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IN DEFENSE OF THE NATURAL AND INDECLINABLE ORDER OF THE MARKET AND LAW

HOW TO AVOID FUTURE GLOBAL BANKING CRISES: A *NEW SUPERVISORY PARAMETRIC BANKING ARCHITECTURE IN A CYBERSPACE CONTEXT* BASED ON THE THESIS OF A "HIDDEN NEXUS" BETWEEN CONTRACTS AND THE SOCIAL CONTRACT AND ITS LIMIT IN THE *NEMINEM LAEDERE* PRINCIPLE (OR THE "THEORY OF THE GAMING TABLE")

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To my daughter *Vittoria*
and my mother *Vincenza*

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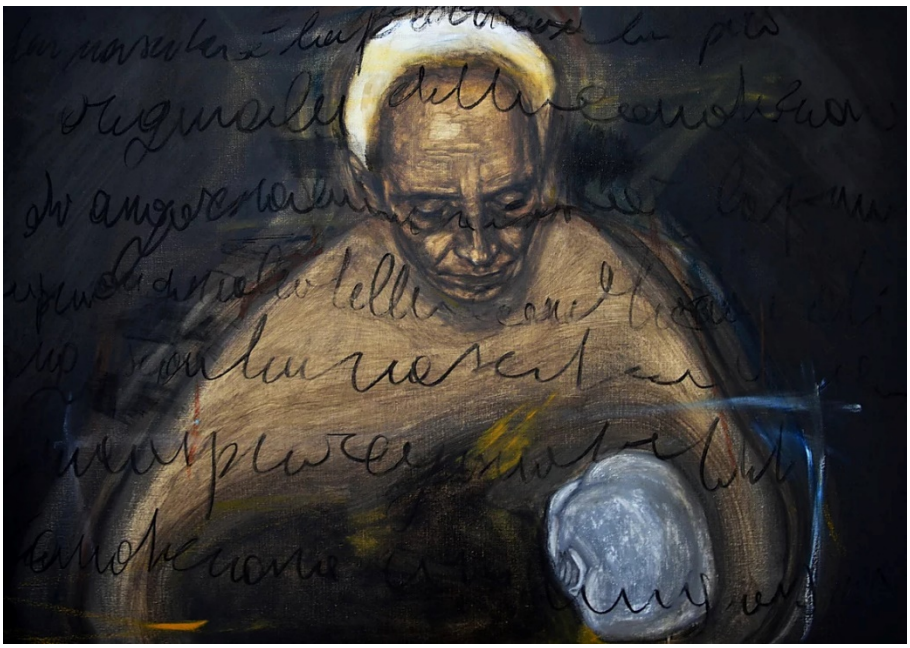
«Homo sum, humani nihil a me alienum puto»

Publius Terentius Afro



A. ROMANO, *Studio di due figure*, tecnica mista su tela, (olio, carbone, bitume, pastelli ad olio), 70x100 cm, 2018, available at www.antonellaromano.org/opere

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Abstract

There is no market[1], there are human beings and their reciprocal interactions that shape the contract. The market is a set of contracts. And it is precisely in the contract that the great crisis has its origin; in particular, in the conclusion of contracts at high risk of default by one contractor or the other: in this case, the so-called subprime mortgage contract. Also, the spread of the crisis took place through a long chain of contracts at high risk of default, which actually occurred (the domino effect), as they were contracts concluded in a situation of conflict of interest. Therefore, the origin of the crisis is typical of private law.

The real cause of banking crises, most recently the global one, is not to be found in the "economic system" or in the "regulatory system" but in the human being, in the will that is its own and which is expressed through the contract. This is why ethics or morals, considered as elements of the inner will, contribute to the formation of a "good" contract (which is based on the inner will that takes shape).

When seeking the solution to the problem of global crisis, before constructing expensive reforms with uncertain effects - and in the impossibility of carrying out an appropriate "cost-benefit" analysis - the legislature's investigation should therefore focus on one immutable constant in time and space, that is, the source of the market: the contract,

[1] Such assumption builds on the statement by Margaret Thatcher during an interview granted to Women's Own on 23 September 1987: «The society does not exist», or to be more precise, «there is no such thing as society. There are individual men and women, and there are families». And, she also added «And no government can do anything except through people, and people must look after themselves first. It is our duty to look after ourselves and then, also, to look after our neighbours», see M. THATCHER, *Interview for Woman's Own*, 23 September 1987, available at https://www.margaretthatcher.org/document/106689

and in this case, on its formation and its enforcement (Hobbes); neither affecting contractual autonomy nor creating imbalances between the contracting parties (see *bail-in*).

The market as a "nexus of contracts", for its part, does not violate the foundations on which the interactions between men occurred: the Social Contract theorized by Jean-Jacques Rousseau, not considered as a sum of the will of the individual, but as a general will that substantiates in the common good. It is the "natural and indeclinable order" of which the philosopher and jurist Gian Domenico Romagnosi wrote in his unpublished work.

Based on this assumption and on the laws of nature, particularly on some principles at the basis of Albert Einstein's theory of relativity and the equally natural preservation instinct mentioned by Hobbes, we attempt to theorize the existence of an "implicit nexus" between the contracts concluded by the *homo mercati* and the Social Contract which consists in the prohibition of violating the maximum limit, that is the principle of *neminem leadere* in space and time.

In order to make the risk of default "systemic" it is necessary for it to spread and contagion only spreads through contract. This, in fact, is the "gaming table theory", or rather the structural collapse of the same. So the negative external effects produced by contracts should not be such as to *contaminate* (Coese) and destroy the game table: otherwise, there would be the structural failure of the same that overcomes each element - equipped with artificial intelligence that we imagine operates through it - and therefore every *homo mercati* that operates on it.

The gravity force that in Einstein's general theory of relativity changes the spatio-temporal level deforming it, is represented precisely

by the legislature, that sometimes regulates aspects that negatively affect the contractual balance between the parties, creating information asymmetries and moral hazard (this is, for example, the case of the *bail-in*). Moreover, the closer the limit of maximum violation of the principle of *neminen laedere* in space and time, the more the intervention of the public regulator and the State is perceived as urgent and necessary.

Therefore, information plays a key role: it is the vaccine against future crises. And we can imagine that the pillars of the European Banking Union - particularly, the analysis conducted on the first, the Single Supervisory Mechanism - are replaced by a "building" based on a system of parametric banking supervisory architecture - in this instance, represented by Zaha Hadid's "Galaxy SOHO", realized in China - where information can flow smoothly, at light speed, with the use of quantum computers that will appear in the near future.

Furthermore, it is theorized that the first and basic informational asymmetries be demolished: those created by language. Therefore, we can also imagine the creation of a common artificial language that allows translating every act (law of a state, contract) automatically, immediately and perfectly in all official written languages: a common code that everyone can dispose of and that can enable everyone to learn what happens in a given country in their own language. True democracy consists in accessing information and being able to impact on reality. This would also lead to a spontaneous harmonization between legal systems, due to another law governing human nature: imitation (Jung).

Furthermore, starting from the analysis of the central risk mechanism of the Bank of Italy, within that same "building", a system is assumed, which is capable of reporting, and therefore isolating in

advance any operator who, accepting too high a risk, jeopardizes the health of the banking enterprise and of the whole system. The tool providing knowledge of the state of health is offered by the operators themselves on a voluntary basis, starting from disclosure of budget and of any information that concerns them and that they may consider important to communicate.

The sanction arises in the two-fold meaning identified by Gian Domenico Romagnosi: on the one hand, as reputational discredit which is a primary deterrent – that supplements private sanctions, if provided for, or state sanctions, in lack of the former - and on the other hand, as a positive boost for more virtuous operators - not only in the economic sphere - by giving visibility to their positive activities, in order to create new trends.

Finally, it is believed that the symbol of Justice in the *Hypnerotomachia Poliphili* of 1499, as shown below, represents the printed *reductio ad unum* in the equilibrium of that Indeclinable Order (or Social Contract) that men, and with them, the Law, must preserve.

F. Colonna, *Hypnerotomachia Poliphili*, Aldo Manuzio, 1499, p. 249, available at https://marciana.venezia.sbn.it/sites/default/files/repositoryfile/mostre-virtuali/aldo-al-lettore/polifilo.pdf

Abstract (Italian version)

Non esiste il mercato[2], esiste l'uomo con le sue interazioni che prendono forma nel contratto. Il mercato non è che un insieme di contratti. Ed è proprio nel contratto che la grande crisi affonda la propria origine; in particolare, nella conclusione di contratti ad alto rischio di inadempimento di un contraente o dell'altro: nel caso di specie, i c.d. contratto dei mutui *subprime*. Anche la diffusione della crisi è avvenuta attraverso una lunga catena di contratti ad alto rischio di inadempimento, poi prodottosi (c.d. effetto domino), conclusi in presenza di conflitto di interessi. L'origine della crisi è nel diritto privato.

La causa reale delle crisi bancarie, da ultimo quella globale, non è da rinvenirsi nel "sistema economico" o nell'"impianto regolatorio" ma nell'uomo, nella volontà che gli è propria e che manifesta all'esterno attraverso il contratto. Ecco perché l'etica o la morale, intese quali componenti della volontà interiore, contribuiscono alla formazione di un "buon" contratto (che si sostanzia nella volontà interiore che prende forma).

Nel cercare la soluzione al problema della crisi globale, prima di edificare riforme costose e dagli effetti fin troppo incerti - e nell'impossibilità di effettuare una appropriata "cost-benefit" analisi -

[2] L'assunto è mutuato dalla nota affermazione di Margareth Thatcher in un'intervista del 1987 a Women's Own del 23 Settembre: «The society does not exist», più precisamente, «there is no such thing as society. There are individual men and women, and there are families». Inoltre, aggiunge «And no government can do anything except through people, and people must look after themselves first. It is our duty to look after ourselves and then, also, to look after our neighbours», M. THATCHER, *Interview for Woman's Own*, 23 September 1987, https://www.margaretthatcher.org/document/106689.

l'indagine del legislatore dovrebbe dunque ricadere su quell'unica costante immutabile nel tempo e nello spazio che è madre del mercato: il contratto, e nella specie, sulla sua formazione e sul relativo *enforcement* (Hobbes); non incidendo sull'autonomia contrattuale e neppure creando squilibri tra le parti contraenti (si veda il *bail-in*).

Il mercato quale "nexus of contracts", da parte sua, non ha da violare il substrato sul quale l'interazione degli uomini si realizza: il Contratto Sociale teorizzato da Jean-Jacques Rousseau, inteso non come somma delle volontà dei singoli ma come volontà generale che si sostanzia nel bene comune. È «l'ordine naturale indeclinabile» di cui scriveva il filosofo e giurista Gian Domenico Romagnosi in una sua opera inedita.

Partendo da tale assunto e dalle leggi della natura, in particolare da alcuni principi alla base della teoria della relatività di Albert Einstein e all'altrettanto naturale istinto di conservazione di cui parla Hobbes, si giunge a teorizzare l'esistenza di un "nesso implicito" tra i contratti posti in essere dall'*homo mercati* e il Contratto Sociale che consiste nel divieto di violazione del limite massimo del principio del *neminem leadere* nello spazio e nel tempo.

Il rischio di inadempimento, affinché diventi "sistemico", è necessario che si trasmetta e il contagio avviene attraverso il contratto. È in ciò che si sostanzia la "teoria del tavolo da gioco", o meglio del cedimento strutturale dello stesso. Per cui le esternalità negative prodotte dai contratti non devono essere tali da "inquinare" (Coese) fino a distruggere il tavolo da gioco: in caso contrario vi sarà il cedimento strutturale dello stesso che travolgerebbe ogni pedina - dotata di intelligenza artificiale che immaginiamo che su esso si muova - e dunque ogni *homo mercati* che sullo stesso agisce.

La forza di gravità che nella teoria della relatività generale di Einstein modifica deformandolo il piano spazio-temporale, è rappresentata proprio dal legislatore che, talvolta, disciplina aspetti che interferiscono negativamente sulla bilancia dell'equilibrio contrattuale tra le parti, creando asimmetrie informative e *moral hazard* (è questo ad esempio il caso del *bai-in*). Inoltre, quanto più si è vicini al limite della massima violazione del principio del *neminen laedere* nello spazio e nel tempo, tanto più il regolatore pubblico e l'intervento dello Stato sono avvertiti come urgenti e necessari.

L'informazione gioca pertanto un ruolo chiave: è il vaccino contro le future crisi. Ed è perciò che si immagina che i pilastri dell'Unione bancaria europea - in particolare l'analisi è condotta sul primo, il Meccanismo Unico di Vigilanza - vengano sostituiti da un edificio che si fondi su un sistema di architettura parametrica di vigilanza bancaria - nella specie, rappresentato dal «Galaxy SOHO» di Zaha Hadid, costruito in Cina - in cui le informazioni possano scorrere in modo fluido, a velocità della luce, con l'utilizzo di computer quantici che popoleranno il futuro.

Si teorizza, inoltre, l'abbattimento delle prime e basilari asimmetrie informative esistenti: quelle create dal linguaggio. Si immagina pertanto la nascita di un comune linguaggio artificiale che consenta di tradurre ogni atto (legge di uno stato, contratto) automaticamente, immediatamente e perfettamente in tutte le lingue ufficiali scritte: un codice comune di cui tutti possono disporre e che consenta a tutti di conoscere nella propria lingua ciò che accade in un dato paese. La vera democrazia è nel possesso di informazioni e nel poter agire sulla realtà. Ciò condurrebbe, inoltre, ad una spontanea armonizzazione tra ordinamenti giuridici, dovuta ad un'altra legge che permea la natura umana: l'imitazione (Jung).

Inoltre, partendo dall'analisi del meccanismo della centrale dei rischi di Banca d'Italia, si ipotizza all'interno di quello stesso edificio, un sistema con cui possa essere segnalato e dunque isolato (trave di Gerber), in via preventiva, quell'operatore che, assumendo troppo rischio, mette a repentaglio la salute dell'impresa bancaria e dell'intero sistema fino ad immaginarne gli effetti positivi che ne derivino. Lo strumento di conoscibilità dello stato di salute è offerto dagli operatori stessi volontariamente: dal bilancio e da ogni informazione che li riguardi e che ritengano importante da comunicare.

La Sanzione si pone in essere nella doppia accezione individuata da Romagnosi: come discredito reputazionale da un lato, quale deterrente primario - che affianca le sanzioni private, se previste, o, in mancanza, statali - e incentivo positivo dall'altro per gli operatori più virtuosi - non solo in ambito economico - attraverso la pubblicizzazione delle loro attività positive, così da crearne una nuova moda (Don Giussani).

Il simbolo della Giustizia *nell'Hypnerotomachia Poliphili* rappresenta la *reductio ad unum grafica* dell'equilibrio di quell'Ordine indeclinabile (o Contratto Sociale) che l'uomo e con esso il diritto hanno da preservare.

F. Colonna, *Hypnerotomachia Poliphili*, Aldo Manuzio, 1499, p. 249;
https://marciana.venezia.sbn.it/sites/default/files/repositoryfile/mostre-virtuali/aldo-al-lettore/polifilo.pdf

Chapter I: The Premises. The importance of communication; the person as the architect of market; the unmodifiable order in Romagnosi's point of view; the rule-makers "syndrome of Laius"

Summary: 1. Introduction: the importance of complete and accurate communication and the difficulties related thereto; 2. The mistake of believing in a universally applicable legal system; 3. The person as the architect of the market and of its related crisis; 4. The systemic crisis and the importance of looking for effective disincentives against the immoral behaviour of individuals "shielded" by banks 5; From the "Natural Political Law" as "unmodifiable order" in Romagnosi's point of view to the human - "Economic Financial Crisis".

1. Introduction: the importance of complete and accurate communication and the difficulties related thereto

Most problems, both small and major, arise from incorrect or incomplete communication or information[1]. At times,

[1] See, e.g., F. S. MISHKIN, *Understanding Financial Crises: A Developing Country Perspective*, (edited by) M. BRUNO - B. PLESKOVIC, in *ABCDE 1996*, Washington D.C., 1997, pp. 29–62; starting from the role that asymmetric information plays in a financial system, the author analyzes banking and financial crises in developing countries. See also J. H. HAHM – F. S. MISHKIN, *The Korean Financial Crisis: An Asymmetric Information Perspective*, in *Emerg. Mark. Rev.*, vol. 1. issue 1, Elsevier, May 2000, pp. 21–52, available at https://linkinghub.elsevier.com/retrieve/pii/S1566014100000030. «The major barrier to the financial system performing this job properly is asymmetric

misunderstandings are caused by the different meanings a word can have in different countries or contexts[2]. This is especially true when we

information, the fact that one party to a financial contract does not have the same information as the other party, which results in moral hazard and adverse selection problems». Concerning the relationship between information and market abuse see, e.g., Regulation (EU) No 596/2014 of the European Parliament and of the Council of 16 April 2014 on *market abuse (market abuse regulation)* and repealing Directive 2003/6/EC of the European Parliament and of the Council and Commission Directives 2003/124/EC, 2003/125/EC, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014R0596; recently supplemented by European Commission (UE) 2016/958 of of 9 March 2016; in particular No. 7 «Market abuse is a concept that encompasses unlawful behavior in the financial markets and, for the purposes of this Regulation, it should be understood to consist of insider dealing, unlawful disclosure of inside information and market manipulation. Such behaviour prevents full and proper market transparency, which is a prerequisite for trading for all economic actors in integrated financial markets». And further, Article 17, «Public disclosure of inside information», No. 1 «An issuer shall inform the public as soon as possible of inside information which directly concerns that issuer. The issuer shall ensure that the inside information is made public in a manner which enables fast access and complete, correct and timely assessment of the information by the public and, where applicable, in the officially appointed mechanism referred to in Article 21 of Directive 2004/109/EC of the European Parliament and the Council. The issuer shall not combine the disclosure of inside information to the public with the marketing of its activities».

[2] See R. BORGIA – B. CAVALLO, *L'interpretazione Giuridica Tra Intuizione e Logica: La Complessa Metodica per La Ricerca Scientifica Della Veritas*, (edited by) G. DALLA TORRE - C. MIRABELLI, in *Verit. e Metod. Giurisprud.*, Vatican City: Libreria Editrice Vaticana, 2015, p. 127. «Any externalization of human thought, which translates into a "sign", poses the problem of its interpretation: in this sense, the Greek term *ermeneia*, as an explanation or unveiling of something hidden and obscure, is absolutely compatible with the Latin *interpretatio*, which is understood in the modern era also as a mental, always creative operation, which takes on a «sacramental character, a revelation of truth (Paresce)». See also B. LEONI, *Freedom*

and the Law, Liberty Fund Inc., 1991, pp. 545–557. «Abraham Lincoln, in a speech at Baltimore in 1864, recognized both the difficulty of defining "freedom" and the fact that the Civil War between the North and the South was based, in a way, on a misunderstanding related to that word. «The world» he said, «has never had a good definition of the word "liberty" […] In using the same word, we do not mean the same thing». In fact, it is not easy to define "freedom" or to be aware completely of what we are doing when we define it. If we want to define "freedom" we must first decide the purpose of our definition»). See B. LEONI*, op. cit.,* pp. 585-589 «Should uncertainty arise about the meaning of our words, it would be sufficient, in order to eliminate the misunderstanding, simply to point to the thing we are naming or defining. Thus, two different words referring to the same thing and used respectively by us and by our listener would prove equivalent. We could substitute one word for the other, whether we speak the same language as our listener (as we do in the case of synonyms) or different languages (as we do in the case of translations) ». See also S. GRUNDMANN, *The Structure of European Company Law: From Crisis to Boom*, in *EBOR*, vol. 5. issue 4, 27 December 2004, pp. 601–633, available at http://link.springer.com/10.1017/S1566752904006019. The author argues that «Diversity [in the European Union System] clearly requires information. Therefore, the second core element of the structure of European company law consists of disclosure rules».

have to define an abstract concept like "ethics"[3], "law"[4], "responsible leadership"[5], "international financial regulation"[6], "banking crisis"[7],

[3] See G. VISENTINI, *Etica e Affari : Una Prospettiva Giuridica*, Rome: Luiss University Press, 2005, p. 21, «We often use ethics or morals in an interchangeable manner. In fact, ethics is the Greek word deriving from ethos, customs and that Latin translates as *moralis*, deriving from *mos*, which also indicates customs. Ethics and moral have the same etymology and meaning, as also acknowledged by the dictionary».

[4] See P. CATALA, *Les Lois Du Marché*, in *Études Offer. à Jacques Ghestin. Le Contrat Au Début Du XXIe Siècle*, vol. LIV. issue 1, L.G.D.J, 2002, pp. 204–206, available at https://www.persee.fr/doc/ridc_0035-3337_2002_num_54_1_17869. «La loi est un terme polysémique. Tantôt elle formule une norme émise par l'autorité juridique compétente: c'est la loi du droit. Tantôt elle résulte de relaxions nécessaires, constatées antre des fait scientifiques: ce sont le lois naturelles. Tantôt elle décrit les effets probables habituellement attachés à des rapports interpersonnels : ce sont les lois économiques et sociales ».

[5] See D. S. SIEGEL, *Responsible Leadership*, in *Acad. Manag. Perspect.*, vol. 28. issue 3, Academy of Management, August 2014, pp. 221–223, available at http://journals.aom.org/doi/10.5465/amp.2014.0081. The co-editor highlights the current debate regarding how to define «responsibility leadership». He defines «responsibility» in terms of the manager's fiduciary responsibility to maximize profit and shareholder wealth. He argues that «managers have an obligation to deploy the firm's resources as efficiently as possible». For an opposing viewpoint see D. A. WALDMAN, *Moving Forward with the Concept of Responsible Leadership: Three Caveats to Guide Theory and Research*, in *J. Bus. Ethics*, vol. 98. issue S1, 27 January 2011, pp. 75–83, available at http://link.springer.com/10.1007/s10551-011-1021-8.

[6] There is a significantly large number of definitions to describe «international financial regulation», see R. H. WEBER, *Mapping and Structuring International Financial Regulation - A Theoretical Approach*, in *Eur. Bus. L. Rev.*, vol. XX. issue 5, 2009, pp. 651–653.

[7] See G. BOCCUZZI, *Towards a New Framework for Banking Crisis Management. The*

and, generally speaking, legal terms[8]. Sometimes it is impossible to translate a legal term into another legal system because it would need to be translated with some circumlocutions, in instances where such term

International Debate and the Italian Model, in *Quaderni Di Ricerca Giuridica Della Consulenza Legale Della Banca d'Italia*, vol. LXXI, 2011, p. 15, available at https://www.bancaditalia.it/pubblicazioni/quaderni-giuridici/2011-0071/quaderno_71.pdf; «Is it so clear what a banking crisis is? It seems an obvious concept, but in reality, it is not so obvious, because crises may present many facets. During the financial turmoil, the concept of banking crisis entered widely into the common language. In some cases, a banking crisis was clearly identified, because it manifested itself through a bank run or by a public announcement of some regulatory or State interventions. In these cases, depositors and other stakeholders had a direct perception of what a banking crisis is. In other cases, which are the majority, there is no such external perception, so the public cannot develop a clear understanding of the real situation that the bank is facing».

[8] See B. LEONI, *op. cit.*, pp. 618-619; «The naive belief that nonmaterial things can easily be defined comes to an abrupt end as soon as we try to translate, for instance into Italian or French, legal terms like "trust", "equity" and "common law". In all these cases not only are we unable to point to any material thing that would permit an Italian or a Frenchman or a German to understand what we mean, but we can find no Italian, French, or German dictionary that will give us the corresponding words in these languages. Thus, we feel that something has been lost in passing from one language to the other. As a matter of fact, nothing has been lost. The problem is that neither the French nor the Italians nor the Germans have exactly such concepts as those denoted by the English words "trust", "equity" and "common law". In a certain sense, "trust", "equity" and "common law" are entities, but as neither the Americans nor the English can simply point them out to the French or to the Italians, it is difficult for the former to be understood by the latter in this respect. It is this fact that still renders it practically impossible to translate an English or American legal book into German or Italian. Many words could not be translated into corresponding words because the latter are simply nonexistent. Instead of a translation, it would be necessary to supply a long, cumbrous, and complicated explanation of the historical origin of many institutions, their present way of working in Anglo-Saxon countries, and the analogous working of similar institutions, if any, in Continental Europe».

simply does not exist, neither in the abstract, as a concept, nor as a legal institution[9].

[9] Consider, for instance, the difficulty of translating Shariʿah law into a non-Islamic legal system, such as, for example, the Sukuk and conventional bonds, both of which are financial instruments, albeit fundamentally different. See C. GODLEWSKI – T. A. RIMA – L. WEILL, *Sukuk vs. Conventional Bonds: A Stock Market Perspective*, in *J. Comp. Econ.*, vol. LVI. issue 3, 2013, pp. 745–761, available at https://econpapers.repec.org/RePEc:eee:jcecon:v:41:y:2013:i:3:p:745-761.
Sometimes a translation creates interpretation problems. See for instance, in the Italian legal framework, Legislative Decree, 21 April 2016, No 72 Implementing Directive2014/17/EU – *the so-Called Mortgage Credit Directive or MCD),* published in the Official Journal, 20 May 2016. It should be noted that article 120 - *quinquiesdecies*, paragraph 2, TUB (Consolidated Banking Act) titled "Consumer default", and subsequent amendments reads: «The lender cannot impose on the consumer charges, deriving from non-compliance, higher than those necessary to offset the costs incurred because of the non-fulfilment itself». The question of interpretation concerns, in particular, whether or not default interest is applicable to the supplier-consumer relationship in light of the reform/novel provision. It is the opinion of the undersigned that the aforementioned paragraph intends to establish the mere limits on the applicability of the aforementioned interest in order to prevent usury interest from being agreed and that, in addition to the emerging damage, that any lost profit is paid as a further element of compensation for damages. The interpretation problem arises from the Italian translation of the English text, Article 28, No. 2 of Directive 2014/17/EU of the European Parliament and of the Council of 4 February 2014 on credit agreements for consumers relating to residential immovable property and amending Directives 2008/48/EC and 2013/36/EU and Regulation (EU) No 1093/2010, available at https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A32014L0017, which reads as follows: «Member States may require that, where the creditor is permitted to define and impose charges on the consumer arising from the default, those charges are no greater than is necessary to compensate the creditor for costs it has incurred as a result of the default» and, more specifically, from the Italian translation of the term «charges».

2. The mistake of believing in a universally applicable legal system

Furthermore, with regard to the legal science, Matthew Hale specifically observed that those who believe that they can create a system of law that is infallible because it is equally applicable to all States are mistaken. In fact, they become aware of this mistake when the notions they have elaborated prove ineffective when applied to

practical cases[10]. Furthermore, language and interactions can create asymmetric information[11], which in turn can cause systemic crises[12].

[10] See B. LEONI, *op. cit.*, p. 1720-1727. «Taking issue with Hobbes, Sir Matthew Hale pointed out that it is of no use to compare the science of the law with other sciences such as the "mathematical sciences" because for the "ordering of civil societies and for the measuring of right and wrong" it is not only necessary to have correct general notions, but it is also necessary to apply them correctly to particular cases (which is, incidentally, just what judges try to do)». Hale argued that «they that please themselves with a persuasion that they can with as much evidence and congruity make out an unerring system of laws and politiques [that is, we would say, written constitutions and legislation] equally applicable to all states [i.e., conditions] as Euclid demonstrates his conclusions, deceive themselves with notions which prove ineffectual when they come to particular application. » See also, for the sake of completeness, H. MATTHEW, *Reflections by the Lord Chief Justice Hale on Mister Hobbes, His Dialogue of the Law*, in *History of English Law*, London: Methuen & Co., 1924, p. 500.

[11] Regarding the opacity of the language and the information asymmetries see. M. ARCELLI FONTANA, *La Crisi Finanziaria e Le Piccole Imprese: Asimmetrie Informative Ed Opacità Del Linguaggio*, in *Atti Della Sesta 'Lezione Mario Arcelli'*, Soveria Mannelli: Rubbettino, 2010, pp. 43–49. Regarding the obscurity of laws and the related problems of interpretation see C. BECCARIA, *Dei Delitti e Delle Pene*, 1764, available at https://it.wikisource.org/wiki/Dei_delitti_e_delle_pene/Capitolo_V. «If the power of interpreting laws be an evil, obscurity in them must be another, as the former is the consequence of the latter. This evil will be still greater if the laws be written in a language unknown to the people; who, being ignorant of the consequences of their own actions, become necessarily dependent on a few, who are interpreters of the laws, which, instead of being public and general, are thus rendered private and particular». In the original language: «Se l'interpetrazione delle leggi è un male, egli è evidente esserne un altro l'oscurità che strascina seco necessariamente l'interpetrazione, e lo sarà grandissimo se le leggi sieno scritte in una lingua straniera al popolo, che lo ponga nella dipendenza di alcuni pochi, non potendo giudicar da se stesso qual sarebbe l'esito della sua libertà, o dei suoi membri, in una

3. The person as the architect of the market and of its related crisis

As authoritatively argued[13], no free market can be truly compatible with a regulatory process dictated by central authorities[14]. There has been much discussion, especially in the presence of crises with international repercussions, such as the crisis of 1939, or the so-called Great Crisis,[15] as to whether it was a market failure or a government failure[16].

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lingua che formi di un libro solenne e pubblico un quasi privato e domestico ».

[12] See *supra* §1, note 1.

[13] LEONI B. *op. cit.,* p. 1681; «Even those economists who have most brilliantly defended the free market against the interference of the authorities have usually neglected the parallel consideration that no free market is really compatible with a law-making process centralized by the authorities».

[14] See also N. F. VON HAYEK, *The Use of Knowledge in Society*, in *Am. Econ. Rev.*, vol. 35. issue 4, American Economic Association, 1945, pp. 519–530, available at http://www.jstor.org/stable/1809376.

[15] For a comparison between the Great Crisis and the Great Depression, see R. MASERA, *Great Financial Crisis. Economics, Regulation and Risk*, in *Banc. Ed.*, 2009.

[16] See F. M. BATOR, *The Anatomy of Market Failure*, in *Q. J. Econ.*, vol. 72. issue 3, Oxford University Press, August 1958, p. 351, available at https://academic.oup.com/qje/article-lookup/doi/10.2307/1882231. W. R. KEECH – M. C. MUNGER, *The Anatomy of Government Failure*, in *Public Choice*, vol. 164. issue 1–2, Kluwer Academic Publishers, 22 July 2015, pp. 1–42, available at http://link.springer.com/10.1007/s11127-015-0262-y. See also C. WINSTON, *Government Failure versus Market Failure: Microeconomics Policy Research and Government Performance*, in *AEI-Brookings Jt. Cent. Regul. Stud.*, Washington, D.C, 2006, available at https://www.brookings.edu/research/government-failure-vs-market-failure-microeconomics-policy-research-and-government-performance/. C.

Sometimes, in this debate an important aspect is neglected, that is, namely that the market does not exist, there is only the person, or the individual[17]. History in general and written History of Finance in the case at issue, is made up of individuals and people, not systems. Behind every system there is a person who has designed it as an architect, through its ethics and with its civil and/or criminal responsibilities.

4. The systemic crisis and the importance of looking for effective disincentives against the immoral behaviour of individuals "shielded" by banks

The systemic crisis of 2007/2008 also originated from unethical or immoral behavior, crimes committed by individuals "shielded" by the banks, insurance companies or state institutions[18].

WOLF JR, *Markets or Governments: Choosing Between Imperfect Alternatives*, RAND Corporation, 1993.

[17] In Rosmini's philosophical view «economic action as the outcome of a circular process that begins and ends in the human person»; see C. HOEVEL, *Economic Action, Happiness and Personalized Self-Interest*, in *The Economy of Recognition*, Dordrecht: Springer Netherlands, 12 February 2013, pp. 63–76, available at http://link.springer.com/10.1007/978-94-007-6058-5_5. See also A. ROSMINI, *The Philosophy of Politics*, in *Society and Its Purpose. Trans. Denis Cleary and Terence Watson*, vol. 2, Durham: Rosmini House, 1994, p. 12. «The principle of moral virtue, simple stated, is: 'Respect person as end; do not use person as a means for yourself'». See also L. VON MISES, *L'azione Umana*, (translated by) T. BAGIOTTI, Torino: UTET, 1959. See also K. R. POPPER, *La Scienza e La Storia Sul Filo Dei Ricordi*, (edited by) JACA BOOK, 1910.

[18] On this subject see *infra*, Ch. III, §1–2.

Indeed, the latest financial crisis and corporate scandals have shown that, in addition to professional skills, individual or organizational agents must also have ethical and moral conduct or "moral intelligence"[19].

It is of no use to prevent the risk of contagion of financial crises through a strong re-regulation[20] involving increased costs[21] including transaction costs if the party responsible knows that there will be no punishment, in other words, if no severe criminal and/or civil sanctions are imposed on those who commit banking and insurance fraud: if the legal system[22] does not actually deter this type of conduct. Therefore, its enforceability within States is the only, true, effective means of preventing systemic crises: each State according to its own legal

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[19] The authors build an Ethical Leadership Behavior Scale «which is based on behavior reflecting concrete manifestations of ethical values (e.g., fairness, respect) across occasions and situational barriers». See also M. E. BROWN – L. K. TREVIÑO – D. A. HARRISON, *Ethical Leadership: A Social Learning Perspective for Construct Development and Testing*, in *Organ. Behav. Hum. Decis. Process.*, vol. 97. issue 2, 1 July 2005, pp. 117–134, available at https://linkinghub.elsevier.com/retrieve/pii/S0749597805000397. They devised an Ethical Leadership Scale.

[20] See C. KAUFMANN – R. H. WEBER, *The Role of Transparency in Financial Regulation*, in *J. Int. Econ. Law*, vol. 13. issue 3, 1 December 2010, p. 788, available at https://doi.org/10.1093/jiel/jgq037; «transparency calls for robust, not more, financial regulation».

[21] The financial crisis which started in 2007 generated huge direct and indirect costs to public finances. See INTERNATIONAL MONETARY FUND, *Fiscal Implications of the Global Economic and Financial Crisis*, in *IMF Staff Position Notes*, International Monetary Fund, 1 June 2009, available at https://www.imf.org/external/pubs/ft/spn/2009/spn0913.pdf.

[22] See M. GUTIÉRREZ URTIAGA, *An Economic Analysis of Corporate Directors' Fiduciary Duties*, in *SSRN Electronic J.*, vol. 34, 1 February 2001, pp. 516–535, available at http://www.ssrn.com/abstract=257594; see also G. VISENTINI, *op. cit.*

system, as effectively as possible depending on the applicable legal framework.

But first and foremost, it is necessary that the offenders and their reprehensible conducts be stigmatized[23] . Indeed, this thesis argues that reputational discredit is the most effective sanction in a given system[24].

5. From the "Natural Political Law" as "unmodifiable order"[25] in Romagnosi's point of view to the human - "Economic Financial Crisis"[26]

A nineteenth-century Italian jurist, philosopher and economist, Gian Domenico Romagnosi, in paragraph No. 845 of an unpublished contribution entitled "Natural Political Law" wrote that if human beings commit abuses within the economic system, the "legislative nature"[27] makes its voice heard, expresses its disapproval and always makes its healthy rigor felt.

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[23] See *infra,* Ch. V, §8.

[24] See *infra,* Ch. V, §7.

[25] The expressions between quotation marks belong to an unpublished work by Gian Domenico Romagnosi, i.e., *Diritto Naturale politico*, unpublished writing. See G. D. ROMAGNOSI, *Opere Di G. D. Romagnosi Riordinate Ed Illustrate Da Alessandro De Giorgi, Con Annotazioni, La Vita Dell'autore, l'indice Delle Definizioni e Dottrine Comprese Nelle Opere Ed Un Saggio Critico e Analitico Sulle Leggi Naturali Dell'ordine Morale per Servir*, vol. III Par. I, Milano: Perelli e Mariani, 1845.

[26] See *infra* Ch. III, §1-2.2.

[27] For an in-depth analysis of natural law according to Romagnosi, see G. D. ROMAGNOSI, *Assunto Primo Della Scienza Del Diritto Naturale Di Giandomenico Romagnosi*, Milano: Per Vincenzo Ferrario, 1820, pp. 1–223.

This is because at the base of the economic system there is an "unmodifiable order"[28] by virtue of which if evil is perpetrated by human beings through obstinacy or ignorance, nature itself eliminates it by destroying either the men or the State who "could not or did not want to remedy this evil"[29].

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[28] As far back as the sixth century BC Solone, one of the «Seven Sages» of ancient Greece, identified justice as the rule aimed at bringing human excesses and the immoderate desires of man back within the right limits. Justice was for the same author a natural order that by dominating the human instinct which tends to overwhelm and seek wealth, ensures that the rights of others are respected and at the same time sees to the overall harmony generating the good order (ευνουμία). See R. M. PIZZORNI, *Il Diritto Naturale Dalle Origini a S. Tommaso d'Aquino*, Edizioni Studio Domenicano, 2000, p. 33. See SOLONE, *Eunomia*, (edited by) E. DIEHL, in *Anthologia Lyrica Graeca*, vol. 1. issue 3, 3rd edition, Lipsia, 1954, pp. 14–16.

[29] See G. D. ROMAGNOSI, *Opere Di G. D. Romagnosi Riordinate Ed Illustrate Da Alessandro De Giorgi*, cit., p. 904. The original text reads as follows: (VI. *Che quest'ordine è indeclinabile*) Par. 845 «se nell'esecuzione del sistema economico di fatto accadono abusi prodotti dall'opera degli uomini, come in qualunque altro genere di affari in cui agiscono i più legittimi fini ed appetiti umani, la natura legislatrice non lascia di manifestare la sua disapprovazione e di far sempre sentire il salutare suo rigore. L'inconvenienti ed i mali stanno indivisibilmente uniti al disordine, e vibrano inesorabilmente su l'uomo il loro flagello. Mercè di questo magistero la natura o richiama li uomini all'ordine, oppure li atterrisce dal cadere nel disordine». Par. 846. «E se l'ignoranza o l'ostinazione giungono a tanto d'inoltrare e prolungare soverchiamente il male, essa lo toglie con la distruzione dell'uomo o dello Stato che o non seppe o non volle rimediarvi». In English: (VI. *For this order cannot be changed*) Par. 845 «if in fact there are abuses within the economic system produced by the work of men, as in any other kind of affairs in which the most legitimate ends and human appetites display their effects, the legislative nature does not refrain from manifesting its disapproval and to make its

It is not by chance that the abuses of capital market finance[30] are one of the main two causes that have been identified at the origin of the

healthy rigor felt. The disadvantages and the evils are indivisible from disorder, and they shall inexorably punish men. Nature either imposes order on men or threatens them to fall victims of disorder». Paragraph No. 846. stated: «And if ignorance or obstinacy are such as to spread and prolong evil excessively, it [the nature] deletes it by destroying either the men or the State that could not or did not want to remedy». See also SOLONE, *Frammenti*, p. 17 et seq., in H. DIELS – W. KRANZ, *Die Fragmente Der Vorsokratiker*, vol. III, 8th edition, Berlin, 1956, in the Italian translation by Q. CATAUDELLA, *I Frammenti Dei Presocratici*, vol. I, Padova: CEDAM, 1958; and by A. PASQUINELLI, *I Presocratici, Frammenti e Testimonianze*, Enaudi, 1958.

[30] See V. BAVOSO, *Explaining Financial Scandals: Corporate Governance, Structured Finance and the Enlightened Sovereign Control Paradigm*, School of Law, Faculty of Humanities, The University of Manchester, 2012, p. 1, available at https://www.escholar.manchester.ac.uk/api/datastream?publicationPid=uk-ac-man-scw:171568&datastreamId=FULL-TEXT.PDF.

Great Crisis[31] and of the crisis in general[32]: the other cause is corporate governance weakness[33] in financial institutions[34].

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[31] For an overview see R. M. LASTRA – G. WOOD, *The Crisis of 2007-09: Nature, Causes, and Reactions*, in *J. Int. Econ. Law*, vol. 13. issue 3, 1 September 2010, pp. 531–550, available at https://doi.org/10.1093/jiel/jgq022. In the Italian doctrine see *inter alia* F. CAPRIGLIONE, *Crisi a Confronto (1929 e 2009) : Il Caso Italiano*, Padova: CEDAM, 2009. See also F. CAPRIGLIONE, *Misure Anticrisi Tra Regole Di Mercato e Sviluppo Sostenibile*, Torino: G. Giappichelli, 2010. Concerning the causes of the crisis and a related review of literature see also R. ROMANO, *For Diversity in the International Regulation of Financial Institutions: Critiquing and Recalibrating the Basel Architecture*, Yale Journal on Regulation, 2014, p. 10, available at https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=5951&context=fss_papers; «The causes of the global financial crisis of 2008 will, no doubt, be analyzed and debated by economists for generations». See also note No. 82 where the author argues that harmonization of international regulation can increase, instead of decrease, systemic risk and that regulatory error contributed to giving rise to a global crisis.

[32] See A. HOROBET, *Searching For Causes Of The Current Financial Crisis: On Risk Underassessment And Ignorance*, in *Review of Economic and Business Studies*, vol. 3. issue 1, Poland: Sciendo, 2010, pp. 195–200; «Financial crises are all different and all similar: Radelet and Sachs (1998) advance a taxonomy of financial crises, building on a number of characteristics that may be seen as the main initiating causes of financial crises: (1) a speculative attack on the exchange rate - either attacks based on fundamentals deterioration and or purely speculative attacks; (2) a financial panic; (3) an asset bubble burst; (4) a moral hazard crisis, under the form of implicit or explicit bail-outs; and (5) the acknowledgment of a threatening debt, followed by erroneous measures». For a complete overview of the evolution of events, see V. BAVOSO, *op. cit.*, pp. 18-19; see also G. BOCCUZZI, *Verso Un Nuovo Quadro per La Gestione Delle Crisi Bancarie*, in *Quaderni Di Ricerca Giuridica Della Consulenza Legale*, 2011, available at https://www.bancaditalia.it/pubblicazioni/quaderni-giuridici/2011-0071/quaderno_71.pdf. See also E. GALANTI, *Cronologia Della Crisi 2007-2012*, in *Quaderni Di Ricerca Giuridica Della Consulenza Legale*, 2013,

These two elements have been identified as common denominators that have caused financial crises and scandals over the centuries[35]. In fact, crises have existed since the dawn of time, since the early days of money as a means of exchange and of the most rudimentary forms of "banks"[36]. Be it sufficient to recall the Tulip

available at https://www.bancaditalia.it/pubblicazioni/quaderni-giuridici/2013-0072a/quaderno_72_app.pdf.

[33] See V. HAGENFELDT, *European Financial Regulation and Supervision and the Onslaught of the Financial Crisis*, GRIN Publishing, 2011, pp. 22–24.

[34] See, as Report of *the High-Level Group on Financial Supervision in the EU*, chaired by J. DE LAROSIÈRE, Brussels, 25 February 2009, p. 29, available at https://ec.europa.eu/economy_finance/publications/pages/publication14527_en.pdf ; Commission proposes *improved EU supervision of Credit Rating Agencies and launches debate on corporate governance in financial institutions*, IP/10/656, Brussels, 2 June 2010, available at https://ec.europa.eu/commission/presscorner/detail/it/IP_10_656; European Companies European Parliament Resolution of 29 March 2012 on a *Corporate Governance Framework for European Companies* (2011/2181(INI), available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52012IP0118. Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32013L0034. Recommendation 2014/208/EU on *Corporate Governance Reporting, Especially Explanations Companies Should Provide for Breaking Governance Codes ('Comply or Explain'),* available at http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32014H0208.

[35] See V. BAVOSO, *op. cit*., p. 18-19; see A. D. NOYES, *A Year After the Panic of 1907*, in *Q. J. Econ.*, vol. 23, Oxford University Press, 1909, pp. 185–212, available at http://www.jstor.org/stable/1882797.

[36] For an exhaustive overview of historical financial crisis see N. FERGUSON, *The Ascent of Money: A Financial History of the World*, London: Allen Lane, 2008; R. S. GROSSMAN, *Unsettled Account: The Evolution of Banking in the Industrialized World since 1800*, Princeton, Oxford: Princeton University Press, 2010, pp. 53–82,

Mania during the mid-1630s, the South Sea Bubble in 1720[37] or the Banking crisis of 1878 in Scotland[38]. This is because the banking

available at https://www.jstor.org/stable/j.ctt7sw7z. See also R. Z. ALIBER – C. P. KINDLEBERGER, *Manias, Panics, and Crashes*, 7th edition, London: Palgrave Macmillan UK, 2015, pp. 5–38, available at http://link.springer.com/10.1007/978-1-137-52574-1. «The Great Recession that began in 2008 was the most severe and the most global since the Great Depression of the 1930s.»

[37] See M. BALEN, *A Very English Deceit: The Secret History of the South Sea Bubble and the First Great Financial Scandal*, Fourth Estate, 2002.

[38] For instance, In Scotland, on 2 October 1879, there was the default of the City of Glasgow Bank. The impact effect and the "ramification" of the default was huge and led to changes in accounting practice and in company law. M. COLLINS, *The Banking Crisis of 1878*, in *Econ. Hist. Rev.*, vol. 42. issue 4, Wiley on behalf of the Economic History Society, 1989, pp. 504–527, available at https://www.jstor.org/stable/2597098; «In particular, the directors of the City of Glasgow Bank had been able to take full advantage of the minimal stipulations governing shareholders' rights under the pre-1857 Company Acts, and had provided little information on the company's financial position. Indeed, their subsequent criminal prosecutions were possible only because they had overstepped the (liberally drawn) mark by issuing falsified balance sheets. After the failure, the other Scottish banks not only issued reassuring public statements about their own financial positions but also instigated important accounting reforms. More and better information was made available to managers and proprietors, more publicity was given to the banks' accounts, and those accounts were subjected to external auditing. All this was done voluntary. Another important change affected the financial liability of proprietors». On the same subject see also D. ZIEGLER, *The Banking Crisis of 1878: Some Remarks*, in *Econ. Hist. Rev. New Series*, vol. 45. issue 1, Wiley on behalf of the Economic History Society, 1992, pp. 137–144, available at http://www.jstor.org/stable/2598332.

business has inherent, therefore unavoidable, profiles of risk[39]. Likewise, economic crises are unavoidable.

6. The economic operators' "uncertainty principle" and the rule-makers' "syndrome of Laius"

In addition to the above, let us also consider the "uncertainty"[40] in which economic operators carry out business, the interlinkages resulting from globalized economy and the "uncertainty principle" which we could borrow from quantum mechanics [41], as an essential

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[39] See G. COSTA, *L'Unione Bancaria e Il Rapporto Banca e Impresa*, in *Rivista Di Diritto Bancario, Dottrina e Giurisprudenza Commentata*, 2016, p. 247-248. The author highlights that sometimes regulators seem to be afflicted by the syndrome of Laius, king of Thebes, who turned away his new-born son Oedipus in order to eliminate the risk of Oracle of Delphi's response «will kill his father and marry his mother» unaware of the fact that this would create the conditions for the tragedy to occur just as predicted. Therefore, one would wonder if it is ethically correct for a father to take away his new-born child, leaving him devoid of the mother's care, who will be a stranger, and of his family's fondness.

[40] See W. K. HEISENBERG, *Ordnung Der Wirklichkeit (Indeterminazione e Realtà)*, (translated by) G. GEMBILLO - G. GREGORIO, Napoli: Guida, 1991.

[41] In his original work Heisenberg speaks of uncertainty relations, relations as the result of a "pure fact of experience". His favorite terminology was "inaccuracy relations" (*Ungenauigkeitsrelationen*) or "indeterminacy relations" (*Unbestimmtheitsrelationen*). See D. SEN, *The Uncertainty Relations in Quantum Mechanics*, in *Curr. Sci.*, vol. 107. issue 2, 2014, pp. 203–218, available at https://www.currentscience.ac.in/Volumes/107/02/0203.pdf. See in particular W. K. HEISENBERG, *Über Den Anschaulichen Inhalt Der Quantentheoretischen Kinematik Und Mechanik*, in *Zeitschrift Für Phys.*, vol. 43, 1927, pp. 172–198. English translation: J. A. WHEELER – W. H. ZUREK, *The Physical Content of*

feature characterizing our universe[42] that identifies the limits of knowledge and of the measurements possible with regard to combined physical quantities[43]. According to this principle one cannot assign exact simultaneous values to the position and momentum of a physical system[44].

This is because the measurement of a given value would inevitably affect that of another. To determine the exact position of a particle, this must be illuminated: by releasing energy, light causes the particle to move faster, thus increasing its speed and generating uncertainty about its value. The intervention of the observer, of the scientist, in this case, who makes the measurement is not that of a spectator since it inevitably produces non-calculable effects and

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Quantum Kinematics and Mechanics, in *Quantum Theory and Measurement*, Princeton University Pres, 1983, pp. 62–84. W. K. HEISENBERG, *Monatshefte Für Mathematik Und Physik*, in *Monatshefte Für Math. Und Phys.*, vol. 38, 1931, pp. 365–372, available at https://doi.org/10.1007/BF01700709.

[42] See S. W. HAWKING, *The Illustrated Theory of Everything: The Origin and Fate of the Universe*, Phoenix Books, 2009.

[43] See W. K. HEISENBERG, *The Physical Principles of Quantum Mechanics*, New York: Dover Publications, 1930.

[44] See J. HILGEVOORD – J. B. UFFINK, *The Uncertainty Principle*, (edited by) E. N. ZALTA, in *SEP*, 2001, available at https://plato.stanford.edu/archives/win2016/entries/qt-uncertainty/. The uncertainty principle is certainly one of the most famous aspects of quantum mechanics. It has often been regarded as the most distinctive feature in which quantum mechanics differs from classical theories of the physical world. Roughly speaking, the uncertainty principle (for position and momentum) states that one cannot assign exact simultaneous values to the position and momentum of a physical system. Rather, these quantities can only be determined with some characteristic «uncertainties» « that cannot become arbitrarily small simultaneously».

consequently an unavoidable indeterminacy; indeterminate relations imply the invalidity of determinism (as can be inferred from the name of such relationships), not of causality [45].

It is the same for policy makers within the market. By turning the spotlight on a phenomenon, whether positive or negative, or by simply making the same known, it is possible to influence the course of events [46]. This applies even more to the work of supervisors and rule makers [47]. It has been authoritatively observed that sometimes regulators seem to be afflicted by the syndrome of Laius, King of Thebes, who took away his newborn son Oedipus in order to eliminate the risk of the response by the Oracle of Delphi -"he will kill his father and marry his mother"- unaware of the fact that he himself would create the conditions for the tragedy to be consumed as predicted [48].

In order to avert financial crisis, it is necessary to understand its causes and origins.

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[45] See F. LAUDISA, *La Causalità Nella Fisica Del XX Secolo: Una Prospettiva Filosofica*, in *Quaestio - Annuario Di Storia Della Metafisica*, vol. 2, 2002, pp. 609–634, available at https://doi.org/10.1484/J.QUAESTIO.2.300479.

[46] By way of example, just consider how the speech by the Federal Reserve Chairman Ben S. Bernanke of 17 July 2012, giving the bad news of the severe losses on sub-prime mortgage most certainly contributed to creating a «Much larger collapse of confidence», see A. MILNE, *The Fall of the House of Credit: What Went Wrong in Banking and What Can Be Done to Repair the Damage?*, Cambridge University Press, 2009, p. 204.

[47] We will observe how the corporate governance «balances» have encouraged opportunistic behavior by the directors, See *infra* Ch. III, §2.2.

[48] See G. COSTA, *op. cit.*, p. 247-248.

Chapter II: The new thesis of the "hidden nexus" between contracts and the Social Contract and its limitation in the *"neminem laedere"* principle (or the "theory of the gaming table")

Summary: 1. Brief prolepsis on the "Constructive theories" of human nature of financial crisis; 2. Market as a contract and the economy as a branch of moral philosophy: Hayek's "Whig tradition" and the task of law; 3. *The theory of the gaming table.* Personal application of the space-time concept in Einstein's Theory of relativity to the law in order to avoid creating potential banking crises: the general criterion; 3.1. The natural order of things. The space-time concept and the speed of light as a constant - as the contract inside the market; 3.2. The theory of the gaming table. *Pareto optimum*, *endogenous* information, information asymmetry and contract in perfect balance; 3.2.1 Freud and the human nature: the "conflict of interests" intrinsic to human nature; 3.3. *The theory of the gaming table*: the identification of X unknown; 3.4. Application of the general theory of relativity to law and the subprime mortgage crisis: Contracts and Social Contract; 3.5. *The theory of the gaming table*: from the nexus between Contract and Social Contract to the self-preservation instinct in Hobbes; 3.6. *The theory of the gaming table*: from Coase's Theorem to the limit of maximum violation of the "*neminem leadere*" principle; 3.7. *The theory of the gaming table*: information as an instrument to avert future crises; 3.8. Application of the general theory of relativity to law: theorizing the fourth dimension. The legislature as the force of gravity in space/time; 3.8.1. Observations: the interferences from the rule maker in the market, or the action of man in the market ("*homo mercati*"); 3.8.2. Morality plays an important role; 4. From Moral imputation to liability: an ethical antidote for unethical

conducts; 5. Interim Assessment.

1. Brief prolepsis on the "Constructive theories" of human nature of financial crisis

Crises are natural in men as well as in the market set up by the former [1], due to human interactions, therefore also to the emotions,

[1] Man is fallible by definition, see N. F. VON HAYEK, *Economics and Knowledge*, in *Economica*, vol. 4. issue 13, 1937, pp. 33–54, available at https://www.jstor.org/stable/2548786. And also, the reactions brought about by the crisis are human. As described in the following pages, the 2007/2009 financial crisis ensuing from the explosion of a global speculative bubble in real estate and equities, the bankruptcy of the investment bank Lehman Brothers has created «panic» around global markets. In the Cambridge dictionary, «panic» is defined as «a sudden strong feeling of fear that prevents reasonable thought and action», see https://dictionary.cambridge.org. «Therefore, panic is a human feeling» See G. B. GORTON, *The Subprime Panic*, in *NBER*, Working Papers Series, Cambridge, MA, 2008, available at https://www.nber.org/papers/w14398; see G. B. GORTON, *The Panic of 2007*, in *NBER*, Yale ICF Working Paper No. 08-24., 2008, available at http://ssrn.com/abstract=1255362. R. Z. ALIBER – C. P. KINDLEBERGER, *op. cit*.; see also A. MILNE, *op. cit*., the author affirms that the «panic» brought about the present crisis resembles in many respects the banking panic of 1907 in the United States. The Great Recession that began in 2008 was the most severe and the most global since the Great Depression of the 1930s. It is no coincidence that R. Shiller uses the word «traumas» when he writes about the Great financial crisis, See R. J. SHILLER, *The Subprime Solution: How Today's Global Financial Crisis Happened, and What to Do about It*, Princeton University Press, 2008, p. 171; «People are suffering and businesses are collapsing. The memories of these traumas will harm confidence and trust in our markets for years to come, just as they did during the Great Depression. With each passing day more damage is done to our social fabric».

ambitions, passions, needs and habits of men [2]. Economic activities are strictly connected to social life and therefore to the relevant customs and morals[3]. Sound regulations can help the natural economic order to preserve itself by ensuring that there are no excessive imbalances between the responsibilities of the operators on the market and the counterparties' enforceability of their corresponding rights.

Concrete disincentives must be imposed on the economic operator intending to maximize profit and at the same time harm the interests of society and investors, together with "isolating" measures aimed at preventing such economic operator from becoming "a plague-spreader" that in a globalized and interconnected economy can infect other economic operators, as occurred with the last Global Crisis. It should be noted that the "plague-spreader" can be identified only if there is transparency, that is, only if transparent supervisory practices are developed and if there is a "universal code of ethics" based on the more general principle of *neminem leadere* [*i.e.,* not causing harm to

[2] Concerning the power of habit over human action, see C. DUHIGG, *The Power of Habit: Why We Do What We Do in Life and Business*, New York: Random House, 2012.

[3] See F. FUKUYAMA, *Trust: The Social Virtues and the Creation of Prosperity*, New York: Free Press, 1995, p. 13. See also E. FROMM, *Avere o Essere?*, Milano: Mondadori, 1977, pp. 141–182 According to the author, whether the existential «mode» consists in «being» (i.e., what we are) or «having» (i.e., what we own) mainly depends on the social structure, with its rules and values; this is because the social character permeates both the individual psyche and the socio-economic structure. The author also identifies an indissoluble link between socio-economic, character-related and religious structures, the latter intended as an aspect of character. For an exhaustive overview, see V. PARETO, *Trattato Di Sociologia Generale*, (edited by) G. BUSINO, Torino: UTET, 1988.

others][4]: thus, the bankruptcy of a company and in particular of a financial intermediary shall not affect the entire economic system and the whole community will not have to unjustly pay for the mistakes made by few.

Therefore, crises are not created by the economic system, since the same exists only in theory, but by the men who operate in it [5], or, to be more precise, by the interactions between the individual market operators and those between the market operators and the institutions that interfere in the market: economic policy and laws, and more generally the economic and the legal system [6].

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[4] See N. LETTIERI – D. PARISI, *Neminem Laedere. An Evolutionary Agent-Based Model of the Interplay between Punishment and Damaging Behaviours*, in *Artif. Intell. Law*, vol. 21. issue 4, 2013, pp. 425–453, available at https://doi.org/10.1007/s10506-013-9146-y.

[5] Indeed, Ludwig von Mises chose «Human action» as the title for his most well-known work. The author opens his work by pointing out the importance of «choice» as origin of all human decisions, see L. VON MISES, *Human Action: A Treatise on Economics*, New Haven: Yale University Press, 1949, p. 3, available at https://mises.org/library/human-action-0.

[6] See K. OLIVECRONA, *The Legal Theories of Axel Hägerström and Vilhelm Lundstedt*, Stockholm, 1959, p. 128. «The legal system of a country has always been regarded as a system of rules regulating the rights and duties of individuals in relation to one another and in relation to the state and other bodies. It therefore seems impossible to talk about law at all without talking about rights and duties. These concepts, indeed, are familiar to everybody. We use them in daily life as if it were perfectly clear what is meant by them. But what is meant by them? What is a legal right, what is a legal duty? These questions have troubled jurists for centuries without any general agreement having been attained»; under the influence of the philosopher Axel Higerstrbm (1868-1939) and his friend and follower Vilhelm Lundstedt (1882-1955), legal theory in Sweden took a new turn.

2. Market as a contract and the economy as a branch of moral philosophy: Hayek's "Whig tradition" and the task of law

Market is a system of contract [7], as understood from the times of Roman law, as "the set of resources available to private individuals to regulate their relations autonomously" [8]. The main issue is how to

[7] See E. BROUSSEAU, *L'Économiste, Le Juriste et Le Contrat*, in *Etudes Offer. à Jacques Ghestin Le Contrat Au Début Du XXIe Siècle*, LGDJ Montchrestien, 2001, p. 153, « […] il semblait exister une séparation des tâches entre l'économiste et le juriste. Au premier l'étudee du marché, au second l'exégèse du contrat. […] Au tournant des années 1970, les choses évoluèrent. Pour affiner leur analyse du fonctionnement des économies dites "de marché", les économistes cherchèrent à mieux rendre compte de ce dont sont concrètement formés les marchés: les contrats. Le marché des économistes - le marché "walrassien", cf. Walras (1874) - est en effet une pure fiction. Un "secrétaire de marché" y centralise l'encanble des offres te des demandes afin de déterréiner les prix permettant les équilibrer. Une fois ces prix fixés, ils sont communiqués à tous les agents économiques qui échangées. Grâce au "prix d'équilibres", des millions de décisions individuelles sont compatibles. Elles convergent vers une affectaiton des ressautrces la plus efficace possible compte tenu de la situation initiale. Sa pureté confère à ce modelée analytique une grande puissance: il représente une économie idéale qui sert de réferénce comme "optimum". Tout a un prix néanmoins. Celui de la pureté du modèle est sa non-conformité aux réalités économeques. Les économies de marchés "réelles" ne sont pas constituées de marchés walrassiens. Il n'y a pas de centralisation des rencontres entre l'offre et la demande et les prix sont fixés de manière quoi les contrats apparurent comme le moyen de rendre compte des agents se coordonnent deux à deux sans secrétaire de marché en fonction des seules contraintes dont ils ont conscience ». See P. F. LUZZI, *I Contratti Associativi*, Milano: Giuffrè Editore, 1971. In this regard, see also P. MONTALENTI, *Nuove Clausole Generali Nel Diritto Commerciale Tra Civil Law e Common Law*, in *Osservatorio Del Diritto Civile e Commerciale*, vol. 4, 2015, pp. 136–137.

[8] See M. TALAMANCA, *Contratto e Patto Nel Diritto Romano*, in *Dig. Disc. Priv., Sez.*

implement a good system of contracts "to run the market". Under Roman law, the challenge of contract law was to prevent the frequency of disputes by using a set of *forms*, thus also reducing the enforcement costs to be possibly borne by the parties[9].

Not surprisingly, between the eighteenth and nineteenth centuries, economy was regarded as be a branch of moral philosophy and not as a science[10]. More than a century would have to go by before the Austrian school of economics, called "Whig tradition" by Friederich August von Hayek[11], vested economy with the role that characterizes it, that is, subject matter of philosophical research, considering it as part

Civ., Sez. IV, Torino, 1995, p. 62. Clarification on the concept of contract is deemed useful. Based on the perceptive theory, on the one hand a contract is will, that is, the meeting of wills and, on the other hand, it is the form of the rule set forth by the parties by means of the same contract. It is the same concept adopted by Roman law, as laid down in the fourth book by Ulpiano as pactio quorum plurime in idem placiti et consensus (D. 2.14.1.2.) and at the same time «Pacta conventa, quae neque dolo malo, eque adversus leges plebiscito sentaus consulta decreta edita principe, eque quo fraus cui forum fiat, fatta erano, servano (D. 2.14.7.7)»

[9] See R. EPSTEIN, *Hayek's Constitution of Liberty - a Guarded Retrospective*, in *Rev. Austrian Econ.*, vol. 30. issue 4, 2017, p. 433, available at https://doi.org/10.1007/s11138-016-0367-7. The author adds that: «the same theme emerged in the English law. John Locke was clearly referring to the 1677 Statute of Frauds when, in his Second Treatise, he spoke of rules that would regulate various kinds of transfers and agreements in order to reduce the risks of fraud (1689) ».

[10] As NOVAK pointed out in the second chapter, «Economics as a Humanistic Discipline» of the book «Breaking the chains of poverty», see M. NOVAK, *Spezzare Le Catene Della Povertà*, 3rd edition, Liberilibri, 2001.

[11] See N. F. VON HAYEK, *The Constitution of Liberty*, University of Chicago Press, 1978, pp. 397–411. Hayek defines himself a «Whig», inheriting the reflection on the concept of freedom by Tommaso D'Aquino, Toqueville, Madison, Lord Acton.

of moral philosophy[12]. The task of law is to restore the central role of human beings and therefore of the incentives in choices, of the creative potential of human choice during interaction, of the psychology of value, which "regards" the person and not "good" as the unit of measurement of value[13]. Man is the architect (who acts as agent), not the object of the system-apparatus.

3. *The theory of the gaming table.* Personal application of the space-time concept in Einstein's Theory of relativity to the law in order to avoid creating potential banking crises: the general criterion

The revolutionary research by Albert Einstein, assisted by Mileva Maric[14], consisted in modifying, among other things, Galileo's theories on rectilinear motion[15].

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[12] See M. NOVAK, *op. cit.*, p.12-16.

[13] The Nobel prize for economy James M. Buchanan highlighted that the economists' failure to consider «man» key to all choices has determined disastrous consequences in history. See J. M. BUCHANAN, *Economics in the Post-Socialist Century*, in *Econ. J.*, vol. 101, Oxford University Press, pp. 17–18, available at https://www.jstor.org/stable/2233831. In particular, see Novak's comment and quote, *op. cit*., p. 13.

[14] Mileva Maric was the first wife of Albert Einstein, graduated like him at the University of Zurich. See H. EDWARDS, *Mileva Maric: The Other Einstein*, in *Library Journal*, vol. 125. issue 18, 1 November 2000; see also E. H. WALKER, *Mileva Marić's Relativistic Role*, in *Phys. Today*, vol. 44, 1991, p. 122, available at https://doi.org/10.1063/1.2810013.

[15] See U. MAJER – H. J. SCHMIDT, *Reflections on Spacetime Foundations, Philosophy, History*, Kluwer Academic Publishers, 1995.

Therefore, according to Einstein, rectilinear motion does not exist: masses move inside space and time[16]. This is the natural law that a jurist should be aware of, including when creating and interpreting laws. It is not a coincidence that in Roman law we find the expression: *ubi societeties ivi ius*[17]. Rights change based on time and must be interpreted accordingly. This assumption is more than true if the economy is the object of analysis by the law[18].

In order not to err on the side of *hybris* and not to dwell on Galileo's Theory and on Einstein's Theory of relativity, we shall just borrow the formulae of the general theory developed by Einstein firstly in 1905 and then in 1916[19], easing the formulae used to calculate speed inside space and time.

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[16] See H. J. SCHMIDT, *A Minimal Interpretation of General Relativistic Spacetime Geometry*, in *Erkenntnis*, 1995, pp. 191–202, available at https://doi.org/10.1007/BF01128807. See also R. A. COLEMAN – H. KORTÉ, *A New Semantics for the Epistemology of Geometry II: Epistemological Completeness of Newton-Galilei and Einstein-Maxwell Theory*, in *Erkenntnis*, vol. 42. issue 2, Kluwer Academic Publishers, 1995, pp. 161–189, available at https://doi.org/10.1007/BF01128806.

[17] See HARTMUT KREß, *„ubi Societas, Ibi Ius"*, in *Zeitschrift Für Rechtspolitik 45*, 2012, p. 60, available at https://www.jstor.org/stable/23429960.

[18] See *supra* §6.

[19] See H. J. SCHMIDT, *op. cit.*

3.1. The natural order of things. The space-time concept and the speed of light as a constant - as the contract inside the market

According to the relativity theory, a body moves at a maximum speed identified in the speed of light inside vacuum which is 299 792 458 m/s. This is the only certainty.

Bodies move in space and time (the space-time). Space and time are inversely proportional to each other: one value decreases at the same rate at which the other increases.

That is the formula:

$$V=s/t$$

If the speed of light is the maximum speed, it can become a constant that we will call “C”. It follows that the speed of light can also be calculated as follows:

$$C=s/t$$

“C” refers to the speed of light, expressed in meters per second (m/s); “s” refers to the distance in meters and “t” refers to time employed in seconds.

When analyzing reality, before taking action in order to modify it, a jurist should ask himself which is that unamendable and universally valid component in time and in space (the constant, in the same way) as the speed of light) and focus on that, by regulating it in detail, because that will be the “constant key”.

The jurist should then dwell on the relationship between the values generating such constant. In the case of the relativity theory, space-time, to respect the natural order of things.

Therefore, as described above, at the root of the financial crisis there is man, with his interactions (nexus of contract); affecting the market.

Hence, precisely on contract and on its enforcement– further needs to be said[20].

Inside the natural order of rights, contract constitutes "the certainty", thus it will represent the speed of light that we will call "C".

So now it's just a question of defining the values of "space-time in law".

3.2. The theory of the gaming table. *Pareto optimum*, *endogenous* information, information asymmetry and contract in perfect balance

In a system lacking information asymmetries[21] , we achieve the *pareto optimum*. In a different manner, at the base of *pareto optimum* there is a perfectly informed system, insofar as, the best deal possible is reached, considering all the information owned, or, ever better, the

[20] See *supra* Ch. II §2, «Under the Roman law, the challenge of contract law was that of preventing the frequency of disputes by using a set of forms, thus also reducing the enforcement costs to be possibly borne by the parties»; see also *infra* Ch. IV §3.

[21] George Akerlof, Michael Spence and Joseph Stiglitz, Nobel prize.

same level of information owned by the counterparties. Accordingly, this occurred in the case of Nash's equilibrium.

Consequently, one of the core values to consider in order to enter into a "good contract" is precisely information. Not without reason, we are talking about information asymmetries in the case of market failures[22].

In this case I am going to talk about "endogenous information", the information that enables parties to reach a specific deal. We will distinguish it from exogenous information, of which I will refer to later, that is, information that parties must disclose relating to their subsidiaries regarding the conclusion of that given contract since the same has or could have general or public repercussions and affect the legal capital sphere of the subsidiaries: so-called positive or negative "externalities".

If the maximum speed equals 299 792 458 m/s, the contract in perfect balance, the *pareto optimum*, occurs when the information asymmetries are equal to zero and that is what we must seek.

To summarise, if "C" is the contract (that corresponds to the value of the speed in Einstein's relativity theory) and "l" is information, we will have

$$\mathbf{C = l / X}$$

[22] The imperfections of market called by economists «market failures» justify the necessity of law's corrective action, see A. PERRONE, *Il Diritto Del Mercato Dei Capitali*, Milano: Giuffrè Editore, 2018.

Where "X" refers to the value of incognita that we still have to find and analyse.

Therefore, we need to ask ourselves what decreases when information increases. Undoubtedly information asymmetries decrease but it goes without saying and so it is tautological. It is necessary to find the value that like time is inbred in men, omnipresent and in suppressible: the interest, or better, the conflict of interest.

3.2.1 Freud and the human nature: the "conflict of interests" intrinsic to human nature

Man, himself lives in a continuous "internal" struggle among Id, Ego and super- Ego.[23]: Ego is the contrast between what is real and the psyche, between the external world and the inner world.[24].

According to Freud, EGO – that considers reality – corresponds to the conscious center that has thinking skills and can receive external and internal stimulations. Therefore, Ego can be translated as a constant attempt of balance between Id and Superego.

It can thus be said that – not in an inner intention, that only in some instances is relevant for law – in action, man resolves the first conflict: the one between himself and *Ego, Id* and *Superego*. Ego in my current action is nothing but the solution to the conflict between Superego and so the parental applications, and Id, that is instinct. Although in a different dimension, this, too is a conflict of interests.

[23] S. FREUD, *L'io e l'es e Altri Scritti.*, P. Boringhieri, 1986.

[24] S. FREUD, *op. cit*., p. 498.

Hence, we could argue that Ego is the result of the balancing between *Id* and *Superego*.

Ego= Id/Superego

Therefore, the remark that conflict of interests, in the meaning above, is intrinsic to human beings, is relevant; even the more so, it applies to society, in other words when that given solution will enter in relation to other human beings.

3.3. *The theory of the gaming table*: the identification of X unknown

We left on paragraph 3.2 with the following representation:

C=I/X

It should be highlighted that, still, the conflict of interests (just as much as, more generally, moral hazard) conditions the agent's will and materialises in the conclusion of a contract that will be necessarily conditioned.

Therefore, we can say that when a contract is entered into, the will is influenced both by the asymmetrical information and the information owned. We could identify in the asymmetric information[25] (AI) the X unknown:

C = I / AI

[25] See *infra* Ch. III §3.

Based on the observations made above about the nature of I, we must acknowledge that the contract is the result of the information owned and the will that is always, however it is intended, the result of the solution to a conflict of interests.

Even more so, the conflict of interest will take place if instead of taking action according to our own will, we would take action according to someone else's will or, better, on behalf of another person: this applies to the relationship between principal and agent.

It is clear that it is more likely that the former's interest be in contrast with agent's interest. As indicated, man could never eliminate, his own "original" conflict of interest that is inbred in him, and not even the ones that he could have in social relationships. So, in any situation, even when representing someone else's will, he will inevitably clash with interests other than his own, in a continuous endeavor to balance them.

Optimistically, if he is able to recognize such conflict, he will admit it and report it, if this disclosure is not liable to bring about further conflicts with his own interests.

If we call the conflict of interests K, intended as micro-category of the broader macro-category of the asymmetric information, the final formula will be:

C = I (endogenous information) / K (conflict of interest)

We could define the contract as the will, or better, as the meeting of the different wills that takes form and the more balanced it is, the more information the contractors will dispose of, or better, the lower will the level of asymmetrical information and more specifically the conflict of interest be.

Therefore, going back to the comparison with the calculation of the “speed of light” we could say that the most efficient contract will be the one in which asymmetric information (AI) – or if we consider the micro-category that seems to have led to more damages in the last economic crisis and the conflict of interests, K – tend to zero.

If we apply the considerations made above to the recent financial crisis, it is clear that the legislator's attention must shift to the contract, understood as a constant which is unchangeable in time and space as well as an inevitable consequence of human action, as the “mother” of the market. In particular, it is the subprime mortgage contract that constitutes the pivot, the constant (“C”). The domino effect is only a consequence of a long chain of contracts at high risk of default, concluded in a situation of conflict of interest. On the contrary, costly reforms with uncertain effects on the banking and financial system should be avoided, given the impossibility of carrying out an appropriate "cost-benefit" analysis.

3.4. Application of the general theory of relativity to law and the subprime mortgage crisis: Contracts and Social Contract

It should be noted that the contracts entered into by private individuals (that we have indicated as a constant in the “C” market)

must be considered in relation to another contract: "the Social Contract". As argued by the Swiss philosopher Jean-Jacques Rousseau in "The Social contract"[26] (1762), at the base of every society there is the social contract, not considered as a sum of the wills of the individuals, but as a general will that substantiates in the common good.

This is precisely what, albeit not embracing the contractual conception, Gian Domenico Romagnosi stated when he wrote of the "nature of things", of the "indeclinable natural order" as a criterion for the organization of society, of the State, which is realized endogenously, without external intervention.

The natural Order for Romagnosi and the Social Contract for Rousseau, represent, for the purposes of this thesis "the gaming table"[27]

[26] See J. J. ROUSSEAU, *The Social Contract*, Jonathan Bennett, 2017, p. 9, available at https://www.academia.edu/7264624/The_Social_Contract_The_Social_Contract_ Contents. «In this civil state he is deprived of many advantages that he got from nature, but he gets enormous benefits in return - his faculties are so stimulated and developed, his ideas are extended, his feelings ennobled, and his whole soul uplifted. All this happens to such an extent that if the abuses of this new condition didn't often pull him down to something lower than he was in the state of nature, he would be bound to bless continually the happy moment that took him from it forever, and out of a dull and limited animal made a thinking being, a man»

[27] The expression is improperly used by analogy to the «Game theory» which is «the study of the ways in which interacting choices of economic agents produce outcomes with respect to the preferences (or utilities) of those agents, where the outcomes in question might have been intended by none of the agents» as defined in D. ROSS, *Game Theory*, (edited by) Z. N. EDWARD, in *SEP*, Metaphysics Research Lab, Stanford University, 25 January 1997, available at https://plato.stanford.edu/entries/game-theory/.

on which the operators in the market (or those operating in the market) act.

And the hidden nexus (a hidden or implicit nexus) consists precisely in the relationship between the market, understood as a nexus of contracts[28], and the indeclinable natural Order or the Social Contract, depending on whether the instrument is the natural law or the contract.

According to this relationship, if the negative externalities of the contracts concluded by the parties are such as to invalidate the "Indeclinable natural order" or the "social Contract" and therefore "the gaming table", the ensuing effect will be a "structural failure", a crisis.

3.5. *The theory of the gaming table*: from the nexus between Contract and Social Contract to the self-preservation instinct in Hobbes

By "social" context we refer to the case in which the events affecting one of the contracting parties, as an enterprise, impact directly on the juridical sphere of other individuals in that society, modifying it, thus creating the risk of breaking the foundations on which economic operators act (the risk of breaking the "theory of the gaming table") as in the case of subprime mortgage lending. The above is true by virtue of the inseparable, indeclinable relationship existing between the

[28]The expression "nexus of contracts" still referring to Firm – and not to market as we understand it in this thesis – was coined in M. C. JENSEN – W. H. MECKLING, *Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure*, (edited by) K. BRUNNER, in *Economics Social Institutions*, Dordrecht: Springer, 1979.

contracts stipulated (Contract) and the Social Contract or the Natural indeclinable Order.

Hobbes referred to an instinct for self-preservation, understood as the ultimate goal of man, which in turn is based on three natural laws, understood as a calculation of the right reason to achieve the goal of self-preservation: 1. seek and achieve peace (*pax est quaerenda*); 2. Man could give up natural rights over everything and everyone but only if everybody else does so, having as much freedom as he recognizes for others; 3. Respect agreements and keep one's word (*pacta sunt servanda*).

3.6. The *theory of the gaming table*: from Coase's Theorem to the limit of maximum violation of the "*neminem leadere*" principle

Ronald Coase is the author who must take credit, *inter alia*, for having identified "the Problem of Social Cost"[29]: there are "actions of business firms which have harmful effects on others"[30] and "the harmful effects of the activities of a business can assume a wide variety of forms"[31]. In the case at issue, the contract or better the subprime contracts from which the present crisis originated, had underlying mortgage loans which were unlikely to be repaid by contractors, with

[29] See R. H. COASE, *The Problem of Social Cost*, in *J. Law Econ.*, vol. III, University of Chicago Press, 1960, pp. 1–44, available at https://www.law.uchicago.edu/files/file/coase-problem.pdf.

[30] R. H. COESE, *op. cit*., p. 1 «The standard example is that of a factory the smoke from which has harmful effects on those occupying neighbouring properties».

[31] R. H. COESE, *op. cit*., p. 8.

an obvious consequence: the breach of contract with negative repercussions (externalities) on subsidiaries.

In this case the contract has public relevance (or it is of public interest). The risk about the systemic risks (also in view of the way the risk has been transferred or the external negativities that could come out from such contracts) has not been outsourced.

The dissemination was such as to break the "gaming table", to interrupt the "Social Contract", to violate the "Indeclinable Natural Order" theorized by Romagnosi[32].

Therefore, we can state that there is a close relationship between contracts concluded and the negative externalities that these have on the Social Contract, so that the more negative externalities in the sense of violation of the *neminem leadere* principle, the more severe the damages to the gaming table. But there is a limit.

The limit consists in the maximum violation of the *neminem leadere* principle in space and time - comparable to the "ultimate limit state" (ULS) in structural engineering [33] - leading to a structural failure of the gaming table.

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[32] See *supra* Ch. I § 5.

[33] Cfr. I. ISKHAKOV – Y. RIBAKOV, *Structural Phenomenon of Cement-Based Composite Elements in Ultimate Limit State*, (edited by) A. S. GUIMARÃES, in *Adv. Mater. Sci. Eng.*, vol. 2016, Hindawi Publishing Corporation, 2016, p. 9, available at https://doi.org/10.1155/2016/4710752.

3.7. *The theory of the gaming table*: information as an instrument to avert future crises

Agents interact by exchanging information. In this case the "full" information has not been made public, operators preferred to securitize the risk and spread it to the unaware general public, raising this practice as a "trend".

In a globalised context, it is therefore necessary that information concerning the conclusion of contracts at high risk of default, or better, of negative externalities, is known – maybe with regard to the number of contracts closed entered into or in terms of sums granted, in accordance with privacy rules – because the omitted circumstances of that contract can affect the legal/patrimonial sphere of the subsidiaries.

We can intuitively understand that the information that we will call exogenous (the one given by external players) would serve per se as a deterrent to the application of opportunistic behaviour, in the sense that the bank would damage its image if it disclosed evidence of having entered into hazardous contracts with the consequence that customers could be diverted to other institutions and this would have certain repercussions also on managerial choices.

Or, instead, if motivated by charitable intent, the bank could devise a marketing strategy particularly with regard to the concession of such loans with the consequence of having more shareholders, account holders and a safety net from other banking institutions.

3.8. Application of the general theory of relativity to law: theorizing the fourth dimension. The legislature as the force of gravity in space/time

In his general theory of relativity, Einstein identified the force of gravity as the "fourth dimension".

In analysing an object in motion, the fourth dimension coincides with the force of gravity, which, in turn, is equal to the acceleration force. This force interferes with space-time. To convey the idea more effectively, we often resort to the example of the stretched sheet on which a ball is placed; the ball will exert a force that modifies the sheet; as a consequence of the change to the same, caused by the ball, every other ball on the sheet will start to fall as if attracted by the space created by the ball. This, in a nutshell, is the force of gravity.

Likewise, changing the context of reference and introducing the social dimension (or the public interest), and therefore the State, in its interaction with the market, it is believed that the State or, rather, the rule maker, interacts with the market as the force of gravity does with space/time, that is, by modifying it.

By means of laws, governments and rule makers, in fact, intervene in the economy and affect the forces that (similarly to and in lieu of the space/time identified by Einstein) we have pinpointed as information and as the other force, inversely proportional, of information asymmetries, affecting the same.

At times, the rule maker himself facilitates the onset of conflicts of interest or moral hazard.

3.8.1. Observations: the interferences from the rule maker in the market, or the action of man in the market ("*homo mercati*")

Starting from the observations concerning the analogy between gravity force and rule makers[34] and the ones previously conducted[35] it can be stated that the interferences from the rule maker in the market, especially in the inter-banking market from institutions, in addition to limiting the freedom of actors operating on the market, that we will call "*homo mercati*", preclude the validity of the principle of natural causality.

The same would happen in the case of any action by the banking and financial authorities instead of a mere supervision understood as observation as a "spectator". The effects will be dictated brought about by factors other than the free action of man in the market. And these causes, that are the intervention of the institutions in the market, will nevertheless be perceived as necessary by the community in response to the "economic crisis".

3.8.2. Morality plays an important role

The contract is realized through the manifestation of will that takes shape: acts or conclusive facts. Morals and Ethics pertain instead to the inner sphere of the individual, we could speak of an inner will. Ethics and morality therefore influence the will that manifests itself

[34] See *supra* §3.8.

[35] See *supra* §3 – 3.7.

externally (expressed will) through the acts or conclusive facts and therefore contracts.

For syllogism, moral and ethics influence the conclusion or content of that contract (provided that the contracting party is not a "weak" party).

So, we could say that ethics (E) is to the inner will (IW) as the good contract "in the ethical or moral sense" (GC) is to the external will (EW).

IW : EW = E : GC

4. From Moral imputation to liability: an ethical antidote for unethical conducts

Discussion on what is meant by ethics[36], morality[37] and ethical leadership[38] is on-going.

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[36] See A. GENOVESI, *Lezioni Di Economia Civile, Ed Opuscoli*, Cugini Pomba e Comp edit., 1852, p. 235. See also J. VILLA, *Ethics in Banking. The Role of Moral Values and Judgements in Finance*, Palgrave Macmillan UK, 2015.

[37] See B. M. BASS – P. STEIDLMEIER, *Ethics, Character, Andauthentic Transformational Leadership Behavior*, vol. 10. issue 2, Leadership Quarterly, 1999, pp. 181–217, available at https://www.academia.edu/11999017/ETHICS_CHARACTER_AND_AUTHENTIC_TRANSFORMATIONAL_LEADERSHIP_BEHAVIOR_1998_Bernard_M._Bass_and_Paul_Steidlmeier_Binghamton_University.

[38] See M. E. BROWN – L. K. TREVIÑO – D. A. HARRISON, *Ethical Leadership,* cit., pp.

The philosopher and jurist Romagnosi identified two pre-requirements of morality: full unconditional freedom of execution and the prior knowledge of the value and consequences of action. Prior knowledge means that the individual understands, based either on tradition or thanks to personal knowledge, that a given act surely derives from good or evil, therefore he freely decides whether to act or refrain from acting.

Pre-cognizance forms the assumed norm/rule; consequent action determines the moral act. The act, of which one becomes the author, is morally attributed or ascribed, because it is freely carried out with awareness.

117–134 and pp. 595–616. See also W. L. GARDNER – B. J. AVOLIO – F. LUTHANS – D. R. MAY – F. WALUMBWA, *'Can You See the Real Me?' A Self-Based Model of Authentic Leader and Follower Development.*, in *Leadersh. Q.*, vol. 16. issue 3, Elsevier Science, 2005, pp. 343–372, available at https://doi.org/10.1016/j.leaqua.2005.03.003. See also S. HARTER – S. SNYDER – S. LOPEZ, *Authenticity Handbook of Positive Psychology*, in *Handbook of Positive Psychology*, Oxford University Press, 2002, pp. 382–394. See also F. O. WALUMBWA – B. J. AVOLIO – W. L. GARDNER – T. S. WERNSING – S. J. PETERSON, *Authentic Leadership: Development and Validation of a Theory-Based Measure*, in *J. Manag.*, vol. 34. issue 1, SAGE Publications Inc, 2007, pp. 89–126, available at https://doi.org/10.1177/0149206307308913. See also C. TANNER – A. BRÜGGER – S. VAN SCHIE – C. LEBHERZ, *Actions Speak Louder Than Words The Benefits of Ethical Behaviors of Leaders*, in *Z. Psychol.*, vol. 218. issue 4, Hogrefe Publishing, 2010, pp. 225–233, available at https://doi.org/10.1027/0044-3409/a000032. The mentioned authors discussed on what ethical leadership involves.

Lacking these conditions, the action cannot not be carried out with morality, and the author cannot be regarded as moral[39]. Hence the "moral imputation" that it would be impossible to find "in the brute or the child", that can be of merit or demerit and therefore of responsibility[40].

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[39] See J. RAWLS, *A Theory of Justice. Revised Edition*, Harvard University Press, 1971; with «It is postulated though that the parties are moral persons, rational individuals with a coherent system of ends and a capacity for a sense of justice.», p. 289; «Moral persons are distinguished by two features: first they are capable of having "and are assumed to have" a conception of their good "as expressed by a rational plan of life" and second they are capable of having "and are assumed to acquire" a sense of justice, a normally effective desire to apply and to act upon the principles of justice, at least to a certain minimum degree». p. 442. See J. RAWLS, *ivi* chapter I, 5, chapter III, 30. See also J. RAWLS, *Kantian Constructivism in Moral Theory*, in *J. Philos.*, vol. 77. issue 9, 1980, pp. 515–572, available at https://www.jstor.org/stable/2025790. It must be recalled that Rawls criticises utilitarism since it considers maximisation of general utility – thus of nobody in particular – as prevailing, therefore, it would mistake impartiality with impersonality, consequently denying the separate nature of individuals.; See also M. NOVAK, *Business As a Calling: Work and the Examined Life*, Free Press, 1996. The author identifies in honesty, courage and prudence the three virtues underlying the three "cardinal virtues" of business. The author adds that an ethical organization is built on an ethical individual. In this contest it becomes important to build a personal moral character on which trust can be founded.

[40] See G. ROMAGNOSI, *Opere Di G. D. Romagnosi Riordinate Ed Illustrate Da Alessandro De Giorgi*, cit., par. 1503-1504, par. 1506, par. 1508, p. 1167. In the original language: (III. Imputazione morale). «quali sono i caratteri che distinguono l'imputazione morale da ogni altra. Da prima ognuno intende che il predicato di morale importa che si parli di un atto praticato con moralità, vale a dire con precognizione del valore e delle conseguenze dell'atto, e con piena ed integra libertà dell'esecuzione. […] Senza queste condizioni né l'atto sarebbe praticato con moralità, né l'agente potrebbe dirsi morale. Par. 1504. […] In che dunque si risolve

la moralità? Rispondo, che la previdenza del fanciullo e del cavallo è a sperimento fatto, e non ad esperimento da farsi, quale sarebbe la minaccia d'una legge. La previdenza del cavallo si può dire più tosto il risvegliamento di un'idea operato per una meccanica associazione, anziché un vero giudizio prodotto per una divinazione o per un'anticipata significazione delle conseguenze di un dato fatto, di un dato atto nostro volontario; par. 1505. In questa specie di divinazione o di anticipata cognizione senza sperimento consiste propriamente la precognizione propria della moralità. Io comprendo per tradizione o per cognizione propria, cha dal dato atto deriva certamente un bene od un male, benché non l'abbia goduto o sofferto mai; quindi delibero di praticarne l'uno, e di astenermi dall'altro. La cognizione anticipata forma la norma preconosciuta; l'azione conseguente forma l'atto morale. L'atto, del quale io divengo in tal guisa autore, mi viene moralmente attribuito o imputato, perché fatto con precognizione e libertà. par. 1506. Più addentro esaminando le condizioni dell'atto morale, io trovo che esso non può essere prodotto fuorché da un agente dotato di ragionevolezza, ossia munito d'idée astratte e generali, […]; allora gli atti suoi si possono con tanto maggiore ragione imputare a lui, ossia attribuire a lui solo, quanto più, a giudizio nostro, egli ne può essere riguardato come autore, o come causa propria ed indipendente. Par. 1507. Ecco in qual guisa lo stato d'intelligenza comunica ai nostri atti volontari un carattere speciale e proprio di morale imputazione cui sarebbe impossibile riscontrare nel bruto e nel fanciullo […]. Par. 1508. Come una libera promessa è causa d'un credito o debito, così un'azione fatta con moralità può essere causa di Jus o di responsabilità, di merito o di demerito. Il merito e il demerito altro non solo che il titolo per avere bene o male; come la RESPONSABILITA' altro non significa che = la necessità giuridica di sottostare a qualche cosa in conseguenza di un atto imputabile». (III. moral allocation) «what are the characters that distinguish moral allocation from each other. Since earlier everybody intends that the moral predicate matters that we speak of an act practiced with morality, that is to say with foreknowledge of the value and consequences of the act, and with full and intact freedom of execution […] Without these conditions neither the act would be practised with morality nor could the agent be said Moral» Par. 1504 […] In which way we resolve morality? I answer by saying that the provision of the child and the horse is once the experiment is done, and not in the experimentation to do, because it could be a threat to a law. The horse's provision could be said to be the awakening

Now, the agent can certainly be called "morally ascribable" in the sense given to the expression by Romagnosi; therefore, the act of directors whose conduct in conflict of interest has caused the crises can be defined as "moral attribution".

Accordingly, any ascribable act could result in legally ascribable liabilities, which are substantiated precisely in the "legal need to be subject to consequences as a result of an ascribable act".[41]. The liability

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of an idea operated for a mechanical association, instead of a true judgement produced for a divination or for an anticipated significance of the consequences of a fact, of a given act that is our and intentional. Par. 1505. In this sort of divination or early cognition without experiment lies properly the precognition of Morality. I understand by tradition or by own cognition, that from the given act certainly derives a good or an evil, although it has never enjoyed or suffered it; So, I decide to practice one, and abstain from the other. Early cognition forms the recognized norm; The consequent action forms the Moral Act. The act, of which I become an author, is morally attributed or accused to me, because it is done with precognition and freedom. Par. 1506. Examining inside the conditions of the Moral act, I find that it cannot be produced except by an agent endowed with reasonableness, that is to say equipped with abstract and general ideas, [...]; Then his acts can be a fortiori impute to him, namely to him alone, the more, in our judgment, he can be regarded as author, or as his own or independent cause. Par. 1507. That Is how the state of intelligence communicates to our voluntary acts a special character of Moral imputation which it would be impossible to find in the brute and the child […]. Par. 1508. As a free promise is the cause of a credit or debit, so an action made with morality can be the cause of Jus or responsibility, merit or demerit... - merit and demerit are simply intended as title to have good or evil; like responsibility means nothing more than = the legal necessity to submit to something as a consequence of an imputable act.

[41] On conflicts of interest of intermediaries, see e.g. L. THÉVENOZ – R. BAHAR, *Conflicts of Interest: Corporate Governance and Financial Markets*, Kluwer Law International, 2007. See J. R. BOATRIGHT, *Financial Services*, in *Conflicts of*

arising from the management of third parties' interests, that is, the provisions governing situations of conflict of interest[42], have an important role in the field of civil liability[43]. However, in the domain of Corporate Law the manager's moral attribution is limited in that "No one risks more than what he invests"[44].

Interest in the Professions, Oxford University Press, 2001, p. 217. See also C. KUMPAN – C. P. LEYENS, *Conflicts of Interest of Financial Intermediaries - Towards a Global Common Core in Conflicts of Interest Regulation* -, in *ECFR*, vol. 5. issue 1, 2008, pp. 72–100, available at https://doi.org/10.1515/ecfr.5.1.72.

[42] See *infra* Ch. III § 2-2.2.

[43]Under Article 1395 of the Italian Civil Code, «The contract that the representative enter into with himself [1735], whether on his own behalf or as representative of another party, is voidable, unless the party represented specifically authorized the representative or the content of the contract is determined in such a way as to rule out the possibility of conflict of interest [2373, 2391]. Only the represented person is entitled to file such an appeal. The most evident case of conflict of interest between representative and party represented is the contract with "himself" ». See L. MOSCO, *La Rappresentanza Volontaria Nel Diritto Privato*, Napoli: E. Jovene, 1961, p. 376; according to the author's opinion, in article 1395 of the Italian Civil Code, the legislator intended to conceive a case of conflict of interest "without the possibility of proof to the contrary". In case-law, see Court of Cassation, 8 October 1970, No 1852. Concerning the contract with "himself". See also C. DONISI, *Il Contratto Con Se Stesso*, (edited by) P. PERLINGIERI, Pubblicazioni della Scuola di specializzazione in diritto civile dell'Università di Camerino, 1982, p. 406. For an overview on the conflict of interest within the contract with "himself", see *ivi*, pp. 131-251.

[44]See F. H. EASTERBROOK – D. R. FISCHEL, *The Economic Structure of Corporate Law*, Harvard University Press, 1991, p. 40; the authors make an example: «Suppose a bank lends $100 to a partnership, and the partnership's liabilities later exceed its assets. The bank may lose the $100, but It will not be required to contribute any extra money. Its liability is limited to its investment, exactly as the shareholder's liability is limited in a corporation».

5.Interim Assessment

Starting from natural law, understood as the law of nature, we have tried, in this chapter, to find the “constant” cause of the economic crises, in the banking species, which is identified in the contract, in which morality plays an important role.

There is an inseparable link between contracts stipulated in the market and the so-called social contract theorized by Rousseau, or even the natural order identified by Romagnosi.

The intrinsic relation between stipulated contracts and the social contract implies that the former can never exceed the limit of the maximum violation of the *neminem laedere* principle, as reported in the following chapter; in the event that such hypothesis were to actually take shape and occur, the social contract, the natural order and, therefore, the “gambling table” on which the “homo mercati” acts, is lost. I call what has been described “theory of the gaming table”.

Chapter III: The Origin of the Global Financial Crisis and the application of the thesis of the "hidden nexus" between contracts and Social contract or "the gaming table theory"

Summary: 1. Incontrovertible factual elements that led to the Global Financial Crisis in the context of financial regulations; 2. The two main causes of the Great Financial Crisis: (I) the abuse of capital market finance with the consequent transfer of credit risk by banks to the financial system (II) the weaknesses in corporate governance as a motive to act in *conflict of interest*; 2.1. The abuse of capital market finance with the consequent transfer by banks of credit risk to the financial system; 2.2. The weaknesses in corporate governance as a reason to act in conflict of interest; 3. The conflict of interest as the "Leitmotiv" of the Global Financial Crises and the greater problem of a principal – agent model; 4. From the contract as a constant instrument of implementation of causes and behind the recent Global Financial Crisis to the application of the "gaming table theory" or of the maximum violation of the principle of "*neminem leadere*".

1. Incontrovertible factual elements that led to the Global Financial Crisis in the context of financial regulations

The crisis of subprime or high-risk mortgages[1] resulted from the granting of loans to customers who could not provide adequate

[1] For an overview on the creation of subprime mortgages and the securitization process, see S. CHOMSISENGPHET – A. PENNINGTON-CROSS, *The Evolution of the*

Subprime Mortgage Market, in *Rev.*, vol. 88. issue Jan, Federal Reserve Bank of St. Louis Review, 2006, pp. 31–32, available at https://econpahttps//files.stlouisfed.org/files/htdocs/publications/review/06/01/ChomPennCross.pdf; see also T. SCHUERMANN – A. ASHCRAFT, *Understanding the Securitization of Subprime Mortgage Credit*, Staff Reports, vol. issue 318, Federal Reserve Bank of New York, 2008, p. 14, available at http://ssrn.com/abstract=1071189; see also, *inter alia*, J. DUCA – D. DIMARTINO, *The Rise and Fall of Subprime Mortgages*, in *Econ. Lett.*, vol. 2. issue Nov, Federal Reserve Bank of Dallas, 2007, p. 2, available at https://www.dallasfed.org/~/media/documents/research/eclett/2007/el0711.pdf.

securities. The crisis officially started in the United States in mid-August 2007[2] with the default of two Bear Stearns Hedge Funds[3],

[2] For a comprehensive and original chronicle of Great Crisis see A. MILNE, *op. cit.*, p. 198. The author distinguishes four phases of this financial storm: (I) first signs of rain; (II) rain turns to deluge; (III) the levees burst; and (IV) the flooding of the banking system. It is reported below a list of the stages of the crisis as well as descriptions given by the author himself. He states that he has noticed difficulties in mortgage lending markets in March 2007 during an interview made by BBC 24 and in which he was called to comment on the 2006 results of the commercial bank HSBC. As written about "the first signs of rain", pp. 199-200, «The main concern about the 2006 HSBC results was with a rise in provisions for losses on loans made by their subsidiary Household Finance Corporation (HFC), the largest provider of credit in the United States to higher-risk sub-prime borrowers, thought mortgages, home equity loans, credit cards and other personal loan products […] this HSBC subsidiary was just one among many US lenders experiencing problems with their sub-prime loans in 2006 and early 2007. Ameriquest, once the leading supplier of sub-prime and Alt-A loans for mortgage securitizations in the country, was brought down by a major legal case alleging abusive lending practices. Following an out-of-court settlement, Ameriquest closed all its retail branches in May 2006. Then, in early 2007, Ameriquest loan servicing operations and its sister company Argent, a mortgage wholesaler, were sold by their parent, the privately-owned holding company ACC, to Citigroup for an undisclosed sum. Another major early casualty was New Century Financial, which filed for Chapter 11 bankruptcy protection with a Delaware court on 2 April 2007 […] By the end of 2006 loan impairments were increasing in many other large sub-prime lenders, such as Washington Mutual and IndyMac, with a rapidly rising proportion of borrowers in arrears and many other large sub-prime lenders, such as Washington Mutual and IndyMac[…]». Regarding to "rain turns to deluge" the author writes that: «At this stage, the middle of July 2007, the global banking industry and the wider economy were not yet much affected» but «On the evening of Tuesday 17 July the US investment bank Bear Stearns gave up the fight to save its two hedge funds, despite having already injected $1.5 billion into one of them when their trading difficulties were first acknowledge in June. These moved into Chapter 15 bankruptcy proceedings, and this decision

followed by the well-known bankruptcy of Lehman Brothers investment bank[4].

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was followed by the sacking of the managers responsible for these funds. There has also been a slew of court cases surrounding these two funds, accusing Bear Stearns of misleading investors and including claims […] That the fund managers had left an email trail in which they acknowledged that the asset quality of the funds was lousy at the same time as they invited new investment in the funds» pp. 203-204. And also, regarding "the levees burst" the author writes that: «the impact was akin to the bursting of the levees responsible for most of the devastation following Hurricane Katrina and that caused by the earlier great Mississippi floods of 1854, 1951 and 1993 […] The next prominent victim of the credit crisis was IKB - a relatively small […] Dusseldorf-based German industrial bank […] During the late July and early August 2007 further credit-related problems continued to emerge, with more US sub-prime mortgage lenders under threat of bankruptcy and private equity deals cancelled, including the large $8 billion sale of the UK cable and mobile telecommunication group Virgin Media to the Private Equity Group Carlyle. More structured credit funds and investors revealing losses, including the West LB Mellon Compass Fund, a US-German bank joint venture, funds in Australia and banks in Japan. […] Investor concerns about structured credit products exposed to the US sub-prime lending continued to grow, with a number of structures being placed under ratings review, and an indication that their credit ratings may well eventually be downgraded». Finally, with regards to the fourth phase: «On Thursday 9 August several more levees burst and the flood waters rose a good deal higher. The major French bank BNP Paribas announced suspension of three investment funds due to "complete evaporation of liquidity" in some structured security markets, citing a collapse in demand that made this fund impossible to value».

[3] W. POOLE, *Causes and Consequences of the Financial Crisis of 2007-2009*, vol. 33. issue 2, Harvard Journal of Law and Public Policy, 2010, pp. 421–441. See also A. MILNE, *op. cit.*, p. 229 et seq. In March 2008; The Name Bear Stearns was saved from insolvency thanks to the acquisition by rival JP Morgan, for $10 per share and the US Federal Reserve through a «takeover assisted by $30 billion short-term funding support».

[4] See J. F. BELLAMY – F. MAGDOFF, *The Great Financial Crisis: Causes and*

The crisis arose out of a number of accounting frauds committed in the period 2001-2003[5], in the North-American legal context, characterized by the consolidation of two new ownership patterns: on the one hand, the increased dispersion of share ownership, and on the other hand the corresponding increase of "managerial power"[6].

As noted, the excessive indebtedness of intermediaries has been penalized on the market[7]. Moreover, the debt was taken on based on a

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Consequences, Monthly Review Press, 2009. In the incipit, the authors affirm that: «The global financial crisis of 2007 has cast its long shadow on the economic fortunes of many countries, resulting in what has often been called the 'Great Recession» See also, A. MILNE, *op. cit.*, p. 198. «What took place was a financial storm with devastating effects on the world's banks, with many parallels to the impact of a hurricane such as that of "Katrina" on the city of New Orleans in August 2005.

[5] V. BAVOSO, *op. cit*., p. 19.

[6] See A. A. BERLE – M. GARDINER, *The Modern Corporation and Private Property*, New York: Harcourt, Brace & World, 1968. For a more complete knowledge of the debate on the direct relationship between ownership structures and corporate instability see also J. C. COFFEE JR, *Dispersed Ownership: The Theories, The Evidence, and the Enduring Tension Between 'Lumpers' and 'Splitters'*, in *Working Paper No. 363*, The Centre for Law and Economic Studies, 20100; see also J. M. ROE, *Political Preconditions to Separating Ownership from Corporate Control*, vol. 53. issue 3, Stanford Law review, 2000, pp. 539–606; Contrarily R. J. GILSON, *Controlling Shareholders and Corporate Governance: Complicating the Comparative Taxonomy*, vol. 119, Stanford Law and Economics Olin Working Paper No. 309; Columbia Law and Economics Working Paper No. 281, 2005, available at https://ssrn.com/abstract=784744, who identifies in good corporate laws the main reason for corporate failures rather than ownership structures.

[7] See A. PERRONE, *Dalla Trasparenza Alla Fiducia. Il Diritto Del Mercato Finanziario Dopo La Crisi*, (edited by) E. GINEVRA, in *La Fiducia e i Rapporti*

wrong pricing of the risk of subprime vehicles, due to the fact that the price of the instruments, as assessed, was higher than the statistical fundamentals underlying the pricing of synthetic instruments[8] [9].

Fiduciari, Milano: Giuffrè Editore, 2012, p. 406; l`autore ritiene che «La crisi recente ci insegna che quando il settore privato si indebita eccessivamente e poi la situazione volge al brutto a fare le spese sono gli intermediari finanziari. Ma siccome nessun Paese può permettersi di lasciar fallire i propri intermediari (se non quelli piccoli: Lehman Brothers docet), alla fine l'indebitamento eccessivo del settore privato si trasforma in indebitamento pubblico, se non altro attraverso i salvataggi delle banche. […] L'eccesso di indebitamento è all'origine della Grande Crisi» cit. p. 321; In English: the author assumes that: «The recent crisis teaches us that when the private sector is excessively indebted and then the situation turns bad, financial intermediaries are the ones to make the expenses. Since no Country can afford to let its intermediaries go bankrupt (except for the small ones: Lehman Brothers Docet), in the end the excessive indebtedness of the private sector turns into public borrowing, at least through the bail-outs of Banks. […] Excessive indebtedness represents the starting point of the Great Crisis», cit. p. 321.

[8] See According to ADEL AHMED, *Global Financial Crisis: An Islamic Finance Perspective*, in *IMEFM*, vol. 3. issue 4, Emerald Group Publishing Limited, 2010, p. 315, available at https://doi.org/10.1108/17538391011093252; is the root cause of almost every financial crisis. The author argues that the risk - sharing concept under the Islamic finance will reduce the severity of the crisis, as it will make the investor more prudent. See also V. BAVOSO, *Capital Markets, Debt Finance and the EU Capital Markets Union: A Law and Finance Critique*, ECMI Working Paper, No. 5, 2017, p. 37, available at https://ssrn.com/abstract=3053783. The Author believes for example that it has emerged that innovative debt transactions resulted in the creation of excessive risk-taking and leverage, which in turn have brought catastrophic consequences, both at corporate and systemic level.

[9] See A. PERRONE, *Dalla Trasparenza Alla Fiducia. Il Diritto Del Mercato Finanziario Dopo La Crisi*, cit., p. 406.

2. The two main causes of the Great Financial Crisis: (I) the abuse of capital market finance with the consequent transfer of credit risk by banks to the financial system (II) the weaknesses in corporate governance as a motive to act in *conflict of interest*

Sometimes economic crisis results from a shock[10], sometimes crisis is the final outcome of a number of misconducts by economic operators, monetary policy, regulation or interactions between the three above-mentioned factors[11].

The Global Financial Crisis arose out of a number of accounting frauds committed in the period 2001-2003[12], in the North-American legal context, characterised by the consolidation of two new ownership patterns: on the one hand, the increased dispersion of share ownership, and on the other hand the corresponding increase of "managerial power".[13]

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[10] Real, financial, of liquidity, profound and unforeseen demographic changes see e.g. P. ANGELINI – S. NICOLETTI-ALTIMARI – I. VISCO, *Macroprudential, Microprudential and Monetary Policies: Conflicts, Complementarities and Trade-Offs*, in *Questioni Di Economia e Finanza*, vol. issue 140, Bank of Italy, Economic Research and International Relations Area, November 2012, available at https://www.bancaditalia.it/pubblicazioni/qef/2012-0140/QEF_140.pdf

[11] See J. N. GORDON, *What Enron Means for the Management and Control of the Modern Business Corporation: Some Initial Reflections*, vol. 69. issue 3, The University of Chicago Law Review, 2002, pp. 1233–1250, available at http://www.jstor.org/stable/1600646.

[12] V. BAVOSO, *op. cit.*, p. 19.

[13] See A.A. BERLE - G.C. MEANS, *op. cit.*, For more in-depth insights into the debate relating to the direct relationship between ownership structures and corporate instability see also J.C. COFFEE JR, *op. cit.*; see M. J. ROE, *op. cit.,* see R. J. GILSON,

Moreover, as clearly described by professor Lastra, crises can stem from banking or financial causes.

In the case of the recent Financial Crisis, the interactions between the three aforementioned factors need to be taken into account; in particular, from 2003 the dynamics of the US real estate market - rising constantly from 2000 to 2006 until it culminated in the burst of a real estate bubble - and the monetary policy of the Federal Reserve (FED), which kept interest rates low until 2004 - led to an increase in the granting of subprime mortgages.

2.1. The abuse of capital market finance with the consequent transfer by banks of credit risk to the financial system

As authoritatively claimed, progressive globalization made the recent crisis global. However, the latter statement is not entirely true or exhaustive. The crisis has doubtlessly become global[14] due to the

op. cit., who identifies in good corporate laws rather than in ownership structures the main reason for corporate failures rather than ownership structures.

[14] See G. MELIS, *Globalizzazione, Fisco, Proprietà e Diritti Sociali: Quali Prospettive?*, (edited by) G. DELLA TORRE - C. MIRABELLI, in *Verit. e Metod. Giurisprud.*, Roma, 2014, p. 408; «in the fiscal sphere, it is thought that the financial crisis has induced many States to increase the already existing taxes and create new forms of taxation that are often characterized by "ethical" profiles (see the so-called Robin Hood tax for the energy sector that raised doubts of constitutional legitimacy). In some countries including the United Kingdom, France and Germany new taxes have been imposed on banks and financial institutions (so-called "bank levy"); another reaction has been the tightening of the "bonus" rates paid to managers and traders in the financial sector, which have come to be over 90% (see the ruling by

"interlinkages between financial institutions and market".[15] but it must also be considered that it has become global due to the *abuse and*

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the European Court of Human Rights) of May 14, 2013, NKM v. Hungary). The author specifies that: «"The idea that often lies at the base of these forms of taxation" is to "tax the guilty", that is to tax the culprits of the crisis or those who in some way have benefited from it, even in how they operate in economic sectors where "over profits" are believed to exist. The banking crisis in Cyprus in 2013 is emblematic. Initially, an extraordinary 20% taxation of the deposits of the account holders in all the banks of Cyprus was set forth, based on the high yields they had benefited from in the past, therefore proposing a "tax" solution: this drastic solution, to say the least, in light of the proposed rate, came from the "Troika" even if the EU Commission promptly declared that it was an extraordinary measure that would never be repeated in other States. In the end, the question was resolved on the merely "privatistic" level - the crisis of the two Cypriot banks affected by the default will be paid by the shareholders, bondholders and current account holders - but a question with momentous consequences has emerged: what would the legal protection of the Italian "account holder" be in the event that the Troika also requested Italy to adopt a similar measure of taxation of bank deposits?». For an exhaustive overview of fiscal problems related to globalization see T. ROSEMBUJ, *Principios Globales de Fiscalidad Internacional*, El Fisco, 2012, available at http://elfisco.com/app/uploads/2017/01/32.pdf.

[15] See R. H. WEBER, *Multilayered Governance in International Financial Regulation and Supervision*, in *J. Int. Econ. Law*, vol. 13. issue 3, 2010, p. 683, available at https://doi.org/10.1093/jiel/jgq033. See also A. G. HALDANE, *Rethinking the Financial Network*, vol. 53, Amsterdam, Speech given at the Financial Student Association, 12 April 2009, available at https://www.bankofengland.co.uk/-/media/boe/files/speech/2009/rethinking-the-financial-network.pdf?la=en&hash=9ADEE0CD6B00A8136BE74046C6B602B74A1B6EC1. On systemic interdependence, see also M. HELLWIG, *Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis*, vol. 43, Bonn: Max Planck Institute Collective Goods Preprint, 2008, available at http://ssrn.com/abstract=1309442. «The presenter went on to provide empirical evidence that the incidence of such fraud, also the incidence of collusion between

misuse[16] committed by the banks or by the so-called "opportunists"[17], that have perpetrated a deliberate and planned transfer of risk to other market operators and more broadly speaking, to society.

In the context of the abuses of capital market finance, regarded as one of the two main causes of the crisis, we can also include, in addition to excessive indebtedness, the transfer of credit risk to the financial system by the banks, which have thus turned risks of individual institutions into systemic risks[18]. This abusive practice was achieved through securitization. In addition to the real estate bubble and low interest rates, the subprime mortgages increased in number also due to

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property appraisers and borrowers, was significantly higher when the originating lender was planning to put the mortgage into a package of mortgages that would be sold for securitization than when he was planning to hold the mortgage himself». In an interlinked economy, it is the weak link of the chain that is tested for soundness.

[16] From an economic point of view see W. B. WAGNER – R. G. M. NIJSKENS, *Credit Risk Transfer Activities and Systemic Risk: How Banks Became Less Risky Individually but Posed Greater Risks to the Financial System at the Same Time*, in *J. Bank. Financ.*, vol. 35. issue 6, 2011, pp. 1391–1398, available at https://doi.org/10.1016/j.jbankfin.2010.10.001. The authors identify the main cause of the global financial turmoil in the various ways through which banks have transferred credit risk in the financial system.

[17] See M. C. JENSEN – K. J. MURPHY, *Performance Pay and Top-Management Incentives*, in *J. Polit. Econ.*, vol. 98. issue 2, The University of Chicago Press, 1990, pp. 225–264, available at https://www.jstor.org/stable/2937665; see I. MOOSA, *The Hubris of Excessive Remuneration in the Financial Sector: The Case for Regulation*, in *J. Bank. Regul.*, vol. 18. issue 4, 2017, pp. 287–301, available at https://www.doi.org/10.1057/s41261-016-0027-7.

[18] This is regarded by some authors as the main cause of the great crisis of 2007/2009. See W.B. WAGNER - R. G. M. NIJSKENS, *op. cit.*; for a complete definition of systemic risk see STEVEN L. SCHWARCZ, *Systemic Risk*, in *Geo. L.J.*, vol. 97. issue 1, 2008, available at https://ssrn.com/abstract=1008326.

the increased securitizations, i.e. the transformation of subprime mortgages into "securities" that were then circulated[19].

Massive securitization encouraged the perpetration of abuses by banks that did not correctly assess the soundness and reliability of the customers, thus paving the way for credit institutions to transfer the loans - 'transformed' into a security - to the Special Purposes Vehicles - SPV - and *conduit*, third parties, or, again, through vehicle companies to issue the so-called Collateralized Debt Obligations (CDO) and to enter into re-securitization transactions, (the underlying assets of which were mostly structured instruments). In turn, the vehicle companies offered short-term securities to investors worldwide to finance the purchase of securitized mortgages.

The transaction described above enabled credit institutions to immediately recover a large part of the credit[20] and be apparently released from the risk of the borrowers' insolvency.

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[19] For an analysis of sub-prime problems see R. SHILLER, *op. cit.*

[20] Which would have otherwise been recovered only upon total repayment of the same loans (10, 20 or 30 years later); see CONSOB, www.consob.it, *La Crisi Finanziaria del 2007-2009*, available at http://www.consob.it/web/investor-education/crisi-finanziaria-del-2007-2009, «Le società veicolo (Special purpose vehicle – SPV – and conduit) presentavano all'attivo gli impieghi a medio e lungo termine ceduti dalle banche e al passivo titoli a breve termine (le cosiddette Asset Backed Commercial Paper – ABCP), garantiti dalle attività bancarie cedute e assistiti da linee di liquidità messe a disposizione dalle banche stesse. Una modalità alternativa di cartolarizzazione prevedeva l'emissione dei cosiddetti Collateralised Debt Obligations (CDO) sempre tramite apposite società veicolo (spesso indicate anch'esse con la sigla CDO) e operazioni di ri-cartolarizzazione, nelle quali le attività sottostanti erano in prevalenza titoli strutturati». In English «The Special

In fact, “Originators” sold subprime mortgages to other financial institutions, thus becoming exempt from risk: a perverse system of incentives according to which the originators sold any possible mortgage and the risk was “sold on", following the so-called ‘*originate-to-distribute*’ model[21]– Since the risk “moved on”, originators were not deterred in selling as many mortgages as possible.

2.2. The weaknesses in corporate governance as a reason to act in conflict of interest

The other main cause of the financial crises is consisted in the corporate governance failures due to remuneration structure relationships between managers and shareholders, and, overall, their respective responsibilities.

The compensation/bonus structure system creates “misaligned incentives” between the long-term interest of banks and the short-term

Purpose Vehicle (SPV – and Conduit), presented on the assets side medium and long-term uses assigned by banks and on the liabilities side short-term securities (the so-called Asset backed commercial paper – ABCP), backed by the activities assigned by banks and assisted by liquidity lines made available by the banks themselves. An alternative securitization modality provided for the issuance of the so-called Collateralized Debt Obligations (CDO) by means of special vehicle companies (often referred to as CDO) and re-securitization operations, in which the underlying activities were mainly structured titles».

[21] See V. SHER – I. IYANATUL, *The Great Recession of 2008-2009: Causes, Consequences and Policy Responses*, in *Discussion Paper No. 4934*, IZA - Institute of Labor Economics, 2010, available at http://ftp.iza.org/dp4934.pdf

interest of bankers[22]. The limited liability which protects shareholders[23] combined with a state insurance - which protects creditors - generates a "financial doomsday machine"[24].

It has been considered that "the cancer of excessive CEO pay is at the core of America's economic woes, and it demands government attention"[25].

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[22] R. M. LASTRA – G. WOOD, *op. cit.*, p. 541.

[23] As argued by R. M. LASTRA - G. WOOD, *ibidem*; crucial here is that shareholders acknowledge and act on their responsibilities.

[24] See M. WOLF, *The Challenge of Halting the Financial Doomsday Machine*, in *Financial Times*, 20 April 2010, available at https://www.ft.com/content/f2e4dbb0-4caa-11df-9977-00144feab49a. The article was mentioned by R. M. LASTRA - G. WOOD, *ibidem*.

[25] L. HINDERY JR, *Why We Need to Limit Executive Compensation*, 4 November 2008, available at https://www.bloomberg.com/news/articles/2008-11-04/why-we-need-to-limit-executive-compensationbusinessweek-business-news-stock-market-and-financial-advice. To the contrary see C. WYPLOSZ, *The ICMB-CEPR Geneva Report: 'The Future of Financial Regulation'*, in *Vox*, 27 January 2009, available at https://voxeu.org/article/financial-regulation-reform-goodhart-report. The author objects to the intervention of government in the decisions of private firms concerning executives' compensation. See also H. STEWART, *OECD: Large Banking Sectors Widen Inequality and Slow Growth*, in *The Guardian*, 17 June 2015, available at https://www.theguardian.com/business/2015/jun/17/oecd-report-large-financial-banking-sectors-slow-growth-wider-inequality; the author reports that the OECD has shown that inequality was exacerbated by high pay in the financial sector. For an exhaustive analysis with respect to the regulation of excessive remuneration, as a cause of moral hazard, and regulatory proposals see I. MOOSA, *op. cit.*

3. The conflict of interest as the "Leitmotiv" of the Global Financial Crises and the greater problem of a principal – agent model

The conflict of interest in managerial remuneration practices[26] was one of the main causes of the crisis. Hence, at every moment of the securitization process countless plausible conflict of interests can be highlighted. Conflicts of interest arose from regulators in the same areas, which aggravated those plausible situations mentioned above[27]. The crisis came from the US – namely from subprime loan contracts, thus affecting securities and the entire financial system.

Although the major reforms after the crisis concerned the "macro-level" and its opacity, the leading factors contributing to the GFC were the misaligned "micro-level" incentives and the consequent conflicts of interest[28] as the primary cause of the macro - level opacity [29].

The conflict of interest is strictly related to the principal agent relationship model. This model refers to the difficulties associated with

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[26] See C. KUMPAN, *Conflicts of Interest in Securitisation: Adjusting Incentives*, in *J. Corp. Law Stud.*, vol. 9, 1 June 2009, pp. 261–295, available at https://ssrn.com/abstract=1503429.

[27] *Ibidem.*

[28] *Ibidem*, p. 262. See also, e.g. L. THÉVENOZ – R. BAHAR, *op. cit.*; C KUMPAN – C. P. LEYENS, *Conflicts of Interest of Financial Intermediaries*, cit.

[29]Cfr. See C KUMPAN – C. P. LEYENS, *Conflicts of Interest of Financial Intermediaries*, cit., p. 262; the author assumes that misaligned incentives in the micro-level, «led to complete opacity on the macro-level, which eliminated vital market functions, such as pricing efficiency, market depth and liquidity, and eventually made the global financial system collapse».

a condition of incomplete or asymmetric information deriving from a relationship in which a person (the so-called principal) appoints another person (the so-called agent) to carry out business (services) on his behalf. This relationship is based on the powers that the agent is vested with as regards decision-making in connection with the matters envisaged[30].

Indeed, a variety of relationships classifiable as principal-agent relationships could be found in the securitization process. The risk taken by the principal is that the agent might make decisions which prove prejudicial to the principal owing to the agent's "specific" ("greater") knowledge of certain circumstances. Looking at the Global Financial Crisis, and in particular at the securitization process partakers, the so-called "originators" – who subscribe and fund mortgage loans – it can be said that they transferred the risks to the so-called "arrangers" – "typically" a bank setting up a special purpose vehicle (SPV) – and

[30] See *Ibidem*. For a thorough analysis of the principal agent model, see, e.g. J. ARMOUR – H. HANSMANN – R. KRAAKMAN, *Agency Problems and Legal Strategies*, in *AA. VV., The Anatomy of Corporate Law. A Comparative and Functional Approach*, 2nd edition, Oxford: Oxford University Press, 2017, pp. 29–39, available at https://doi.org/10.1093/acprof:oso/9780198739630.001.0001; J. W. PRATT – R. J. ZECKAUSER, *Principals and Agents: The Structure of Business*, Boston: Harvard Business School Press, 1 February 1991; E. F. FAMA – M. C. JENSEN, *Separation of Ownership and Control*, in *J. Law Econ.*, vol. 26, 1983, pp. 301–325, available at http://dx.doi.org/10.1086/467037; E. F. FAMA, *Agency Problems and the Theory of the Firm*, in *J. Polit. Econ.*, vol. 88. issue 2, The University of Chicago Press, April 1980, pp. 288–307, available at https://www.jstor.org/stable/1837292; M. C. JENSEN – W. H. MECKLING, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, in *J. Financ. Econ.*, vol. 3. issue 4, Harvard University Press, 1976, pp. 305–360, available at https://ssrn.com/abstract=94043.

to the investors by collecting fees in advance so as to originate and sell poorly subscribed loans.

The arrangers, on their part, did not conduct proper due diligence in cutting the cash flows from questionable loans. The Servicers – who were responsible for collecting interest, principal payments and the like, advanced the same to the investors after deducting all relevant expenses.

They had a "privileged" position since they were the first to be paid out of receipts every month, even before investors received any of the funds.[31]

Servicers (III) had neither an adequate information system nor sufficient personnel that would have enabled them to deal with the wrongful acts that they could (and eventually did) face. Rating agencies (IV) used insufficiently tested statistical models and securities ratings were unrealistically optimistic. Ultimately, the yield-hunting investment funds and bank managers (V) did not fulfill their own obligations towards their investors/shareholders[32].

[31] Cfr. C. KUMPAN, *op. cit*., p. 10.

[32] Cfr. C. KUMPAN, *op. cit*., p. 7.

4. From the contract as a constant instrument of implementation of causes and behind the recent Global Financial Crisis to the application of the "gaming table theory" or of the maximum violation of the principle of "*neminem leadere*"

In contrast with the major doctrine, we hereby argue that the financial crisis originates in private law, particularly in contract law[33], yet the States' reforms in response to the crisis disregard contract law[34] and focus on public law[35].

We do not hereby call for public intervention in private law but, rather, for guarantees aimed at enabling individuals to express their autonomy spontaneously and freely; it is only required that the contract does not bear "inequalities"[36]. Public power is called upon to guarantee

[33] An important exception is J. P. HUNT, *Taking Bubbles Seriously in Contract Law*, in *Case W. Res. L. Rev.*, vol. 61. issue 3, 2011, available at https://scholarlycommons.law.case.edu/caselrev/vol61/iss3/3; the author highlights how contract law should deal with bubbles in general.

[34] See *supra* Ch. II §2.

[35] Cfr. G. M. COHEN, *The Financial Crisis and the Forgotten Law of Contracts*, in *Virginia Law and Economics Research*, 13 September 2011, p. 3, available at http://dx.doi.org/10.2139/ssrn.1926753; «Discussions of the crisis tend to say little about contract law, because they simply assume that the contracts at issue should and will be strictly enforced; given that assumption, there is not much more to say. The new formalism, apparently ascendant in the academy, already seems to have prevailed in the public realm despite the greatest economic catastrophe we have seen since the Great Depression. Contract law, however, is not dead.4 Nor is it impotent; it has just been forgotten».

[36] For example, Italian law in order to regulate the phenomenon of contractual imbalance, including between bank and customer, counts law of 7 March 1996, No. 108 laying down provisions on usury G. E. NAPOLI, *Usura Reale e Rescissione per*

and preserve contractual balance, understood in an objective and subjective sense.

The notion of contractual equilibrium referred to relates to the normative profile of the contract, conceived as a synthesis of the regulatory positions of the contracting parties[37], consequently, in the

Lesione, in *Riv. Dir. Civ.*, 2004, p. 401; G. GUIZZI, *Congruità Dello Scambio e Contratti Di Credito*, (edited by) G. VETTORI, in *Squilibrio e Usura Nei Contratti*, Padova, 2002, p. 445; G. MERUZZI, *Il Contratto Usurario Tra Nullità e Rescissione*, in *Contr. e Impr.*, 1999, p. 410; D. SINESIO, *Gli Interessi Usurari*, in *Profili Civilistici*, Napoli, 1999; G. COLLURA, *La Nuova Legge Dell'usura e l'art. 1815 c.C.*, in *Contr. e Impr.*, 1998, p. 602; A. RICCIO, *Le Conseguenze Civili Dei Contratti Usurari: È Soppressa La Rescissione per Lesione Ultra Dimidium?*, in *Contr. e Impr.*, 1998, p. 1027; M. CERASE, *L'usura Riformata: Primi Approcci a Una Fattispecie Nuova Nella Struttura e Nell'oggetto Di Tutela*, in *Cass. Pen.*, 1997, p. 2595; L. FERRONI, *La Nuova Disciplina Civilistica Del Contratto Di Mutuo Ad Interessi Usurari*, in *Quaderni Della Rassegna Di Diritto Civile*, Napoli: Edizioni Scientifiche Italiane, 1997; R. TETI, *Profili Civilistici Della Nuova Legge Sull'usura*, in *Rivista Di Diritto Privato*, n. 3/1997, p. 465; E. QUADRI, *Usura e Legislazione Civile*, in *Corriere Giur.*, 1999, p. 890; E. QUADRI, *Profili Civilistici Dell'usura*, in *Foro It.*, vol. 118. issue 9, 1995, pp. 337–338 and 353–354, available at https://www.jstor.org/stable/23189078; G. BONILINI, *La Sanzione Civile Dell'usura*, in *Contratti*, 1996, p. 223; G. ALPA, *Usura: Problema Millenario, Questioni Attuali*, in *Nuova Giur. Civ. Comm.*, 1996, p. 181.

[37] Not in economic terms, which concern the economic value of the performances forming the mutual obligations, see F. CARINGELLA, *Studi Di Diritto Civile. Proprietà e Diritti Reali*, vol. 2, Giuffrè Editore, 2007, p. 1690.

case at issue, as a contractual[38] structure allocating responsibilities and risks[39].

The issue of contractual balance is closely linked to the concept of contractual[40] justice, because contractual balance, both objective and

[38] See in the Italian legal theory, A. DI MAJO, *La Nozione Di Equilibrio Nella Tematica Del Contratto*, in *Diritto e Formazione*, 2002. See also A. D'ANGELO, *Il Contratto in Generale. La Buona Fede*, (edited by) M. BESSONE, in *Trattato Di Diritto Privato*, Giappichelli Editore, 2004, pp. 89, 97, 165.

[39] It should also be recalled that balance can also refer to the actual contracting parties "persons" and not only to the objective elements of the contract. Suffice it to consider the distinction that consumer law usually makes, on the basis of the disparity of contractual power, between "strong" and "weak" contracting parties

[40] Italian civil legal theory pays special attention to the issue of the "fair/just" contract. This is why the expression "contractual fairness/justice" is so common. See *inter alia*, Cfr. R. SACCO – G. DE NOVA, *Il Contratto*, in *Trattato Di Diritto Civile*, UTET, 2004, p. 22, the author argues that: «The jurist wishes –has always wished – for the contract, envisaged and governed by law, to be fair/just. He instinctively rejects the concept of a contract, which is, at the same time, both unfair and effective». See also G. ALPA, *Introduzione Alla Nuova Giurisprudenza*, (edited by) G. BESSONE, M.- ALPA, in *I Contratti in Generale*, Torino: UTET, 1991, p. 297 et seq.; C. M. BIANCA, *Diritto Civile*, (edited by) 2, in *Il Contratto*, vol. 3, Milano: Giuffrè Editore, 2000, p. 32 and 36; F. GALGANO, *La Categoria Del Contratto Alle Soglie Del Terzo Millennio*, in *Contr. e Impr.*, 2000, p. 918; P. PERLINGIERI, *Nuovi Profili Del Contratto*, in *Riv. Crit. Dir. Priv.*, 2001, p. 223; A. RICCI, *Errore Sul Valore e Congruità Dello Scambio Contrattuale*, in *Contr. e Impr.*, 2001, p. 987; D. CORAPI, *L'equilibrio Delle Posizioni Contrattuali Nei Principi Unidroit*, in *Europa Dir. Priv.*, 2002, p. 23; L. FERRONI, *Equilibrio Delle Posizioni Contrattuali Ed Autonomia Privata*, in *Univ. Degli Stud. Di Urbino Pubbl.*, Milano: Edizioni Scientifiche Italiane, 2002; P. SCHLESINGER, *L'autonomia Privata e i Suoi Limiti*, in *Giur. It.*, UTET Giuridica, 1999, p. 231; M. BARCELLONA, *La Buona Fede e Il Controllo Giudiziale Del Contratto*, (edited by) S. MAZZAMUTO, in *Il Contratto e Le Tutele: Prospettive Di Diritto Europeo*, Torino, 2002, p. 305 et seq.; F. D.

subjective, ensures that the relationship between the parties is fair and therefore ultimately just.

Indeed, contractual balance - both subjective and objective - preserves a structure of fair relations between the contracting parties which are, therefore, ultimately, just.

Therefore, the fundamental question that arises in relation to the concept of contractual balance is whether or not the latter coincides with the notion of contractual justice[41].

Part of the legal scholars have rejected the idea of a contract that is, at the same time, "unfair and effective"[42]. Based on the latter consideration, those banking, financial and insurance contracts whose possibly numerous negative externalities tend to violate the maximum limit of the principle of *neminem leadere* should be regarded as ineffective. Contractual formalism in Roman law and the principle of *neminem laedere* were theorized by Ulpian.

The main challenge of Roman law was to develop a set of forms that might enable different parties to require precautions prior to the conclusion of the contract so as to scale back the frequency and severity of disputes afterward.

BUSNELLI, *Note in Tema Di Buona Fede Ed Equità*, in *Riv. Dir. Civ.*, vol. 1, 2001, p. 556 et seq..

[41] See *inter alia* G. VETTORI, *Autonomia Privata e Contratto Giusto*, in *Rivista Di Diritto Privato*, n. 1/2000, 2000, p. 21 et seq..

[42] Cfr R. SACCO - G. DE NOVA, *ibidem*, according to which the jurist «instinctively rejects the concept of a contract, which is, at the same time, both unfair and effective».

According to Roman law, the contract was conceived as one of the ways by which you buy or acquire the property, perceived as a central element of Roman private law[2]. The formalism that characterized it was dictated by the need to protect the parties to the contract as they act as owners.[3] In this contract the parties, in order to specify their agreement to a given deal, used an association of proper words. The formal ceremony of *mancipation*[43] was carried out to convey real estate, animals and slaves; it was done for two main reasons: firstly to prepare the transfer between the parties, and secondly to make society aware of the transfer of possession of a lasting capital resource.

In Western legal thought is, for the purposes relevant to this thesis, rooted in three principles of justice that date back to Roman law, theorized by Ulpian, governing the interaction between individuals and the organization of the institutions. The first principle is "*neminem leadere*" - harm no one; the second one is *ius suum cuique tribuendi* (attribute to each person his/her own right) and the third one is *honeste vivere* (live honestly[44]). Only the first principle will be the object of analysis herein.

The expression "*neminem leadere*" enunciates the fundamental Roman-derived principle according to which everyone is bound to the duty not to damage the juridical sphere of others. This brocard sums up the foundations of non-contractual liability; as a consequence, whoever

[43] See e.g. C. F. AMUNÁTEGUI PERELLÓ, *Origen y Función de La 'Mancipatio'*, in *Rev. Estud. Histórico-Jurídicos*, vol. 33, 2011, pp. 37–63, available at https://dx.doi.org/10.4067/S0716-54552011000100001.

[44] See D. ULPIANO, *Digesto*, 1.1.10, §2.

violates this prohibition shall be obliged to compensate any ensuing damage.

This thesis argues that the contract is fair, and therefore just, when it does not determine negative externalities such as to impact on the Social Contract and put an end to it. Thus, the principle of *neminem leader*e is transposed to a different level, identified in the gaming table, or rather in the Social Contract, that is, where operators interact.

The aforementioned theorization of the "gaming table theory" or of the maximum violation of the "*neminem leadere*" principle has been addressed in chapter II above.

The more this principle is violated in space and time, the more the gaming table will break until it collapses altogether. As mentioned, the gaming table, corresponds to the Social Contract as defined by Rousseau, or to the Natural Order theorized by Romagnosi.

For this very reason in chapter V, through a virtual projection into the future, we will find banking and financial supervision in Cyberspace that, among its many characteristics (fluidity of forms, to facilitate the ideal transfer of information, and parametric architecture), is structured through the use of regulatory techniques that can act as "Gerber's Beam" in the legal domain[45]. Thanks to the Gerber beam any collapse would affect only part of the bridge. It is firmly argued that there is only one way to realize "Gerber's beam" in the legal domain: clear, essential and easily accessible information

[45] This system is used for example to build the Morandi bridge - which recently collapsed in Genoa, Italy.

Chapter IV: Munch's the Scream of regulation and reforms policy in the European Union and banking supervisory architecture

Summary: 1. Regulation and reaction to the Global financial crisis in the USA and in the EU; 2. From the Financial Crisis to the crisis of sovereignty: the cost of bank bailouts, competition problems in the European Union and, the tyranny of the *bail-in*. 2.1. The rescue of Northern Rock; 2.2. The balance between stability and competition; 2.3. European coordination of government intervention measures to support financial stability; 2.4. The European legal framework on State aid; 3. Competitive harm; 3.1. Notion of State aid and sector-specific derogation; 3.2. State aid, systemic crises and compatibility with the common market; 3.2.1. Article 107 paragraph 3 letter b TFEU; 3.2.2. Intervention of the Commission: emergency regulation; 3.2.3. Banking Communication of 13 October 2008; 3.2.4. Recapitalisation Communication of 5 December 2008; 3.2.5. Impaired Assets Communication of 25 February 2009; 3.2.6. Restructuring Communication of 23 July 2009; 3.2.7. The prolongation Communications; 3.2.8. The new Communication of 30 July 2013; 4. Brief excursus of the theories on EU harmonization: peculiarities of the EU context; 4.1. Harmonization between models of legal integration; 4.2. The role of harmonization in the European Constitution; 4.3. Qualified harmonization; 5. Financial regulation and supervisory issues in the EU in the aftermath of the recent financial crisis: lack of homogeneity due to the minimum harmonization; 5.1. The evolution of the European supervisory system: "mutual recognition and home country control"; 5.2. The

evolution of the European supervisory system: the Lamfalussy Report; 5.3. The de Larosière report; 5.4. The European system of financial supervision: European Supervisory Authorities; 6. The Pillars of the European Banking Union; 6.1. The first pillar of Banking Union: The Single Supervisory Mechanism (SSM); 6.1.1 The Single Supervisory Mechanism: legal framework; 6.1.1.1 Scope of the SSM Regulation; 6.1.1.2 The allotting of tasks between ECB and NCAs; 6.1.1.3. Elements of centralization; 6.1.1.4. The principles of supervision; 6.1.2. The single resolution mechanism: the role of the Commission; 6.1.2.1. Banking Recovery and Resolution Directive; 6.1.2.2. *Bail-in* as an instrument to save banks.

1. Regulation and reaction to the Global financial crisis in the USA and in the EU

Each financial crisis impacts on the international and national financial regulation framework, changing it[46].

Every time an economic crisis takes place, people lose faith in markets and call for adequate banking and financial regulation[47] and

[46] See J. CARMASSI – S. MICOSSI, *Time to Set Banking Regulation Right*, CEPS Paperbacks, Forthcoming, 15 March 2012, available at https://ssrn.com/abstract=2028881.

[47] An adequate regulation system is asked even if many people do not understand the process and the nature of CDOs as financial instruments. In this regard, see D. A. SKEEL JR, *The New Financial Deal: Understanding the Dodd-Frank Act and Its (Unintended) Consequences*, 1st edition, John Wiley & Sons Inc, 19 November 2010.

therefore for a new and more stringent public intervention in the economy. It is well known that the influence of the majority always produces direct public acquiescence for reasons of normative or informative dependence: the opinions of the majority are passively accepted without much thought[48].

Passive acceptance of state intervention in the market derives from such public acquiescence. As has been authoritatively observed, it is not the law that makes social order but imitation, suggestibility, mental contagion[49]. However, the reforms resulting from these requests seem to have failed to respond to and address the root causes of the crisis[50].

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[48] See S. MOSCOVICI, *Toward a Theory of Conversion Behavior*, (edited by) L. BERKOWITZ, in *Adv. Exp. Soc. Psychol.*, vol. 13, New York: Academic Press, 1980, pp. 209–239, available at https://doi.org/10.1016/S0065-2601(08)60133-1. In contrast, minority influence brings about indirect, often latent, private change in opinion. Minorities produce a conversion effect as a consequence of active consideration of the minority point of view. See also M. A. HOGG – G. M. VAUGHAN, *Social Psychology*, Prentice Hall, 2011.

[49] C. G. JUNG, *L'Io e l'inconscio (Die Beziehungen Zwischen Dem Ich Und Dem Unbewussten)*, (translated by) A. VITA, Bollati Borlinghieri, 1977, p. 62; «man has a faculty that for collective purposes is very useful, and very harmful for the identification: the faculty to imitate. Social psychology cannot prescind from imitation, because without it mass organizations, the state and social order would simply be impossible; in fact, it is not the law that makes the social order, but imitation, a concept that also includes suggestibility, suggestion and mental contagion».

[50] However, J. C. Coffee highlighted that «a good crisis should never go to waste» see J. C. COFFEE JR, *The Political Economy of Dodd-Frank: Why Financial Reform Tends to Be Frustrated and Systemic Risk Perpetuated*, in *Cornell L. Rev.*, vol. 97. issue 1019, 2012, pp. 1051–1056, available at https://scholarship.law.cornell.edu/cgi/viewcontent.cgi?article=3243&context=clr.

Neither the Capital Requirements Directive (CRD) IV[51] in the EU, nor the Dodd-Frank Act in the USA have increased public transparency in banking markets. They have not had an impact on risk-taking by banks or on executives' remuneration. The same provisions seem to be disconnected from the empirical evidence and the genesis of the financial crisis. As the legal theory (or part of the same) argues, the first weakness in corporate governance consisted in the executives' fees.

In response to this weakness, on 27 June 2013, a legislative package for banks and investment firms[52] was published in the

[51] Directive 2013/36/Eu of the European Parliament ad of the Council of 26 June 2013 on *access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms*, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC, available at https://eur-lex.europa.eu/legal-content/IT/TXT/?uri=celex%3A32013L0036.

[52] The juridical basis of harmonization is the Article 50 (ex Article 44 TEC) - of the Treaty on the Functioning of the European Union (TFEU), available at https://eur-lex.europa.eu/eli/treaty/tfeu_2016/art_50/oj. The article, aimed at attaining freedom of establishment - 50 (1-2) - for instance «by ensuring close cooperation between the competent authorities in the Member States» - 50 (2)b «by coordinating to the necessary extent the safeguards which, for the protection of the interests of members and others, are required by Member States of companies or firms within the meaning of the second paragraph of Article 54 with a view to making such safeguards equivalent throughout the Union», 50 (2)g. In general, the Treaty confers to the European institutions the competence to lay down provisions regarding the establishment and functioning of the internal market (Article 114 TFEU). This last article is not explicitly mentioned in the preamble of the CRD IV Directive. For an overview on the possible effects of harmonization in Corporate Law see L. ENRIQUES, *Le Regole Della Finanza. Diritto Societario e Mercato in Italia e in Europa*, IBL Libri, 2012, pp. 228–267. In particular, in view of the observations

Official Journal of the EU, (whereas in 2010 in the United States the first reform in the United States was The Dodd-Frank Wall Street Reform and consumer Protection Act in 2010[53]): the IV Capital Requirements Directive (CDR) IV[54] and the related Capital Requirements Regulation[55].

The Directive is not directly applicable in Member States but needs to be transposed into the legal system of each Member State by means of domestic law[56].

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made by the author, it should be noted that: «Top-level harmonization is not the only vehicle for regulatory approximation: It is indeed possible to find a possible spontaneous convergence in corporate governance practices». The author mentions H. HANSMANN – R. KRAAKMAN, *The End of History for Corporate Law*, Cambridge, MA: Harvard Law School, pp. 454–455; in which the authors analyse the convergence of governance practices in the United States, Japan and Europe.

[53] The Dodd-Frank Wall Street Reform and consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376, 2010.

[54] Council Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on *Access to the Activity of Credit Institutions and the Prudential Supervision of Credit Institutions and Investment Firms*, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC, OJ (L176), 27.6.2013, p. 338–436, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013L0036.

[55] Commission Regulation (EU) 575/2013 of the European Parliament and of the Council of 26 June 2013 on *Prudential Requirements for Credit Institutions and Investment Firms* and amending Regulation (EU) No 648/2012, OJ (L176), available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32013R0575.

[56] The Directive does not have a direct application in the Member States but needs to be implemented by each States. In Italy, for instance the CRD IV is implemented by Bank of Italy with the Circular n. 285, on 17 December 2013 and was in effect from the 1 January 2014.

Therefore, major efforts were made in outlining a new supervisory architecture since the causes of the recent crisis had been attributed to the major doctrine and to macroeconomic factors[57]. The public regulator could, therefore, take the risk of indirectly paving the way for a new crisis. Just like the creature represented by Munch in "The Scream", the legislature could produce such a powerful horrible effect (sound) that the same would need to cover his ears after letting it out.

2. From the Financial Crisis to the crisis of sovereignty: the cost of bank bailouts, competition problems in the European Union and, the tyranny of the *bail-in*

Due to the subprime Mortgage crisis many European credit institutions have experienced serious difficulties and were saved through public intervention[58].

[57] See i.e. K. ALEXANDER, *Which Future Model for Europe?*, in *Financial, Economic and Social Crisis*, CRIS, 2010, p. 3, available at https://www.europarl.europa.eu/RegData/etudes/note/join/2010/433436/IPOL-JOIN_NT(2010)433436_EN.pdf, «The causes of the recent crisis have been attributed to macroeconomic factors, major weaknesses in corporate governance in financial institutions, and serious regulatory failings».

[58] These interventions have caused a contraction in global GDP of about one percent in 2009. See S. ALVARO – G. SICILIANO, *Crisi Sistemiche e Regolamentazione Finanziaria. Dai Bulbi Di Tulipani Ai Mutui Sub-Prime*, in *Quaderni Giuridici*, vol. 10, CONSOB, July 2016, available at http://www.consob.it/documents/11973/201676/qg10.pdf/.

The crisis of 2008 brought to light several problems: considerable difficulty in managing bank crises; widespread awareness that public budgets have suffered excessive losses; the possibility of severe distortions to competition due precisely to the attitude of the authorities of the various countries involved[59].

2.1. The rescue of Northern Rock

Northern Rock was the first bank in Europe which was affected by the subprime crisis and nationalized as a consequence[60].

The European Commission deemed that the nationalization of this British credit institution was compatible with the EU rules, since the shareholders would be compensated and not subsidized[61].

In particular, the restructuring plan for Northern Rock was positively evaluated by the European Commission, which considered

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[59] See *infra* Chapter III §1, and *infra* Chapter IV §1.

[60] See HM Treasury, The Nationalisation of Northern Rock, 2008-9, H.C. 298, para. 16 (U.K.). Cfr. S. DEAKIN, *Corporate Governance and Financial Crisis in the Long Run*, in *Work. Pap. 417*, Centre for Business Research, University of Cambridge, 2010, pp. 11–15, available at https://www.cbr.cam.ac.uk/fileadmin/user_upload/centre-for-business-research/downloads/working-papers/wp417.pdf.

[61] The first decision was the rescue decision of 5 December 2007, Commission Decision of 5 December 2007 in *State aid case No NN 70/2007 — United Kingdom — Northern Rock*, OJ C 43, 16.2.2008, p. 1, followed by Commission Decision of 2 April 2008 in *State aid case No NN 1/2008 — United Kingdom — Restructuring aid to Northern Rock*, OJ C 135, 3.6.2008, p. 21.

that the emergency measures for the rescue of the bank did not constitute State aid and that the guarantee on liabilities, limited to six months, could not be classified as structural financial support[62].

The default of this British bank has paved the way for a sound regulatory reform programmed in the United Kingdom which, alongside similar measures implemented by the Commission internationally, provides a starting point for the interpretation of subsequent interventions aimed at attaining financial stability[63].

2.2. The balance between stability and competition

The European reaction to the financial crisis has, from the outset, led to the initiation of crisis management coordination aimed at safeguarding financial stability[64].

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[62] See Commission Decision of 28 October 2009 on the State aid C 14/08 (ex NN 1/08) *implemented by the United Kingdom for Northern Rock* (notified under document C(2009) 8102), OJ L 112, 5.5.2010, p. 38–60, available at http://data.europa.eu/eli/dec/2010/262/oj.

[63] Communication from the Commission — *Community guidelines on State aid for rescuing and restructuring of firms in difficulty*, OJ C 244, 1.10.2004, p. 2, available at https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:52004XC1001(01)

[64] The State aid amounts approved in the EU over the period 2008-2017 is 3.658,6 billion EUR, as the 2018 Scoreboard presents, see European Commission, *State Aid Scoreboard 2018,* available at https://ec.europa.eu/competition/state_aid/scoreboard/index_en.html

In this regard, the European Commission has confirmed the need to verify the compatibility of the support measures with State aid rules, providing indications to both operators and Member States[65].

This intervention has, in some cases, resulted in the forced maintenance of otherwise insolvent intermediaries, to the detriment of competition[66].

Therefore, in banking and financial markets, the relationship between stability and competition may become strained during periods of crisis or instability, since the free operation of competitive dynamics is mitigated for the macroeconomic purpose of ensuring greater stability.

With the onset of the GFC, stability has a key role as regulation and institutional arrangements are revisited in more stringent terms. However, in order to emerge from the crisis there must be competitive markets whose operators are not "survivors" only thanks to public support. Indeed, in order to guarantee financial stability, the need to define proper rules for inefficient operators to exit the markets was noted.

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[65] See EUROPEAN CENTRAL BANK, *Financial Stability Review*, December 2009, available at https://www.ecb.europa.eu/pub/pdf/fsr/financialstabilityreview200912en.pdf.

[66] Cfr. European Court of Justice Case C-39/94 SFEI v La Poste [1996] ECR I-3547, par. 60; European Court of Justice Case C-342/96 Kingdom of Spain v Commission [1999] ECR I-02459; European Court of Justice Case T-46/97 SIC v Commission [2000] ECR II-2125, par. 78; European Court of Justice Case C-251/07 France v Commission [1999] ECR I-6639; European Court of Justice Case C-379/98 PreussenElektra AG v Schleswag AG [2001] ECR I-2099.

2.3. European coordination of government intervention measures to support financial stability

At the end of 2008, the European Council extended to all Member States an action plan with the following objectives: 1) guaranteeing liquidity for financial institutions and facilitation of financing through public guarantees and insurance instruments; 2) supplying additional capital resources provided by the public sector against adequate restructuring plans; 3) ensuring sufficient flexibility in the application of accounting rules; 4) improving international cooperation by strengthening existing procedures for the exchange of information[67].

From the beginning, the Commission stressed the need to verify the compatibility of the aforementioned measures with the rules on State aid in order to keep the issue of competitive equality among the intermediaries of the Member States at the forefront and to lay down the conditions for the return to normality[68].

[67] Cfr. Council of the European Union, *Presidency Conclusions, Brussels European Council, 15-16 October 2008*, OR.fr 14368/08, CONCL 4, Brussels, 16 October 2008, available at http://data.consilium.europa.eu/doc/document/ST-14368-2008-INIT/it/pdf. See also Commission Decision of 1 October 2008 in *State aid case NN 41/2008, Rescue aid to Bradford & Bingley plc*., OJ C 290, 13.11.2008, p. 2.

[68] European Commission, From Financial Crisis to recovery: A European Framework for Action, COM (2008) 706 final, Brussels, 29 October 2008.

2.4. The European legal framework on State aid

From the 1980s until 2008, the whole regulation on State aid was contained in the Communication laying down *Guidelines on state aid for rescuing and restructuring non-financial undertakings in difficulty*.[69]. This Communication draws a line between two types of aid: one for the operation of undertakings, for which no kind of derogation is provided since they are aimed at supporting normal and current activities, and one for investments.

The latter category includes aid for rescuing - granted temporarily and only provided that stringent criteria are met - and for restructuring undertakings in difficulty. Aid for restructuring is part of a viable, coherent and far-reaching plan to restore a company's long-term viability and is only granted under certain general conditions.[70].

The aforementioned aid for the rescuing and restructuring of undertakings have been inferred through interpretation, by both the Commission and the Court of Justice, among the exceptions provided for in Article 107.[71] (former Article 87), paragraph c) of the TFEU. The

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[69] In Official Journal of the European Communities, L 336, 23 December 1994; two versions thereof followed: one in 2004 and another in 2013. We refer to the Commission Communication of 2013, available at the following link http://ec.europa.eu/competition/consultations/2013_state_aid_rescue_restructuring/index_en.html.

[70] See *infra* Ch. II §3.2-3.2.8.

[71] Article 107 (ex Article 87 TEC) of Treaty on the Functioning of the European Union, available at http://data.europa.eu/eli/treaty/tfeu_2008/art_107/oj, «1. Save as otherwise provided in the Treaties, any aid granted by a Member State or through

rules established by Articles 107-109 TFEU[72] concern aid granted by the States to favor certain enterprises or sectors of the national

State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market. 2. The following shall be compatible with the internal market: (a) aid having a social character, granted to individual consumers, provided that such aid is granted without discrimination related to the origin of the products concerned; (b) aid to make good the damage caused by natural disasters or exceptional occurrences; (c) aid granted to the economy of certain areas of the Federal Republic of Germany affected by the division of Germany, in so far as such aid is required in order to compensate for the economic disadvantages caused by that division. Five years after the entry into force of the Treaty of Lisbon, the Council, acting on a proposal from the Commission, may adopt a decision repealing this point. 3. The following may be considered to be compatible with the internal market: (a) aid to promote the economic development of areas where the standard of living is abnormally low or where there is serious underemployment, and of the regions referred to in Article 349, in view of their structural, economic and social situation; (b) aid to promote the execution of an important project of common European interest or to remedy a serious disturbance in the economy of a Member State; (c) aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest; (d) aid to promote culture and heritage conservation where such aid does not affect trading conditions and competition in the Union to an extent that is contrary to the common interest; (e) such other categories of aid as may be specified by decision of the Council on a proposal from the Commission».

[72] Article 108 (ex Article 88 TEC) of Treaty on the Functioning of the European, available at http://data.europa.eu/eli/treaty/tfeu_2008/art_108/oj, «1. The Commission shall, in cooperation with Member States, keep under constant review all systems of aid existing in those States. It shall propose to the latter any appropriate measures required by the progressive development or by the functioning of the internal market. 2. If, after giving notice to the parties concerned to submit

economy. All State aid is subject to control by the institutions, but the prohibition stipulated by Article 107, paragraph 1, concerns only aid incompatible with the internal market. This provision, as noted by the relevant literature, does not produce direct effects; therefore, individuals cannot invoke it before national courts to challenge the compatibility of State aid and the State can maintain the latter until the Commission resolves on it.

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their comments, the Commission finds that aid granted by a State or through State resources is not compatible with the internal market having regard to Article 107, or that such aid is being misused, it shall decide that the State concerned shall abolish or alter such aid within a period of time to be determined by the Commission. If the State concerned does not comply with this decision within the prescribed time, the Commission or any other interested State may, in derogation from the provisions of Articles 258 and 259, refer the matter to the Court of Justice of the European Union direct. On application by a Member State, the Council may, acting unanimously, decide that aid which that State is granting or intends to grant shall be considered to be compatible with the internal market, in derogation from the provisions of Article 107 or from the regulations provided for in Article 109, if such a decision is justified by exceptional circumstances. If, as regards the aid in question, the Commission has already initiated the procedure provided for in the first subparagraph of this paragraph, the fact that the State concerned has made its application to the Council shall have the effect of suspending that procedure until the Council has made its attitude known. If, however, the Council has not made its attitude known within three months of the said application being made, the Commission shall give its decision on the case. 3. The Commission shall be informed, in sufficient time to enable it to submit its comments, of any plans to grant or alter aid. If it considers that any such plan is not compatible with the internal market having regard to Article 107, it shall without delay initiate the procedure provided for in paragraph 2. The Member State concerned shall not put its proposed measures into effect until this procedure has resulted in a final decision. 4. The Commission may adopt regulations relating to the categories of State aid that the Council has, pursuant to Article 109, determined may be exempted from the procedure provided for by paragraph 3 of this Article».

3. Competitive harm

The provisions of the TFEU on State aid reflect the need to reconcile the guarantee of freedom of competition in the single market and the possibility to adopt measures which might distort such competition, if necessary, to achieve objectives worthy of protection for Community law.

The Commission deems that the adverse effect of aid and its ability to distort competition must be assessed. Furthermore, it is not necessary for the Commission to prove effective distortion of competition and the legitimacy of the Commission's decision must be assessed in the light of the elements communicated by the Member States.

3.1. Notion of State aid and sector-specific derogation

In the Communication on the notion of State aid of 2013, the European Commission provided an interpretation of the Treaty in accordance with European case-law, specifying the different elements which State aid consists in, namely: the existence of an enterprise, the imputability of the measure to the State, its financing through State resources, the conferring of an advantage, the selectivity of the measure and its potential effects on competition and trade within the European Union.

Exemptions are provided for aids that pursue certain objectives and authorization and sanctioning procedures (Articles 108 and 109 TFEU). Particularly significant is the exception referred to in letter *c)*,

which is also called the sector-specific derogation, by virtue of which the Commission has the discretionary power to exempt certain public subsidies which appear to be functional to the pursuit of the common interest from the prohibition of State Aid.

3.2. State aid, systemic crises and compatibility with the common market before adoption of the Banking Recovery and Resolution Directive[73]

The Commission's decisions concerning aid granted to banking enterprises acknowledged the specificity of the banking sector in relation to the other sectors and the particular sensitivity of financial markets to the possible problems of an individual bank. Despite this, the Commission has not elaborated a special system for aid to companies in the banking and financial sector. However, where *systemic crises* were to be noted, aid granted could be declared compatible with the common market under article 107 paragraph 3 letter b) TFEU. if: the national authorities responsible for financial stability certify the existence of the risk of disruption of the national economy; the measures do not discriminate on the basis of nationality; the aid is temporary and the actual need for the same is verified. In order to minimize distortions and moral hazard, also restrictions were laid down concerning the definition of price or territorial expansion policies; prohibition of repurchase of own shares or launch of stock options for management; anchorage of balance sheet quantities to external economic parameters; the possibility to withdraw the

[73] As regards the Banking Recovery and Resolution Directive, see *infra Ch.* IV §6.1.2.-6.1.2.2.

guarantee in case of non-compliance with indications given by public authorities.

3.2.1. Article 107 paragraph 3 letter b TFEU

During financial crises, article 107 paragraph 3, letter b), is the legal basis for the approval of public aid, both in the financial sector and in the real economy[74].

This provision replaces the institutional weakness of the European Union thanks to the issuance of unitary and shared measures. Furthermore, the legislative reference in question attributes to the Commission the power to apply the derogatory system. Finally, the above-mentioned article implicitly underlines the extraordinary nature of the measure whose application shall end once the severe disturbance of the economy ends.

3.2.2. Intervention of the Commission: emergency regulation

Following the recommendations of the Member States through the ECOFIN Council, the Commission has launched a new phase of state aid policy in the banking sector[75].

[74] See *supra* Ch. IV footnote n. 26

[75] Council Conclusions—ECOFIN Council of 7 October 2008, 13930/08 (Presse 284), available at

An emergency regulation[76] was progressively outlined through a series of Communications from the Commission specifically addressed to the banking and financial sector.

Each of the Communications had a significant impact, since their analysis shows the six criteria which the Commission adheres to in the assessment of the compatibility of aid to banks in the context of the financial crisis: teleological principle; proportionality principle; principle of objectivity or non-discrimination; principle of safeguarding; principle of temporariness; principle of compensation.

3.2.3. Banking Communication of 13 October 2008

By virtue of the Banking Communication of 13 October 2008[77], the Commission can adopt a more flexible approach in the assessment

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https://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/misc/103202.pdf.

[76] See R. ROMANO, *The Sarbanes-Oxley Act and the Making of Quack Corporate Governance*, in *Yale Law J.*, pp. 1521–1611, available at http://dx.doi.org/10.2139/ssrn.596101; «Finally, a more general implication concerns emergency legislation. It would be prudent for Congress when legislating in crisis situations, to include statutory safeguards that would facilitate the correction of mismatched proposal by requiring, as in a sunset provision, revisiting the issues when more considered deliberation would possible».

[77] Communication from the Commission — *The application of State aid rules to measures taken in relation to financial institutions in the context of the current global financial crisis*, (2008/C 270/02), OJ C 270/8, 25.10.2008, p.8–14, available at https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52008XC1025%2801%29.

of government bailouts and a set of public support measures can be authorised: guarantee schemes covering liabilities of financial institutions; recapitalisation of institutions; controlled winding-up.

3.2.4. Recapitalisation Communication of 5 December 2008

Upon express invitation by the ECOFIN Council, a series of more detailed guidelines on the assessment of state interventions are presented, which consist in particularly sensitive aid granted for the benefit of healthy banks in order to guarantee the provision of loans to the real economy, preventing negative effects of systemic fallout. Another important element is represented by the guidelines on the price setting mechanism – *i.e*. the price to be paid to the State against the granting of aid in support of capital. Finally, the Commission focuses on the identification of the safeguards necessary to avoid undue distortions of competition as a result of recapitalizations[78].

3.2.5. Impaired Assets Communication of 25 February 2009

The Impaired Assets Communication complements the package of measures adopted by the EU's executive body. The

[78] Communication from the Commission – *The recapitalisation of financial institutions in the current financial crisis: limitation of aid to the minimum necessary and safeguards against undue distortions of competition*, 5 December 2008, (see IP/08/1901), available at https://ec.europa.eu/commission/presscorner/detail/en/IP_08_1901.

Communication[79] applies to public measures adopted to support assets whose value has decreased during the crisis, the so-called toxic assets.

This Communication reiterates the principle of full transparency and disclosure of any decrease in value and pragmatism in the selection of eligible assets. It stipulates that the State must be adequately remunerated for the protection granted to assets, in proportion to the levels of risk involved in this kind of operations.

The final part of the Communication points out the need to think of such public interventions as integral parts of larger-scale structural operations in which direct involvement of the credit institutions involved as well as the usual measures aimed at avoiding undue distortions of competition is essential.

3.2.6. Restructuring Communication of 23 July 2009

The Restructuring Communication of 23 July 2009[80] provides clarifications and limitations with regard to restructuring to be imposed on banks benefiting from State Aid. In particular, it points out that: the restructuring plan must include an accurate diagnosis of the problems

[79] European Commission, *State aid: Commission provides guidance for the treatment of impaired assets in the EU banking sector,* (IP/09/322), 25 February 2009, Brussels, available at https://ec.europa.eu/commission/presscorner/detail/en/IP_09_322.

[80] Communication from the Commission – *The return to viability and the assessment of restructuring measures in the financial sector in the current crisis under the state aid rules*, 23 July 2009, (see IP/09/1180), available at https://ec.europa.eu/commission/presscorner/detail/en/IP_09_1180.

of the bank from which sustainable strategies for the restoration of profitability must be conceived; within the plan, a flexible and realistic timetable must be specified for the restructuring phases; the Commission shall apply the fundamental principle of proper burden-sharing between Member States and beneficiary banks, taking into account the global situation in the financial sector; provision must be made for measures to limit the distortion of competition by the bank benefitting from the rescue in the same Member State and also in other States; possible granting of additional aid during the restructuring period must be justified on the grounds of financial stability.

Lastly, the Communication specifically analyses in depth the restoration of profitability deriving from the sale of the beneficiary bank.

3.2.7. The prolongation Communications

The duration of the application of the Restructuring Communication are extended by two Communication[81] until 31 December 2011 and all the derogation systems governed by the first four Communications above until 31 December 2012. These extension

[81] Communication from the Commission – on the application, from 1 January 2011, of state aid rules to support measures in favour of banks in the context of the financial crisis, OJ C 356, 6.12.2011, p. 7–10, available at https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52011XC1206(02).
Communication from the Commission – on the application, from 1 January 2012, of state aid rules to support measures in favour of banks in the context of the financial crisis, available at https://ec.europa.eu/commission/presscorner/detail/en/IP_11_1488.

Communications highlight the Union's awareness of the special and strategic nature of the banking crises.

3.2.8. The new Communication of 30 July 2013

The new Communication[82] partly reforms and partly complements the rules applicable to credit institutions that in the context of the crisis call for recapitalization measures and public support. In particular, the Banking Communication of 2008 is replaced and guidelines on the compatibility criteria for liquidity support are provided; integration and adaptation of the communication on the recapitalization and impaired assets; the Restructuring Communication is enriched with more details on burden-sharing by shareholders and subordinated creditors; it is set forth that the public source recapitalization measures in favour of a bank must be authorized only upon approval of the restructuring plan of the beneficiary bank; guidelines on the compatibility requirements for winding-up aid are provided.

[82] Communication from the Commission on the application, from 1 August 2013, of *State aid rules to support measures in favour of banks in the context of the financial crisis ('Banking Communication'),* (2013/C 216/01), 30 July 2013, available at https://eur-lex.europa.eu/legal-content/en/ALL/?uri=OJ%3AC%3A2013%3A216%3ATOC.

4. Brief excursus of the theories on EU harmonization: peculiarities of the EU context

The Constitution of the European Union has its roots in the acknowledgment of the need to preserve the diversity that characterizes it with the goal of unity[83]. The balances on which the European construction is based, therefore, are very delicate and are based primarily on the search for peace, on a constant balance between freedom of the market and human rights and, more generally, between diversity and unity[84].

It is not by chance that the debate on the management of the diversity of legislation between the different States has been recently channeled into contract law and the Commission has provided in 2010, with the Green Paper, various tools to encourage comparison and propose different approaches[85].

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[83] Cfr. F. R. HERBER, *The Legal Constitution of the European Union*, in *ESJ*, August 2018, available at http://dx.doi.org/10.19044/esj.2018.c4p9.

[84] Article 3 (5) (ex Article 2 TEU) of Treaty on the Functioning of the European Union available at https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:12008M003; «In its relations with the wider world, the Union shall uphold and promote its values and interests and contribute to the protection of its citizens. It shall contribute to peace, security, the sustainable development of the Earth, solidarity and mutual respect among peoples, free and fair trade, eradication of poverty and the protection of human rights, in particular the rights of the child, as well as to the strict observance and the development of international law, including respect for the principles of the United Nations Charter»

[85] Cfr S. POILLOT-PERUZZETTO, *Trajectoires de l'Europe, Unie Dans La Diversité Depuis 50 Ans*, Dalloz, 2007, p. 667.

4.1. Harmonization between models of legal integration

To address the issue of managing the diversity of national legislations, the Union has identified different models of legal integration: unification, harmonization, coordination, soft law[86], the open method of coordination of policies and the competitive paradigm[87].

The term *unification* expresses the highest degree of convergence between the rights of the Member States, with the imposition of EU legislation, while *harmonization* means a more moderate method of integration, with greater consideration of the diversity of national laws. The integration model based on coordination, on the other hand, tends not to conflict with the contents of domestic laws, which remain unchanged.

Soft law is regularly present in the institutional practices of the Union through Recommendations.

Finally, the open method of coordination is based on the establishment of common guidelines that allow the development of national policies, while the model of competitive paradigm considers national legislations as legislative products underlying competition.

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[86] Cfr. G. MAJONE, *Regulation and Its Modes: The European Experience*, in *Int. J. Public Admin.*, vol. 19. issue 9, 1996, pp. 1597–1637, available at https://doi.org/10.1080/01900699608525158.

[87] For the application in law of the notion of competitive paradigm, see H. MUIR WATT, *Aspects Économiques Du Droit International Privé*, vol. 307, RCADI, 2005, p. 27.

4.2. The role of harmonization in the European Constitution

After an initial and heated debate on the definition of the limits of integration between Member States, thanks also to the intervention of the Court of Justice, the interpretive conclusion reached is that the approximation of the laws must be considered primarily as a tool for an exclusively economic integration [88].

This is the reason why Article 100 A (then Article 95 and finally Article114 TFEU) through which the harmonization loses the priority position reached before the Single European Act, was introduced.

4.3. Qualified harmonization

The term *harmonization* has been interpreted with a certain degree of arbitrariness both by the legislator and by the Court's case-law, not facilitating the systematic classification in the legal theory [89]. Therefore, if on the one hand a distinction can be found between

[88] On these positions see R. RODIÈRE, *L'harmonisation Des Législations Européennes Dans Le Cadre de La CEE*, in *Rev. Trimest. Droit Eur.*, 1965, p. 350.

[89] See J. PORTA, *La Réalisation Du Droit Communautaire*, LGDJ-Varennes, 2007, p. 319 et seq..

mandatory or optional[90], complete or partial, exhaustive or minimal[91] harmonization, depending on the desired result in national law, on the other hand it emerges that this distinction between concepts is not yet completely clear.

5. Financial regulation and supervisory issues in the EU in the aftermath of the recent financial crisis: lack of homogeneity due to the minimum harmonization

Financial regulation and supervisory practices differ substantially between countries. The lack of homogeneity within Europe was attributed to the minimum harmonization objective that the European Union had originally set itself a target which "granted" broad national discretion to the legislature also for the application of the "minimum standard"[92]. It is a shared opinion[93] - which the present thesis objects

[90] An example is found in Council Directive 76/891/EEC of 4 November 1976 on *the approximation of the laws of the Member States relating to electrical energy meters*, OJ L 336, 4.12.1976, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:31976L0891, whose harmonizing scope is qualified as optional by the Court in its judgment of 15 December 1982, Commission of the European Communities v Kingdom of Denmark, Case 211/81, available at https://eur-lex.europa.eu/legal-content/GA/TXT/?uri=CELEX:61981CJ0211.

[91] Article 153 (ex Article 137 TEC) of Treaty on the Functioning of the European Union, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A12008E153.

[92] Cfr. Report of *the High-Level Group on Financial Supervision in the EU*, chaired by J. DE LAROSIÈRE, Brussels, 25 February 2009, p. 29, available at https://ec.europa.eu/economy_finance/publications/pages/publication14527_en.pdf

[93] See M. TONVERONACHI, *L'unione Bancaria Europea. Di Nuovo Un Disegno*

to - that the so-called banking supervision was weak due to the fragmentation of the legal framework. In turn, this increased the financial weakness of the whole system.

This opinion, at an international level, has resulted in the attempt to remedy the shortcomings of the "Basel I" regulatory system by, enacting the subsequent "Basel II.5" and "Basel III" versions of the Agreement [94]; in addition, the European Commission proposed to

Istituzionale Incompleto, in *Moneta e Credito*, vol. 66. issue 264, 2013, pp. 397–413, available at https://ojs.uniroma1.it/index.php/monetaecredito/article/view/11362/pdf. In contrast to the author and most of the literature, my thesis argues that the incompleteness of institutional reforms is due solely to not having highlighted the importance of ethics and trust directors and stakeholders.

[94] See M. ONADO, *European Financial Supervision after the de Larosière Report: Are We on the Right Track?*, vol. 10, Bancaria Editrice, 2009, pp. 8–22, available at https://bancaria.it/assets/Special-Issues/2010-03/pdf/05.pdf. The author highlights the importance of leaving more discretion to intermediaries rather than intervening with automatisms, Basel I, II and III are an example: «The point is that in the past, the pendulum swung too far from discretion to rules; and the system relied too heavily on the efficiency of automatic mechanisms, such as the Basel provisions. In other words, it relied on the Basel Pillar 3 (the market discipline) and not enough on the Pillar 2, that is the application of the rules to individual business cases. For example, most supervisory authorities refrained from asking their banks to increase their level of capital, sometimes as a consequence of a form of regulatory "capture", but also because they did not want (or did not dare) to correct the market. The excess towards automatic rules was one of the determinants of the pro-cyclicality of the Basel requirements, which are now being amended. But it is almost impossible to correct flaws generated by automatic rules with other automatic rules. Greater discretion of supervisory authorities is needed, as evidenced by the experience of the Bank of Spain to correct the procyclical defects of capital requirements. In other words, future supervisory action must be based on a discretionary assessment of the

abandon the minimum harmonization plan in favor of a single set of rules and supervisory practices (single rulebook and single supervisory handbook)[95]. The Commission urged European legislators to give precedence to regulations, which are directly applicable at the national level, over Directives, which must be transposed into law by each Member State and leave significant discretionary margins taking into account the different local conditions [96]. The de Larosière report[97], published in February 2009, adopted in May by the EU Commission[98] outlined regulatory proposals of the Commission that were subsequently disclosed at the end of September[99].

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riskiness of individual banks (as it was clearly stated in the Basel Accords -2) and therefore on a more direct supervisory style: the years of praise for the "light touch", of which the British FSA boasted, are gone. This also means that regulators need powers and instruments to translate their judgements into action».

[95] See EBA, *The Single Rulebook*, available at http://www.eba.europa.eu/regulation-and-policy/single-rulebook; See also V. BABIS, *Single Rulebook for Prudential Regulation of Banks: Mission Accomplished?*, in *Eur. Bus. L. Rev.*, University of Cambridge Faculty of Law Research Paper No. 37/2014, 19 June 2014, available at http://dx.doi.org/10.2139/ssrn.2456642.

[96] See M. TONVERONACHI, *op. cit.*, p. 398. The author adds that: «this does not mean that the regulations do not contain any discretionary space; in a Union characterized by significant differences in national laws, there are many instances in which maximum formal harmonization is not possible».

[97]Report of *the High-Level Group on Financial Supervision* in the EU, chaired by Jacques de Larosière, Brussels, 25 February 2009, available at https://ec.europa.eu/economy_finance/publications/pages/publication14527_en.pdf

[98]Commission of the European Union, Communication from the Commission, *European Financial Supervision,* (COM (2009) 252 final, Brussels, 27.5.2009, available at https://eur-lex.europa.eu/legal-content/EN/LSU/?uri=celex:52009DC0252.

[99]Commission of the European Union, Proposal for a Regulation of the European

These proposals consist in the establishment of a European regulatory level which constitute and represent the response to the European problems generated by the crisis. There are significant criticalities and omissions. As shown by the European experience, the optimistic objectives set, to be achieved through compromises and committees, have not been achieved. One example is the so-called Lamfalussy procedure, whose failure was explicitly acknowledged by the de Larosière Report.[100]

The former Financial Stability Forum[101] (now Financial Stability Board) has highlighted the problem of the difficulty of overseeing the large global banks[102] the so-called Large complex financial institutions (LCFI). These banks, having a cross-border context, fall under the jurisdiction of various supervisory authorities. The FSB proposal,

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Parliament and of the Council on *Community Macro Prudential Oversight of the Financial System and Establishing a European Systemic Risk Board*, COM (2009) 499 final, 2009/0140 (COD), Brussels, 23 September 2009, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52009PC0499; and the proposals for establishing a European Banking Authority, European Insurance and Occupational Pensions Authority and a European Securities and Markets Authority.

[100] See M. ONADO, *op. cit.*; The author wonders why the compromise Larosière should work better than the compromise Lamfalussy, considered the failure to achieve the goal.

[101] Financial Stability Forum, Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience 7 April 2008.

[102] See UNICREDIT GROUP, *Cross-Border Banking in Europe: What Regulation and Supervision?*, in *Forum on Financial Cross-Border Groups*, Discussion paper, March 2009, available at https://www.unicreditgroup.eu/content/dam/unicreditgroup/documents/inc/press-and-media/cross_border_banking_discussion_paper.pdf.

which was also called for by the Group of Thirty[103], consisted in strengthening cooperation through the so-called "colleges of supervisors".

The report of the Group of Thirty published in January 2009 had expressed the same hope. The difficulty in supervising the group of large banks[104] was the complexity in predicting the so-called systemic risks[105], generated precisely by interconnections [106].

[103]See GROUP OF THIRTY, *Financial Reform. A Framework for Financial Stability*, January 2009.

[104] See M. ONADO, *op. cit.*, p. 11, who highlights that given the current high level of concentration of the financial system, it is sufficient to intervene on the banks that operate cross-border to control the main causes of systemic risk. On the same subject see also A. G. HALDANE, *op. cit.;* see also L. H. MEYER, *The Challenges of Global Financial Institution Supervision*, in *BIS Rev.*, vol. issue 47, Virginia, 2000, available at https://www.bis.org/review/r000608b.pdf. See L. PAPADEMOS, *Strengthening Macro-Prudential Supervision in Europe*, Speech at the conference on "After The Storm: The Future Face of Europe's Financial System": National Bank of Belgium and the International Monetary Fund Brussels, 24 March 2009, available at https://www.ecb.europa.eu/press/key/date/2009/html/sp090324.en.html. The author reports that Financial Stability Report of ECB have identified 35 "large and complex banking groups" in Europe.

[105] See P. SMAGA, *The Concept of Systemic Risk*, in *SRC*, August 2014, pp. 23–24, available at https://ssrn.com/abstract=2477928. see S. L. SCHWARCZ, *Systemic Risk*, cit.

[106] See A. G. HALDANE, *op. cit*.

5.1. The evolution of the European supervisory system: "mutual recognition and home country control"

The origin of the financial stability framework in the EU can basically be traced to 1985, when the Commission's White Paper was published on the initiative of President Jacques Delors and Commissioner Lord Cockfield [107]. It stems from a series of economic, political and legal factors that have provided the conditions for the progress of European financial market integration and it is based on three cornerstone principles: minimum harmonization, mutual recognition and home country control. According to the latter principle, an Authority (*i.e.*, supervisory body) of a Member State would have regulatory powers *vis à vis* all the entities operating in its territory, whether their registered office is in that country or in other countries of the European Union. The principle of mutual recognition consists, on the other hand, in the duty that binds every legal system to give the possibility to an external intermediary, recognized as such in the

[107] On page 29 he refers specifically to the integration of the financial markets. He states: «The accent is now put increasingly on the free circulation of "financial products", made ever easier by developments of technology. Some comparison can be made between the approach followed by the Commission after the "Cassis de Dijon" judgments with regard to industrial and agricultural products and what now has to be done for insurance policies, home-ownership savings contracts, consumer credit, participation in collective investment schemes, etc. The Commission considers that it should be possible to facilitate the exchange of such "financial products" at a Community level, using a minimal coordination of rules (...) «as the basis for mutual recognition by Member Stated of what each does to safeguard the interest of the public»; Commission of the European Communities, *Completing the internal market, White Paper from the Commission to the European Council, (Milan, 28-29, June 1985)*, COM(85) 310, Brussels, 14 June 1985, available at https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A51985DC0310.

country of origin, to operate within the territory of the former. Therefore, this obligation is based on both formal and substantial reciprocity between national legal systems conforming to EU directives.

Lastly, the principles of home country control and mutual recognition should be fostered by a minimum harmonization standard between national laws and Regulations. The application of these principles would thus provide a single passport to financial institutions for the provision of services throughout the EU [108].

5.2. The evolution of the European supervisory system: the Lamfalussy Report

It was not until the Lamfalussy Report [109] was published that the opposite principle of maximum harmonization was accepted. The need to further cooperation spurred Economic and Finance Ministers (ECOFIN) on 17 July 2000 to establish a dedicated committee aimed at developing a new system to regulate the securities market. This body, known as the Lamfalussy Committee [110], firstly provided an analysis of

[108] The implementation of the single passport concept was made possible by the SEA of 1985, which committed Member States to achieving a single market by 1992.

[109] On the contrary, the Report promotes "maximum harmonization", as shown by some legislative measures adopted under the FSAP, one of them is the 2003/71/ EC Directive on the single issue of financial instruments (in particular, Article 17), available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32003L0071.

[110] This name derives from the name of the person who chaired the committee, Alexandre Lamfalussy.

the status quo and then identified possible viable alternatives, which were illustrated at length in specific reports[111]. The rationale of the Report consisted in identifying the most appropriate measures to accelerate the establishment of the Single Market for financial services and to make the cooperation between supervisory authorities concretely possible[112].

The procedure is divided into four levels for each of the three sectors (banking, insurance and securities). Level 1 consists in the adoption of the general principles intended to regulate the subject matter of the EU provision, according to the normal co-decision procedure involving the Council and the European Parliament[113]. In level 2[114], the European Commission, upon the advice of the CESR[115] and assisted by Securities Committee, defines the implementing measures of the aforementioned general principles set in level 1

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[111] The reports referred to are the "Initial Report" issued on 9 November 2000, and the "Final Report" of the Committee of Wise Men on the Regulation of European Securities Markets, published on 15 February 2001. Cfr. E. MONACI, *La Struttura Della Vigilanza Sul Mercato Finanziario*, Milano: Giuffrè Editore, 2007, pp. 208–213.

[112] See COMMITTEE OF WISE MEN, *Final Report on the Regulation of European Securities Markets*, Bruxelles, 15 February 200, p. 17, available at http://ec.europa.eu/internal_market/securities/_docs/_lamfalussy/wisemen/final-report-wise-men_en.pdf.

[113] See Committee of Wise Men, *Final Report*, pp. 22-27.

[114] See Committee of Wise Men, *Final Report*, pp. 28-36. Two new Committees were established: «an EU Securities Committee (ESC) which will have a primarily regulatory function and an EU Securities Regulators Committee (ESRC) with advisory functions», cit. 28.

[115] The Committee of European Securities Regulators. The other two committees provided for by Level 3 are: the *CEBS* end the *CEIOPS*.

("comitology")[116]. Level 3 consists of enhanced cooperation and convergence between the supervisory authorities meeting in CESR to ensure a coherent and equivalent transposition of the new rules[117]. Level 4 of the process consists in the implementation and monitoring of the application of EU law, which fall within the responsibility of the European Commission[118]. This system does not entail any transfer of powers from the national level to the EU level and therefore it does not require any modification of the Treaty.

Supervision and secondary legislation thus remain characterized by strong fragmentation, the result of differences in national laws, in supervisory practices and in interventions carried out or to be carried out in crisis situations. The above mentioned European financial supervision regulation system appears therefore as ineffective and inappropriate[119], since it generates high administrative costs for intermediaries, especially for those with an international horizon and, lacking a comprehensive view, it is not always capable of guaranteeing uniform conditions of competition between countries and operators, or

[116] See Committee of Wise Men, *Final Report*, Annex 5 – European Union Comitology Procedures, p. 112, « "Comitology" refers to the delegation of implementing powers by the Council to the Commission for the execution of EU legislation. Representatives of the Member States, acting through Committees called "comitology committees", assist the Commission in the execution of the implementing powers conferred on it. »

[117] See Committee of Wise Men, *Final Report*, pp. 37-38.

[118] See Committee of Wise Men, *Final Report*, p. 40.

[119] Cfr. M. ONADO, *op. cit*., pp. 25-26.

similar levels of investor protection[120].

Moreover, the principle of home country control appears to be showing signs of structural failure with regards to intermediaries operating cross-border[121]. The vesting of the authorities of the country of origin with the power to control operators even when the latter act in a host country ceases to be an effective procedure when there is no incentive for full supervision over these intermediaries[122].

Such questions arise from the lack of a clear provision in the EU Treaty and in the Statute of the European System of Central Banks (ESCB)[123].

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[120] See the opinions expressed by Professor Paolo Garonna, Director General of National Association of Insurance Companies (ANIA) in Senate of the Republic (Italy), 6th Permanent Commission (Finance and Treasury) *Indagine conoscitiva sugli strumenti. di vigilanza europea dei mercati finanziari, creditizi e assicurativi*, 134th sitting: Tuesday, 12 January 2010, available at http://www.senato.it/service/PDF/PDFServer/DF/218576.pdf.

[121] Cfr. UNICREDIT GROUP, *Cross-Border Banking in Europe: What Regulation and Supervision, cit.; M. ONADO, op. cit.*, pp. 17 et seq. See more recently JOHN EATWELL – G. JEAN-BAPTISTE – A. KERN, *Financial Markets and International Regulation*, (edited by) J. EATWELL - T. MCKINLEY, in *Challenges for Europe in the World, 2030*, Ashgate, 28 May 2014, p. 106.

[122] E. MONACI, *op. cit*., pp. 201- 202. The author adds that: The absence of any provision concerning what should be done in the event of an intermediary's transnational crisis was believed to be another serious limit of the previous supervision system in Europe. Who is liable to bear the related costs? Who is liable for the failure to carry out controls? And finally, who should act as lender of last resort?

[123] The European system of central banks comprises the ECB and the national central banks of all EU Member States, Article 107(1) of the TFEU whether they currency is Euro or not.

5.3. The de Larosière report

Many believed that the subprime mortgage crisis had revealed all the serious shortcomings in Europe in terms of cooperation, coordination, coherence and trust among national supervisory authorities. It was to curb these problems that in November 2008 the Commission instructed a high-level group chaired by Jacques de Larosière to submit recommendations to strengthen European supervisory provisions to better protect citizens and restore confidence in the financial system[124].

In the Communication "Driving European recovery" of 4 March 2009[125], the Commission welcomed and endorsed the approach of the recommendations of the de Larosière report and implemented them in an action plan to reform the regulatory and supervisory arrangements of the financial markets.

On 27 May 2009, the Commission published a Communication on financial supervision in the EU detailing the way in which these recommendations could be implemented, paying particular attention to the creation of the *European System of Financial Supervisors and of the European Committee for systemic risk.*

The ECOFIN Council of 9 June 2009[126] adopted detailed

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[124]Communication from the Commission - *European financial supervision*, COM(2009) 252 final, Brussels, 27 May 2009, available at https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:52009DC0252.

[125] Communication for the Spring European Council - *Driving European recovery,* COM(2009) 114 final, Brussels, 4 March 2009, available at https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0114:FIN:EN:PDF.

[126] Council conclusions on Strengthening EU financial supervision, Brussels, 9 June 2009, available at

conclusions basically agreeing with the objectives set out in the Commission's Communication and underlining the need to ambitiously strengthen EU financial stability, regulation and supervision. The European Council of 18 and 19 June 2009 subsequently confirmed that the communication published by the Commission in May and the conclusions of the ECOFIN Council paved the way for the creation of a new framework for micro-prudential and macro-prudential supervision and requested that the Commission submit all necessary proposals at the latest by early autumn 2009, so that the new framework could be fully operational by 2010.

With a view to achieving this objective, on 23 September 2009 the Commission adopted a package of legislative proposals for the reform of the European financial market supervisory system, following which - on 26 October - it put forward new proposals to "strengthen" the scheme drawn up by the de Larosière group. More in detail, the amendments introduced in October were aimed at harmonizing and coordinating the work of the three European supervisory authorities forming the European System of Financial Supervisors (ESFS)[127].

The de Larosière report suggested to improve the effectiveness of market supervision and financial stability by acting along two fundamental lines: a) ensuring close coordination between the

https://register.consilium.europa.eu/doc/srv?l=EN&f=ST%2010862%202009%20INIT.

[127] The piece of news concerning the political agreement reached by ECOFIN on the so-called "Supervision package", consisting in the proposals for regulations that establish and regulate the activities of the new European Supervisory Authorities (ESA), is dated 2 December. The European Parliament and the Council expressed their opinion on these proposals, by virtue of the co-decision procedure foreseen by the Treaty.

individual national authorities; b) entrusting macro-supervision powers to a body involving the ECB, an institution which has so far been unrelated to supervision functions over financial institutions [128].

The system proposed by the Commission and then incorporated in the "supervision package" was based on two pillars, each designed to realize the two above-mentioned lines:

1. the establishment of a European Systemic Risk Board (ESBR) [129], responsible for macro-prudential supervision and for dissemination, where necessary, of precautionary alerts for the stability of the EU financial system and specific recommendations, albeit not binding [130].

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[128] See G. NAPOLITANO – A. ZOPPINI, *Le Autorità Al Tempo Della Crisi. Per Una Riforma Della Regolazione e Della Vigilanza Sui Mercati*, in *AREL*, Il Mulino, January 2010.

[129] See Council Regulation (EU) No 1096/2010 of 17 November 2010 conferring specific tasks upon the European Central Bank concerning the functioning of the European Systemic Risk Board, available at https://eur-lex.europa.eu/legal-content/GA/TXT/?uri=CELEX:32010R1096, Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board; recently modified amended by Regulation (EU) 2019/2176 of the European Parliament and of the Council of 18 December 2019 amending Regulation (EU) No 1092/2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board, available at https://eur-lex.europa.eu/eli/reg/2019/2176/oj.

[130] It is expected that the recipients of a recommendation will explain how they intend to remedy the findings of the ESRB but there is no legal means to oblige the recipient to act, and the option remains, to be assessed on a case-by-case basis, of disclosing the relevant situation to the public. See Regulation (EU) No 1092/2010, recital No. 20: «The ESRB should also monitor compliance with its warnings and recommendations, based on reports from addressees, in order to ensure that its

This body is formed by the governors of the central banks, the governor of the ECB, the presidents of the soon- to- be-established European financial supervisory authorities, a representative of the European Commission as well as by a high-level representative of the national supervisory authority of each Member State [131];

2. The establishment of a European System of Financial Supervisors (ESFS), for micro-prudential supervision, consisting of a network of national supervisory authorities and responsible for safeguarding the soundness of individual financial firms and protecting investors. It consists of three new European Authorities - the European Banking Authority (EBA), the European Insurance and Occupational Pension Authority (EIOPA) and the European Securities and Markets Authority (ESMA) – resulting from the transformation of the current Third Level Committees (CESR, CEBS and CEIOPS).

The European Commission and the Council tried to speed up the reform process so that the new supervisory system could be operational as early as the beginning of 2011. Examination of the proposals in the

warnings and recommendations are effectively followed. Addressees of recommendations should act on them and provide an adequate justification in case of inaction ('act or explain' mechanism). If the ESRB considers that the reaction is inadequate, it should inform, subject to strict confidentiality rules, the addressees, the Council and, where appropriate, the European Supervisory Authority concerned» and Recital No. 21: «The ESRB should decide, on a case-by-case basis and after having informed the Council sufficiently in advance so that it is able to react, whether a recommendation should be kept confidential or made public, bearing in mind that public disclosure can help to foster compliance with the recommendations in certain circumstances».

[131] In the case of several national supervisory authorities, unless agreed for a single representative, the designated representatives will alternate according to the subjects dealt with.

Council did not progress further pending the examination of the European Parliament at first reading.

The European Parliament's Economic and Monetary Affairs Committee was to review the legislative proposals at first reading on 4 May 2010; the plenary examination was scheduled for 15 June 2010. The draft reports in the ECON Commission were submitted to the European Parliament, in view of the examination of the four proposals.

5.4. The European system of financial supervision: European Supervisory Authorities

In order to prevent banking crises, the European legislator has enacted out numerous reforms[132]. With a view to attaining and monitoring greater harmonization[133], inspired by the aforementioned report, the first institutional reform has finally been enacted. In January 2011, three independent supervisory authorities for banks, insurance companies and markets became operational: the ESAs[134].

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[132] See, *inter alia*, European Commission, *A new financial system for Europe: financial reform at the service of growth*, state of play 27.06.2014, available at http://ec.europa.eu/internal_market/publications/docs/financial-reform-for-growth_en.pdf.

[133] The United Kingdom opposed to maximum harmonization. See e.g. M. CHANG – G. MENZ – M. P. SMITH, *Redefining European Economic Governance*, Routledge, 14 April 2016, p. 144.

[134] The ESAs founding Regulations are: Regulations (EU) No 1093/2010, 1094/2010, and 1095/2010 of the European Parliament and of the Council of 24 November 2010; OJ of 15 December 2010, L 331, pp. 12-119. See in particular, Regulations

They were entrusted with the task of drawing up the technical standards necessary to make the relevant legislation effective, making them homogeneous wherever possible, and monitoring their common application in Europe[135]. It should be noted that the Regulations that

(EU) No 1093/2010, Recital 10: «The European Supervisory Authorities (hereinafter collectively referred to as the 'ESAs') should replace the Committee of European Banking Supervisors established by Commission Decision 2009/78/EC, the Committee of European Insurance and Occupational Pensions Supervisors established by Commission Decision 2009/79/EC and the Committee of European Securities Regulators established by Commission Decision 2009/77/EC, and should assume all of the tasks and competences of those committees including the continuation of ongoing work and projects, where appropriate. The scope of each European Supervisory Authority's action should be clearly defined. The ESAs should be accountable to the European Parliament and the Council. When that accountability relates to cross-sectoral issues that have been coordinated through the Joint Committee, the ESAs should be accountable, through the Joint Committee, for such coordination.»

[135] See *e.g.* ESA Regulations, Recital 22: «There is a need to introduce an effective instrument to establish harmonised regulatory technical standards in financial services to ensure, also through a single rulebook, a level playing field and adequate protection of depositors, investors and consumers across the Union. As a body with highly specialised expertise, it is efficient and appropriate to entrust the Authority, in areas defined by Union law, with the elaboration of draft regulatory technical standards, which do not involve policy choices»; Recital 11: «[…]The Authority should protect public values such as the stability of the financial system, the transparency of markets and financial products, and the protection of depositors and investors. The Authority should also prevent regulatory arbitrage and guarantee a level playing field, and strengthen international supervisory coordination, for the benefit of the economy at large, including financial institutions and other stakeholders, consumers and employees. Its tasks should also include promoting supervisory convergence and providing advice to the Union institutions in the areas of banking, payments, e-money regulation and supervision, and related corporate governance, auditing and financial reporting issues. The Authority should also be entrusted with certain responsibilities for existing and new financial activities.»

gave rise to ESA explicitly state that technical standards should take national characteristics into account[136]. Furthermore, certain matters, such as the production of accounting standards that leave significant discretionary power to intermediaries, do not fall within their jurisdiction[137].

However, ESAs are not, supervisory bodies in all respects. Their activity is carried out by monitoring the adoption of common practices by the national authorities which, together with them, form the European system of financial supervision.

The crisis has led most people to consider that supervision on systemic risk and on large financial institutions needs to be strengthened. The indications of the de Larosière Report, which the EU Commission has endorsed, is believed to have allowed important steps

[136] See e.g. ESA Regulations, Recital 13 «The Authority should take due account of the impact of its activities on competition and innovation within the internal market, on the Union's global competitiveness, on financial inclusion, and on the Union's new strategy for jobs and growth. »

[137] See e.g. ESA Regulations, Recital 22: «The Commission should endorse those draft regulatory technical standards by means of delegated acts under Article 290 TFEU in order to give them binding legal effect. They should be subject to amendment only in very restricted and extraordinary circumstances, since the Authority is the actor in close contact with and knowing best the daily functioning of financial markets. Draft regulatory technical standards would be subject to amendment if they were incompatible with Union law, did not respect the principle of proportionality or ran counter to the fundamental principles of the internal market for financial services as reflected in the acquis of Union financial services legislation. The Commission should not change the content of the draft regulatory technical standards prepared by the Authority without prior coordination with the Authority. […]»

forward to strengthen the "architecture" of financial regulation and accelerate convergence and harmonization[138].

As mentioned above, some relevant aspects relating, in particular, to the role of the supervisory authorities involved and to the relationships between these authorities, reportedly called for clear-cut definition so as to allow the process initiated to be completed[139].

6.The Pillars of the European Banking Union.

By means of the political decision of 29 June 2012[140], the European Commission was asked to present legislative proposals on the creation of a single supervisory mechanism (SSM)[141] in order to "break the vicious circle between banks and sovereigns" and lay the foundations for a "European Banking Union". By the same decision is asked to

"do what is necessary to ensure the financial stability of the euro area, in particular by using the existing EFSF/ESM[142] instruments in a

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[138] M. ONADO, *op. cit*.

[139] The powers, governance and funding of the ESAs was recently reviewed (on 18 December 2019) by the Regulation (EU) 2019/2175 of the European Parliament and the Council.

[140] European Council 28/29 June 2012 Conclusions, EUCO 76/12, CO EUR 4, CONCL 2, Brussels, 29 June 2012, available at http://data.consilium.europa.eu/doc/document/ST-76-2012-INIT/en/pdf.

[141] See *infra* footnote No 100. For a comprehensive analysis of the Single supervisory mechanism see C. V. GORTSOS, *The 'Single Supervisory Mechanism': A Major Building Block towards a European Banking Union (The Full Europeanisation of the 'Bank Safety Net')*, in *ECEFIL Work. Pap. Ser. No. 8*, June 2015.

[142] *European Stability Mechanism.*

flexible way and efficient way"[143], through the ECB's work as an agent of the ESFS/ESM. The Eurogroup is entrusted with the task of implementing these decisions by 9 July 2012.

As reported in the first and second recital of the Council Regulation (EU) No 1024/2013, (hereinafter also referred to as "SSM Regulation" or "SSM")[144], that establishes the Single Supervisory Mechanism, the considerable progress made by the European Union in creating an internal market for banking services has led to the consequence that banking groups in a given Member State hold a significant market share of another Member State[145]: the solution to the fragmentation of the financial sector is therefore to be found in intensifying integrated banking supervision in order to "strengthen the Union" and enable the economy to recover[146]. The prerequisites of a banking union are[147]: 1) a single supervisory mechanism; 2) coherent and effective implementation of the Union's policy relating to the prudential supervision of credit institutions; 3) that the single rulebook for financial services is applied consistently to credit institutions in all the Member States concerned[148]; 4) that such credit institutions are subject to highest-standard supervision, unfettered by other, non-prudential considerations.

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[143] See Euro Area Summit Statement of 29 June 2012, p. 2.

[144] Council Regulation (EU) No 1024/2013 establishes the SSM as a system to supervise banks in the Euro area and other participating EU countries. The Regulation consists of more than 25 pages (English pdf version), with 87 recitals, to which 34 articles are added (the last of which concerns the ritual entry into force), some of which count 11 (article 24) or 12 paragraphs (articles 7 and 26).

[145] Recital No. 1 of Council Regulation (EU) No 1024/2013.

[146] Recital No. 2 of Council Regulation (EU) No 1024/2013.

[147] Recital No. 12 of Council Regulation (EU) No 1024/2013.

[148] See also Recital No. 11 of Council regulation (EU) No 1024/2013.

Therefore, Banking Union presents itself as a case that progressively takes shape based on three main pillars: the single supervisory mechanism that is underway; the single system of banking crises resolution that was established by EU Regulation no. 806/2014 of the European Parliament of the Council of 15 July 2014, on the basis of article 114 TFEU.; and the European deposit guarantee system with the prevailing creation of the newly established single fund for the resolution of banks.

6.1. The first pillar of Banking Union: The Single Supervisory Mechanism (SSM)

The Banking Union is based on three pillars: The Single Supervisory Mechanism (SSM)[149], the Single Resolution Mechanism (SRM) and the Single Deposit Guarantee Scheme (SDGS)[150]. The new architecture aims to enhance financial stability and it is centralized in the European Central Bank (ECB) supervision on the Significant Credit Institution (Sis) in respect of less significant credit institutions (LSIs) supervised by the national competent authorities (the NCAs)[151].

[149] The SSM become operative on 4 November 2014.

[150] See Communication from the Commission to the European Parliament and the Council – *A Roadmap towards a Banking Union*, COM (2012) 510 final, Brussels, 12 September 2012, p. 3 and 6, available at https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012DC0510&from=EN.

[151] *Ibidem*.

The prudential supervision of significant credit institution was "denationalized" by the SSM in favor of a direct EU administration in that domain[152].

6.1.1 The Single Supervisory Mechanism: legal framework

To develop further unification in the substantive law in prudential supervision, starting with the establishment of ECB as single supervisor, the process was enacted by Regulations rather than Directives[153].

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[152] See, K. LACKHOFF, *Single Supervisory Mechanism: European Banking Supervision by the SSM*, (edited by) C. H. BECK - HART - NOMOS, 2017, p. 1.

[153] The use of regulations instead of European directives and the basic tendency at maximum harmonization instead of minimum harmonization was also realised in the European Financial Markets Regulation. See on that point, G. DEIPENBROCK, *The European Securities and Markets Authority and Its Regulatory Mission: A Plea for Steering a Middle Course*, (edited by) MADS ANDENAS - GUDULA DEIPENBROCK, in *Regulating and Supervising European Financial Markets*, Springer, August 2016, p. 15, available at https://www.doi.org/10.1007/978-3-319-32174-5_2. The author mentions Article 114 TFEU as the legal basis of the regulations establishing the components of the ESFS, including the ESMA Regulation. For instance, on the European regulations on credit rating agencies; see G. DEIPENBROCK, *After 'CRA III'- Achievements and Challenges from the Legal Perspective. In: European Parliament Directorate-General For Internal Policies Policy Department A Economic and Scientific Policy*, in *Credit Rating Agencies: Implementation of Legislation*, Brussels: Study for the ECON Committee IP/A/ECON/2013-13, 2014, pp. 5–11.

The legal basis, and primary source, of the new banking supervisor architecture is the Article 127, paragraph 6 of TFUE[154].

The secondary legislation is represented by Council Regulation (EU) No. 1024/2013 of 15 October 2013 which, as reported in the paragraph above, establishes the Single Supervisory Mechanism – SSM[155].

Such Regulation was followed by Regulation (EU) No. 468/2014 of the European Central Bank of 16 April 2014, the so-called "regulation framework" establishing the framework for cooperation in the context of the SSM between the ECB and National Competent Authorities (NCAs)[156].

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[154] In particular, the article stipulates that the power of the Council to have this effect is contingent on: (I) a unanimous deliberation by means of regulations and in accordance with a special legislative procedure; (II) that this deliberation takes place after consulting the European Parliament and the European Central Bank.

[155] This regulation was adopted by EBC based on the provisions of Article 4, paragraph 3, 6 and 33, par. paragraph 2, of Regulation (EU) 1024/2013.

[156] As evidenced by M. GNES, *Il Meccanismo Di Vigilanza Prudenziale. Le Procedure Di Vigilanza*, (edited by) M. P. CHITI - V. SANTORO, in *L' Unione Banc. Eur.*, Pisa: Pacini Editore, October 2016, p. 245, in its supervisory activity, EBC must comply with the technical standards contained in the SSM Supervisory Manual developed by the ABE. The Manual was recently published (March 2018). See EUROPEAN CENTRAL BANK, *European Banking Supervision: Functioning of the SSM and Supervisory Approach*, in *SSM Supervisory Manual*, March 2018, available at https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.supervisorymanual201803.en.pdf.

As established by the SSM Regulation, Article 4, par. 3, the ECB must apply all the "relevant European Union law" and also the national transposition legislation in the event that the legal framework comprises directives, in order to fulfil the tasks conferred by that regulation and to ensure high supervision standards. It is a reversal of trend on the basis of which the European administrations know and apply the national rights[157].

The importance that the SSM Supervisory Manual developed by EBA has, assumes for the EBC should also be highlighted, with a view to explaining the latter's supervisory activity.

The division of the tasks between the ECB and NCAs, alongside the scope of the provisions, were one of most debated points when approving the SSM Framework[158].

6.1.1.1 Scope of the SSM Regulation

Article 6, par. 4 of the Regulation 1024/2013 addressed these points by ruling that the prudential supervision of the credit institutions, also, always in accordance to the same Article 6 paragraph 4 and 5 of

[157] See A. WITTE, *The Application of National Banking Supervision Law by the ECB: Three Parallel Modes of Executing EU Law?*, in *Maastrich. J. Eur. Comp. Law*, vol. 21. issue 1, SAGE Publications Ltd, 1 March 2014, pp. 89–109, available at https://doi.org/10.1177/1023263X1402100105.

[158] See M. GNES. *op. cit.,* p. 246. See also C. V. GORTSOS, *The Single Supervisory Mechanism (SSM) - Legal Aspects of the First Pillar of the European Banking Union*, in *EPLO*, 2015. See also E. WYMEERSCH, *The Single Supervisory Mechanism or 'SSM', Part One of the Banking Union*, in *ECGI Law Work. Pap. No. 240/2014*, 21 February 2014, available at http://dx.doi.org/10.2139/ssrn.2397800.

the SSM Regulation the ECB has the exclusive power to issue and revoke the authorization, to assess notifications of acquisition and disposal of qualifying holdings in credit institutions[159], implementing "common" procedures set out in the Regulation.

Under the Regulation, guidelines, regulations, or general instructions to the national authorities responsible for carrying out their supervisory tasks shall also be issued.

6.1.1.2 The allotting of tasks between ECB and NCAs

On the distribution of competences of supervisory powers between the ECB and the national authorities, in accordance with Article 39, paragraph 4 "SSM framework"[160], the ECB is given supervision of significant stakeholders, except for "special circumstances" which justify the vesting of the supervision to the national authorities[161]. Article 6, paragraph 4 of the SSM Regulation illustrates the significance of cross-border activities[162]. The criteria for identifying a subject as "meaningful" are described in Article 39 and 43, paragraph 7 of Regulation No 468/2014[163]. From a procedural point

[159] Except the case of solving a banking crisis.

[160] Regulation (EU) No 468/2014 of the ECB of 16 April 2014, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014R0468.

[161] Article 39 refers to Article 70 et seq. of the same Regulation for those situations which should be assessed on a case by case basis

[162] See also Regulation (EU) No 468/2014.

[163]These are the following criteria: "The criterion of dimension", according to which the value of the activities exceeds 30 billion euros; The "criterion of economic

of view, in order for a person to be considered a "significant subject", a decision motivated by the ECB should be adopted, following the procedural guarantees established with the SSM Regulation and in the SSM Framework.[164]

National Competent Authorities (NCAs) are vested with the power to supervise less significant activities, in accordance with Article 6, par. 4, of the SSM Regulation. Also, under Article 6, par. 5, let. B) of the SSM Regulation, the ECB may take the direct supervision of less significant entities "when necessary to ensure the standard application

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importance", under which the relationship between the economic activities and the national GDP exceeds 20%, unless the total value of the assets is less than 5 billion euros; The "criterion of cross-border activities", whereby the total value of the assets exceeds 5 billion euro and the relationship between the cross-border activities in more than one other participating Member State and the total activities exceed 20% or the relationship between the cross-border in more than one other participating Member State and the total liabilities are more than 20%; or the "direct public financial assistance criterion" which is substantiated if the person has requested or received direct public financial support from the European Stability Mechanism (ESM); or the subject must be one of the three most significant credit institutions in a participating Member State. Moreover, as evidenced by M. GNES, *op. cit.*, p. 248, the "significance" of a subject may vary over time and supervision is transferred, therefore from the EBC to the competent national authorities or vice versa. Article 47 of Regulation 468/2014 in order to be no longer classified as group or significant body but as less significant it is necessary that none of the criteria be fulfilled for three consecutive years, with some exceptions, and that for the passage from less significant to more significant it is necessary that only one of the criteria in a year is fulfilled.

[164] See Article 39, paragraph 1 of Regulation 468/2014, which in turn returns to Article 43-49 of the Regulation. The Article 44 makes explicit reference to procedural rules.

of supervision"[165] as well as under Directive 2013/36/EU of 26 June 2013[166].

Article 4, par. 2 of Regulation 1024/2013 clarifies that the ECB will play a *host* function when an entity of a non-participating country asks to open a branch or provide cross-border services in a participating Member State; the ECB will act as a *home* authority in the event that significant credit institutions established in a participating Member State open a branch or provide cross-border services in a non-participating State.

6.1.1.3. Elements of centralization

The national authorities shall participate in the decision-making and operational tasks of the significant supervision of the EBC. The list of competences attributed to the ECB is deemed to be exhaustive[167]. Any other competences are in the residual way attributed to national authorities[168].

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[165] This is Second Council Directive No 89/646/EEC of 15 December 1989 on *the coordination of legislative, regulatory and administrative provisions concerning access to the activity of credit institution and its exercise amending* Directives 77/780/EEC, OJ L 386, 30 December1989, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31989L0646.

[166] The directive, i.e. on access to credit institutions and prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EU and repealing Directives 2006/48/EC and 2006/49/EC (CRD IV).

[167] For the list of competence, see Article. a, paragraph 1, Regulation No. 1024/2013.

[168] See Recital No. 28, Regulation (EU) No. 1024/2013.

6.1.1.4. The principles of supervision

The Core Principles for Effective Banking Supervision, issued by the BCBS[169] designed the global banking supervisory standards and represented a benchmark for supervisory systems worldwide. The supervisory mechanism is inspired by the aforementioned principles. They constitute a re-elaboration of principles from 1 to 9.

As far as organizational principles are concerned, Articles 19, 20 and 21 of Regulation No. 1024/2013 rule the independence of the ECB, the accountability towards the European Parliament and the Council and also the obligation to inform the European Parliament, the Council, the Commission and the Eurogroup, as well as national Parliaments.

On the basis of the general principle of loyal collaboration enshrined in Article 4 TUE, the ECB and the national authorities have a duty to cooperate according to good faith, in particular through the exchange of information, as reiterated in Article 6, par. 2, of Regulation 1024/2013 and Article 20 of the SSM Framework.

Article 21 of the SSM Framework regulates specifically the exchange of information between the ECB and national authorities: the latter must promptly provide the ECB with all the information it needs to fulfil the tasks conferred by the SSM Regulation; however, the ECB also has the duty to notify national authorities of any information

[169] The principle was set forth in 1997, then revised in 2006 and finally in 2012 with an increase in the number of principles, from 25 to 29. See BCBS, Core Principles for Effective Banking Supervision, 2. The Core Principles could be grouped into seven areas.

obtained directly from natural or legal persons and is also obliged to ensure that the national authorities have regular access to updated information in order to allow them to carry out the tasks concerning prudential supervision[170].

6.1.2. The single resolution mechanism: the role of the Commission

The SRM regulation places the management of cross-border banking crises at a single European level and has the same purpose of the Single Supervisory Mechanism. In implementation of Article 114 TFEU, a new European agency for bank resolutions was set up. Furthermore, a Single Fund for Banking Resolutions was established, thanks to the obligatory ex-ante contributions of European banks. The ECB, the Authority for resolutions, the Commission and the European Council intervene in the resolution phase.

The mechanism is therefore very complex as it involves the intervention of several authorities whose powers are not clearly defined.

As regards the role of the Commission, it appears to be crucial in relation to compliance with the provisions on State aid. In this context, Directive 2014/59/EU of 15 May 2014, Banking Recovery and

[170] The Article 23 and 24 of Regulation (EU) 468/2014 are subject to the linguistic regime.

Resolution Directive (BRRD)[171] includes a framework for the reorganization and resolution of the crises of credit institutions and investment undertakings.

6.1.2.1. Banking Recovery and Resolution Directive

The Banking Recovery and Resolution Directive (hereinafter BRRD) establishes the general principles that Member States must abide by when legislating and also all the instruments that the same must necessarily provide for to prevent banking crises.

The recipients of the BRRD are all banks and investment undertakings established in the European Union, financial institutions belonging to a group whose parent company is subject to supervision on a consolidated basis pursuant to Regulation (EU) No 575/2013, financial holding companies, mixed financial holding companies, mixed holding companies, also parent companies, and the EU branches of non-EU entities that engage in banking or investment activities.

The instruments that can be used in the resolution phase are, in short: sale of business; creating a bridge bank; the sale of assets, rights or liabilities to a vehicle company for the management of impaired

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

assets; activation of *bail-in*; safeguard of public funds; protect depositors referred to in Directive 2014/49/EU and investors referred to in Directive 97/9/EC; protection of customers' funds and assets.

Under BRRD, State aid can be granted outside resolution only if it fulfils one of the exceptions mentioned in the Article 32, paragraph 4, letter (d)[172].

[172] See Article 32.4 BRRD: «precautionary recapitalisation [...] an institution shall be deemed to be failing or likely to fail in [...] the following circumstances: (a) the institution infringes [...] the requirements for continuing authorisation [...]; (b) the assets of the institution are [...] less than its liabilities; (c) the institution is [...] unable to pay its debts or other liabilities as they fall due; (d) extraordinary public financial support is required except [...] any of the following forms: (I) a State guarantee to back liquidity facilities provided by central banks [...]; (II) a State guarantee of newly issued liabilities; or (III) an injection of own funds or purchase of capital instruments at prices and on terms that do not confer an advantage upon the institution [...]. [...] The guarantee or equivalent measures referred to therein shall be confined to solvent institutions and shall be conditional on final approval under the Union State aid framework. Those measures shall be of a precautionary and temporary nature and shall be proportionate to remedy the consequences of the serious disturbance and shall not be used to offset losses that the institution has incurred or is likely to incur in the near future. Support measures [...] shall be limited to injections necessary to address capital shortfall established in the national, Union or SSM-wide stress tests, asset quality reviews or equivalent exercises [...]». Cfr. B. MESNARD – A. MARGERIT – M. MAGNUS, *Precautionary Recapitalisations under the Bank Recovery and Resolution Directive: Conditionality and Case Practice*, in *European Parliament (Briefing), PE 602.084*, 5 July 2017, available at https://www.europarl.europa.eu/RegData/etudes/BRIE/2017/602084/IPOL_BRI(2017)602084_EN.pdf.

6.1.2.2 *Bail-in* as an instrument to save banks

One of the key points of the SRM regulation is represented by the provisions on *bail-in* measures, an instrument already provided for in a Commission Communication in 2010, according to which in the event of a bank's crisis, the shareholders and creditors must bear the costs of rescuing the bank, before burdening public finances and therefore taxpayers[173]. On an operational level, *bail-in* aims to enable the bank's financial and industrial restructuring to be terminated without interrupting its activities, leading to a fragmentation of the sources of financing and arbitrage between liabilities subject to *bail-in* and liabilities excluded from the same[174].

[173] For legal aspects of bank bail-ins, see S. GLEESON, *Legal Aspects of Bank Bail-Ins*, in *London Sch. Econ. Financ. Mark. Gr. Pap. Ser.*, January 2012, available at http://www.lse.ac.uk/fmg/assets/documents/papers/special-papers/SP205.pdf.

[174] For a critical approach related to *bail-in* tools, shared in this thesis, see A. KERN, *Bail-in: A Regulatory Critique*, in *JIBFL*, 1 January 2017, available at https://www.uzh.ch/cmsssl/ius/dam/jcr:43502ee3-b842-4dc0-9bf7-041d56fe13a8/Alexander_Bail_in_critique_jan2017.pdf; the author affirms that: «the discretionary ad hoc exercise of macroprudential powers can not only potentially infringe on the fundamental rights of shareholders and creditors of financial institutions, but can also result in substantial moral hazard in the financial system that can potentially lead to financial system disturbances and even breakdown». cit. p. 29.

Chapter V: Designing a new Supervisory Parametric Banking Architecture in a cyberspace context

Summary: 1. The premises; 2. Information as a vaccination against future crises, and asymmetric information: the variables of the contract "constant" in the recent crisis and the importance of The Internet of Things; 2.1. There is no trust if there is no transparency; 2.2. From Transparency to e-transparency in financial regulation and banking supervision to avert the risk of systemic contagions: the duty to inform the public in a cyberspace context; 2.3. The cyberspace context as a new world: an opportunity for "transparent" communication and discussion topics; monitoring on a macro-level; 2.3.1. Cyberspace as the "hippocampus": the importance of a long- term memory in order to avoid the "*perseverare diabolicum*"; 2.3.2. The Multistakeholder governance; 3. Financial statements may serve as an information tool and therefore as a Governance tool (i.e., a disclosure and Governance), starting from international and EU rules; 4. The creation of a common cyber language through artificial intelligence to overcome the information asymmetries created by language; 5. Towards a new "parametric" architecture of banking supervision: the fluidity of forms as an element representative of the flow of information; 5.1. The Building Information Modelling (BIM); 5.2. The image of the new supervisory banking architecture in a Cyberspace context; 5.3 The function of the so-called "Gerber beam" in architecture and the analogy with e-transparency in a cyberspace context; 6. Central Credit Risk Database of the Bank of Italy, as an example for the creation of a "Common Central Credit Risk Database" on the new supervisory architecture in a cyberspace; 6.1. The precondition of the reporting of a "non-performing" credit from

the Central Credit Risk Database of the Bank of Italy; 6.2. A non-performance report in the lack of the required conditions is contrary to the principles of good faith: Fiduciary Duty model; 6.3. *Ex* aequo et bono liquidation of pecuniary and non-economic damage; 6.4. BIM (Building Information Modeling) vs MIS "Management Information Systems" outlined from BCBS Principles on Effective Risk Data Aggregation and Risk Reporting; 7. The penalty: reputation and shame as an intrinsic regulatory value, "Shaming Punishments" and reputational discredit in a cyberspace context for a new e-banking supervision; 8. The double meaning of sanctions according to Romagnosi in a cyberspace context.

1. The premises

The distortion that rule makers may cause with regard to banking and financial markets and the instrument of banking supervision, in particular the European one have been mentioned above. The SSM Regulation[1] outlines the distinction between "regulation" and

[1] No. 1024/2013, see *supra* Ch. IV §6 et seq.

"supervision"[2]; as noted[3], from a terminological point of view, in some jurisdictions the word "regulation" is even used as a substitute for supervision.

As has been pointed out, the interferences from the rule maker in the inter-banking market, preclude the applicability of natural causality[4] but also the action taken by the banking and financial authorities, instead of a mere supervision understood as observation as a "spectator". Indeed, regulatory powers are attributed to both ECB and EBA by the SSM Regulation[5].

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[2] See C. BRESCIA MORRA, *From the Single Supervisory Mechanism to the Banking Union. The Role of the ECB and the EBA*, in *Working Paper n.02-2014*, Luiss Academy, 2014, pp. 465–484, available at https://eprints.luiss.it/1322/1/02_Brescia_Morra-SEP.pdf. See also E. WYMEERSCH, *The European Financial Supervisory Authorities or ESA's*, in *Financial Regulation and Supervision: A Post Crisis Analysis*, Oxford University Press, 2012, pp. 232–317; See more recently WYMEERSCH. E. WYMEERSCH, *The Single Supervisory Mechanism or 'SSM', Part One of the Banking Union,* cit.

[3] See C. BRESCIA MORRA, *Ibidem.*

[4] See *supra* Ch II §3.8.1.

[5] According to Article 4 (3) of the SSM Regulation, the ECB shall adopt guidelines and recommendations, and take decisions subject to and in compliance with the relevant Union law and in particular any legislative and non-legislative act, including those referred to in Articles 290 and 291 TFEU. It shall in particular be subject to binding regulatory and implementing technical standards developed by EBA and adopted by the Commission in accordance with Articles 10 to 15 of Regulation (EU) No 1093/2010, to Article 16 of that Regulation, and to the provisions of that Regulation on the European supervisory handbook developed by EBA in accordance with that Regulation. The ECB may also adopt regulations only to the extent necessary to organise or specify the arrangements for the carrying out of the tasks conferred on it by this Regulation. Before adopting a regulation, the

The control or "regulation" of supervisory authorities should be limited to control intended both as "regulation" and "supervision" of the circulation of truthful information relating to the standing of intermediaries with a view to future projects and guarantees, not only capital[6], underlying the construction of the same.

Banking supervision should not deal with regulating the market but merely "monitoring" it in order to increase transparency, making information usable, and reducing information asymmetry. Supervision should therefore materialize in the activities of the supervisory authorities that should be responsible for both the flow of information regarding incidences of morally reprehensible behavior, and the correctness of the assessment of risk management choices on the part of banking and financial operators, in particular of the negative externalities capable of producing social costs that can, on the whole, generate the so-called breaking of the game table (or violate the principle of *neminem laedere* maximum extent), through models of

ECB shall conduct open public consultations and analyse the potential related costs and benefits, unless such consultations and analyses are disproportionate in relation to the scope and impact of the regulations concerned or in relation to the particular urgency of the matter, in which case the ECB shall justify that urgency. Where necessary the ECB shall contribute in any participating role to the development of draft regulatory technical standards or implementing technical standards by EBA in accordance with Regulation (EU) No 1093/2010 or shall draw the attention of EBA to a potential need to submit to the Commission draft standards amending existing regulatory or implementing technical standards.

[6] For a critical analysis of the common standards laid down by Basel, see R. ROMANO, *For Diversity in the International Regulation of Financial Institutions: Critiquing and Recalibrating the Basel Architecture*, cit.

evaluation of the aforementioned externalities created by using Artificial Intelligence in Agent-based Models.

In order to achieve such an objective, an important step should be taken: moving from banking supervision to e-supervision of banks and financial institutions.

2. Information as a vaccination against future crises, and asymmetric information: the variables of the contract "constant" in the recent crisis and the importance of The Internet of Things

It has been said that the contract is the result of two variables closely related to the will: information and asymmetric information.

The recent crisis originates from contracts concluded in a global context of information asymmetries caused by conflicts of interest[7] and moral hazard[8] and from a lack of information on the extent of securitised and widespread risks, especially systemic ones.

The failures linked to the banking and financial supervisory systems before the crisis have also been attributed to the scarcity of the

[7] See *supra* Ch. II §3.7.

[8] See F. S. MISHKIN – S. G. EAKINS, *Financial Markets and Institutions*, 7th edition, Pearson Education, p. 25; «Moral hazard is the problem created by asymmetric information after the trans- action occurs. Moral hazard in financial markets is the risk "hazard" that the borrower might engage in activities that are undesirable "immoral" from the lender's point of view, because they make it less likely that the loan will be paid back. Because moral hazard lowers the probability that the loan will be repaid, lenders may decide that they would rather not make a loan»

information held about the "shadow banking" and about the OTC market of structured securities and derivatives. Financial markets are characterized by a high degree of incomplete and asymmetric information[9]. Information is therefore crucial.

The development of the Internet of Things, as a rising global Internet-based information architecture, is essential to the exchange of products and services[10].

[9] See C. KAUFMANN - R. H. WEBER, *The Role of Transparency*, cit., pp. 779-797; for a definition of asymmetric information see also F. S. MISHKIN - S. G. EAKINS, *Financial markets and institutions*, cit.; «An additional reason is that in financial markets, one party often does not know enough about the other party to make accurate decisions. This inequality is called asymmetric information. For example, a borrower who takes out a loan usually has better information about the potential returns and risks associated with the investment projects for which the funds are earmarked than the lender does. Lack of information creates problems in the financial system on two fronts: before the trans- action is entered into and after Another way of describing the moral hazard problem is that it leads to conflicts of interest, in which one party in a financial contract has incentives to act in its own interest rather than in the interests of the other party».

[10] Cfr R. H. WEBER – R. WEBER, *Internet of Things: Legal Perspectives*, Springer - Verlag Berlin Heidelberg, 2010, p. III, available at https://doi.org/10.1007/978-3-642-11710-7; «While the technology of the Internet of Things (IoT) is still being discussed and created, an adequate legal framework should be established before the IoT is fully operable, in order to allow for an effective introduction of the new information architecture and therewith protect the developing new services»; see also R. H. WEBER, *Shaping Internet Governance: Regulatory Challenges*, Springer - Verlag Berlin Heidelberg, 2010, p. 10 et seq., available at https://www.doi.org/10.1007/978-3-642-04620-9.

2.1. There is no trust if there is no transparency

It was assessed that the recent financial crisis has deeply damaged trust not only in the financial system but in the free market economy as such[11].

Trust[12] is a key-element of the relationships among persons or institutions[13]. It is the invisible force underlying the certainty of

[11] See O. ISSING – J. P. KRAHNEN, *Why the Regulators Must Have a Global 'Risk Map'*, in *Financial Times*, 19 February 2009, available at https://www.ft.com/content/e47b61aa-fdc5-11dd-932e-000077b07658. Cfr. also O. ISSING – J. ASMUSSEN – J. P. KRAHNEN – K. REGLING – J. WEIDMANN – W. WHITE, *New Financial Order Recommendations by the Issing Committee Part I (October 2008)*, in *White Pap. No. I*, Preparing G-20 – Washington: Center for Financial Studies, February 2009, available at https://www.ifk-cfs.de/fileadmin/downloads/publications/white_paper/White_Paper_No_1_Final.pdf; and O. ISSING – J. ASMUSSEN – J. P. KRAHNEN – K. REGLING – J. WEIDMANN – W. WHITE, *New Financial Order Recommendations by the Issing Committee Part II (March 2009)*, in *White Pap. No. II*, Preparing G-20 – London: Center for Financial Studies, February 2009, available at https://www.ifk-cfs.de/fileadmin/downloads/publications/white_paper/White_Paper_No_2_2009_Final.pdf.

[12] The definition of trust is not undebated because, as it has been said is not a unitary phenomenon and it does not have one source; it has a variety of forms and causes. See M. LEVI – L. STOKER, *Political Trust and Trustworthiness*, in *Annu. Rev. Polit. Sci.*, vol. 3, 2000, pp. 475–507, available at https://doi.org/10.1146/annurev.polisci.3.1.475.

[13] See T. H. CHILES – J. F. MCMACKIN, *Integrating Variable Risk Preferences, Trust, and Transaction Cost Economics*, in *Acad. Manag. Rev.*, vol. 21. issue 1, Academy of Management, 1996, p. 73, available at http://www.jstor.org/stable/258630c; see also C. KAUFMANN - R. H. WEBER, *The Role of Transparency*, cit.

contracts[14] and therefore of the market. Trust is also what has been undermined by the "opportunistic" or "arrogant"[15] behaviours of directors during the recent crisis[16]. According to the Organisation Theory, opportunistic behaviour and trust are closely linked[17]: the perception of a high level of mutual trust in principle leads the parties to adopt less stringent or detailed rules to protect their interests; conversely, should a low level of trust be perceived, more rigorous rules

[14] See A. GENOVESI, *op. cit.*, p. 132-133; the author - founder of the trend called Civil Economy which developed in Italy at the same time as the emergence of Political Economy in Scotland by Smith and Hume - argues that where there is no invisible force of trust there is no certainty of contracts nor force of any law.

[15] The term "opportunistic" follows the usage of Oliver Williamson. See O. E. WILLIAMSON, *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*, University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship, 1985.

[16] See *supra* Ch. III §2-2.2. See also R. FRANK, *The Strategic Role of the Emotions*, in *Rationality and Society*, vol. 5, 1 April 1993, pp. 160–184, available at https://journals.sagepub.com/doi/10.1177/1043463193005002003; the author argues that: «Trust also may be defined as the expectation that an exchange partner will not engage in opportunistic behavior, even in the face of countervailing short-term incentives (Bradach & Eccles, 1989; Frank, 1993; Orbell, Dawes, & Schwartz-Shea, 1994) and uncertainty about long-term benefits. Both definitions address risk either explicitly or implicitly; thus, trust requires risk».

[17] See also T. H. CHILES – J. F. MCMACKIN, *op. cit.*; the authors assume that: «Trust can be defined as increasing one's vulnerability to the risk of opportunistic behavior of one's transaction partner, whose behavior is not under one's control in a situation in which the costs of violating the trust are greater than the benefits of upholding the trust (Zand, 1972). Without vulnerability to the risk of opportunism, there is no need to trust. Some degree of risk must be present so that there is a test of trust. (Dasgupta, 1988) ».

would be meticulously established[18]. In this way, also transaction costs and agency costs are connected to the limitations and controls of potential opportunistic behaviors on the part of the partners Trust is therefore strictly connected to the risk assumed by the parties and therefore there is no trust without trustworthy behavior.

Likewise, transaction costs[19] and agency costs are related to the constraints and auditing of potential opportunistic conduct by the partners[20]. Therefore, trust is closely linked to the risk the parties are willing to take[21] and no trust exists with no trustworthy behaviour[22].

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[18] Cfr. *supra* Ch. II §2, footnote No 57.

[19] See also T. H. CHILES – J. F. MCMACKIN, *op. cit.*; «Transaction cost economics (TCE), relies on three behavioral assumptions in predicting how firms choose governance structures-bounded rationality, opportunism, and risk neutrality»

[20] For Agency Theory see K. M. EISENHARDT, *Control: Organizational and Economic Approaches*, in *Management Science*, vol. 31. issue 2, 1985, pp. 134–149, available at http://dx.doi.org/10.1287/mnsc.31.2.134: see also J. ARMOUR – H. HANSMANN – R. KRAAKMAN, *Agency Problems and Legal Strategies*, cit. For Transaction costs, see O. E. WILLIAMSON, *The Economic Institutions of Capitalism*, New York: Free Press, 1985.

[21] See also C. CIBORRA, *Tecnologie Di Coordinamento : Informatica, Telematica e Istituzioni Economiche*, Milano: Franco Angeli, 1989, pp. 142–145.

[22] See D. E. ZAND, *Trust and Managerial Problem Solving*, in *Adm. Sci. Q.*, vol. 17. issue 2, Sage Publications Inc., Johnson Graduate School of Management, Cornell University, 14 March 1972, pp. 229–239, available at http://www.jstor.org/stable/2393957; described a spiral reinforcement process, in which one's inner state of trust (mistrust) becomes transformed into behavior that is trustworthy (untrustworthy). In this case, there is a bidirectional link between trust and trusting behavior, in which each reinforces the other, such that they become isomorphic. Following Zand, we take the position that trust and trustworthy behavior are inseparable.

But it is considered that there is no trust without transparency.

Transparency is also necessary in rebuilding trust in financial markets[23].

So, in the aftermath of the financial crisis, integrating transparency into banking and financial regulation, not by means of

[23] See N. DINCER – B. EICHENGREEN, *Central Bank Transparency: Causes, Consequences and Updates*, in *NBER Working Paper Series*, vol. 11, 1 January 2009 <https://doi.org/10.2202/1565-3404.1237>. «Forecasts are an inherent part of economic science and the quest for perfect foresight occupies economists and researchers in multiple fields. The release of economic forecasts (and its revisions) is a popular and often publicized event, with a multitude of institutions and think-tanks devoted almost exclusively to that task. The European Central Bank (ECB) also publishes its forecasts for the euro area, however ECB's forecast accuracy is not a deeply researched theme. The ECB forecasts' accuracy is the main point developed in this paper, which tries to contribute to understand the nature of the errors committed by the ECB forecasts and its main differences compared to other projections. What we try to infer is whether the ECB is accurate in its projections, making less errors than the others, maybe due to some informational advantage. We conclude that the ECB seems to consistently underestimate the HICP inflation rate and overestimate GDP growth. Comparing it with the others, the ECB shows a superior performance, committing almost always fewer errors. So, this signals a possible informational advantage from the ECB. Since the forecasting errors could jeopardize ECB's credibility public criticism could be avoided if the ECB simply let forecasts for the others. Naturally, this change should be weighted against the benefits of publishing forecasts».

rules[24] or soft law[25], but rather by making it easy to use information on the health status of banking intermediaries in cyberspace is key.

2.2. From Transparency to e-transparency in financial regulation and banking supervision to avert the risk of systemic contagions: the duty to inform the public in a cyberspace context

Recognizing the symptoms of a disease, especially if contagious, allows us to isolate the patient to treat him. Likewise, transparency[26]

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[24] See C. KAUFMANN - R. H. WEBER, *The Role of Transparency in Financial Regulation*, cit., pp. 780 - 781. The authors add that some regulators: «focus on the "micro-level" of transparency by emphasizing its function in restoring confidence in markets and establishing rules for financial institutions. Examples are the revision of the Basel II framework issued by the Basel Committee on Banking Supervision (BCBS) or the Report of the Financial Stability Forum (now Financial Stability Board, or FSB) on Enhancing Market and Institutional Resilience».

[25] See *Ibidem*, p. 781, the authors argue that some others regulators «pursue a different approach by embedding transparency in the broader context of lawful and ethical behaviour. Examples can be seen in the Swiss Code of Ethics or the Islamic Financial Services Board's disclosure rules»; the authors remember that transparency represents one of the seven principles of the Swiss code of Ethics, *ibidem,* footnote No 8, available at http://www.swisscodeofethics.ch/code/prinzipien/transparenz. Another example see MAHMOOD AHMED, *Islamic Banking: A Solution for Global Financial Challanges*, in *SSRN Electronic J.*, 1 January 2015, p. 7; «The need for transparency is, above all, an important *Shariah* consideration. Any form of concealment, fraud or attempt at misrepresentation violates the principles of justice and fairness in *Shariah* as mentioned in the *Qura'n* in, *inter alia,* Surah *An Nisa*' verse 135 and Surah *Al Mutaffifin* verses 1 to 3».

[26] When we talk about transparency, we can imply different levels of it, as illustrated in the contribution by C. KAUFMANN - R. H. WEBER, *The Role of Transparency in*

helps recognizing an intermediary that goes through a bad state of health and to treat it, before it can infect other intermediaries[27].

In order for the system to be transparent, two factors are needed: cyberspace and clear, immediate and essential information[28].

In this regard a new e-supervisor should be established with the task of both managing and disseminating information in an orderly manner and through a widespread and accessible internet platform at various levels, also available to multi-stakeholders. This activity alone acts as a deterrent for opportunistic behavior or for harmful actions

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Financial Regulation, cit. They suggest three dimension of transparency in financial regulation: the first dimension is a constitutional dimension that defines the legal framework (i.e. procedures and decision making) by which financial markets are regulated; the second dimension concern values and objectives of financial regulation; the third dimension regard accountability of states and private actors in order to restore confidence in the financial system. on the concept of transparency as mechanism of accountability. See R. M. LASTRA – H. SHAMS, *Public Accountability in the Financial Sector*, in *Regulating Financial Services and Markets in the 21st Century*, 1 January 2001, pp. 165–188, «[…]It must involve defending the action, policy or decision for which the accountable is being held to account» cit. p. 172. See also D. NERGIZ - B. EICHENGREEN, *Central Bank Transparency, op. cit.*, p. 3, the authors assume that: «transparency is a mechanism for democratic accountability in a world of policy discretion and central bank independence».

[27] With regard to the health field see the measures adopted to contain pandemics, e.g. INSTITUTE OF MEDICINE (US) – FORUM ON MICROBIAL THREATS, *Ethical and Legal Considerations in Mitigating Pandemic Disease. Workshop Summary*, Washington D.C.: National Academies Press, available at https://www.ncbi.nlm.nih.gov/books/NBK54167/, in particular Ch. 3, Strategies for Disease Containment.

[28] See *infra* §6.4.

carried out in conflict of interest, on the part of managers and thus prevents the occurrence of new financial crises with the same origin as the last great economic recession. It should be recalled that no bank was willing to risk making an admission of weakness.

The sanction of reputational discredit and the consequent damage to image constitute the most important deterrent to reprehensible or opportunistic behavior on the part of operators. Individual legal systems, for their part, should effectively apply personal sanctions, either civil or, in extremely serious cases, criminal, against those responsible for harmful behavior toward affiliates.

Through a normal comparison of legal systems - to be realized also through and with the assistance of a common universal language which will be dealt with below - a natural harmonization of principles would be attained. Individual states would be called upon to unify enforcement protection in the easiest and fastest way possible on the basis of common principles preventing even the most convert “race to the bottom”. This is the only supervision that can shed light on the market without interfering with its dynamics in an artificial way, and without distorting or directing it.

The result would be a truly free and competitive market in which operators are subjected to the searchlights and gazing eyes of the community, as well as to supervisors attentive to the authenticity of the information held and disclosed. A new “e-public” supervision, that it widespread among the public, would be thus introduced. In other words, results would also be “sustainable” because such mechanism is not expensive: The System would only use the Internet platform to monitor financial, banking (or also financial and insurance) companies.

Sustainability is achieved not only through the placement of banking supervision in the new world: Cyberspace , but also through the use of a concept borrowed by the lexicon of architecture: BIM (Building Information Modelling)[29], intended as the commando center of information on a given "building" that, in this case, would correspond to the individual banks and their interconnections, so that the monitoring would be immediate, and not subject to transaction costs.

2.3. The cyberspace context as a new world: an opportunity for "transparent" communication and discussion topics; monitoring on a macro-level

As authoritatively deemed, "In many respects cyberspace has created a new world"[30]. The "virtual world will distort by changing the

[29] See *infra* §6.1.

[30] See R. H. WEBER, *Realizing a New Global Cyberspace Framework - Normative Foundations and Guiding Principles*, cit., p. 2.

current legal order"[31] with the consequence that the existing body of law needs to be "adapted and complemented by new rules"[32].

In order to offer unambiguous information freely accessible also to businesses, cyberspace offers a range of opportunities. This would contribute to increasing the exchange of information also between governance-related institutions and stakeholders.

Moreover, transparency could encourage the mobilization not only of new players but also the support of the civil society. Indeed, such active involvement would add to democratic empowerment[33].

Late high-tech creations try to facilitate data transmission so as to provide "reasonably fast excellent connections to nearly everyone around the globe"[34].

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[31]As authoritatively deemed «Society cannot exist without a minimal legal order», see R. H. WEBER, *Elements of a Legal Framework for Cyberspace*, vol. 26. issue 2, Swiss Review of International and European Law, 2016, p. 197. The author adds that it must exists, at least in the form of a social contract. The same is held in the present thesis see J. J. ROUSSEAU, *The Social Contract and Discourses by Jean-Jacques Rousseau*, (translated by) G. D. H. COLE, J.M. Dent and Sons, 1923, available at http://oll.libertyfund.org/titles/638; see also R. H. WEBER, *Realizing a New Global Cyberspace Framework - Normative Foundations and Guiding Principles*, cit., pp. 71-72.

[32]See R. H. WEBER, *Realizing a New Global Cyberspace Framework - Normative Foundations and Guiding Principles*, cit., p. 2.

[33] See R. H. WEBER, *The Enhancement of Transparency in Internet Governance*, GigaNet Symposium, November 2007, available at https://ssrn.com/abstract=2798317.

[34]See R. H. WEBER, *Elements of a Legal Framework for Cyberspace*, cit., p. 198.

2.3.1. Cyberspace as the "hippocampus": the importance of a long- term memory in order to avoid the "*perseverare diabolicum*"

According to the Latin saying, "*errare humanum est, perseverare diabolicum*": it is human to make mistakes, but persevering in error is diabolical. The memory of the mistake together with the awareness of having committed it could help to avoid what psychology calls "coaction to repeat".

Accordingly, cyberspace should allow the preservation of past positive and negative experiences so as to allow retrieval of such information in the event that the so-called "working memory" does not come to the aid, in order to guide subsequent actions based on past experience[35] giving rise to a sort of Brain Fingerprinting[36].

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[35] *Ibidem*. See also P. SCILLIGO, *Stati Dell'io e Correlati Neuronali*, in *Psicologia, Psicoterapia e Salute*, vol. 9. issue 2, 2003. Concerning the relationship between internet, cyberspace and law, see P. R. RECUPERO – A. R. FELTHOUS, *Introduction to This Special Issue: The Internet, Cybertechnology and the Law*, in *Behav. Sci. Law*, vol. 36. issue 2, John Wiley & Sons Inc, January 2018, pp. 131–135, available at https://doi.org/10.1002/bsl.2341.

[36] See L. A. FARWELL, *Brain Fingerprinting Is a Device Patented, No. 105*, Harvard University Press, 1980, p. 90; which enables the monitoring of human memory and the tracing of the so-called brain fingerprints, thanks to which past events can be revealed. See L. A. FARWELL – S. S. SMITH, *Using Brain MERNER Testing to Detect Concealed Knowledge despite Efforts to Conceal, in Journal of Forensic Science*, in *J. Forensic Sci.*, vol. 46. issue 1, Wiley Online Library, 2001, pp. 135–143, available at https://pdfs.semanticscholar.org/dc9e/939c0f741afc9b8094a7e7335c3559145512.pdf; we need to investigate whether or not this approach, that allows us to explain mental activities and therefore human behaviour as physical activities of the brain, can prove useful in delineating behavioral models that can then influence the politics

2.3.2. The Multi-stakeholder governance

The chance of reducing stakeholder entry barriers and facilitating opportunities for participation is introduced by the possibilities offered by this new system[37] as a result of "increasing multi-stakeholder participation". The multi-stakeholder concept endeavors to include all possible stakeholders concerned in a consistent decision-making process[38].

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of law. On this last aspect, see E. A. O'HARA, *How Neuroscience Might Advance the Law*, in *Philos. Trans. Royal Soc. of London*, The Royal Society, 26 November 2004, available at http://www.psy.vanderbilt.edu/courses/hon182/OHara_Neuroscience_and_law_Phil_Trans_2004.pdf. On whether neurosciences can also influence the cerebral pathways followed in judging, see J. W. BUCKHOLTZ – C. L. ASPLUND – P. E. DUX – D. H. ZALD – J. C. GORE – O. D. JONES – R. MAROIS, *The Neural Correlates of Third-Party Punishment*, vol. 60. issue 5, Neuron, 10 December 2008, pp. 930–940, available at https://doi.org/10.1016/j.neuron.2008.10.016. More in general, on neurosciences and law, see, *inter alia*, S. ZEKI – O. GOODENOUGH, *Law and the Brain*, OUP Oxford, 2006; see B. GARLAND, *Neuroscience and the Law: Brain,Mind,and the Scales of Justice*, New York: Dana Press, 2004. More recently, R. ALAN – M. D. FELTHOUS – M. D. HENNING SAß, *Introduction to This Issue: International Perspectives on Preventive Detention*, in *Behav. Sci. Law*, vol. 26. issue 1, Wiley Online Library, 2008, pp. 1–150.

[37] About the Relation between the existing standards on the decision-making of an organization and a multi stakeholder framework see R. H. WEBER, *Realizing a New Global Cyberspace Framework: Normative Foundations and Guiding Principles*, cit., p. 129.

[38] See R. H. WEBER, *Legal Foundations of Multi Stakeholder Decision-Making*, in *Zeitschrift Für Schweizerisches R.*, vol. I. issue 135, 2016, p. 247; R. H. WEBER, *Realizing a New Global Cyberspace Framework: Normative Foundations and Guiding Principles*, cit., p. 115-128. See also J. HOFMANN, *Multi-Stakeholderism in Internet Governance: Putting a Fiction into Practice*, in *Journal of Cyber Policy*,

In order to develop an "appropriate legitimacy strategy"[39], it is necessary to borrow the same factors (such as *openness, transparency, accessibility, accountability, credibility, adequately resourced, consensus-based, opportunity for appeal/challenge, ability to resist/ capture*) reported in the following table and intended as important elements for a multi-stakeholders frameworks[40].

vol. 1. issue 1, Routledge, 2 January 2016, p. 10, available at https://doi.org/10.1080/23738871.2016.1158303, as Prof. Weber, notes «Even if this concept is not new, since the importance of involving different kinds of stakeholders has already been addressed by (Among others) the International Labor Organization (ILO) in 1919, Multistakeholderism gained major importance in the Internet Governance Context within the last decade».

[39] As identified by Professor R. H. Weber, see R. H. WEBER, *Legal Foundations of Multi Stakeholder Decision-Making*, cit, p. 251.

[40] See *Ibidem*; R. H. WEBER, *Realizing a New Global Cyberspace Framework: Normative Foundations and Guiding Principles*, cit., p. 129. The quoted list is based on J. WAZ – P. WEISER, *Internet Governance: The Role of Multistakeholder Organizations*, in *Journal of Telecommunications and High Technology Law*, vol. 10. issue 2, 2013, pp. 331-350,342-343, available at https://ssrn.com/abstract=2195167.

Appropriate legitimacy strategies	**Openness.** Access to discussions, negotiations and decisions must be open for interested and concerned persons.
	Transparency: Procedures have to be transparent in formal and substantive respects thus ensuring an appropriate representation of the situation.
	Accessibility: Information sources need to be accessible for interested and concerned persons.
	Accountability: Decision-makers must be accountable to those being exposed to the respective decisions, i.e. responsibility is an important clement in corporate structures.
	Credibility: Decision-makers should seek to achieve an acknowledgment of their credibility by the persons concerned.
	Adequately' resourced: Multi-stakeholder involvement and participation requires sufficient human and financial resources in order to enable the respective processes.
	Consensus-based: Acceptability for decisions taken will increase if they are reached by consensus of all concerned persons and not by (sharp) majority votes.
	Opportunity for appeal/challenge: An entity of any nature should provide for the possibility to file a complaint against a given decision to an independent panel of «judges».
	Ability to resist capture: Decision-making bodies must avoid to be captured by lobbying groups.

R. H. Weber, *Legal Foundations of Multi Stakeholder Decision-Making*, cit, p. 251.

Also, the European Commission in the Communication of February 2014[41] has introduced the Multi-stakeholder concept[42] "as a basis for a common European vision for internet governance"[43] to make actors and processes *accountable, transparent and more inclusive*[44].

In order to analyze the aspects reported in the table, it is essential to widen the spectrum of traditional research to include at the same time the examination of legal but also more generally "social-legal" issues including "economic, policy-oriented and game theory studies as interdisciplinary information studies"[45] .

[41] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *Internet Policy and Governance Europe's role in shaping the future of Internet* Governance, COM (2014) 72 final, Brussels, 12 February 2014, available at https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52014DC0072.

[42] On this subject see the analysis by Professor R. H. WEBER, *Realizing a New Global Cyberspace Framework: Normative Foundations and Guiding Principles*, cit., p.133.

[43] Communication from the Commission COM (2014) 72 final, Brussels, 12 February 2014, p. 3.

[44] Communication from the Commission COM (2014) 72 final, Brussels, 12 February 2014, p. 4.

[45] R. H. WEBER, *Realizing a New Global Cyberspace Framework: Normative Foundations and Guiding Principles*, cit., p. 130; See also I. BROWN – C. T. MARSDEN, *Regulating Code: Good Governance and Better Regulation in the Information Age*, Cambridge, MA - London, 2013, p. 200.

3. Financial statements may serve as information tool and therefore as a Governance tool (i.e., a disclosure and Governance tool)[46], starting from international and EU rules

The Financial Stability Board (FSB), the Basel Committee on Banking Supervision (BCBS) and the G-20 recommended mitigating the procyclical effects of financial regulation. In December 2010, the BCBS issued the New Global Regulatory Framework on the capital adequacy of banks (Basel III regulations), including rules imposing capital preservation reserves and countercyclical capital buffers.

New liquidity requirements are introduced by CRD IV starting from 2015[47], particular attention is focused on executives' bonuses[48] and on the transparency of financial companies. The directive aims to reduce excessive risk taking by firms and to avoid an excessive risk taking in the financial system. First of all, the IV CRD focuses on the board structure to change the structure of corporate governance.

In the pre-eminent community legal framework, the centrality of heritage is regarded as the basis for sound and prudent management.

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[46] See D. MUSSOLINO, *Il Bilancio Come Strumento Di Governance Aziendale*, CEDAM, 2018.

[47] Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on *access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms*, L 176, 27 June 2013.

[48] With the participation of the shareholders in the process of the decision on executive's remuneration.

This thesis claims that the financial statements (the budget) may serve as an information tool and therefore as a Governance tool: a tool for the use of information (disclosure)[49].

4. The creation of a common cyber language through artificial intelligence to overcome the information asymmetries created by language

As specified in the introductory paragraph, the natural language creates informational asymmetries.[50] Such asymmetries can be created for example within the European Union[51], given the plurality of languages spoken within the EU In this regard, article 23 of the SSM Framework, sets forth that agreements are made between the ECB and NCAs relating to the language or languages to adopt for internal communications within the SSM[52]. In a globalized interconnected context , the production of norms in a particular language, in a particular country that we call State are not being immediately and perfectly accessible to the rest of the world and thus naturally generate information asymmetries, especially in the short term: the norms are introduced in the official language of the State, and then are translated into English at the most, with all the difficulties that the translation of

[49] See D. MUSSOLINO, *op. cit.*

[50] See *supra* Ch. I §1-2.

[51] See Article 23 of the SSM Framework, «The ECB and NCAs shall adopt arrangements for their communications within the SSM, including the language(s) to be used».

[52] See *supra* Ch. I §2 footnote 11, which is fully reported.

legal concepts typical of a given juridical system into another one entails[53].

Furthermore, it is believed there is no system of law applicable to all states: a "notion" elaborated in a given legal system may prove ineffective if applied to a different legal order[54]. It is believed that it is important to preserve the natural diversity: what needs to be increased is the degree of knowability and therefore of information, in the example given regarding the content of that standard produced in a legal different system. Provisions could be easily understood to everyone if available in every one's own native language. It is for this reason that one imagines the creation by the artificial intelligence of a software that is capable of translating each term, each expression, exactly in all the official spoken languages; thereby transforming *natural language into computer language, which is* "*universal*" *language*[55]. This system would automatically generate clearer information, because the rule makers would be forced to choose the exact meaning that the term intends to convey with the consequence that the rules produced are

[53] Cfr. ROLF H WEBER, *'Rose Is a Rose Is a Rose Is a Rose' – What about Code and Law?*, in *Comput. Law Secur. Rev.*, vol. 34. issue 4, 2018, pp. 701–706, available at http://www.sciencedirect.com/science/article/pii/S0267364918301882.

[54] See *supra* Ch. I §2.

[55] Herbert Simon, awarded the Nobel Prize, recalled that the computer could also be exploited to make a general sense of reasoning useful in all fields of activity: rediscovering in this way what Boole and Babbage had already caught a second before and that, therefore, the computer is able to process not only numbers, but also symbols - expressed in BITS - so as to perform operations not only arithmetic but also logical. See R. BORRUSO – C. TIBERI, *L'informatica per Il Giurista. Dal Bit a Internet*, 2nd edition, Giuffrè Editore, 2001, p. 89.

unambiguous and do not lend themselves to interpretation (*In claris not fit interpretatio*)[56].

Similar technology can be used for financial regulation to read rules and translate their content into computer programs that process data afterwards[57].

5. Towards a new "parametric" architecture of banking supervision: the fluidity of forms as an element representative of the flow of information

Computers' computational power "inaugurates a new field of geometric modelling possibilities"[58].

Using time as primal parameter has become the most popular way of using parameters in contemporary architecture. Techniques such as morphing, keyframe animation, kinematics, force fields, or particle systems (all based on time) are now universally used during the design process, all based on the idea of increasingly

[56] Cfr., R. BORRUSO – C. TIBERI, *Ibidem*, pp. 247 – 279.

[57] See E. MICHELER – A. WHALEY, *Regulatory Technology: Replacing Law with Computer Code*, in *London Sch. Econ. Leg. Studies Work. Pap. No. 14/2018*, London, 2018, available at http://dx.doi.org/10.2139/ssrn.3210962. See also the *Stanford CodeX Project*, on the following website: https://law.stanford.edu/codex-the-stanford-center-for-legal-informatics/.

[58] See K. TERZIDIS, *Algorithmic Architecture*, in *MAS Colloquia*, ETH Zurich, July 2006, available at http://wiki.arch.ethz.ch/asterix/pub/MAS0607/MasColloquia/Lecture01.pdf.

deforming a given NURBS geometry by changing the parameters over time. Zaha Hadid's Galaxy Soho is an example of this approach.

On the occasion of the celebrations for the completion of Galaxy Soho, in Beijing, the architect Zaha Hadid explained that: “The design responds to the varied contextual relationships and dynamic conditions of Beijing. We have created a variety of public spaces that directly engage with the city; reinterpreting the traditional urban fabric and contemporary living patterns into a seamless urban landscape inspired by nature”

This is the idea in which information must circulate inside a complex economic and legal system, which is uneven and globalized and hopefully will have its place in cyberspace.

5.1. The Building Information Modelling (BIM)

Galaxy Soho is composed of five continuous flowing volumes connected by stretched bridges, that create movements and fluidity within, moreover it has an internal world of continuous open space, without corners or rigid blocks. The design allows natural light to enter the site.

The fluidity of the shapes typifies the five volumes, connecting them with curvilinear patterns thus without edges, combining them in one single unit.

However, how do you attain these shapes? In architecture these shapes are achieved through parametric architecture, which is based on the idea that “it is the path that guides the result”.

The role of the computer during the planning process is preeminent, in the same manner as with the use of parameters.

The main players of such architecture are parametric computers that allow to organize projects in associative systems and are founded on logics of relationships between parties: by acting on set of parameters underlying of a specific planning project, they modify the overall configuration of a system, enabling a sort of “propagation of modifications”.

To optimize planning, realization, and management of constructions including sharing of information via the help of a software, a model of information has been created. It is, in fact, called Building Information Modelling (BIM) where by “Modelling” we mean “use of shared digital representation to facilitate design, construction and operation processes to form a reliable basis for decisions”; therefore BIM does not mean the mere possession of some information but the activity of sharing such information.

5.2. The image of the new supervisory banking architecture in a Cyberspace context

A new system of banking supervision in cyberspace, based on an internet platform, is therefore imagined, as outlined below. The

supervisory authorities in a building connected to the banking systems of all continents; at the center, on the main bridge, we find a reporting mechanism that through different colors indicates the potential intermediaries who are ready to take the risk at issue. Colors will vary depending on the actual sustainability of this risk.

In another building, there is the ADR Resolution Center, imagining that in banking contracts, and more generally in the entirety of contracts concluded, a clause envisaging a common Alternative Dispute Resolution[59] in case of disputes in laid down.

Let us also imagine that the 3D model below can rotate, enlarge, get closer and that a telescope were provided to the spectator. In this case, banks, banking authorities and multi-stakeholders in particular, could observe the banking and financial world in its universality[60]. It would be possible, for example, to imagine, based on the discretionary choices of individual banks, participating directly in the meetings of shareholders and bondholders, through an internet platform accessible to them[61].

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[59] See *Tutela Degli Investitori e Dei Clienti Degli Intermediari e ADRs*, in *Quaderni Giuridici N.16*, CONSOB, 2018, available at http://www.consob.it/documents/46180/46181/qg16.pdf/b27685dd-c358-4e3f-906d-3f53181c66f7.

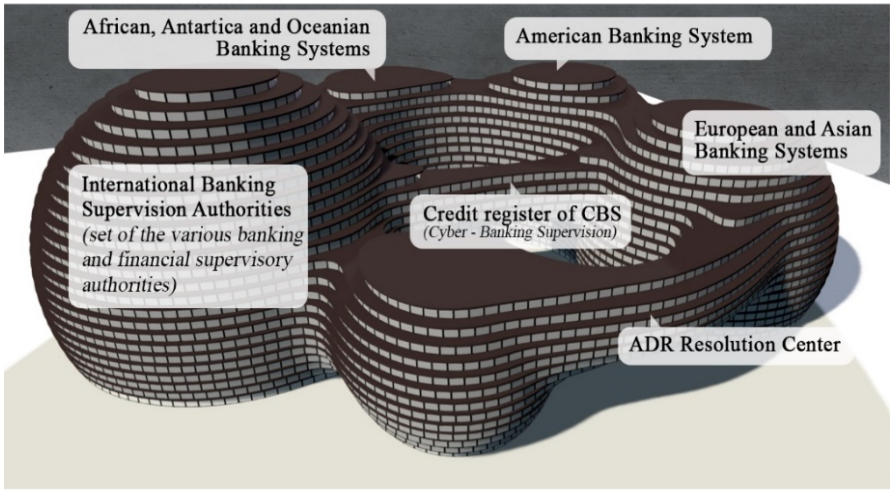
[60] To use the words of Galileo Galilei with his invention of the telescope, «All the advantages of this tool [...] It would be completely superfluous to enumerate». See G. GALILEO, *Sidereus Nuncius*, (edited by) A. BATTISTINI, (translated by) M. TIMPANARO CARDINI, in *Operas III*, Venezia: Letteratura Universale Marsilio, 1993, pp. 58–61.

This is an instrument which by analogy could also be extended to all other undertakings, not just banking, financial and insurance companies.

THE GALAXY SOHO, CHINA

Source archdaily.com at : https://bit.ly/2FxahzJ

Source mymodernmet.com at: https://bit.ly/2Hz0xXS



Source of 3d model sketchfab.com: http://bit.ly/2HCwGOy

5.3 The function of the so-called "Gerber beam" in architecture and the analogy with e-transparency in a cyberspace context

This typology of architecture relates, connects, the whole (i.e. the different volumes). However, the potential "collapse" of a part of it, precisely because of interconnection, could produce the meltdown of the whole structure. For this reason, in architecture different constructive technique are used; technique derived from engineering, so as to realize the interruption of continuity of an architectural work, for example, when an earthquake or a structural collapse occurs: we are talking about "expansion joint or movement joint". The predominant longitudinal characteristic of the bridge ensures that also the c.d. "Gerber beam" is used, a continuous beam divided into more logs, interconnected by hinges.

Likewise, the global market should have pre-ordered equipment for the attainment of the same purpose, in the event of economic crises, and in particular of bank crises.

It is considered that this element should be represented by transparency, in the form of e-transparency, understood as "the level of corporate information disclosed on the Internet"[62].

[62] See C. SERRANO-CINCA – Y. FUERTES CALLÉN – B. GUTIÉRREZ-NIETO, *Online Reporting by Banks: A Structural Modelling Approach*, in *Online Inf. Rev.*, vol. 31. issue 3, 26 June 2007, p. 312, available at https://doi.org/10.1108/14684520710764096.

6. Central Credit Risk Database of the Bank of Italy, as an example for the creation of a "Common Central Credit Risk Database" on the new supervisory architecture in a cyberspace

Information is an asset and banks gathering information on debtors and reducing information asymmetry remedy the risk of bankruptcy of the credit market[63].

The lesson that can be learned from the recent economic crisis is clear: if the private sector is excessively indebted, financial intermediaries are not the only ones to bear the consequences. With the bank bailouts, excessive indebtedness of the private sector was converted into public debt[64].

As early as 1952, the importance of monitoring the accumulation of overdrafts and measures against "abuse of multiple credit lines[65]" was emphasised, as the same had had serious consequences over the years for the banking system in cases of "client's bankruptcy". The main threat to the banks was represented by the client's behaviour, who generally applied for credit with many banks, each of which, unaware of the situation vis à vis the others, could grant credit lines higher or

[63] See J. E. STIGLITZ – A. WEISS, *Credit Rationing in Markets with Imperfect Information*, in *Am. Econ. Rev.*, vol. 71. issue 3, American Economic Association, 1981, pp. 393–410, available at http://www.jstor.org/stable/1802787.

[64] See G. FERRI, *Le Radici Dell'eccesso Di Rischio Nei Decenni Scorsi e l'aggiustamento Verso Il Futuro*, in *Analisi Giuridica Dell'Economia*, 2010, p. 320, available at https://www.rivisteweb.it/doi/10.1433/33296.

[65] See G. ALPINO, *Problemi Della Distribuzione Del Credito. La Centrale Dei Rischi Bancari*, (edited by) CAMERA DI COMMERCIO DI TORINO, in *Quaderni Di Cronache Economiche*, Torino, 1952.

lower than the effective "deposit capacity of the client", thus mistakenly considering the exposure the client had with the single bank as the only one.

The Central Credit Risk Database was, therefore created to prevent the risk determined by the "accumulation of credit lines", through the centralized collection of financial information on the characteristics of the borrowers' debtor positions[66]. The current regulatory framework no longer expressly refers to the accumulation of credit lines (in fact, the legal basis of the regulations of the Central Credit Risk Database, at the time of its establishment with the CICR Resolution dated 16.5.1962, consisted in Article 32, paragraph 1, letter h, of Royal Legislative Decree No. 375/1936, which entitled credit authorities to take "precautions to avoid the aggravation of risk arising from the accumulation of credit lines", and the Central Credit Risk Database is founded on Article 53 of the Consolidated Law on Banking (TUB), paragraph 1, which allows the supervisory authority to adopt measures aimed at "containing risks in its various forms"[67].

With a view to pinpointing the conditions for due reporting to the Central Credit Risk Database of the Bank of Italy[68], it seems

[66] See A. A. DOLMETTA, *Il Credito in Sofferenza Nelle Istituzioni Di Vigilanza Sulla Centrale Dei Rischi*, in *Quaderni Di Banca, Borsa e Titoli Di Credito*, Milano: Giuffrè Editore, 2005, pp. 35–60.

[67] See F. ARBORESI – L. BARBIERI, *Centrale Rischi*, in *Dizionario Di Microfinanza*, Roma: Carocci, 2013, pp. 536–543.

[68] For the sake of completeness, in addition to the Central Credit Risk Database of the Bank of Italy, it should be noted that there are also private credit risk centers; databases managed by private companies, now referred to as credit information

appropriate to shed light on the obscure notion of "non-performance"[69]. Case-law has mentioned the concepts of "temporary difficulty in

systems (SIC). On the latter topic see S. LOPREIATO, *Centrali Dei Rischi Private, Segnalazione Erronea e Responsabilità Della Banca*, in *Banca Borsa Titoli Di Credito*, vol. II, 2007, pp. 454–477.

[69]There is abundant literature concerning the unlawful reporting of "non-performing" loans to the Central Credit Risk Database, see: G. MOLLE – L. DESIDERIO, *Manuale Di Diritto Bancario e Dell'intermediazione Finanziaria*, Milano: Giuffrè Editore, 2000, p. 23 25; see U. MORERA, *La Centralizzazione Dei Rischi Di Credito: Profili Giuridici*, in *Dir. Banca e Mercato Fin.*, 1996, p. 470 et seq.; see F. CAPRIGLIONE, *Aspetti Della Problematica Giuridica Della Centrale Dei Rischi Bancari*, in *Bancaria*, 1974, p. 23; see G. SCOGNIAMIGLIO, *Sulla Segnalazione a Sofferenza Nella Centrale Dei Rischi Della Banca d'Italia*, in *Banca Borsa Titoli Di Credito*, 1999, p. 301 et seq.; see G. GIUSTI, *Presupposti Di Legittimità Della Segnalazione Presso La Centrale Dei Rischi Di Posizioni a 'Sofferenza' e Limiti Della Tutela Cautelare e Risarcitoria a Fronte Della Illegittima Segnalazione*, in *Banca Borsa Titoli Di Credito*, vol. II, 2001, p. 578; see Court of Cagliari, *25 Ottobre 2000*, in *BBTC Titoli Di Credito*, II, 2002, 461; see G. MARCHESE, *Segnalazione Dei Crediti in Sofferenza Alla Centrale Dei Rischi Con Particolare Riferimento Agli Interessi Tu- Telati Dalla Relativa Normativa*, in *Giurisprudenza Commentata*, 2003, p. 415; see A. A. DOLMETTA, *op. cit.*, p. 549; see F. PACILEO, *«Sofferenze Bancarie»: Presupposti Di Legittimità Della Segnalazione Alla Centrale Dei Rischi Della Banca d'Italia*, in *Giurisprudenza Commentata*, vol. IV, 2010, p. 674 et seq.; see U. MINNECI, *Erronea Segnalazione Alla Centrale Dei Rischi: Profili Rimediali*, in *Riv. Crit. Dir. Priv.*, 2004, pp. 89–126. For an analysis of the case-law on reporting to the Central Credit Risk Register, see P. SERRAO D'AQUINO, *Illegittima Segnalazione Dei Crediti «a Sofferenza» Alla Centrale Dei Rischi: Analisi Critica Degli Orientamenti Giurisprudenziali*, in *Giur. Merito*, 2010, p. 603 et seq.; more recently F. LENOCI – S. PEOLA, *Nuova Centrale Dei Rischi. Come Leggerla, Rielabolarla e Interpretarla*, 2nd edition, IPSOA, 2012. It should be noted that, as shown by international analyses, all economic operators benefit from the use of a credit information system; WORLD BANK, *General Principles for Credit Reporting*, September 2011, available at

fulfilling one's own obligations", which in the past was used in relation to temporary receivership (pursuant to the repealed Article 187 of the Italian Bankruptcy Law) or "situation of crisis", condition for the arrangement with creditors (Article 160 of the Bankruptcy Law)[70].

The glossary attached to the "Instructions" clarifies this point by defining insolvency as the "non-temporary inability to fulfil the obligations undertaken"[71].

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http://siteresources.worldbank.org/FINANCIALSECTOR/Resources/Credit_Reporting_text.pdf. In this regard, the analysis conducted on a sample of forty countries by Japelli and Pagano, two Italian economists, is noteworthy: they identified, among the advantages of this system, easier and faster access to credit, an increase in credit granted and a growth of competitiveness on the credit market in favour of persons accessing credit T. JAPPELLI – M. PAGANO, *Information Sharing, Lending and Defaults: Cross-Country Evidence*, in *Working Paper No. 22*, Università degli Studi di Salerno: CSEF, 2000, available at http://www.csef.it/WP/wp22.pdf.

[70] For similar references to the bankruptcy provisions see Court of Brindisi, Section Fasano, 26 September 2000, in BBTC, 2002, II, 219, Court of Bari 14 February 2011, in proceeding No 8145/2010 of the cause-list, unpublished.

[71] What is certain is that the judicial declaration of bankruptcy (Article 16 Bankruptcy Law) is proof of existence of the non-performance and justifies the reporting to the Central Credit Risk Register. However, if such reporting were to be considered possible only in this case, or in the case of state of insolvency as defined by the bankruptcy law (Article 5, paragraph 2, Bankruptcy Law) but not established in Court, there would be a danger of untimely reporting and the bank would not fulfil its risk-prevention task. Furthermore, the declaration of bankruptcy pursuant to article 5 Bankruptcy Law concerns only the entrepreneur, specifically the commercial entrepreneur, and not the remaining categories that are also subject to reporting to the Central Credit Risk Database (from a subjective point of view, both entrepreneurs and natural persons are subject to non-performance reporting to the Central Credit Risk Database). The foregoing clearly confirms what the Court of Cassation reiterated in the judgment under examination: insolvency in this context

6.1. The precondition of the reporting of a “non-performing” credit from the Central Credit Risk Database of the Bank of Italy

«does not coincide with bankruptcy insolvency». Conversely, the same is to be understood as «serious financial difficult», since «reference is to be made to a negative evaluation of the financial situation» (Court of Cassation, 1 April 2009, No 7958). The Instructions specify that the state of insolvency should be understood as a «non-temporary inability to fulfil the obligations undertaken» (chapter IV, 107).

As stressed by the Supreme Court, in the ruling Cassation, 9 July 2014, No 15609[72], and stated in a previous ruling of 2009[73],

[72] The case: in 1997 a bank reported a limited liability company to the Central Credit Risk Database of the Bank of Italy for "non-performing" loans, resulting from the overdraft on balance upon the closing of the same. Following the above-mentioned report, the company was refused an increase in the credit line by another bank intermediary and was revoked a loan granted by another bank. Moreover, a few months after the report, the reporting bank revoked a loan previously granted to the company in question, demanding that the loan be repaid within one day. Three years after the report, the company was wound up and a new company was set up whose name, however, mainly coincided with that of the reported company. In the opinion of the judges of the merits, there was no default on the part of the company that had regularly repaid the loan granted; moreover, the dispute between the parties regarding the quarterly capitalization of interest made the credit reported by the bank non-enforceable. Based on the foregoing, the reporting bank was unsuccessful in both first and second instance. The Court of Appeal, partially overturning the first instance ruling, however, reduced the compensation for actual damages and ruled out any compensation for loss of profit, which the judge of first instance had acknowledged, on the following grounds: the choice by the new company to maintain the same company name suggested that the same was equally appealing for customers. Ten years after the settlement of the dispute at first instance, the matter was referred to the judge of legitimacy and defined with the judgement in question. The ruling of the Supreme Court on the conditions entitling to report the company's "non-performance" to the Central Credit Risk database as well as the conditions (proof) for the liquidation of pecuniary and non-economic damage is of the utmost importance. Concerning the first aspect, the Supreme Court complies with the recent case-law on the age-old question concerning the interpretation of the definition of "non-performing"; with regard to the second aspect it adopts a solution apparently consistent with a recent ruling by the Banking and Financial Arbitrator, draftsperson Sirena. In the case analyzed by the Arbitrator, the "proof of the existence of the damage was not duly filed". On the basis of the aforementioned "well-known fact", the Arbitrator ruled the existence of pecuniary damages and liquidated the latter *ex aequo et bono*, as he did with regard to non-economic

"non-performance" can be reported only in the case of a "finding of a loss-making capital situation" and, as established in the Instructions, "characterized by serious and not temporary financial difficulty" comparable, albeit not coincident, with the condition of insolvency understood as a situation of incapability or permanent impossibility to recover.

The precondition of the reporting, according to the Supreme Court, consists in the "reasonable and objective opinion that the credit cannot be satisfied in a reasonable time, on the basis of a suspicion determined by the presence of the typical symptoms of default". It is neither the existence of a credit in itself, nor a state of overt insolvency.

Neither mere delay nor voluntary non-performance are sufficient to justify the reporting of a "non-performing" credit, as the former may sometimes derive, as in the present case, from contestation of the reported credit. In this case, the Court reiterates the lack of the conditions justifying the reporting of "non-performance" by the company to the Central Credit Risk Database, since first of all there is no element suggesting default; and what is more, "the credit was not due" since "there was a dispute between the parties concerning the amount owed to the bank with regard to interest".

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damages. Accordingly: Court of Cassation, 1 April 2009, No 7958. Concerning litigation arising out of an unlawful report of "non-performance" to the Central Credit Risk Register see Court of Cagliari, *25 Ottobre 2000*, in *BBTC*, 369, commented by C. CHESSA, *According to which, for the purposes of reporting*, «a state of persistent capital and financial instability capable of hindering the recovery of credit by the bank is necessary». Compliant: of 1 April 2009, No. 7958.

[73] Court of Cassation, 1 April 2009, No. 7958.

6.2. A non-performance report in the lack of the required conditions is contrary to the principles of good faith: Fiduciary Duty model

It goes without saying that a non-performance report in the lack of the required conditions is contrary to the principles of good faith (in fact, banking relationships must be characterized by the principle of good faith [74] and fairness, the breach of which results in the bank's liability.[75] If, as in the present case, the bank's withdrawal from the credit-line relationship is entirely "unexpected and arbitrary", the same is to be regarded as unlawful, although permitted in the absence of A just cause.[76] . In this case, the bank was liable for damages.[77].

It should be recalled that both legal literature and case-law have recently highlighted the fine line existing between good faith and abuse of rights (Rescigno), especially in the case of arbitrary withdrawal by banks. Unlike the German legislature (§226 BGB), the Swiss (Article 2 Civil Code) and the Greek (Article 281 Civil Code) (law-makers have

[74] Article 1375 of the Civil Code.

[75] See Court of Cassation, Section III, 7 June 2006, No 13345, in *Jurisdata: Giuffré*.

[76] See Court of Cassation, 1997, No 4538; Court of Cassation 14.07.2000, No 9321; Court of Cassation, 21.2.2003, No 2642.

[77] Court of Cassation, 28.09.2005, No 18947. Moreover, the bank granted the company one day to settle its debt. The withdrawal of the bank, in the judgement at issue, was followed by the granting of one day only to the company to repay its debt. Concerning this point, it was clarified that (on this point a previous ruling by the Court of Cassation (Cassation, 16.11.2000, No 14859) with regard to bank credit lines, the minimum term provided by law is fifteen days for the withdrawal by the credit institution to become effective pursuant to Article 1845 of the Italian Civil Code, so as to enable the debtor to fulfil its obligation, with the consequence that before this term the credit is not due.

not provided a definition of abuse of rights. Case-law has intervened on this issue[78] and recalling that the bank/costumer relationship must reproduce the principal/agent relationship. Hence, a bank, as a fiduciary, must not abuse of its power since it must protect the interest of the customer, as a beneficiary. The "stringent duty" of the fiduciary is to prefer the beneficiary's interest to its own[79]. Under its definition, fiduciary duties are also aimed at preventing situations of conflict of interest between banks and customer[80].

The standard of fiduciary duty differs greatly among the three legal systems analyzed. The fiduciary duty is unconditionally applied to the bank-customer relationship in the Israeli model, which also provides a broad standard of conduct for the bank. To the contrary, the Anglo-American model does not regard the bank–customer relationship as a fiduciary one; the continental (European) model draws elements

[78] In particular, the Supreme Court, by the ruling of 2009 understood the abuse of rights as a criterion revealing the breach of the duty of objective good faith. As a consequence of this abuse, the legal system sets forth the general rule of «rejecting the protection of powers, rights and interests [...] exercised with behavior contrary to objective good faith» (Court of Cassation of 8.6./18.09.2009 No 20106).

[79] As observed by Plato-Shinar and Professor Rolf Weber fiduciary duty implies positive and negative obligations. The first category of obligations includes: "maintaining confidentiality", "broad disclosure to the costumer", «providing explanations, including legal explanation, with regard to the nature of the transaction and its result». It is forbidden by negative obligations: "misleading the customer", «making a profit, in any manner, from the performance of its duties», «competing with a customer's business or taking advantage of a customer's business opportunity».

[80] See *Ibidem.*

from both of the above-mentioned models: the fiduciary relationship between bank and customer exists only in specific cases[81].

A "fiduciary relationship[82] is a relationship in which one party (the fiduciary) exercises discretionary power over significant practical interests of another (the beneficiary)"[83]. Despite its long history, the concept has been elusively outlined[84]. By setting higher standards of

[81] The authors conclude that financial markets would benefit from a «certain harmonization» of the fiduciary duty principle. See R. PLATO-SHINAR – R. H. WEBER, *Three Models of the Bank's Fiduciary Duty*, in *Law Financ. Mark. Rev. 422*, vol. 2. issue 5, September 2008, available at https://ssrn.com/abstract=2427591%0A.

[82] See P. J. HAMMER, *Pegram v. Herdrich: On Peritonitis, Preemption, and the Elusive Goal of Managed Care Accountability*, in *J. Health Polit Policy Law*, vol. 26. issue 4, 2001, pp. 767–788, available at https://doi.org/10.1215/03616878-26-4-767; «The term fiduciary is a slippery concept».

[83] See P. B. MILLER, *A Theory of Fiduciary Liability*, vol. 56. issue 2, McGill Law Journal, 2011, p. 262, available at https://doi.org/10.7202/1002367ar. See also G. D. SMITH, *The Critical Resource Theory of Fiduciary Duty*, in *Vanderbilt Law Rev.*, vol. 55. issue 1399, 2002, p. 1401, available at https://digitalcommons.law.byu.edu/cgi/viewcontent.cgi?article=1032&context=faculty_scholarship; According to whom «The unified theory of fiduciary duty offered here advances two primary goals: It articulates the principles that distinguish fiduciary from nonfiduciary relationships, and it rationalizes the content of fiduciary obligations».

[84] Some authors argue that fiduciary law is "elusive". A. D. . SHAFFER, *Corporate Fiduciary-Insolvent: The Fiduciary Relationship Your Corporate Law Professor (Should Have) Warned You About*, in *Am. Bankr. Inst. L. Rev.*, vol. 8, 2000, p. 479, «Despite its long history, the exact contours of the concept have remained elusive». See also see E. KAREN BOXX, *The Durable Power of Attorney's Place in the Family of Fiduciary Relationships*, in *Ga. L. Rev.*, vol. 36. issue 1, 2001, available at https://digitalcommons.law.uw.edu/faculty-articles/178, «A clear characterization of fiduciary obligation is elusive and its exact nature is much debated».

conduct, the fiduciary duty is more binding than the duty of fairness; the former requires the fiduciary to protect the consumer's interests even to the detriment of the fiduciary's own interest; whereas the latter duty simply requires the bank to act fairly; moreover, the fiduciary duty is also more binding than the duty of care. Indeed, the former prevents the misuse of power, whilst the duty of care implies the taking of "reasonable precautions" to prevent damages.

6.3. *Ex aequo et bono* liquidation of pecuniary and non-economic damage

With the judgement in question, the judgment of the Court of Cassation, delivered on, 9 July 2014, No 15609, the Supreme Court acknowledged the right of the legal entity, in case of unlawful reporting to the central credit risk database, to compensation for both *non-economic damages* "with regard to the values of reputation and honour" and *pecuniary damages*, which can be subject to *prima facie* evidence; both to be liquidated *ex aequo et bono*. "As a consequence, for the entrepreneur, of a deterioration of his business-related reliability".

The dichotomy between pecuniary damage and non-economic damage has a relatively recent origin. This distinction was not known to the Romans, it was not adopted in intermediate law or introduced by the Civil Code of 1865 and no provision specifically governed

compensation for damages[85]. On the same subject[86]. On the other hand, it should be noted that the Romans knew several kinds of private penalties. The right to retaliation for insults was, for instance, replaceable with the conventional compensation allowed by the XII Tables. During Imperial Age, in addition to public penalties also decreed for private crimes, in some cases the ancient private penalties remained, which the prejudiced person could choose *in lieu* of the former[87]. Also intermediate law had private penalties, which in any case remained conceptually distinct from compensation "both because they were commensurate with the social and individual conditions of the injured or prejudiced person, because they were sometimes higher in cases where the economic damage was lower, and because compensation for damages was sometimes considered as a separate factor. Over time, compensation was entirely allocated in favour of the tax authorities, and the injured or damaged parties were only left with the compensation for damages, except in some cases where a part of the penalty was destined to the damaged party"[88]. Minozzi's observations on the subject would later change the scenario[89] and then, after the introduction of this distinction in the German Civil Code, the Italian civil code of 1942 would also adopt such distinction. It was not until 2001 that the Supreme Court, by judgement No. 12929, introduced the

[85] See C. BONA, *Studio Sul Danno Non Patrimoniale*, in *Quad. Di Responsab. Civ. e Previd.*, Giuffrè Editore, 2012, p. 4 et seq..

[86] See M. FRANZONI, *Fatti Illeciti*, in *Commentario Del Codice Civile Scialoja-Branca*, Bologna, Roma: Zanichelli - Il Foro Italiano, 1993.

[87] On the issue, see V. MANZINI, *Trattato Di Diritto Penale Italiano*, vol. III, Torino: UTET, 1921, p. 153.

[88] In this sense, see V. MANZINI, *ibidem*.

[89] See A. MINOZZI, *Studio Sul Danno Non Patrimoniale. (Danno Morale)*, 3rd edition, Milano: Società editrice libraria, 1909, pp. 1–5.

principle according to which also legal entities are entitled to compensation for non-economic damages in relation to unlawful reports to the Central Credit Risk Database (non-material damage due to harm allegedly suffered by an individual's "moral integrity" or damage to the reputation of commercial bodies). "It would be contradictory" - the Court states – "to recognise the compensation for non-economic damages due to the violation of a fundamental right of a natural person when acting directly as such and not recognise it with regard to a "company", which is nonetheless the expression of men born from a woman's womb"[90].

This trend was inaugurated and theorized with reference to a business enterprise and, in particular, in the event of undue non-performance reporting to the central credit risk database of a public limited company[91]. The claimant company had requested the Court to order the credit institution responsible for the negligent reporting to pay compensation for pecuniary damages, as well as for non-economic damages, in relation to significant economic transactions that had allegedly been partly prejudiced and partly delayed by the difficulties in having access to credit. The judges of all three stages of the litigation rejected claims for pecuniary damages because they were generic, not supported by the requirement of the causal link and, in any case, not

[90] Court of Cassation, June 2001, No 12929.

[91] Court of Cassation, June 2001, No 12929. The subsequent rulings, referring to the trend in question, all referred to commercial bodies; see supra, note 1. The disputes indicated therein concern for-profit corporations, with the exception of Court of Milan, 19 April 2010, No 4833, which examines the denigration of a cooperative company that, in any case, operates entrepreneurially in the distribution market (more specifically see *supra*, in this chapter, §5.2).

substantiated by evidence[92]; only in the judgment on the lawfulness, the claim for compensation for non-economic damages, namely damage to image, was granted on the basis of the considerations referred to above.

The Court, referring to a highly criticized habit, simply states that "the aforesaid non-economic damage must be liquidated to the juridical person or to the body *ex aequo et bono*, taking into account all the circumstances of the specific case" (Cassation, June 2007, No 12929). According to the most recent case-law, the unlawful conduct does not necessarily have to be characterised by the essential elements of a criminal offence[93].

It is believed that every violation of a right of the personality of a collective entity inevitably results in damage to its image, as a prejudice to the bodies that have carried out the activities on its behalf.

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[92] The Court of Cassation, June 2007, No 12929 thus summarises the assessment made at first instance, which was then confirmed on appeal: «The monocratic Court, after having, in the preliminary investigation phase, rejected the motions for evidence filed by the parties, by judgment of 9 April 2001, dismissed the application and ordered the claimants to bear the costs for the proceeding, because the latter had failed to provide evidence of both the causal link between the defendant's conduct and the alleged damaging events, and of the alleged damages; in fact, they had not filed the copy of the loan contracts, which they surmised to have entered into with delay due to the alleged undue report to the Central Credit Risk Database».

[93] The foregoing refers to the trend inaugurated by Court of Cassation, 4 June 2007, No 12929, in *La nuova giurisprudenza civile commentata*, 2008, I, p. 1 et seq., commented by OLIARI S., Danno non patrimoniale alle persone giuridiche per errata segnalazione alla Centrale Rischi, in Giust. civ., 2008, I, p. 1998 et seq.. See also T. MAUCERI, *Enti Collettivi e Danno Non Patrimoniale*, Giappichelli Editore, 2013, p. 90.

The prejudice suffered by the natural persons responsible for governing the institution has repercussions on the actions of the same.

Therefore, it would be necessary to compensate for the deterioration of the activity, which cannot be assessed in economic terms, brought about by the undue reporting to the Central Credit Risk Database (that is, by the damages caused to the personality rights of the body) resulting from the worsening of the managers' concerns (Cassation No 12929/2007).[94] Furthermore, it is necessary to investigate whether or not the unlawful conduct has prejudiced the corporate activities having *capital (pecuniary) significance,* as they can be assessed in economic terms. It is patent that prejudice to the business of a lucrative body can be economically evaluated. Consequently, the syllogism is obvious.

Non-economic damage can certainly be compensated as it is considered "in itself", intrinsically connected to the reporting that also

[94] The Court of Cassation (No 12929/2007) thus summarises the assessment made at first instance, which was then confirmed on appeal: «The monocratic Court, after having, in the preliminary investigation phase, rejected the motions for evidence filed by the parties, by judgment of 9 April 2001, dismissed the application and ordered the claimants to bear the costs for the proceeding, because the latter had failed to provide evidence of both the causal link between the defendant's conduct and the alleged damaging events, and of the alleged damages; in fact, they had not filed the copy of the loan contracts, which they surmised to have entered into with a delay due to the alleged undue report to the Central Credit Risk Database». With regard to compensation for the pecuniary damages deriving from the unlawful reporting to the Central Credit Risk Database, «it is necessary to ascertain that the damage to the professional or commercial reputation has caused a material loss, otherwise the compensation lacks the object: in particular, it is necessary to prove the severity of the violation and the non-futility of the same» (Cassation, Section I, 8 March 2013 No 5848). More recently, see Court of Cassation No 1931 of 2017.

constitutes its proof; but also pecuniary damages can be compensated, even based on *prima facie* evidence. It has been argued in courts that pecuniary damage should be proved both with regard to *an* and to *quantum* [*i.e.,* the existence, if any, and the determination of damages, and then the amount of the same] (Court of Cassation, 8 March 2013, No 5848, Section I) and liquidation *ex aequo et bono* has been ruled out. Yet, the Supreme Court has reiterated that compensation for damages may be based on *prima facie* evidence. It is a well-known fact (Article 115, paragraph 2, Italian Code of Civil Procedure) that following the "non-performance" report and the ensuing interruption of a credit line, the interest of the company to continue to operate on the market is prejudiced (*ABF*, Financial Banking Arbitrator). In addition, according to the Supreme Court, pecuniary damages and non-economic damages can be liquidated *ex aequo et bono*.

6.4. BIM (Building Information Modeling) *vs* MIS (Management Information Systems) outlined from BCBS Principles on Effective Risk Data Aggregation and Risk Reporting

In architecture, BIM (Building Information Modeling) is an information model that includes information/data on building and the maintenance of a building. Similarly, the application of such model to banking and financial enterprises is proposed. In this way supervisors can immediately know and monitor the "structural" information on banking and non-banking operators. Thus, monitoring would be immediate, and not subject to transaction costs.

The idea of creating a global "risk map" and setting up a global credit database goes back to Issing Committee in 2009[95] and has been followed up by the BCBS Principles on Effective Risk Data Aggregation and Risk Reporting guided by the Basel Committee on Banking Supervision[96]; the latter principles call for the development of an appropriate "management information systems" (MIS); however, if in the first case the BIM information is that which we define as "structural" to be shared, in the second case banks are required to possess the ability to aggregate risk data, as this can improve their

[95] O. ISSING – J. P. KRAHNEN, *op. cit.*; cfr. also O. ISSING – J. ASMUSSEN – J. P. KRAHNEN – K. REGLING – J. WEIDMANN – W. WHITE, *New Financial Order Recommendations by the Issing Committee Part I (October 2008),* cit.; and O. ISSING – J. ASMUSSEN – J. P. KRAHNEN – K. REGLING – J. WEIDMANN – W. WHITE, *New Financial Order Recommendations by the Issing Committee Part II (March 2009),* cit..

[96] See FINANCIAL STABILITY BOARD, *Intensity and Effectiveness of SIFI Supervision: Progress Report on Implementing the Recommendations on Enhanced Supervision*, 27 October 2001, p. 3, available at https://www.fsb.org/wp-content/uploads/r_111104ee.pdf. The Principles for effective risk data aggregation and risk reporting «stems from a recommendation in the Financial Stability Board's Progress report on implementing the recommendations on enhanced supervision», issued on 2011: «The FSB, in collaboration with the standard setters, will develop a set of supervisory expectations to move firms', particularly SIFIs, data aggregation capabilities to a level where supervisors, firms, and other users (e.g. resolution authorities) of the data are confident that the MIS reports accurately capture the risks. A timeline should be set for all SIFIs to meet supervisory expectations; the deadline for G-SIBs to meet these expectations should be the beginning of 2016, which is the date when the added loss absorbency requirement begins to be phased in for G-SIBs».

"resolvability"[97]. In 2016 the ECB[98] launched, as one of its supervisory priorities, a "Thematic Review on effective risk data aggregation and risk reporting" as "one of its supervisory priorities", relevant for each institution as a whole, on the basis of a sample comprising "risk data aggregation".[99] With a model similar to BIM, risk assessment would be carried out by the supervisory authorities themselves with the sanction of the public reporting as evidenced in the structure outlined above about an excessive risk assumption, capable of adversely

[97] BCBS, *Principles on Effective Risk Data Aggregation and Risk Reporting*, 2013, p.2, «2. In response, the Basel Committee issued supplemental Pillar 2 "supervisory review process" guidance1 to enhance banks' ability to identify and manage bank-wide risks».

[98] On the basis of Article 4(1)(e) of the SSM Regulation, *conferring specific tasks are conferred on the European Central Bank concerning policies relating to the prudential supervision of credit institutions,* OJ L 287, 15 October 2013, p. 63; hereinafter the SSM Regulation), under which the ECB ensures compliance with EU law (including national law transposing directives) which imposes requirements on credit institutions to have in place risk management processes.

[99] Regarding the unsatisfactory developments of this system see ECB, *Report on the Thematic Review on effective risk data aggregation and risk reporting,* May *2018,* available at: https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.BCBS_239_report_201805.pdf. In 2016, the ECB launched, as one of its supervisory priorities, a «Thematic Review on effective risk data aggregation and risk reporting» (hereinafter "the Thematic Review"), seeking to carry out an indepth assessment of credit institutions' overarching governance, data aggregation capabilities and reporting practices that are relevant for each institution as a whole, on the basis of a sample comprising significant institutions. That assessment was guided by the Basel Committee on Banking Supervision's principles for effective risk data aggregation and risk reporting (hereinafter "the BCBS 239 principles").

affecting the "game table". It is an assessment that considers the negative externalities of contracts put in place by intermediaries[100].
It is obvious that in case of incorrect reporting, the body that actually carried it out would be liable to compensate the capital damage or the damage produced to the image and would undergo reputational discredit.

7. The penalty: reputation and shame as an intrinsic regulatory value, "Shaming Punishments" and reputational discredit in a cyberspace context for a new e-banking supervision

The meaning of honor (timè) dominant in Greek culture, was characterized by being essentially propelled outside the individual[101]. The highest honor that the person might have was enclosed in the terms *Ghatòs* and *Artè*[102].

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[100] Therefore, a model that is not based on principle No.1, which MIS in based on: according to which (Principle 1) «Governance – A bank's risk data aggregation capabilities and risk reporting practices should be subject to strong governance arrangements consistent with other principles and guidance established by the Basel Committee», as they are deemed to be shareable by R. Romano's criticisms of the unlikeliness of regulators to predict "with confidence" the optimal capital requirements necessary to reduce systemic risk and the desirable introduction of diversity into the current global regulatory framework, the Basel Accords. Cfr. R. ROMANO, *For Diversity in the International Regulation of Financial Institutions: Critiquing and Recalibrating the Basel Architecture*, cit.

[101] It is noted that «the Greek primitive justice [i.e.: Homeric and archaic] does not take into account intention: only action matters» see E. R. DODDS, *I Greci e l'irrazionale*, (translated by) V. VACCA DE BOSIS, BUR, 2009, p. 45.

[102] See A. W. H. ADKINS, *La Morale Dei Greci. Da Omero Ad Aristotele*, Laterza Editori, 1987, p. 77 et seq..

Honor and more specifically dishonor could relapse on the fate of a person also as a consequence of the actions of a family (or "ancestry") member[103].

Aristotle, in Nicomachean Ethics, relating honor to virtue, defined the former (honor) as a benefit that embodies the model of happiness for "people who are different and predisposed to action" and who perform a "political life" of which time represents the aim[104].

The most powerful moral strength known to the Homeric man is respect for public opinion[105].

The social consideration is a cornerstone in some cultures, like the ones based on the "shame culture"[106].

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[103] Cfr. A. W. H. ADKINS, *op. cit.*, pp. 241-252. See also N. R. E. FISHER, *Hybris: A Study in the Values of Honour and Shame in Ancient Greece*, Warminster: Aris and Phillips, 1992; see also P. CIPOLLA, *La Hybris Di Serse Nei Persiani Di Eschilo Fra Destino e Responsabilità*, (edited by) A. ROTONDO, in *Humanitas e Cristianesimo. Studi in Onore Di Roberto Osculati*, Roma: Viella, 2011, pp. 29–39.

[104] See M. C. NUSSBAUM, *Shame, Separateness, and Political Unity: Aristotle's Criticism of Plato*, (edited by) AMÉLIE OKSENBERG RORTY, in *Essays on Aristotle's Ethics*, University of California Press, 1980, p. 419. See also ARISTOTELE, *Etica Nicomachea*, vol. I. issue 5, Rusconi Libri, 1998, p. 57. More generally see on the subject the excellent by A. VISCONTI, *Reputazione, Dignità, Onore. Confini Penalistici e Prospettive Politico-Criminali*, Giappichelli Editore, 2018, p. 22 et seq..

[105] See E. R. DODDS, *op. cit.*, p. 59.

[106] See for instance Japanese culture, cfr. M. FACKLER, *Financial Scam Creates Costly Panic and Shame*, in *Wall Street Journal Europe*, May 2005.

Shame is the natural antonym to honor that in turn certainly is "the biggest external benefit"[107].

Loss of honor is immediately accompanied by the feeling of shame which implies the desire to escape the other person's sight[108], due to the awareness of having proved to be inappropriate compared to a social expectation[109].

Shame lives in fault. Both fault and shame as modern psychological literature has taught us, may result in destructive forms for the individual's mental stability [110].

We are talking about "self-awareness" in dealing with the relationship with your own Self [111] and therefore they are social emotions because they are strictly connected to social interaction [112].

And since, as it is claimed, reality is changeable whereas human nature remains the same, in the actual society shame continues to play the same ethic function that played in the ancient world [113].

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[107] See ARISTOTELE, *op. cit.*, p.167.

[108] See M. BELPOLITI, *Senza Vergogna*, Guanda, 2010, pp. 14–15; No coincidence, the major experience related to shame is nudity, see B. WILLIAMS, *Shame and Necessity*, 2nd edition, University of California Press, 15 April 2008, p. 96.

[109] See V. MELCHIORRE, *Corpo e Persona*, Marietti, 1 January 2000.

[110] See A. VISCONTI, *Onore, Reputazione e Diritto Penale*, EDUCatt, 2011, p. 35.

[111] In particular the ideal Self, see B. WILLIAMS, *Vergogna e Necessità*, (translated by) M. SERRA, Il Mulino, 2007, p. 106.

[112] See L. ANOLLI, *La Vergogna*, Il Mulino, 2010, p. 34 et seq..

[113] See B. WILLIAMS, *Vergogna e necessità*, cit., pp. 117-118.

Aristotle, in *Rhetoric*, defined shame as passion (*Aishyne*) as "a form of grief or upheaval relative to guilty actions"[114].

Shame as a "moral emotion" has an intrinsic regulatory value[115]. Not without reason in Plato's Protagoras, *AIDO'S* (shame) is conceived as a gift from the gods to man since it is essential to their survival[116].

Despite the downsizing of the role of moral shame in the current historical context,[117] compared to the one that characterized Ancient Greece, recently we have witnessed penalties based on shame and these have been formalized, unlike what occurred in ancient times with law instruments. In the specific case, in the criminal domain: we can take into consideration the so-called shame sanction.

We are talking about alternative measures to detention[118], whose intent is to make "public" the criminal offence committed in order to

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[114] See ARISTOTELE, *Retorica*, Mondadori, 1996, p. 173.

[115] See also J. HAIDT, *The Moral Emotions*, in *Handbook of Affective Sciences*, Series in affective science., Oxford University Press, 2003, pp. 852–870.

[116] Cfr. PLATONE, *Tutti Gli Scritti*, (edited by) G. REALE, Rusconi Libri, 1991, pp. 818–820; (320c-322d) In Greek myth, Zeus that did not desire mankind to disappear from earth and so he decided to send Hermes in order to bring to mankind two Gods: *Aidos* and *Dike* (Shame and Justice).

[117] See M. BELPOLITI, *op. cit.*, pp. 18 et seq.

[118] See J. Q. WHITMAN, *What Is Wrong with Inflicting Shame Sanctions?*, in *Yale Law J.*, vol. 107, 1998, pp. 1060–1061, available at https://digitalcommons.law.yale.edu/ylj/vol107/iss4/3. These sanctions are also used in a deflationary function for convicted people, See L. H. TAVILL, *Scarlet Letter Punishment: Yesterday's Outlawed Penalty Is Today's Probation Condition*, in *Clev. St. L. Rev.*, vol. 36. issue 4, 1988, p. 613, available at https://engagedscholarship.csuohio.edu/clevstlrev/vol36/iss4/18/.

reinforce the social disapproval of the censored behavior, leading to an acute sense of shame in the offender[119].

Many scholars have argued that, in relation to White-Collar Crimes, shaming punishments should be applied more extensively, not only as alternative measures to detention but in the technical meaning as sanctions, since they are considered to be more effective than financial ones and since the deterrent effect in shaming penalties makes itself more felt by people who have a status to lose"[120].

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[119] Cfr. D. SCHWARCZ, *Shame, Stigma, and Crime: Evaluating the Efficacy of Shaming Sanctions in Criminal Law*, in *Harv. L. Rev.*, vol. 116, 2003, p. 2186 et seq..

[120] See D. M. KAHAN, *What Do Alternative Sanctions Mean?*, vol. 63. issue 2, University of Chicago Law Review, 1996, p. 648, available at http://www.jstor.org/stable/1600237; see also G. FORTI – A. VISCONTI, *Cesare Beccaria and White-Collar Crimes' Public Harm. A Study in Italian Systemic Corruption*, (edited by) H. N. PONTELL - G GEIS, in *International Handbook of White-Collar and Corporate Crime*, New York: Springer, 2007, pp. 490–510, available at http://hdl.handle.net/10807/4701; see D. M. KAHAN – E. A. POSNER, *Shaming White-Collar Criminals: A Proposal for Reform of the Federal Sentencing Guidelines*, in *J. Law Econ.*, vol. 42. issue 1, 1999, pp. 365–391, available at http://dx.doi.org/10.1086/467429; on page 379 authors also claim that «public humiliation of offenders could be thought as a real-life morality play in which public experiments vividly those important emotions – anger, contempt, mercy, disgust, fear – that reinforce cooperative relationships» , see also D. A. SKEEL JR, *Shaming in Corporate Law*, in *Univ. PA. Law Rev.*, vol. 149, 2001, pp. 1811–1868, available at https://scholarship.law.upenn.edu/faculty_scholarship/1182/; see also D. R. WONG, *Stigma a More Efficient Alternative to Fines Deterring Corporate Misconduct*, in *Calif. Crim. L. Rev.*, 2000, p. 3 et seq..

Somehow these "scarlet letter punishments" would have a censorial charge greater than prison sentence[121].

More generally, reputational discredit from a penalty-related point of view, but not in a formal sense, and so concerning not only behaviors that are relevant from a criminal point of view, could serve as disincentives[122].

This is why in the above-mentioned structured platform of multi-level relations among banks, supervisory authorities and multi-stakeholders, we suggest that the behaviors held by bank officials and executives be made public.

And so, only the limelight, only the "shaming disclosure" counts as deterrent. We recall that, as claimed above, in pursuit of an economic interest, no one intends to conclude a contract with an unreliable counterparty therefore at high risk of default, or even to conclude particularly unfavorable contracts for one of the parties[123]

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[121] See N. HAWTHORNE, *The Scarlet Letter*, 1850; regarding the practice of branding criminals of American colonies with the stamping of scarlet letters on their robes.

[122]For example, the case of conflict of interest in academic economists and their private financial affiliations, "infrequently and inconsistently" disclosed see J. CARRICK-HAGENBARTH – G. A. EPSTEIN, *Dangerous Interconnectedness: Economists' Conflicts of Interest, Ideology and Financial Crisis*, in *Cambridge J. Econ.*, vol. 36. issue 1, 2012, pp. 43–63, available at http://hdl.handle.net/10.1093/cje/ber036.

[123]«This implies the sanction that consists in excluding that counterpart from the conclusion of the contract: the sanction of reputational discredit», see A. PERRONE, *Dalla trasparenza alla fiducia,* cit., p. 16.

8. The double meaning of sanctions according to Romagnosi in a cyberspace context

The word sanction, ("*sanzione*" in Italian) derives from the term "to sanction" that "is nothing more than making inviolable, blameless" in the sense of ensuring the enforcement of a law through the public force, thus obliging "to obey"; without this power to demand and achieve the observance of laws the legal character ceases to be such and the mere freedom to act according to (or in contrast with) law remains: an unenforceable law is "utter nonsense", as G. D. Romagnosi affirmed in his unpublished work[124].

[124] G. D. ROMAGNOSI, *Opere Di G. D. Romagnosi Riordinate Ed Illustrate Da Alessandro De Giorgi*, cit., In the original language: Par. 1510. «Questo nome di sanzione per una traduzione di analogie fu dal civile impero trasportato all'ordine reale e necessario dei beni e dei mali di natura, come alla proponendo di quest'ordine fu trasportato il nome di legge. Sancire altro non è che rendere inviolabile, intemerato; e nel suo senso diretto egli è lo stesso che assicurare l'esecuzione d'una legge con la prevalenza della forza publica: lo che essenzialmente importa la funzione di obbligare ad obedire, senza la quale cessa il carattere di legge, e sottentra quello di libero consiglio. Per la qual cosa una legge senza sanzione è un vero controsenso». Par. 1511. «Nell'uso comune alla sanzione non fu attribuita fuorché una funzione repellente, e fu tolta ogni funzione invitante. Tu farai la tal cosa o ti asterrai dalla tal altra, sotto pena di perdere il tal nome o di soffrire il tal male. Ecco dentro quali limiti fu dal volgo ristretta l'idea di sanzione. […] Forse ché essa non va al suo fine con l'incitamento dei bisogni, e con quelli che diconsi appetiti naturali? Piacere e dolore, speranze e timori, desideri ed avversioni, non sono forse i motori alternativamente maneggiati dalla natura? E come perciò potremo applicare al governo della natura la sola sanzione ripulsiva delle leggi umane? […]». Par. 1512. Quando un contravventore viene obbligato con la forza ad eseguire un atto comandato, o viene punito perché fece od omise un atto vietato o comandato sotto sanzione penale, non si stabilisce una SANZIONE, ma si pratica una

ESECUZIONE. La sanzione dolorosa umana si restringe dunque a minaccia, e non consiste che nella minaccia di un male che viene intimando come inevitabilmente conseguente alla contravenzione o inesecuzione di un comando. Dunque l'obligazione che ne nasce è interamente psicologica. Essa risulta dal timore prevalente del male minacciato, per evitare il quale gli uomini praticano l'atto positivo negativo comandato. Par. 1513. Ma tristo e poco utile sarebbe il risultato nella vita civile, se non intervenisse anche la forza dei premi, per il desiderio dei quali gli uomini fanno assai più cose di quello che sogliano dare più il timore del castigo. Un Governo sarebbe ben da compiangere, se dovesse far camminare tutto a colpi di bastone. Completiamo dunque l'idea di sanzione come funzione psicologica obbligante all'adempimento della legge, e la minaccia di un male a chi opera in contrario. Non è necessario che la promessa sia espressa, ma basta che sia tacita. L'effetto solo benefico della legge osservata forma questo premio tutte le volte che la legge sia giusta e necessaria. Certamente questi caratteri non convengono fuorché alle giuste leggi, le quali non si fanno che pi'l bene dei governati, né possono convenir mai a quelle che si fanno con altre mire. In queste ultime non entra l'idea di premio, e però per accomodare le nazioni al male leggi fu necessario presentare la sanzione come meramente ripulsiva, e quindi assicurare l'esecuzione dei comandi con la sola vista dei supplizi. Ma considerando le cose nella loro prima verità, noi siamo costretti ad attribuire alla sanzione sia l'uno che l'altro carattere, perché la volontà umana viene mossa sì dai dolori, che dai piaceri. In English, Par. 1510. «This name of penalty was transposed for a translation of analogies from the civilian empire to the royal empire and necessary order of the goods and ills of nature, as with the proposing of this order was conveyed the name of law. To enshrine is merely making inviolable, blameless; in its direct meaning it is the same as ensuring the enforcement of a law with the prevalence of public force: what essentially matters is the function of forcing to obey, without which the character of law ceases, and the one of free council takes over. For which a law without sanction is a utter nonsense more specifically, Romagnosi, in his unpublished work, has thus argued». Par. 1511 «In the common use penalty was attributed only to a repellent function, and every inviting function was removed. You will do such a thing or refrain from another one, under penalty of losing such name or suffering such evil. That is where the notion of penalty was made so "narrow" by common people […] Doesn't such notion attain its purpose by soliciting needs and the so-called natural desires?

But the result in civilian life would be sad and of little use, if the "strength of the prizes" failed to intervene, for the desire of which men do much more things than they could give for fear of punishment.

The sanction arises in the two-fold meaning: as reputational discredit, intended as a primary deterrent (that supplements private

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Pleasure and sorrow, hopes and fears, desires and revulsions, are they not the engines otherwise handled by nature? And how, therefore, can we apply the only repulsive sanction of human laws to government of nature? […]. Par. 1512 Whenever an offender is obliged by force to make a commanded act or is punished because he committed or omitted an act forbidden or commanded under penalty, a PENALTY is not established, but ENFORCEMENT is carried out. Therefore, the painful human sanction narrows to threat, and it consists but in the threat of a negative consequence, unavoidably resulting from the non-compliance with an order. That being so, the obligation born is entirely psychological. It results from the dominating fear of the consequence threatened, to avoid which men carry out the positive negative act. Par. 1513. But the result in civilian life would be sad and of little, if the strength of the prizes failed to intervene, for the desire of which men do much more things than they could give for fear of punishment. A Government should good to be pitied, if it were to make everything work with blows of stick. Hence let's complete the idea of Penalty as a psychological function obliging to the fulfilment of the law, and the threat of a damage to those who work by contrast. If the promise is tacit it need not necessarily be expressed. The only beneficial effect of abiding by the law forms this award whenever the law is fair and necessary. Surely these characters do not agree except to the right laws, which are made only for the governed good, nor can they ever agree to those that are made with other aims. In the latter the idea of prize does not enter and yet to accommodate the nations to bad laws it was necessary to present the penalty as merely repulsive, and thus ensure the execution of commands with the simple sight of the torture. But considering things in their first truth, we are forced to attribute to the penalty both the one and the other character, because the human will be moved both by the pain and pleasures.

sanctions, if provided for, or state sanctions, in lack of the former[125]) and as a positive boost for more virtuous operators - not only in the economic sphere - by giving visibility to their positive activities. In order for new trends to be created there must also be a positive component encouraging operators to behave in a virtuous manner[126].

A shared supervision in cyberspace that ensures a correct and truthful disclosure of information, including information about any penalties or rewards concerning banking companies (including financial and insurance companies) would be used as deterrent to the realization of opportunistic behaviors.

Not without reason, the US? Supreme Court, namely Justice Louis D. Brandeis[127] described publicity "as a remedy for social and Industrial diseases", "electric light the most efficient policeman"[128]

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[125] For a detailed study of financial sanctions in the US and Europe, see K. ALEXANDER, *Economic Sanctions*, in *Law and Public Policy*, Palgrave Macmillan UK, 2009.

[126] By virtue of the imitation, common component to man see C. G. JUNG, *op. cit.*, a new "fashion" would arise, with an inversion of positive tendency compared to past. See for a reflection on the importance of fashions L. GIUSSANI, *L'io Rinasce in Un Incontro*, Biblioteca Universale Rizzoli, 1986, pp. 181–182, the author qualifies fashion as a project of power.

[127] See L. D. BRANDEIS, *What Publicity Can Do*, in *Other People's Money and How the Bankers Use It*, Harper's Weekly, 20 December 1913, pp. 10–13, available at https://louisville.edu/law/library/special-collections/the-louis-d.-brandeis-collection/other-peoples-money-chapter-v.

[128] «Sunlight is said to be the best of disinfectants; electric light the most efficient policeman. And publicity has already played an important part in the struggle against the Money Trust». See also L. D. BRANDEIS, *Letters of Louis D. Brandeis:*

Volume III, 1913-1915: Progressive and Zionist, (edited by) M. I. UROFSKY - D. W. LEVY, SUNY Press, 1973, p. 100; «If the broad light of day could be let in upon men's actions, it would purify them as the sun disinfects». See also C. KAUFMANN - WEBER R. H., *The Role of Transparency in Financial Regulation*, cit., pp. 779-797.

Conclusions

It has been said that the market is a nexus of contracts put in place by the *homo mercati* and that the recent financial crisis also originates from a contract, or better from a set of contracts: the so-called subprime mortgage.

The negative externalities were such as break the "indeclinable natural order" which Romagnosi wrote about, or also according to the contractual theory, the Social Contract (J. J. Rousseau). Whichever way it is intended, the substrate that is herein named "gaming table" has collapsed and this is where the economic crises arose.

This close connection generates an indissoluble proportionality between: the balance in the contractual content that we will call "endogenous contractual balance" and the "exogenous contractual balance" that, consists in the relationship between the contracts stipulated in the market with that unspoken and omnipresent contract, almost derived from the natural conservation law (or instinct of self-preservation) typical of human nature and that J. J. Rousseau, and those who adhere to contractualism in general, identify in the Social Contract.

In this scenario we have analyzed the reforms on Banking Supervisions implemented over time in the EU, we have attempted at outlining a system of Banking Supervisions in which information can circulate at the speed of light and we could "light up" each bank reality so as to have an impact on the conflict of interest and more generally on asymmetric information on the whole; all of the above in cyberspace and taking as model the work, named Galaxy Soho, realized by the architect Zaha Hadid, which is characterized by the fluidity of

the forms, almost impossible to obtain before. And it is exactly by borrowing the terminology from the architectural "code" when during the devising a new Banking Supervision architecture, that we have imagined the supervisory authorities explaining their monitoring on the fairness of "structural" information that the banking operators shall transmit in their entirety to the same authorities, as happens in architecture with the use of BIM (Building Information Modelling) when sharing basic information or information that they think they should share with supervisory authorities. Thus, monitoring would be immediate, and it would not be subject to transaction costs. Moreover, we have imagined that each bank reality could be interconnected through systems like Gerber's beam, also used in Morandi's bridge in Genova for example, thanks to which only circumscribed collapses can occur as opposed to the collapse of a whale structure altogether.

In this present case, Gerber's beam enables to divide a continuous element in several parts so that in case of collapse only a part of the entire complex will be interested and not its entirety.

The transparency, intended as availability of clear, immediate and essential information, as well as the speed and simplicity with which it would be possible to obtain, represent Gerber's beam in the above mapped system of banking security in cyberspace. Furthermore, information represents the vaccine against future economic crises. Underlying this structure there would not be common standards but parameters that could rely on a common language which should the subject matter of artificial intelligence: a "cyber language". Imagine

that each term, each legal expression is turned in numbers, symbols[397] and images in a way that it could be translated in every written language of the world. In doing so, the text of a law or of a legislative proposal drawn up in a State could be immediately comprehensible to the world by virtue of this contextual translation.

The creation of this software would enable us to eliminate in advance from the written language all asymmetrical information created by communication (language which would, therefore, nor need to interpreted) and would allow to translate through a periphrasis that specific legal arrangement that could exist in a State but not in another. Thus, we would achieve better legislation. The rule maker would feel forced to use clear expressions since he should choose, when writing, the sense that he intended to give to that specific term, within the meaning that the term itself could take on.

In addition, we have laid down the foundations for bottom-up harmonization: the only, real, harmonization possible. In such a system we imagine, moreover, the existence of a "Central Credit Database for Cyber-banking supervision (CBS)" similar to the Central Credit Database of the Bank of Italy in which, for example, a broker that encounters difficulties would be highlighted in red based on the extent of his disclosure by means of the basic information made available to the public and based on the contents of the financial statements. The financial statements should take into account the contracts concluded that are at high risk of default and which are likely to entail

[397] The author represents the marginalization of iconic speech describing symbolic language as a forgotten language. See also J. HILLMAN, *Saggio Su Pan*, (translated by) A. GIULIANI, Adelphi, 1977, p. 55.

a violation of the *neminem leadere* principle (based on which the theory of gaming table or the theory of *neminem leadere* are postulated).

The Reputational discredit becomes an actual sanction, followed by pecuniary sanction, for brokers who will find themselves forced to pay damages for the negative externalities produced (on a par with the consequences envisaged by Coase's Theorem for environmental damage) Such intermediaries, with respect to the risks assumed when signing contracts at high risk of default to state ex ante their capability if any of fulfilling the duties undertaken and ensuing liability through a network of private security.

But, the sanction, as intended by Romagnosi in its two-fold meaning, requires also a positive profile that creates incentives to behave in a virtuous manner. This is the reason why the Central Credit Database of CBS should, at the same time, advertise who is virtuous, so that for example, the latter could give rise to a new trend in the banking and financial systems, that are also results of man's action, who, by nature, acts by imitation (Jung). The context in which the analysis was carried out it that of natural rights, intended as recognition and respect of natural laws, implemented by physics, mechanics and mathematics. The aim is balance. The system thus imagined, should be considered highly sustainable in terms of costs both private and social.

The legislator's task is to take action in order to restore contractual balance; the courts' task, or better, the task of arbitrators, is to devise the alternative dispute resolution center as a Center of international arbitrage of alternative resolution to controversies, to ensure the respect of "*pacta sunt servanda*", as well as the compliance with the law, in a more expedite manner.

The symbol of Justice in the medieval word of *Hypnerotomachia Poliphili*[398] given below, seems to have identified centuries ago the elements so that, regardless of time (the wheel in the middle) or of good or bad fate, the whole system could be ordered and so be balanced; the symbol testifies to *a reduction ad unum* of the above.

In the middle there is a cross representing human beings[399], the structure of the cross consists of a sword on the top of which there is a crown representing the political power, the state, and so the Social Contract of J. J. Rousseau (or also the Natural Order theorized by Romagnosi). On the right and on the left, there are the dog and the snake, and hence the balance between good and bad, right and wrong; the scale symbolizes fairness, typical symbol for justice called to restore or maintain balance[400]. As like Hobbes wrote: deals are useless if there

[398] See F. COLONNA, *Hypnerotomachia Poliphili*, Aldo Manuzio, 1499, p. 249, available at https://marciana.venezia.sbn.it/sites/default/files/repositoryfile/mostre-virtuali/aldo-al-lettore/polifilo.pdf, see also I. WHITE, *Mathematical Design in Poliphilo's Imaginary Building, the Temple of Venus*, in *Word & Image*, vol. 31. issue 2, 2015, p. 164, available at https://doi.org/10.1080/02666286.2015.1023032; «I believe that with correct interpretation and analysis one can go even further, and that Poliphilo's imaginary buildings turn out to be thoroughly determined by a mathematical conception of design embodied in their precise geometry. »

[399] Man is the vital yearning that asserts himself within the symbol reported as the female voice in the opera C.D. "Sean Sean" composed by the musician Ennio Morricone.

[400] On the meaning of the symbolism on Justice in the F. COLONNA, *op. cit.,* p. 249; see for instance A. M. CAMPANALE, *Nomos e Eikon*, Giappichelli Editore, 2016, pp. 79–85.

is no power capable of enforcing their respect[401]. The whole is enclosed in a geometrical shape of a circle that by iconography represents the eye and so the light to be shed onto events, altogether encapsulated in the same circle, represented in a single frame.

F. Colonna, *Hypnerotomachia Poliphili*, Aldo Manuzio, 1499, p. 24

[401] See T. HOBBES, *De Cive*, 1642, Chapter III. Cfr. also, T. HOBBES, *Leviathan*, 1651, pp. 1–13.

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List of Abbreviations

ABCDE	Annual World Bank Conference on Development Economics
ABCP	Asset Backed Commercial Paper
ABF	Arbitro Bancario Finanziario "Financial Banking Arbitrator"
Acad. Manag. Rev.	Academy of Management Review
ACC	American Courier Corporation
ADRs	American Depositary Receipt
Adv. Mater. Sci. Eng.	Advances in Materials Science and Engineering
AEI-brookings Jt. Cent. Regul. Stud.	AEI-brookings Joint Center for Regulatory Studies
Am. Bankr. Inst. L. Rev.	American Bankruptcy Institute Law Review
Am. Econ. Rev.	American Economic Review
ANIA	Associazione Nazionale fra le Imprese Assicuratrici "National Association of Insurance Companies"
Annu. Rev. Polit. Sci.	Annual Review of Political Science
AREL	Agency Research and Legislation
Banc. Ed.	Bancaria Editrice

BBC	British Broadcasting Corporation
BBTC	Banca Borsa e Titoli di Credito
BCBS	Basel Committee on Banking Supervision
Behav. Sci. Law	Behavioral Science and the Law
BIM	Building Information Modelling
BIS	Bank of International Settlements
BNP	Banque Nationale de Paris
BRRD	Banking Recovery and Resolution Directive
BUR	Biblioteca Universale Rizzoli
Calif. Crim. L. Rev.	California Criminal Law Review
Camb. J. Econ.	Cambridge Journal of Economics
Case W. Res. L. Rev.	Case Western Reserve Law Review
Cass. Pen.	Cassazione Penale
CDO	Collateralized Debt Obligations
CEBS	Committee of European Banking Supervisor
CEDAM	Casa Editrice Dott. A. Milani
CEIOPS	Committee of European Insurance and Occupational Pensions Supervisors
CESR	Committee of European Securities Regulators

CICR	Comitato Interministeriale per il Credito e il Risparmio
Clev. St. L. Rev.	Cleveland State Law Review
Comput. Law Secur. Rev	Computer Law & Security Review
CONSOB	Commissione Nazionale per le Società e la Borsa
Contr. e Impr.	Contratto e Impresa
Cornell L. Rev.	Cornell Law Review
Corriere Giur.	Corriere Giuridico
CRD	Capital Requirements Directive
Cred.	Credito
CSEF	Centre for Studies in Economics and Finance
Curr. Sci.	Current Science
Dig. disc. priv., sez. civ.	Digesto delle Discipline Privatistiche-Sezione Civile
Dir. banca e mercato fin.	Diritto della Banca e del Mercato Finanziario
e.g.	For example
EBA	European Banking Authority
EBOR	European Business Organization Law Review
EC	European Commission

ECB	European Central Bank
ECEFIL	European Centre for Economic and Financial Law
ECFR	European Company and Financial Law Review
ECGI	European Corporate Governance Institute
ECJ	European Court of Justice
ECMI	European Consortium for Mathematics in Industry
ECOFIN	Economic and Financial Affairs Council Configuration
ECON	Economic and Finance Ministers
Econ. Hist. Rev.	Economic History Review
Econ. J.	Economic Journal
Econ. Lett.	Economic Letter
ECR	European Court Reports
EDUCatt	Ente per il Diritto allo Studio Universitario dell'Università Cattolica
EIOPA	European Insurance and Occupational Pension Authority
Emerg. Mark. Rev.	Emerging Markets Review
EPLO	European Public Law Organisation

ESAs	European Supervisory Authorities
ESC	EU Securities Committee
ESCB	European System of Central Banks
ESFS	European System of Financial Supervisors
ESJ	European Scientific Journal
ESM	European Stability Mechanism
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
ESRC	EU Securities Regulators Committee
ETH	Eidgenössische Technische Hochschule
EU	European Union
Eur. Bus. L. Rev.	European Business Law Review
Europa Dir. Priv.	Europa e Diritto Privato
Foro it.	Foro italiano (Il)
FSA	Financial Services Authority
FSAP	Financial Services Action Plan
FSB	Financial Stability Board
Ga. L. Rev.	Georgia Law Review
GDP	Gross Domestic Product
Geo. L.J.	Georgetown Law Journal

GFC	Global Financial Crisis
GigaNet	Global Internet Governance Academic Network
Giur. it.	Giurisprudenza italiana
Giur. Merito	Giurisprudenza di Merito
G-SIBs	Global Systemically Important Banks
Harv. L. Rev.	Harvard Law Review
HFC	Household Finance Corporation
HICP	Harmonised Index of Consumer Prices
HM Treasury	Her Majesty's Treasury
HSBC	Hongkong and Shanghai Banking Corporation
HTML	Hyper Text Mark-up Language
HTTP	Hyper Text Transfer Protocol
i.e.	Id est “That is”
ILO	International Labor Organization
IMEFM	International Journal of Islamic and Middle Eastern Finance and Management
IMF	International Monetary Fund
Int. J. Public Admin.	International Journal of Public Administration
IoT	Internet of Things

IPO	Initial Public Offering
IPSOA	Istituto Professionale per lo Studio dell'Organizzazione Aziendale
J. Bank. Financ.	Journal of Banking and Finance
J. Bank. Regul.	Journal of Banking Regulation
J. Bus. Ethics	Journal of Business Ethics
J. Comp. Econ.	Journal of Comparative Economics
J. Corp. Law Stud.	Journal of Corporate Law Studies
J. financ. econ.	Journal of Financial Economics
J. Forensic Sci.	Journal of Forensic Sciences
J. Health Polit Policy Law	Journal Health polit policy law
J. Int. Econ. Law	Journal of International Economic Law
J. Law Econ.	Journal of Law and Economics
J. Law Politics	Journal of Law & Politics
J. Manag.	Journal of Management
J. Philos.	Journal of Philosophy
J. Polit. Econ.	Journal of Political Economy
J. Psychol.	Journal of Psychology
JIBFL	Journal of International Banking and Financial Law
LCFI	Large Complex Financial Institutions
Leadersh. Q.	Leadership Qarterly

LGDJ	Librairie Générale de Droit et de Jurisprudence
London Sch. Econ.	London School of Economics
LSE	Law, Society and Economy
LSIs	Less Significant Credit Institutions
MIS	Management Information Systems
Monatsh. Math. Phys.	Monatshefte für Mathematik und Physik
NBER	National Bureau of Economic Research
NCAs	National Competent Authorities
NKM	New Keynesian Model
Nuova giur. civ. comm.	Nuova Giurisprudenza Civile Commentata
OECD	Organisation for Economic Co-operation and Development
OJ	Official Journal of the European Union
OJEC	Official Journal of the European Communities
Online Inf. Rev.	Online Information Review
Organ. Behav. Hum. Decis. Process.	Organizational Behavior and Human Decision Processes
OTC	Over The Counter

Philos. Trans. Royal Soc.	Philosophical Transactions of the Royal Society
Phys.	Physics
Q. J. Econ.	Quarterly Journal of Economics
RAND	Research and Development
RCADI	Recueil des Cours de l'Académie de Droit International de la Haye
REHJ	Revista de Estudios Historico-Juridicos
Resp. civ. e prev.	Responsabilità civile e previdenza
Rev. Austrian Econ.	Review of Austrian Economics
Rev.	Review
Riv. crit. dir. priv.	Rivista critica del diritto privato
Riv. dir. civ.	Rivista di diritto civile
RTDE	Revue Trimestrielle de Droit Européen
SDGS	Single Deposit Guarantee Scheme
SEA	Single European Act
SEP	Stanford Encyclopedia of Philosophy
SFEI	Syndicat Français de l'Express International
SIC	Credit Information Systems
SIFIs	Systemically Important Financial Institutions
Sis	Significant Institutions

SPV	Special Purpose Vehicle
SRC	Systemic Risk Centre
SRM	Single Resolution Mechanism
SSM	Single Supervisory Mechanism
SSRN	Social Science Research Network
SUNY	State University of New York
TEC	Treaty Establishing the European Community
TFEU	Treaty on the Functioning of the European Union
TFUE	Trattato sul Funzionamento dell'Unione Europea
Trattato di diritto civile	Trattato di diritto civile
Trattato di diritto private	Trattato di diritto privato
TUB	Testo Unico Bancario “Consolidated Law on Banking”
ULS	Ultimate Limit State
Univ. PA. Law Rev.	University of Pennsylvania Law Review
USA	United States of America
UTET	Unione Tipografico-Editrice Torinese
Winterthur Portf.	Winterthur Portfolio
www	World Wide Web
Yale Law J.	Yale Law Journal