to ensure that its management is not just a problem for risk managers.

Starting from the board of directors, each single area of the bank management must follow risk-based logic, regardless of the fact that a specific function is set for this target. It is possible to produce data and information giving risk managers an exhaustive picture of the risk exposure of the intermediary in question. With regard to this, it becomes essential to have an integrated informative system and operators capable of adjusting it to changeable demands due to the evolution of different economic and operational contexts, for the success of the risk management process.

A continuous flux of information moving like a circulatory system delivers to the heart of the structure - the risk management function - all the necessary elements to put into effect an adequate risk management policy. Without information it is not possible to plan, let alone set quantitative studies to confine uncertainty, the same way neoclassicists intended it, to an *epsilon* percentage of the own entire exposure to stochastic variability. It is thus necessary to produce as much significant data as possible.

Hence, the fundamental role of human resources, so that each person's skills, from the board of directors to the front office, can become critical factors in the success of the process of risk identification, measuring and management. The professional capacity to put into place small precautions in order to eliminate further risk sources is crucial.

Identification, measuring and management of those risks which burden financial instruments and business areas of each bank carry substantial importance in a context of profit achievement strategies in the medium and long term, regardless the regulatory measures that need to be complied with.

6. Banks pursue the objective of expansion of on and off-balance sheet instruments and volumes over time in order to create the premises for profits and positive performance. Banking balance sheets have grown rapidly in a low



interest-rate environment and in the presence of a surge in innovative instruments<sup>16</sup>.

Traditionally, banks take deposits and make loans to individuals and firms (commercial banking). Some banks engage in underwriting, dealing, market making of securities and derivatives, management of personal and real estate property, consultancy, mergers and acquisitions, financial planning, custody and administration of securities, intermediation and selling of securities, derivatives, investment trusts and real estate investment trusts, pension funds and insurance policies (investment banking).

The growth of the banking business has underlined the shift from commercial banking to investment banking, and therefore an increase in the range of risks and in total risk. The process of identification, measurement and management of risks is of crucial importance in creating and maintaining conditions for profits and solvency. The above mentioned shift is evident when looking at the assets side, the liabilities side and income sources as the share of net interest income falls and non-interest income rises<sup>17</sup>.

The universal model in the banking sector combines commercial banking with investment banking and can be regarded as a critical issue for managing risks at a sustainable level for the individual institution and for the whole financial system.

Large banks tend to apply the universal banking model in the European Union (EU) for production diversification and also for risk diversification, adopting jointly the instruments of commercial banking and investment banking. Moreover, the expansion of business areas leads to a corresponding increase in the range of risks, with the result that risk management assumes a progressively more significant role. As a consequence of the links among different business areas, a bank may encounter difficulty in estimating its total

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<sup>16</sup>See RICHARDSON - SMITH - WALTER, *Regulating Wall Street: The Dodd-Frank Act and the new architecture of global finance*, New York, New York University Stern School of Business, 2010.

<sup>17</sup>See *High-level expert group on reforming the structure of the EU banking sector* (chaired by Erkki Liikanen), Final Report, Brussels, October 2, 2012.

risk exposure; accordingly, many banks engage in risk transfer as a practice for management of asset classes at higher credit risk.

The systematic use of this practice has negative repercussions on the two classical banking activities: screening and monitoring. Screening and monitoring reduce or, in a very optimistic assumption, completely eliminate the problems, respectively, of information asymmetry *ex-ante* and, therefore, of adverse selection, and the problem of information asymmetry *ex-post* and, therefore, of moral hazard.

Screening and monitoring activities, together with the information content of bank loans, the uncertainty of return and of the value of their assets, and the “certainty” of remuneration and of the value of their liabilities, as well as the specific nature and depth of financial transformation, underline the importance of banks and, at the same time, highlight their differences in comparison with other financial intermediaries<sup>18</sup>.

A considerable number of banks have undertaken the development of business areas which are parallel to the classical areas of raising and lending funds. Many of these developments frequently involve high leverage areas, as in the case of derivatives<sup>19</sup>. Restoring rational choices in the context of commercial banks constitutes a requirement for medium and long period financial stability, with less importance awarded to growth of their capital.

Over time, the dealing and market making of securities and derivatives and proprietary trading have become increasingly important. There has also been a remarkable growth in derivatives, especially in the over the counter (OTC) market<sup>20</sup>. Since the beginning of the third millennium, securitisation

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<sup>18</sup>See COLOMBINI, *Intermediari, mercati e strumenti finanziari. Economia e integrazione*, *supra* note 1.

<sup>19</sup>See COLOMBINI, *Strumenti derivati e intermediari finanziari*, “Rivista Bancaria - Minerva Bancaria”, 1, 1999; COLOMBINI, *Strumenti fuori bilancio negli intermediari bancari. La recente esperienza italiana*, “Rivista Bancaria - Minerva Bancaria”, 4, 2004; COLOMBINI - CALABRO, *Risk management e derivatives. Strategie bancarie*, *supra* note 1.

<sup>20</sup>Regarding macroeconomic implications of derivatives, see SAVONA, *Sugli effetti macroeconomici dei contratti derivati. Dieci lezioni*, Rome, Luiss University Press, 2010; OLDANI, *Governing global derivatives. Challenges and risks*, Aldershot (Hampshire), Ashgate, 2008.



markets have grown rapidly and created the shadow banking system, built up essentially by special purpose vehicles (SPVs) and structured investment vehicles (SIVs).

A large recourse to leverage and, at the same time, the development of the phenomenon of the shadow banking system<sup>21</sup> imply avoidance in capital requirements, in a bank context, through the constitution of off-balance sheet vehicles. These latter in particular run up debts on the market of commercial papers such as short-term securities, and use the achieved resources to purchase long-term securities, such as asset-backed securities (ABS). The difference between purchased securities return and the cost of financing through commercial papers, creates grounds for the attainment of profits to special purpose vehicles.

Changes and innovations in rules should be accompanied by adequate levels of controls on bank practices of regulatory avoidance through off-balance sheet instruments (OBSIs). For banks, the shadow banking system represents one of the main ways in which vast quantity of risk generated and transferred is rendered opaque<sup>22</sup>. It is important to bring greater transparency into financial intermediaries' balance sheets, above all as regards OBSIs, which, in the light of financial crises on a global scale, highlight the irrationalities in the management of banks.

In this framework, the subprime mortgage financial crisis causes negative repercussions, because the liquidity crisis hitting banks does not allow special purpose vehicles to satisfy their continuous demand for re-financing through commercial papers.

It is worth pointing out that the paralysis of asset-backed securities markets, due to the collapse of the real-estate market and of the underlying

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<sup>21</sup>See CLAESSENS - POZSAR - RATNOVSKI - SINGH, *Shadow banking: economics and policy*, "IMF Staff Discussion Note", December 4, 2012; GORTON - METRICK, *Regulating the shadow banking system*, "Brookings Papers on Economic Activity", Fall, 2010; STEIN, *Securitization, shadow banking, and financial fragility*, "Daedalus", 4, 2010.

<sup>22</sup>See POZSAR - ADRIAN - ASHCRAFT - BOESKY, *Shadow banking*, "FRBNY Staff Reports", 458, 2012; *Global shadow banking monitoring report 2012*, FSB, November 18, 2012; *Green paper shadow banking*, Brussels, European Commission, March 19, 2012.

asset characterising these securities, does not allow special purpose vehicles to raise funds to cope with their short-term commitments.

In their desire to reassure the markets of the commercial papers, banks are forced to re-enter the special purpose vehicles assets and the enormous losses recorded in the balance sheet perimeter. Repercussions are devastating and banks experience heavy writedowns both on the lending portfolio and the financial instruments portfolio, recording losses and bank failures.

National responses to financial and economic crises, together with years of waste in public resource management, cause a rise in public expenditure and imbalance in the principal Western countries' public accounts, leading the way to sovereign debt crisis. Essentially this means credit risk for the country due to the non-payment of its debt maturity (debt default), or the intervention of an international financial authority, such as IMF, to adjust deadlines and amounts of those payments as defined in the debt contract (debt restructuring)<sup>23</sup>.

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<sup>23</sup>Regarding financial crises see, among others, ACHARYA - PHILIPPON - RICHARDSON - ROUBINI, *The financial crisis of 2007-2009: causes and remedies*, "ACHARYA V., M. RICHARDSON (eds.), Restoring financial stability: how to repair a failed system", New York, Wiley, 2009; ADRIAN - SHIN, *The changing nature of financial intermediation and the financial crisis of 2007-2009*, "Annual Review of Economics", 2, 2010; ALLEN - CARLETTI, *An overview of the crisis: causes, consequences and solutions*, "International Review of Finance", 1, 2010; ARTETA - HALE, *Sovereign debt crises and credit to the private sector*, "Journal of International Economics", 1, 2008; BERNANKE, *The crisis and the policy response*, Speech, LSE, London, January 13, 2009; BLANCHARD - DELL'ARICCIA - MAURO, *Rethinking macroeconomic policy*, "IMF Staff Position Note", February 12, 2010; BOCCUZZI, *Towards a new framework for banking crisis management. The international debate and the Italian model*, "Quaderni di Ricerca Giuridica", 71, Rome, Banca d'Italia, 2011; BOLTON - JEANNE, *Sovereign default risk and bank fragility in financially integrated economies*, "NBER Working Paper", 16899, 2011; BROWN, *Beyond the crash. Overcoming the first crisis of globalization*, London, Simon and Schuster, 2010; CALABRIA, *Did deregulation cause the financial crisis?*, "Cato Policy Report", 4, 2009; CAPRIGLIONE - SEMERARO, *Crisi finanziaria e dei debiti sovrani. L'Unione Europea tra rischi e opportunità*, Turin, Utet, 2012; CASSIDY, *How markets fail. The logic of economic calamities*, New York, Farrar, Straus and Giroux, 2009; CLAESSENS - DELL'ARICCIA - IGAN - LAEVEN, *Cross-country experiences and policy implications from the global financial crisis*, "Economic Policy", 62, 2010; COLOMBINI, *Crisi finanziarie e risk management. Rilievi critici*, "Rivista Trimestrale di Diritto dell'Economia", 4, 2011; COLOMBINI - CALABRO', *Crisi finanziarie. Banche e stati. L'insostenibilità del rischio di credito*, supra note 1; COOPER, *The origin of financial crises. Central banks, credit bubbles and the efficient market fallacy*, Petersfield, Harriman House, 2010; CRESCENZI, *Propagazione ed effetti della crisi finanziaria sull'economia reale*, "CRESCENZI (ed.), La crisi mondiale. Storia di tre anni difficili", Rome, Luiss University Press, 2010; DAVIES, *The financial crisis. Who is to blame?*, Cambridge, Polity Press, 2010; DOWD - HUTCHINSON, *Alchemists of loss. How modern finance and government intervention crashed the financial system*, Chichester, Wiley, 2010; DUFFIE, *How*



7. Financial crises imply the absolute importance of risk management, which becomes applicable to different sectors, both private and public.

Thus, the subprime mortgage financial crisis brings to light the inadequate credit risk management produced by the banking system, which initially originates negative consequences for the financial system and subsequently for the economic system.

Similarly, the sovereign debt crisis stresses the unbalanced public finance management characterised by the widespread use of debt, together with subprime mortgage financial crisis impact for public resources aimed to the rescue of banks and financial systems, raising critical issues due to the increasing level of credit risk borne by sovereign states which, at the same time, initially produces negative repercussions on public issues and, as a result, on the fluctuations in value of the financial instrument portfolios of financial intermediaries.

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*big banks fail and what to do about it*, Princeton, Princeton University Press, 2010; EICHENGREEN, *Ten questions about the subprime crisis*, "Financial Stability Review", Banque de France, 11, 2008; ESTRELLA - SCHICH, *Sovereign and banking sector debt: interconnections through guarantees*, "OECD Journal: Financial Markets Trends", October, 2011; *Financial crisis inquiry report. Final report of the National Commission on the causes of the financial and economic crisis in the United States*, January, 2011; FRANKE - KRAHNEN, *The future of securitisation*, "CFS Working Papers", 31, 2008; FRATIANNI, *Financial crises, safety nets and regulation*, "Rivista Italiana degli Economisti", 2, 2008; FORNASARI, *I dati e gli insegnamenti della crisi finanziaria USA*, "Economia Italiana", 1, 2009; GEITHNER, *Stress test. Reflections on financial crises*, New York, Penguin Random House, 2014; GOODHART, *The background to the 2007 financial crisis*, "International Economics and Economic Policy", February, 2008; HALDANE, *Why banks failed the stress test*, Bank of England, February 2009; HUBBARD, *The failure of risk management: why it's broken and how to fix it*, Hoboken (NJ), Wiley, 2009; MARCONI, *Le origini e la diffusione della crisi finanziaria: evidenze teoriche ed empiriche*, "CRESCENZI (ed.), La crisi mondiale. Storia di tre anni difficili", Rome, Luiss University Press, 2010; MASERA, *Financial turbulence and the capital standard paradigm: a sequel*, "MASERA (ed.), The great financial crisis. Economics, regulation and risk", Rome, Bancaria Editrice, 2009; MISHKIN, *Over the cliff: from the subprime to the global financial crisis*, in "NBER Working Paper", 16609, 2010; REINHART - ROGOFF, *This time is different. Eight centuries of financial folly*, Princeton, Princeton University Press, 2011; SHILLER, *The subprime solution. How today's global financial crisis happened and what to do about it*, Princeton, Princeton University Press, 2008; SORKIN, *Too big to fail*, New York, Viking, 2009; SPAVENTA, *Economists and economics: what does the crisis tell us?*, "PAGANETTO (ed.), Global crisis and long term growth: a new capitalism ahead", Milan, McGraw-Hill, 2010; STIGLITZ, *Freefall. America, free markets, and the sinking of the world economy*, New York, Norton, 2010.

The readjustment of public accounts produces a tax increase and/or a reduction in the public expenditure. It is right to stress that policies for the rebalancing of public accounts cause a recessive push economically, essentially in the period between 2007 and 2014 in the European context, implying a loss estimated in several percentage points of GDP, despite differences among European countries. It is a loss in wealth which becomes practically irrecoverable, and stresses a negative aspect: public accounts rebalancing operations in a financial and economic crisis context imply negative results economically.

In Europe, public accounts rebalancing policies generate economic recessions over several years, with a slow recovery phase which started towards the end of 2013. Economic recessions contribute over time to an increase of non-performing loans (NPLs) in a commercial banking context, causing the credit crunch. The economic consequences show that the credit crunch performed by banks on their customers hard tests the companies' investments, with the logical consequence of sharpening the forces of recession.

Credit crunch reduction is linked with NPLs divestiture processes and to processes for the creation of bad banks on an internal or external level for the recovery of better and optimal lending conditions for families and enterprises. The price applied in credit lending divestiture distinguishes between unsecured credit and mortgage credit, respectively being lower and higher.

A bad bank implies the creation of state-owned or private companies for the use of capital in bad assets purchase from troubled banks, cleaning up their balance sheets and assessing the congruity of their purchase price. Regarding this, a company constituted for bad banking activities implies either a definite public equity presence, feeding the list of public companies, or a definite private equity presence, thus feeding off-balance sheet vehicles.

A bad bank postulates the identification and the net partition between bad assets and good assets, simply because bad assets are separated and transferred into the assets of the constituted company, whereas good assets



stay in the existing company's assets, introducing a clear distinction between bad bank and good bank.

A bad bank represents an intervention repeatedly carried out in those countries affected by the effects of the world financial crisis experienced since 2007. At the same time, it establishes an intervention which is being carried out in several countries around the world, because it introduces clarity and different ways of risk management activity, in the context of a recovered bank (good bank) and of a surviving bank (bad bank) which now incorporates all negative and problematic items from the past management of what used to be a single bank.

It is worth specifying that bad banking activity does not represent a sole right for bad banks, because, in the evolution of financial crises, central banks carry forward repeated purchases of government securities and toxic assets in the context of unconventional measures, thus contributing to the placement of government securities and of the recovery of the negative situation of bank balance sheets.

These are interventions which cause a considerable increase in the volume of assets and, at the same time, cast light and shadows over the central banks from the standpoint respectively of a hypothetical value increase or of a hypothetical value reduction due to the presence of financial instruments of high or low quality in their assets.

Applications of Basel III and additional corrections imposed by the European Central Bank (ECB) and by the European Banking Authority (EBA) simply lead to the bank capital reinforcement in the economic, financial and capital situation which is being pictured at the time of the period in question, without giving any "guarantee" for the increase of intermediated and production volumes and, at the same time, for the keeping or improvement of the surplus revenue over costs and the achievement of adequate levels of profits in the future.

Taking a closer look, the weakness of many banks makes economic recovery slower and more complex for single countries and on a European scale, because the presence in assets of non-performing loans and more so of toxic securities tends to the absorption of greater capital, thus comparatively reducing monetary resources allocated for lending to the economy. It is worth to point out the importance of rational decision-making in the selection and control of loans to customers.

On a European level, in order to reinforce economic growth, the creation of a number of bad banks for the ultimate cleaning up of balance sheets in each country is a measure to pursue, creating again more favourable conditions to loans, especially to small and medium-sized enterprises, and therefore to economic development.

The importance of a check-up of European banks' balance sheets needs to be stressed, identifying deteriorated credit levels and toxic securities, and, at the same time, the cleaning requirements - as it were - for single countries and on a global level, adopting private or public initiatives for the creation of bad banks and the restoration, by contrast, of good banks.

This fulfils financial stability targets and particularly targets for the foundation of the best conditions for economic development simply because good banks go back to performing their traditional task, that of raising and lending funds to the worthiest enterprises. Even in the worst hypothesis, where, in some cases, there might be the necessity of using public resources, the pursued economic outcomes would be superior by far to public resources expenditure.

Moreover, in past experiments the creation of bad banks - even when using public resources - does not necessarily produce a negative outcome for states, simply because the recovery of economic development causes a value re-adjustments even in bad assets, within bad banks. At the same time, also, the final net result can turn positive after some time.



8. The application of Basel III is inspired, as in the past, by prudential logic<sup>24</sup>, stressing progressive corrections and inadequacies in regulatory measures in the European context.

The transition to Basel III shows that the previous Basel I and Basel II regulations proved to be inadequate and unable of preventing the birth and the effects of subprime mortgage financial crisis and the sovereign debt crisis, which produced serious repercussions on financial stability and economic growth.

The application of Basel III implies compliance with capital requirements indicated as equals for all banks and checked and reformulated in several cases by the supervisory authorities through additional corrections, thus increasing the impact on capital.

Balance sheet assets and off-balance sheet instruments, even when classified, are considered for subsequent evaluation and inclusion in the denominator for the capital requirement calculation.

Ratings are used to assess the credit worthiness of borrowers who approach a bank and become customers. The application of ratings leads to the creation of different classes and different weighting coefficients, ranging from low values for not particularly risky loans to increasingly high values for risky loans, raising capital requirement differences.

The risk-based approach postulates the subdivision of the loans portfolio into different classes. For each class or class set ratings intervals are identified, which imply the application of increasingly high weighting coefficients at the worsening of the associated rating interval.

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<sup>24</sup>Basle III has introduced higher and better levels of capital, in the framework of risk-weighted assets, and, at the same time, the liquidity risk and the leverage to be implemented progressively over time. It can thus be regarded as based on a prudential approach. That does not exclude additional capital corrections for the banks which are subject to inspections and stress tests on the basis of the European Central Bank (ECB) indications and also of the European Banking Authority (EBA) guidelines. Accordingly, this can be regarded as adopting a discretionary approach highlighting overlapping and excessive regulations, and uncertainties for banks in the EU.

Thus the loans portfolio is split into different classes and class sets for the inner application of percentage weighting coefficients on the basis of rating assignments.

The bank's choices should be set according to rigorous principles, selecting the best customers for their positive effects on the credit risk, the lightest impacts on capital absorption and, therefore, the best stimulations for intermediated and production volumes.

Therefore, with equal rating interval, the uniform coefficient approach does not take into account this non-homogeneity in loan diversification which is often important for the resulting credit loss effects and the consequent impact on the economic account and on capital.

The types of capital ratios, and adherence thereto, sometimes necessitates a forcing in management choices. Their imposition has spread in various countries, mainly aiming at stability through internal reinforcement in crisis situations.

Taking a closer look, capital ratios neither eliminate nor lower corporate risks, which can even endure increases; these merely create the premises for the reduction or the elimination of losses occurring in negative events.

Capital ratios meet the need for prediction and allocation of an adequate level of capital, essentially for negative impacts and losses caused by credit, market and operational risks. Capital is considered the main aid to commercial banking stability and solidity for three main reasons: absorption of asset value fluctuation, stabilisation of financing sources and absence of contractual remuneration constraints<sup>25</sup>.

The main target for supervisory authorities is the setting of higher capital levels in relation to higher risk levels of financial instrument types, thus reducing

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<sup>25</sup>See BERGER - HERRING - SZEGO, *The role of capital in financial institutions*, "Journal of Banking and Finance", June, 1995; PECCHIOLI, *Prudential supervision in banking*, Paris, OECD, 1987; PRINGLE, *The capital decision in commercial banks*, "Journal of Finance", September, 1974; TAGGART - GREENBAUM, *Bank capital and public regulation*, "Journal of Money, Credit and Banking", May, 1978.



the incentive for moral hazard risk. Indeed, the effects of capital ratios on moral hazard are not entirely uniform, diverging according to the theoretical model followed.

Real guarantees, personal guarantees, credit derivatives and balance sheet compensations stress credit risk mitigation and, thus, benefits for the estimation of capital requirements.

Capital coefficients imply the calculation of ratios between the regulatory capital and balance sheet asset and off-balance sheet instrument types, appropriately risk-weighted considered. The total capital used is greater than the strict capital account, including not only the real capital but also any subordinated debt. Indeed, subordinated debts are bound to periodical remuneration, and subject to repayment obligation.

The standardised model on credit risk postulates the partition of balance sheet assets and off-balance sheet instruments even into classes for the following application of the weights established by the supervisory authorities in the same way for all banks.

Reactions and behaviours of individual banks are very different, and this finds weak justification in the uniform and generalised capital ratios application for issues depending upon the lack of assessment of each instrument on the portfolio risk, and also to the identical weight assigned to different loans within the same class.

It also follows that achieved results consider initial starting situations which postulate different levels of capital and different levels of composition of business areas and instruments.

Each class incorporates diversity in the instruments and in the composition of customers, at the same time originating risk differences. In addition, the degree of correlation between different asset instruments is not taken into account, ignoring the postulates of diversification<sup>26</sup>.

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<sup>26</sup>See GRENADIER - HALL, *Risk-based capital standards and the riskiness of bank portfolios: credit and factor risk*, "Working Paper Series", 5178, Cambridge (Massachusetts), National

The different capacity of individual banks in creating a diversified lending portfolio is not taken into account<sup>27</sup>.

An ideal system should consider the increase in risk to the portfolio for the introduction of assets instead of limiting itself to a mere capital addition, appreciating correctly the risk associated with different financial instruments.

Even individual banks' capacity to select and monitor loans to customers is neglected, despite the existence of differences in methods and choices which influence the concrete risk of the single loan and the portfolio as a whole. A uniform coefficient application does not take into account these differences in risk screening and risk monitoring, which often prove to be fundamental in the subsequent credit loss and consequent impact on the economic account.

It also needs to be specified that in the light of the theory of information asymmetries, the position of individual bank intermediaries for news and data collection and in the production of information is necessarily very different, thus feeding higher or lower costs. Significant are the ways of creating and keeping customer relations and the bank size in producing information and costs related to this, indicating strengths and weaknesses in the comparison and in the competition with other similar intermediaries.

Therefore classes are rather broad; they do not take into account the existence of diversification, do not take into account the benefits of methods of screening and monitoring, present substantial static elements and are essentially identified for the creation of conditions of control performed by supervisory authorities.

At the base of the internal models there is the value at risk (VaR), which constitutes the maximum potential loss over a financial instruments portfolio in

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Bureau of Economic Research, July, 1995; SANTOMERO, *The bank capital issue*, "WIHLBORG - FRATIANNI - WILLETT (eds), Financial regulation and monetary arrangements after 1992", Amsterdam, North-Holland, 1991; SHAEFER, *The design of bank regulation and supervision: some lessons from the theory of finance*, "PORTES - SWOBODA (eds), Threats to international financial stability", Cambridge, Cambridge University Press, 1987.

<sup>27</sup>See COLOMBINI, *Intermediari, mercati e strumenti finanziari. Economia e integrazione*, *supra* note 1, p. 196.



a precise time interval, calculated assuming a determined probability. VaR considers the impact on the value of each single financial instrument of the variations in market factors, such as interest rates and exchange rates.

The internal model on credit risk, in the evolution of rules, introduces internal ratings for the appreciation of balance sheet assets and off-balance sheet instruments. This model reflects evaluations and calculations from individual banks and makes necessary the approval of supervisory authorities.

The internal model presupposes individual banks' best capacity for risk appreciation and management, in comparison with the standardised model, drawn and imposed by supervisory authorities. The problem lies in the trade-off evaluation, among setting and realisation expenses, together with consequent capital constraints on one side and benefits inherent in the best risk management on the other.

This model allows VaR calculation, identifying individual banks' credit risk exposure and, therefore, the amount of capital, following the indications provided by supervisory authorities for construction and operation.

Therefore, the identification of individual banks' best position in credit risk measurement and control does not imply a restriction in the role of supervisory authorities, always committed to an *ex-ante* and *ex-post* control of the characteristics and results of banks' internal models.

The internal model of market risks, in turn, postulates the best capacity of individual banks' risk appreciation in comparison with the standardised model drawn by supervisory authorities. The issue lies in the joint appreciation of setting and realisation expenses and consequent capital constraint on one side and benefits inherent in best management of risk on the other.

This model permits VaR calculation which identifies the market risk exposure for individual banks, and, therefore, the capital amount, complying with the indications provided by supervisory authorities for construction and operation. A central issue lies in the imposed requirements check which proves to be very complex, feeding outflanking possibilities and lack of capital growth. Such a

circumstance raises the issue of introducing capital ratios for uniform application, and, at the same time, of a simple check by supervisory authorities<sup>28</sup>.

The pre-commitment approach means a solution to the capital requirement issue, left unresolved by those models based purely on VaR application. Such a model allows the preventive definition of capital, necessary to cover negative impacts caused by market risks, calculating exactly the potential loss<sup>29</sup>.

This model postulates the identification of the time period and the level of potential loss, and presupposes the application of bank penalties for those which encounter errors, essentially reflecting canons and internal needs. The introduction of penalties and time intervals for the check should create the necessary incentives for a correct and rational setting. The pre-commitment approach detaches itself from previous approaches and allows full freedom in individual banks' choice of parameters<sup>30</sup>.

Moreover, the application of the pre-commitment approach presupposes the solution of some aspects, such as penalty modalities, check frequency and consequent penalties introduced by supervisory authorities, isolated or joint use of other models, possible link between potential loss predetermination and capital growth<sup>31</sup>.

The process of financial innovation must also be taken into account, and, in particular, financial instruments for credit and market risk coverage, such as swaps, options and futures, have to be adequately included in the set of rules.

More generally, the different levels of trust and benefit of risk management raise different strategic answers, inherent in the changed balance sheet

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<sup>28</sup>See BLISS, *Risk-based bank capital: issues and solutions*, "Economic Review", Federal Reserve Bank of Atlanta, September-October, 1995.

<sup>29</sup>See KUPIEC - O'BRIEN, *A pre-commitment approach to capital requirements for market risk*, "Finance and Economics Discussion Series", 36, Washington (D.C.), Board of Governors of the Federal Reserve System, July, 1995; ID., *The pre-commitment approach: using incentives to set market risk capital requirements*, March, 1997; CONSIDINE, *Pilot exercise-Pre-commitment approach to market risk*, "Economic Policy Review", October, 1998;

<sup>30</sup>See SIRONI, *An analysis of banks market risk management and its implications for capital regulation*, "Working Papers", Milan, Bocconi University, October, 1996.

<sup>31</sup>See BLISS, *Risk-based bank capital: issues and solutions*, "Economic Review", Federal Reserve Bank of Atlanta, September-October, 1995



assets and off-balance sheet instruments for the reduction of potential loss and/or for the growth of capital which is suitable for their coverage.

The performance considers the achieved results in different business areas. It tends to the construction and analysis of a series of financial, capital and economic indicators, and in particular, the focus on profits.

In this regard, the contraction in the net interest income pushes bank intermediaries to reinforce their non-interest income through a larger range of products. This causes an extension in instruments and business areas, and the consequent increase in risk range and mutual interrelations.

Also necessary is a complete revision of corporate governance bank models, as well as a turnover of top management, raising the level of professional competence and capacities with the introduction of people capable of evaluating accurately the risk-return relation in the medium and long term.

The various Basel I, Basel II and Basel III tend to increase the compliance costs of individual banks, and, at the same time, of the organising of inspection work while disregarding the fact that banks differ greatly when small and medium in comparison with the largest. The issue for banks is the use of rational and rigorous methods for the management of business areas and correlated risks, from the viewpoint of producing profits in the short, medium and long term.

The focus on increasing capital is not the correct approach, because it uses a unitary attitude, the "one size fits all" approach<sup>32</sup> to banks which are deeply different in their various business areas and risk range. Rules essentially consider a loss coverage issue through an adequate capital level, and this is a very different matter from an actual ability of management the entire risk range.

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<sup>32</sup>See BLISS, *Risk-based bank capital: issues and solutions*, *supra* note 28, p. 34: "The 'one-size-fits-all' approach implicit in the standard model approach does not reflect the diversity of portfolios and strategies that exist. Neither is it likely to keep up with changing circumstances. Portfolio positions change rapidly, requiring real time monitoring".

The increase in capital demands imposed by regulation and supervision in corrective measures tends to the reduction of the capacity to lend to the economy, and does not introduce improvements to risk management.

The most important issue for the bank is the accurate and rational ability to identify, measure and manage the entire risk range, strictly related to business areas and instruments for a positive impact on profit production and on simple and risk-adjusted performance indicators.

It is in the coordination of ideas and actions on a European level that it becomes possible to improve the potential of financial and economic systems, reducing the global imbalance between creditor and debtor countries which can feed worrying geopolitical tensions.

During phases of increases in return rates demanded by the market over state issues in peripheral countries, the negative impact on public expenditure tends to aggravate the fragility of public budgets, creating a sort of vicious circle<sup>33</sup>.

Implicit or explicit state guarantees for "too important to fail" banks and other financial institutions constitute liability items in the public budget. They can be regarded as put options in the context of contingent claims analysis (CCA), showing value fluctuations in connection with value changes in the assets of banks and financial intermediaries. It follows that financial crises intensify the intricate interconnections between states, banks and financial intermediaries,

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<sup>33</sup>In this respect, the progressive adoption of measures for the improving of the financial crises in individual countries reduces tensions on financial markets. This finds its evidence in the reduction of the spreads between public bonds of individual countries and German bonds, using as the main parameter a ten-year maturity period.

ECB initiatives in providing liquidity to European banks and in experimenting with quantitative easing (QE) tend to consolidate peripheral countries' achieved results in the gradual reduction of spreads, which implies an inflow of liquidity to European banks and their support to the purchase of public bonds and also to lending credit to enterprises.

This fits into the abatement of the malignant spiral of increased costs of public refinancing and of public interest expenditure, because it goes in the opposite direction of cost reduction and public interest expenditure reduction.



leading to the application of implicit or explicit guarantees in the different countries<sup>34</sup>.

It is difficult to quantify the value of implicit guarantees, which varies over time; a decrease in implicit guarantees can be explained by declining sovereign strength, by more effective bank failure resolution regimes and practices or by lower perception of the systemic risk<sup>35</sup>. It should be noted that implicit guarantees imply an undesirable close link between the value of banks and sovereign debt. They also imply a significant funding cost advantage for banks that benefit from them, giving rise to competitive distortions, excessive risk-taking, and misallocation of resources<sup>36</sup>.

Improvements in risk management can be regarded as reducing the value of implicit guarantees and thus reducing the close link between the value of banks and sovereign debt. This can represent a positive premise against the onset of new financial crises in the future.

The application of the bail-in from 2016 in the context of the European bank crises is tending to the reduction of value of implicit guarantees but not to their nullification, state aid being an extreme remedy, always applicable to the "too-important-to-fail" banks, and therefore to the onset of a systemic risk.

9. The creation of the banking union in Europe, applying uniform criteria for supervision over banks through the single supervisory mechanism (SSM) and, at the same time, uniform criteria for the bank crisis resolution through the

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<sup>34</sup>See GRAY - MERTON - BODIE, *A new framework for analyzing and managing macrofinancial risks of an economy*, "NBER Working Paper", 12637, 2006.

<sup>35</sup>See SCHICH - LINDH, *Implicit guarantees for bank debt: where do we stand?*, "OECD Journal: Financial Market Trends", 1, 2012; SCHICH - KIM, *Developments in the value of implicit guarantees for bank debt: the role of resolution regimes and practices*, "OECD Journal: Financial markets trends", 2, 2012; NOSS - SOWERBUTTS, *The implicit subsidy of banks*, "Financial Stability Paper", 15, Bank of England, May, 2012.

<sup>36</sup>See COMMITTEE ON THE GLOBAL FINANCIAL SYSTEM, *The impact of sovereign credit risk on bank funding conditions* (Study group chaired by Fabio Panetta of the Bank of Italy), "CGFS Papers", 43, BIS, July, 2011; *High-level expert group on reforming the structure of the EU banking sector*, *supra* note 17; SCHICH - LINDH, *Implicit guarantees for bank debt: where do we stand?*, *supra* note 35.

single resolution mechanism (SRM), is introduced in a single and reinforced supervision perspective.

The creation of the banking union and ECB asset quality review (AQR) experimentation on significant European banks lay the foundations for uniform analysis and risk assessment ways for banks in Europe.

Public debt reduction through privatisations with revenues designed to cut down the public debt, or the creation of a public real estate investment fund which leads to the purchase of assets divested by the state or public entities, anticipating immediately resources to the state equally cutting down public debt, would constitute a structural change in a very positive key.

The single supervisory mechanism is carried forward by an integration between a supranational authority, the European Central Bank and national competent authorities (NCA) of individual countries of the European Union (EU), essentially following a single set of standards and requirements.

The single supervisory mechanism presupposes the ECB direct supervision over significant banks, and therefore of large dimensions, which are around 120 units, representing almost 85 percent of its total banking assets, and the NCA supervision over the less significant banks in collaboration with the ECB, and therefore of small and medium sizes, which are around 3500 units.

The single supervision postulates control over bank capital ratios on the basis of Basel III application, and control over economic, financial and capital trends to identify problematic situations in their initial phase and, at the same time, the development of asset quality review and of stress tests to identify weaknesses in the event of particularly adverse situations.

The single supervision is created by the European Central Bank and the national competent authorities of the individual countries in the EU for the performance of specific tasks of prudential supervision. Such tasks presuppose the testing of loans, investments and raising funds for the impact on costs and revenues, on liquidity, on capital and leverage.



The single supervision is carried on by the supervisory board. Hence the task and structure difference within ECB, between the conducting of the monetary policy and single supervision, which sometimes provides indications which do not conform particularly closely.

The single supervisory mechanism has become necessary because, on the basis of the recent financial and bank crises in Europe, simple coordination between single central banks has not proved to be satisfactory in the light of operations outside national borders, hence the need to ensure financial stability.

The creation of SSM has happened together with the SRM, managed by the single resolution board (SRB) and the single resolution fund (SRF), fed by the banks and the projected single scheme for deposit guarantee.

The substantial novelty in bank crisis management is represented by the bail-in<sup>37</sup>, which implies the aid of shareholders and bank creditors including subordinated and straight bonds for the coverage of serious losses and the rescue of the bank in question. In the event of severe economic, financial and capital instability, account holders could run the risk of losing their deposits which exceed one hundred thousand, even if this is a rather remote hypothesis. States can intervene with their financial aid only in an extreme and residual hypothesis.

It needs to be emphasised that, in the case of a very large cross-border bank or in the event of a systemic crisis, the bail-in will not remove the need for public support of funds<sup>38</sup>.

The bail-in presents critical aspects from different standpoints in the EU banking context. First of all, it is rather problematic, even for the most careful saver, to have the right indications to assess and correctly follow the bank's

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<sup>37</sup>See BART, *Regulatory capital requirements and bail in mechanisms*, "HAENTJENS - WESSELS (eds.), Research Handbook on Crisis Management in the Banking Sector", Cheltenham, Edward Elgar Publishing (UK), 2015; BOCCUZZI, *The European banking union. Supervision and resolution*, London, Palgrave Macmillan, 2016; SOMMER, *Why bail in? And how?*, "Economic Policy Review", Federal Reserve Bank of New York, March, 2014.

<sup>38</sup>See AVGOULEAS - GOODHART, *A critical evaluation of bail-in as a bank recapitalisation mechanism*, "Discussion Paper Series", 10065, CEPR, July, 2014.

economic, financial and capital evolution, there being an issue of informative asymmetry which is not resolvable<sup>39</sup>.

In the second place, we need to consider the confidence crisis which hits savers in the event of crisis and bank failure, and which can become difficult to control, with negative repercussions<sup>40</sup>.

In the third place, it is conceivable that the bail-in and the onset of crisis and bank failure tend to the contraction of the channel of banking bonds for the fund raising, thus causing significant damage to monetary resources flowing to the bank with medium-to-long term maturity and, therefore, used typically for medium-to-long term loans towards investments for EU small and medium-sized enterprises.

In the fourth place, the drying up of the channel of banking bonds has negative repercussions on the bank's financial balance for the hypothesised lack of medium-to-long term monetary resources.

For the above reasons, the bail-in tends on one side not to burden the cost of the crises and bank failures on state budgets, and on the other to introduce aspects of financial instability.

For these reasons, the bail-in constitutes a set of rules which must be changed radically. The basic impression is that the critical aspects of the bail-in have been neither assessed nor simulated. It is enough to point out that, in the event of a confidence crisis by savers hit by the failure of a bank of significant size, the spread and extension to other banks could carry serious implications for bank intermediaries and financial markets, raising the issue of state intervention.

In the drafting of the bail-in there are economic and financial elements which seem to have been ignored. Thus in the event of crisis, or worse, of bank failure, the most immediate aspect and which, on the basis of what has been

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<sup>39</sup>See COLOMBINI, *Intermediari, mercati e strumenti finanziari. Economia e integrazione*, *supra* note 1.

<sup>40</sup>See AVGOULEAS - GOODHART, *A critical evaluation of bail-in as a bank recapitalisation mechanism*, *supra* note 38.



concluded above, is of fundamental importance, leads to irrational choices carried out by the management, and in particular, by risk management. Towards shareholders and bank creditors, there have been from the start and will remain over time informative asymmetries which do not allow an accurate appreciation of the economic, financial and capital conditions of the bank in question.

Therefore, in a crisis or bank-failure event, the responsibility falls primarily on the administrators especially at the high bank levels which take choices regarding instruments, bank business, bank areas and risk management. Thus a sort of automatism should be introduced in the application of financial penalties by the supervisory authorities to the administrators especially at the top level of the bank in question to "fix" the damage on the basis of new and more severe rules, and at the same time, relating to the hypothesis of evidence of crisis and bank failure.

Due to the fact that recent financial crises have dramatically focused attention on the negative impact on banking and on the economy of crises and failures in the banking context, anticipation and creation of various precautionary funds fed through a percentage of administrators' high salaries to be used in the event of crisis or bank failure, and to be returned in the event of no crisis or bank failure, would represent a tool against any morally hazardous behaviour. Administrators especially at the top level are always responsible for crisis or failure, and therefore the bail-in should be heavier and more incisive on the category in question.

The bail-in has been introduced to ensure that, in future, banking crises have a lighter effect on taxpayers, and do not raise public expenditure. The modalities with which resolution authorities limit the development of liabilities which are truly aligned with future losses, affect the freedom of choice of a bank's management. Thus, the single resolution board defines the minimum requirement for own funds and eligible liabilities (MREL) for the various banks in the EU.

The application of the bail-in, considering the use of interbank deposit protection funds for individual countries as a state aid, lacks any economic and legal foundation, while there remain internal resources created by individual countries' banks for the resolution of problematic crises arisen within individual bank systems. Regarding this, the recent application of the new mechanism for the bank resolution to the four failed banks in Italy is emblematic. Furthermore, such prohibition of use, imposed on a European scale, produces negative effects on savers, extending the contribution they are asked for to the resolution of the bank, and thus acting on confidence crises and alarm elements among savers, who are still taxpayers even though a smaller number compared with the country's overall taxpayers.

There being a control and an imposition by supervisory authorities with regard to the volume of bonds compared to the potential level of losses, such a circumstance means an external restriction of the choices for the liability composition.

Bail-in repercussions of potential crises of confidence, of potential drying-up of the channel of banking bonds, of potential worsening of banks' financial balance, of potential reduction in investments' lending, imply critical elements and suggest a complete revision and a radical change.

It is worth pointing out that ECB alone cannot create strong premises for economic development in Europe, because political choices are necessary which could go towards structural economic reforms in the short term and towards much more solid integration, removing all sources of uncertainty affecting finance and economics<sup>41</sup>.

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<sup>41</sup>See, among others, ANDENAS - SUPINO, *Politics and finance with reference to the European institutional frame*, "Law and Economics Yearly Review", 1, 2015; CAPRIGLIONE - SACCO GINEVRI, *Politics and finance in the European Union*, "Law and Economics Yearly Review", 1, 2015; McCORMICK, *The influence of politics on regulatory and cultural change in the financial sector after the financial crisis: a UK perspective*, "Law and Economics Yearly Review", 1, 2015.



10. In this context, a few indications and remarks in the European banking, financial and economic system emerge:

- skills and tools are very important in the activity of risk management, considering the positive impact on profit pursuit or the negative impact on loss event;

- capital adequacy is to be taken into consideration for the choice of the composition of assets and for the absorption of losses produced only in the event of irrational choices, and, in particular, in the event of risk management presenting weaknesses in setting and management;

- credit risk in a banking context must be well managed and kept to low levels, acceptable in the light of related and yet still broad negative impacts for choices tending towards risk increase;

- the joint development of commercial banking and investment banking in banks provides opportunities for profit and, at the same time, for loss only in the event of irrational risk management;

- the dimension and length of economic crises are strictly related to the rise and effects of financial crises, thus to the requirement for adequate short-term initiatives in contrast to recessive economic pushes;

- the wide range of NPLs in banking due to the financial crises and related economic recessions generates the credit crunch towards enterprises, especially those of small and medium sizes, thus a need for the progressive reduction of NPLs essentially experiencing loan sales and EU-wide bad-bank creation, returning to more favourable conditions for loan granting and economic development;

- importance of uniform criteria for risk analysis and evaluation, and, especially, for credit risk through asset quality review, stress tests and inspections carried out by ECB single supervision through European banks;

- importance of public debt levels for individual states and therefore the demands for privatisations and selling public assets to cut down public debt, recreating margins to support the economy for the decrease of interest expen-

diture already being reduced in many countries due to the contraction of return and interest rates as a consequence of conventional and unconventional measures adopted in Europe – especially the quantitative easing of the ECB;

- reduction of rules and additional corrections with regard to the bank capital for the decrease in the costs of compliance;

- return of more freedom and discretion in the choices of European banks, with the introduction of a widespread pre-commitment approach in risk management contexts;

- importance of analysis and comprehension of the bail-in negative aspects, and therefore deep and radical change of the rules applied through the bail-in within the EU;

- political choices in the economic and financial field which take into account the importance of the timing of their adoption and consequent impact which, even if considered positive, tend all the same to fade when in the presence of indecision and uncertainties;

- the plainest example is given by economic recessions which have gripped as it were the majority of economies of various members of the EU for an overall period of eight years, including the subprime mortgage financial crisis and the sovereign debt crisis, starting in 2007 until 2014 and beyond, having found political answers in an economic and financial mode which were not particularly effective in the course of time and not very different from the German model of austerity, with obvious results in a European context.