INTRODUCTION

TARGET AND STRUCTURE OF THE WORK

It is generally accepted that a sound global economy depends on a solid governance system, which has to be guaranteed by an appropriate regulatory and supervisory framework. However, the construction of an adequate governance structure for global markets is no simple task as it is based on an uneasy balance between the regulatory and supervisory power of national governments and the tendency of markets to be globalised. This difficulty arises from the potential conflict existing between these two elements. On the one hand, the assignment of excessive power to governments obstructs globalisation and can lead to situations of protectionism and autarky, while, on the other hand, granting too much freedom to markets can potentially lead in the direction of a world economy characterised by the total absence of regulation, thus becoming a source of instability [1].

It is, therefore, necessary to find a fair compromise between these conflicting elements in order to make the choice between the power of control of national governments and the global nature of markets, *i.e.*, between market national regulations and market freedom complementary rather than alternative. This balance may be reached by constructing a regulatory and supervisory system able to couple regulations and supervision by national public authorities and governments with the intervention of an efficient and focused interna-

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[1] For an in-depth analysis of this topic, see STIGLITZ JOSEPH E. (2010), *Risk and Global Economic Architecture: why full financial integration may be undesirable*, 100(2) *American Economic Review*, 388 ff. Stiglitz states (388) that "[...] full integration is not in general optimal. Indeed, faced with a choice between two polar regimes, full integration or autarky, in the simplified model autarky may be superior". His paradigm shows that if disaster occurs "rarely but badly", liberalisation is not desirable. Optimal integration depends on the benefits of integration and the possible risks. He imagines the integration of "clubs" of countries where there is full integration within the club and no "capital flows" across clubs. In general, there exists an optimal size for the club, so neither autarky nor full liberalisation is desirable. In times of crisis, an appropriately designed circuit breaker (restrictions on capital flows) may enhance welfare. See also BRUNI FRANCO (2010), *La crisi finanziaria globale come crisi di governance*, in Bruni Franco (ed), *L'evoluzione della governance economica alla luce della crisi e l'impatto sulle relazioni internazionali*, *Osservatorio di Politica Internazionale*, giugno, 14-15.

tional regulatory and supervisory framework. The specific role of the global governance system is to regulate and monitor phenomena of (globally) systemic importance and to address the regulatory choices that nations make on an individual basis. In other words, only the presence of a minimum number of internationally harmonised rules and a global governance structure with the powers to guarantee compliance with international law on a global scale may potentially be able to reconcile the process of market integration with the regulatory and supervisory independence of individual states, rationalising the shift towards globalisation [2].

The need for forceful governance of the global economy is even greater in the light of the latest international turmoil [3]. On the one hand, the crisis shows

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[2] In this regard, see RODRIK DANI, in his famous book titled: RODRIK DANI (2001), *The Globalization Paradox: Democracy and Future of the World Economy* [New York (USA) – London (UK): W.W. Norton & Company, Chapter 12], who talks about "A Sane Globalization".

[3] The crisis triggered by the collapse of the US subprime mortgage market in 2007 culminated in the 2008 Lehman Brothers scandal devasting the global financial markets and the real economy of the US and Europe. There has been much debate on the causes of the crisis. See, among others: GREENSPAN ALAN (2007), *The Age of Turbolence*, New York (USA)-London (UK): The Penguin Press; TETT GILLIAN (2010), *Fool's Gold: The Inside Story of J.P. Morgan and How Wall St. Greed Corrupted Its Bold Dream and Created a Financial Catastrophe*, London (UK): Abacus, 165 ff.; FSA (FINANCIAL SERVICES AUTHORITY) (2009), *The Turner Review: A Regulatory Response to the Global Banking Crisis*, March, 11 ff.; DRAGHI MARIO (2008), *Un sistema con più regole, più capitale, meno debito, più trasparenza*, Audizione del Governatore della Banca d'Italia Mario Draghi – Senato della Repubblica, 21 ottobre 2008, 1 ff.; ARNER DOUGLAS W (2009), The *Global Credit Crisis of 2008: Causes and Consequences*, 43 *The International Lawyer*, May 1, 91 ff.; KOLB ROBERT W. (ed) (2010), *Lessons from the Financial Crisis: Causes, Consequences, and Our Economic Future*, Chichester (UK): John Wiley & Sons, 77 ff.; LASTRA ROSA MARIA, WOOD GEOFFRY E. (2010), *The Crisis of 2007-2009: Nature, Causes and Reactions*, 13(3) *Journal of International Economic Law*, 531 ff.; VACIAGO GIACOMO (2008), *La prima crisi finanziaria globale*, *Il Mulino*, No. 6, 1047 ff.; MASERA RAINER (ed) (2009), *The Great financial Crisis. Economics, Regulation and Risk*, Roma (IT): Bancaria Editrice; BUCKLEY ROSS P., ARNER DOUGLAS W. (2011), *From Crisis to Crisis: The Global Financial System and Regulatory Failure,* London (UK): Wolters Kluwer, 103 ff.; TARANTOLA ANNA MARIA (2011), *Verso una nuova regolamentazione finanziaria*, Intervento al Convegno Inaugurale del Master in Finanza Avanzata organizzato dalla Scuola di Alta Formazione dell'I.P.E., Napoli, 21 gennaio, 3 ff; BELLI FRANCO (2010), *Ma cos'è questa crisi?*, in Principe Angela, *Impresa bancaria e crisi dei mercati finanziari*, Napoli (IT): Edizioni scientifiche italiane, 55 ff. Howard Davies identifies thirty-nine different causes from the prevailing literature [DAVIES HOWARD (2010), *The Financial Crisis: Who is to Blame?*, Cambridge (UK): Polity Press], ranging from macro to micro, from global imbalances and loose monetary policy to the practices of US mortgage brokers, credit rating agencies and testosterone-fueled bankers. Regulation was not the sole cause of the crisis, but it certainly played a relevant role. Failings were made by governmental regulators and market institutions at the global, regional, and national level, ranging from transnational regulatory committees to financial institutions and their

that the Anglo-American idea of self-regulated markets is not only wrong but also highly damaging (market failure)[4], and even more so, it highlights the inability of the then existing governance system of the globalised market to deal with the relevant issues associated with the turmoil (regulatory and supervisory failures). In a nutshell, in the opinions of academics and policy makers[5], regulatory and supervisory failures prevail over market failure as the major factor leading to the crisis.

On this premise, our study is confined to one area of the market: the financial sector, examined from the global standpoint, all the while bearing in mind that good global governance needs to be multidimensional, since it has to encompass all the sectors of the market (monetary, financial, commercial, and so on) and their interconnections[6]. In particular, the scope of this volume does not extend to the study of the international monetary system, even though its separation from the global financial system is hazy, and some degree of interconnection between the two systems is inevitable (*e.g.* the International Monetary Fund and the national central banks, being at the core of the monetary

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internal corporate governance structures, and an accepted narrative quickly emerged stating what exactly the main regulatory failures were. For other details, see: FINANCIAL STABILITY FORUM (2008), *Report of the Financial Stability Forum on Enhancing market and Institutional Resilience*, 5 ff.; FINANCIAL STABILITY BOARD (2009), *Improving Financial Regulation – Report of the FSB to G20 Leaders*, *passim*; FINANCIAL SERVICES AUTHORITY (2009), *The Turner Review: A regulatory response to the global banking crisis*, cit., 36; DE LAROSIÈRE GROUP (2009), *The High-Level Group on Financial Supervision in the EU – Report*., 10 ff.

[4] See: AKYÜZ YILMAZ (2009), *Policy Response to the Global Financial Crisis: Key Issues for Developing Countries*, 24 *Research Paper of the South Centre*, May, 17 ff.; STIGLITZ JOSEPH E. (2009), *La crisi finanziaria internazionale: le regole da riscrivere e le prospettive future*, *Bancaria*, No. 9, 2 ff. See also: FERRAN EILIS (2014), *Institutional Design for Financial Market Supervision: The Choice for National Systems*, University of Cambridge, *Legal Studies Research, Paper Studies* No. 28, 12 ff.; STEPHANOU CONSTANTINOS (2010), *Rethinking Market Discipline in Banking Lessons from the Financial Crisis*, *World Bank Financial Policy Research Working Paper*, No. 5227, March 1, 1 ff.; LASTRA ROSA MARIA (2015), *International Financial and Monetary Law*, 2nd edn, New York (USA): Oxford University Press, 136 ff.; ONADO MARCO (2009), *La crisi finanziaria internazionale: le lezioni per i regolatori*, *Banca Impresa e Società*, No. 1, 5 ff.; MASERA RAINER (2009), *La crisi globale: finanza, regolazione e vigilanza*, 1-4 *Rivista trimestrale di diritto dell'economia*, I, 148 ff., and 188 ff.; MASERA RAINER (2011), *Reforming financial system after the crisis: a comparison of EU and USA*, 63 *PSL Quaterly Review*, No 255, April 19, 301 ff.; SANTORO VITTORIO (2012), *I limiti del mercato e il fallimento della regolamentazione*, in Santoro Vittorio (ed), *La crisi dei mercati finanziari: analisi e prospettive*, Tome I, Milano (IT): Giuffrè, 5-6.

[5] See: IRELAND PADDY (2012), *The Financial Crisis: Regulatory Failure or System Failure?*, in McNeil Ian (ed), *The Future of Financial Regulation,* Oxford (UK): Hart, 94-95; SANTORO VITTORIO (2012), *I limiti del mercato e il fallimento della regolamentazione*, cit., 8.

[6] See BRUNI FRANCO (2010), *La crisi finanziaria globale come crisi di governance*, cit., 21-22.

system, are at the same time intimately linked with the financial system)[7]. Furthermore, this study is restricted to public financial governance, namely the regulation carried out – and the supervision exercised – by public authorities (governments, government delegating supervisory agencies under political instruction, and governments delegating independent agencies); nonetheless the importance of market discipline, namely private regulation and supervision, cannot be underestimated[8].

Having established these boundaries, let us now proceed to our specific subject.

Efficient governance in the field of finance requires the presence of a rigorous and adequate regulatory and supervisory framework, specifically designed to promote and maintain financial stability[9]. In addition, in an increasingly globalised world there are many reasons for this regulation and supervision to be globalised (at least in relation to financial phenomena characterised by so-called systemic risk and according to the institutional and cultural characteristics of individual states), in compliance with the standards and principles elaborated at international and multilateral levels[10]. We outline the three most compelling arguments below.

Firstly, there is a growing risk of adverse global spillovers, causing conditions of financial instability and crossing national boundaries[11]. Secondly,

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[7] For the developments in monetary cooperation at the international level, see LASTRA ROSA MARIA (2015), *International Financial and Monetary Law*, cit., 407 ff. An exhaustive analysis of the integration process of monetary systems at the European level and its centralised regulation and supervision is provided by GIMIGLIANO GABRIELLA (ed), *Money, Payment System and the European Union: The Regulatory Challenges of Governance*, Newcastle Upon Tyne (UK): Cambridge Scholars Publishing.

[8] "However, the global financial crisis has exposed important limitations of MD and has cast doubts on its underlying premise of efficient markets and on its effectiveness as a prudential mechanism". This is the opinion of STEPHANOU CONSTANTINOS (2010), *Rethinking Market Discipline in Banking Lessons from the Financial Crisis*, cit., 3. In this regard, Lastra Rosa Maria [LASTRA ROSA MARIA (2015), *International Financial and Monetary Law*, cit., 137] outlines that, in any case, an efficient model of financial regulation and supervision should be based on a blend of private and public supervision, as a system based only on private supervision (market discipline) and private regulation (rules and standards set by self-regulatory organisations) "would be unfeasible and unacceptable as long as the government keeps an implicit or explicit role in the resolution of crisis".

[9] See MASERA RAINER (2009), *La crisi globale: finanza, regolazione e vigilanza*, cit., 150.

[10] Standards are rules widely accepted as good principles, practices or guidelines in a specific area subject to regulation.

[11] Over recent decades, the growth of cross-border financial intermediaries has accompanied increasing international financial integration. These financial links have become particularly strong among a small number of nations and the relatively small number of large financial

there is a need to ensure a level playing field for financial intermediaries, thus preventing so-called regulatory arbitrage, which may have the negative effect of moving business from countries with stricter regulations to less restrictive ones. Lastly, there is a need to reduce political influence over regulators, granting them a certain degree of independence [12].

Although, in absolute terms, these considerations are correct, there remain some technical and political issues concerning the most suitable way, and the appropriate timing, to establish and implement a multilateral discipline for financial regulation and supervision [13]. These difficulties mainly depend on the internal weaknesses of the international financial governance system, which persist despite the implementation of several structural and functional reforms in the aftermath of the global financial crisis (since 2009).

International financial turmoil brought out the inability of the Bretton Woods institutions (the International Monetary Fund – IMF, the World Bank – WB, and the World Trade Organisation – WTO) and the global regulatory bodies (especially, the Basel Committee on Banking Supervision – BCBS, the International Organisation of Securities Commissions – IOSCO, and the International Association of Insurance Supervisors – IAIS) to deal with the increasing complexity, breadth, and size of the globalised financial system. In fact, the real financial context in which the crisis exploded consisted of globally interconnected financial markets and intermediaries (the so-called *global systemically important financial institutions* – G-SIFIs), while rule-making and supervisory activities were substantially performed at national level [14]. The

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institutions (systemically important financial institutions or SIFIs) that drove many of them. Most of these institutions are large and extremely complex, difficult to manage due to the presence of a number of cross-border subsidiaries. On the one hand, the growth of financial integration gives many benefits (economies of scale and scope and, therefore, more efficiency, efficient allocation of liquidity and capital, ease of trade and transfer of technologies and experiences across borders). Conversely, the global financial crisis has highlighted that these close links may have severe and destructive contagion effects across markets and borders, allowing the financial crisis to enlarge rapidly.

[12] For an overview of the difficulties in safeguarding the independence of supervisory authorities from political influence, see LASTRA ROSA MARIA (2015), *International Financial and Monetary Law*, cit., 13 ff.

[13] On this topic, see, in general: LLEWELLYN DAVID (1999), *The Economic Rationale for Financial Regulation*, 1 *FSA Occasional Paper*, April, 5 ff.; DODD RANDALL (2002), *The Economic Rationale of Financial Market Regulation*, *Financial Policy Forum*, *Special Policy Report 12*, December, 1 ff.; BRUNNERMEIER MARKUS, CROCKET ANDREW, GOODHART CHARLES A.E., PERSAUD AVINASH D., SHIN HYUN (2009), *The Fundamental Principles of Financial Regulation*, ICBM International Center for Monetary and Banking Studies, *Geneva Reports on the World Economy 11*; DAVIES HOWARD, GREEN DAVID (2010), *Global Financial Regulation. The Essential Guide*, Cambridge (UK) and Malden (USA): Polity Press, 7 ff.

[14] See THOMPSON ROBERT B. (2014), *Financial Regulation's Architecture within International Economic Law*, 17(4) *Journal of International Economic Law*, 807-808.

then existing global financial architecture and regulation (international financial standards) thus proved ineffective and proved "weak in the face of global financial institutions and crushed the real economy" [15].

This volume provides a critical overview of the post-crisis reforms within the international financial regulatory and supervisory framework [16], promoted and adopted with the specific task of removing the international financial governance deficiency outlined above, creating a more crisis-resistant global financial system than the previous one. Our analysis provides the necessary background to propose some improvements and changes, which, over nine years after the start of the financial reconstruction, may be adopted in order to make the architecture of international financial organisations and committees and, consequently, internationally harmonised financial regulations truly able to assure the sound and efficient functioning of integrated financial markets and cross-border financial intermediaries by addressing the challenges of our times. In particular, the future global financial governance system, on the one hand, has to be anchored in the most reasonable and feasible solution to the "financial trilemma" of the world economy [17], and, on the other, it has to be assigned the powers needed to concretely bring this solution about.

More precisely, the construction of an effective model of financial governance has first to address the "financial trilemma" of the world economy, which states that financial stability, financial market integration, and national financial policies are in conflict. It is possible to combine any two of the three objectives, but not all three: one has to be left out [18]. In fact, the integration of financial markets, implying more freedom or lack of regulation and supervision (*no regulation* or *self-regulation alone*), can compromise financial stability; national regulatory and supervisory autonomy (*territorial regulation*) can obstruct financial integration; financial stability, pursued at a macro-economic level by the international regulatory and supervisory system (*global or universal regulation*), can limit national autonomy [19]. The recent crisis shows that

[15] See BARR MICHAEL S. (2014), *Who's in Charge of Global Finance?*, 45(4) *Georgetown Journal of International Law*, 971.

[16] Regarding both aspects: architecture and the relationships between the so-called standards-setting bodies (structural profile), on the one hand, and international financial regulation (functional profile), on the other.

[17] See: SCHOENMAKER DIRK (2011), *The Financial Trilemma*, 111 *Economics Letters*, 57 ff.; RODRIK DANI (2012), *The Globalization Paradox: Democracy and the Future of the World Economy*, cit., 184 ff.

[18] See RODRIK DANI (2012), *The Globalization Paradox: Democracy and the Future of the World Economy*, cit., 200-201.

[19] RODRIK DANI [(2000), *How far will international economic integration go?*, 14(1) *Journal of Economic Perspectives* 14, 177 ff.] applies the general trilemma to an international con-

free markets (and no regulation), and thus the irrational integration of financial markets, have to be discarded. Consequently, it is necessary to identify the best or at least the most feasible combination of national and international financial regulatory and supervisory frameworks (namely how far one can go without obstructing the progress of the other) to ensure better governance of the financial markets and their "sane globalisation"[20]. Once a compromise solution has been identified, it then needs to be put into effect.

This research sets out to propose a financial governance model for globally integrated financial markets that will be capable of this level of mediation and effectiveness.

Essentially, this volume may be divided into three main areas of analysis. The first part addresses the debate on the objectives and rationale for financial regulation according to the main narratives in financial law and the risk-based regulatory technique. In this connection, the aim is to outline and explain the macro perspective assumed by the key objective of "financial stability" in the aftermath of the crisis.

We then move on to review the weak points in the pre-crisis global financial governance system (*i.e.*, the sum of the global financial architecture and global financial regulation) and the main initiatives undertaken on a worldwide scale to address them. These initiatives have been promoted by the world's top political powers (especially at the G20 Washington, London, and Pittsburgh Summits), and have been implemented by the main international financial institutions (especially the BCBS, the IOSCO, and the IAIS). Nevertheless, despite a number of adopted and underway reforms, many flaws remain, especially in terms of the concrete implementation of the renewed set of global standards by individual countries, and the ability of the renewed international financial regulatory and supervisory bodies to promote global compliance with them.

In conclusion, starting from these perennial issues and the assumption that legal norms that are not properly enforced rarely fulfil their objectives[21], this research contains some policy suggestions designed to improve and foster the functioning of global financial governance in terms of capacity, legitimacy,

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text. Little by little, as international economic integration progresses, the policy domain of nation states has to be exercised over a much narrower field, and global federalism increases. The alternative is to keep the nation state fully alive at the expense of further integration.

[20] See RODRIK DANI (2012), *The Globalization Paradox: Democracy and the Future of the World Economy*, cit., 251 ff. See also STIGLITZ JOSEPH E. (2010), *Risk and Global Economic Architecture: why full financial integration may be undesirable*, cit., 388 ff.

[21] See ARMOUR JOHN, AWREY DAN, DAVIES PAUL L., ENRIQUES LUCA, GORDON JEFFREY N., MAYER COLIN, PAYNE JENNIFER (2016), *Principles of Financial Regulation,* Oxford (UK): Oxford University Press, 579.

accountability, and the authority of the bodies involved to promote worldwide compliance with international financial rules. In other words, the challenge of this work is to suggest a global financial governance model capable of hardening the soft nature of international financial law by ensuring its widest possible implementation in order to safeguard the stability of integrated financial markets and intermediaries, strengthening their resilience to future crises.

Chapter I

OBJECTIVES AND RATIONALE FOR (INTERNATIONAL) FINANCIAL REGULATION: CONCEPTUAL FRAMEWORK

TABLE OF CONTENTS: 1. Foreword. – 2. Objectives and Economic Rationale for Financial Regulation. – 2.1. Systemic Risk and Prudential Standards. – 2.2. Information Asymmetries Risk and Conduct of Business Regulation. – 3. Risk-based Regulatory Technique for financial markets and financial institutions. – 4. Justifications for and Range of Financial Regulation relating to the renewed target of Financial Stability. – 5. Justifications for and Range of Financial Regulation relating to the need for Competition. – 6. The Range and Nature of Regulation according to Better Regulation Standards.

1. *Foreword*

The need for regulation standardised at the international level arose from a number of often interconnected historical facts occurring in the financial field by the mid-1970s. The period between World War II and the 1970s is usually called the period of "financial repression", due to protectionist national measures adopted during the Great Depression. All financial systems around the globe were heavily regulated at the national level, and there was thus a weak integration of financial markets and a parallel strong and easy control of capital movements. For those reasons, there was no need for international financial regulation.

Since the mid-1970s, financial liberalisation has led to many changes that have drastically altered the face of the financial system and the nature of its operations, determining the growing need for the development of a financial regulatory framework harmonised, as far as possible, on a global scale. In particular, the modifications concerned, firstly, the progressive blurring of boundaries among previously clearly delineated financial sub-sectors, namely the banking, securities, and insurance sectors, with increasing competition among

them [1]. Secondly, they regarded the globalisation of capital markets and consequently the increasing amount of cross-border capital flows and cross-border financial institutions [2]. In addition, new channels of financial intermediation came into being due to both the creation of a wide range of unregulated investment vehicles, such as hedge funds and private equity, and to the appearance of new financial instruments (derivative and structured financial products) characterised by different levels of complexity in transferring all types of risk. The shape of global capital markets also changed with the growth of a small number of huge and dominant institutions represented by either investment banks [3] or stock exchanges [4]. At the same time, the multipolarity of the global economy increased, as economic activity was no longer dominated by the United States and Europe but also by markets once considered emerging (mainly the BRICS) [5].

All these elements – the integration of financial sub-sectors, the globalisation of capital markets, concentration in the financial industry, new intermediation channels and products, the multipolarity of the real economy – outlined the inadequacy of the then existing international financial organisations and global financial regulation to handle them. In fact, in the light of past experience, we may argue that the improvements promoted in the global financial governance framework have not been able to keep up with the developments connected to the integration of the financial markets [6], so the international fi-

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[1] For an overview of the historical evolution of the financial system, see QUINTYN MARC (2014), *Principles versus Rules in Financial Supervision-Is There One Superior Approach?*, *QFinance*, June 6, 1 ff.

[2] For an empirical investigation into identifying the potential “drivers” of international financial integration, including policy on capital controls, the level of economic and educational development, economic growth, institutional and legal environment, trade openness, financial development and tax policy, see VINH VO XUAN, DALY KAVIN JAMES (2007), *The determinants of international financial integration*, 18 *Global Finance Journal*, 228 ff. See also: BUCKLEY ROSS P. (2004), *How the International Financial System, to its Detriment, Differs from National Systems, and What We Can Do About It*, 34 *Hong Kong Law Journal*, 322; LASTRA ROSA MARIA (2014), *Do We Need a World Financial Organization?*, 17(4) *Journal of International Economic Law*, 789-790.

[3] Even though most of them are headquartered in the US, they are able to exert their presence all over the world. For example, we refer to Citygroup and HSBC.

[4] Historically market places were protected and represented national identities. However, since the end of the past century, there has been the domain of a small number of them, such as the New York and London Stock Exchanges.

[5] See DAVIES HOWARD, GREEN DAVID (2010), *Global Financial Regulation: The Essential Guide*, Cambridge (UK)-Malden (USA): Polity Press, 7 ff.

[6] For example, after the Asian financial Crisis in the late 1990s, some attempts were made

nancial regulatory and supervisory structure and the global financial system have not changed in parallel[7]. Furthermore, and in sharp contrast with the financial repression period[8], global financial governance has become a crucial variable in guaranteeing the success of these liberalised and globalised financial markets and in preventing financial instability in this new environment.

In order to analyse the changes that have already been made, and to suggest some that might realistically be made in the future to improve the efficiency in regulating and supervising integrated financial markets, it is necessary to first understand:

– what outcome financial regulation is trying to secure, namely the *objectives* of financial regulation
– why financial markets and financial institutions need to be regulated, namely the *rationale* for financial regulation[9]
– when a regulatory intervention may be considered adequate, namely the suitable *degree* and *nature* of financial regulation

To answer these questions, we recall the economic theory for regulating financial markets and financial intermediaries and the related regulatory technique known as the "risk-based" approach (to financial regulation and supervision).

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to overcome the failings of the global regulatory framework. In particular, the international community and international organisations (the IMF, the World Bank, the OECD, and BIS) undertook efforts to reform the international financial architecture. As we will set out later, these efforts included: the establishment of the Financial Stability Forum (FSF), with the aim of coordinating the existing regulatory structures, the creation of a new Group of Twenty (G20) of finance ministers and central bank governors, improvements of information transparency and disclosure, the adoption of international standards and codes, stronger financial regulation through the Basel Committee on Banking Supervision, the introduction of collective action clauses in new sovereign bond issues as part of private sector involvement, and reforms of the IMF surveillance, liquidity support, conditionality, and governance. Nevertheless, in spite of those improvements, the global financial regulatory system continued to be inadequate to deal with the real state of capital and financial markets.

[7] See CAPRIGLIONE FRANCESCO (2016), *Fonti normative*, in Capriglione Francesco (ed), *Manuale di diritto bancario e finanziario*, Padova (IT): Cedam-Wolters Kluwer, 23.

[8] When financial sector behaviour was largely prescribed and financial institution governance, therefore, was left with only a few degrees of freedom.

[9] However, it is important to outline that some academic liberals are sceptical on the benefits of regulation. See, for example: DOWD KEVIN (1996), *The Case for Financial Laissez-Faire*, 106(436) *Economic Journal*, May, 679 ff.; BENSTON GEORGE J. (1998), *Regulating Financial Markets: A Critique and Some Proposals*, Washington, D.C. (USA): The AEI Press; BENSTON GEORGE J., KAUFMAN GEORGE (1996), *The Appropriate Role of Bank Regulation*, 106 *Economic Journal*, 679 ff.; KANE EDWARD J. (1997), *Ethical Foundations of Financial Regulation*, *NBER Working Paper*, No. 6020, April 9, 1 ff.

2. *Objectives and Economic Rationale for Financial Regulation*

Before examining the objectives, economic rationale for, and adequacy (in terms of level and nature) of regulation in financial markets, we must define "financial regulation" and "financial supervision" in order to set the scene [10]. The expression "financial regulation" refers to the process of rule making in the financial area. Specifically, it identifies the regulatory framework (including legislative acts, statutory instruments, soft law standards, and private self-regulation) at the basis of the processes of authorising, regulating and supervising financial institutions and financial markets. Financial regulation is the foundation of "financial supervision". Financial regulation covers a wide range of areas, such as accounting, bank capital requirements, money laundering, investor protection, and so on. Financial supervision encompasses the following activities:

– Licensing: granting permission for a financial institution to operate within a jurisdiction
– Oversight: the monitoring of asset quality, capital adequacy, liquidity, internal controls and earnings
– Enforcement: the application of monetary fines or other penalties to those institutions that do not adhere to the regulatory regime [11]
– Crisis management: including the institution of deposit insurance schemes, lender of last resort assistance, and resolution and insolvency proceedings [12]

The objectives of financial regulation and supervision underlined by lead-

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[10] See LASTRA ROSA MARIA (2015), *International Financial and Monetary Law*, cit., 112 ff.; ARNER DOUGLAS W. (2011), *Adaptation and Resilience in Global Financial Regulation*, 89 *North Carolina Law Review*, 1579 ff., nt. 3.

[11] For the public and private dimensions of enforcement, see ARMOUR JOHN, AWREY DAN, DAVIES PAUL L., ENRIQUES LUCA, GORDON JEFFREY N., MAYER COLIN, PAYNE JENNIFER (2016), *Principles of Financial Regulation*, cit., 587 ff.

[12] In the classic essay of LLEWELLYN DAVID T. (1999), *The Economic Rationale for Financial Regulation*, cit., 6, the Author distinguishes between regulation, monitoring and supervision. Regulation consists in the establishment of specific rules of behaviour. Monitoring consists in observing whether the rules are respected. Supervision is the more general observation of the behaviour of financial firms. For some suggestions for reviewing the Llewellyn' original work to take account of major changes in instruments, markets, institutions and regulation, including a change in the nature of systemic risk, see HERRING RICHARD J, SCHMIDT REINARD H (2012), *"The Economic Rationale for Financial Regulation" Reconsidered An Essay in Honor of David Llewellyn*, *House of Finance*, April, 1 ff. For a further elaboration of these four supervisory stages, see LASTRA ROSA MARIA (1996), *Central Banking and Banking Supervision*, Financial Markets Group, London (UK): London School of Economics, 108 ff.

ing authors [13] and regulators are too many and change over time. However, it is possible to identify three core objectives of financial regulation: systemic or macro-stability (or integrity of financial markets), solvency of financial institutions (or micro-stability), and investor protection. It is essential to highlight that, especially in the aftermath of the global financial crisis of 2008-09, financial stability is being emphasised as a key regulatory objective [14], given its nature as a global public good, according to many leading scholars [15]. The reason is that financial stability "is a potentially broad concept whose malleability may prove constructive in defining a new approach to financial regulation [16]", related to the need to monitor risk allocation at the macro level. This increasing demand arises from the wide belief that the crisis or rather the spreading of the crisis may be attributed to the lack of an organised framework designed to do so. The regulatory objective of "financial stability" may no longer be limited to micro-prudential regulation, investor protection, or market discipline, but it may be used for a macro-prudential regulation concerning the financial system as a whole. Consequently, "regulatory resurgence and gov-

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[13] See: ANSPINWALL RICHARD (1993), *Conflicting Objectives of Financial Regulation*, 36 (6) *Challenge*, November-December, 53 ff.; GOODHART CHARLES A.E. and OTHERS (1998), *Financial Regulation: Why, How and Where Now?*, London (UK): Routledge, 4 ff.; CRANSTON ROSS (2003), *Principles of Banking Law*, 2nd edn, Oxford (UK): Oxford University Press, 66 ff.; BENJAMIN JOANNA (2010), *The narrative of Financial Law*, 30(4) *Oxford Journal of Legal Studies*, 787 ff.; DI NOIA CARMINE, FURLÒ MARIA CHIARA (2012), *The New Structure Of Financial Supervision In Europe: What's Next?*, in Wymeersch Eddy, Hopt Klaus J., Ferrarini Guido (eds), *Financial Regulation and Supervision. A Post-Crisis Analysis*, Oxford (UK): Oxford University Press, 186 ff.

[14] See, for example, G20 (2009), *Declaration on Strengthening the Financial System*, April 2, and the *FSB Progress Reports*, available at http://www.fsb.org/publications/progress-reports/.

[15] "Financial stability can be seen as an international public good because financial instability is a potential public bad that spreads across countries. But collective action problems have led so far to an under-provision of the international public good, with severe redistributive effects". These are the words of WYPLOSZ CHARLES (1999), *International Financial Stability*, in Kaul Inge, Grunberg Isabelle, Stern Marc (eds) (1999), *Global Public Goods: International Cooperation in the 21st Century,* Oxford (UK): Oxford University Press, 156 ff. On this subject, see also: STIGLITZ JOSEPH E. (2006), *Global Public Goods and Global Finance: Does Global Governance Ensure that the Global Public Interest is Served?*, in Touffut Jean-Philippe (ed) *Advancing Public Goods,* Cheltenham (UK)-Northampton, (USA): Edward Elgar Publishing, 149 ff.; SAMUELSON PAUL A. (1954), *The Pure Theory of Public Expenditure*, 36 (4) *Review of Economics and Statistics,* 387 ff.; OLSON MANCUR (1965), *The Logic of Collective Action: Public Goods and the Theory of Groups,* Cambridge (UK)-London (UK): Harvard University Press; KAUL INGE, GRUNBERG ISABELLE, STERN MARC (eds) (1999), *Global Public Goods: International Cooperation in the 21st Century,* cit., *passim*.

[16] ANDENAS MADS, CHIU IRIS H.-Y. (2014), *The Foundations and Future of Financial Regulation – Governance for Responsibility*, London (UK)-New York (USA): Routledge, 21.

ernance will assume the role of making choices or interventions in the name of 'financial stability'" [17], especially that understood as "systemic stability".

Once the objectives of financial regulation have been identified (solvency of financial institutions, consumer protection, systemic stability), the economic literature [18] outlines the rationale for regulating financial institutions and markets. It starts from the fact that a number of systemic negative externalities (deficiencies, vulnerabilities and disturbances, in one word: contagion) generated by financial activities can undermine financial stability in financial markets [19]. Private operators alone cannot address these externalities (*market failures*) so financial regulation needs to prevent or mitigate their potential negative effects. The basic economic rationale for regulating financial markets and financial institutions is based on the presence of financial risks in the financial markets *(negative externalities*), the need to prevent and contain them, and the inability of private operators to do that themselves (*market failures*) [20].

Having established that regulation in the financial sphere is necessary, some difficulties emerge in connection with the identification of the adequate level and the appropriate nature of regulatory interventions [21]. In relation to the first point (the adequate level of regulation), the economic approach rejects the two extremes: the model with rigid state control of the financial system (generating intrusive regulation and damage to competition) and the model of the free market without any regulatory intervention (generating wild behaviour). Between the two extremes, there is a large range of regulation, given the infinite choice of combinations, which means that a reasoned selection needs to be made. In principle, the range of regulation to set is justified when it is able to reach a suitable trade-off between the safety and soundness of financial markets assured by regulation on the one hand and risk taking allowed by the lack of regulation, on the other. The criterion used for the choice of a suitable degree of regulation consists of a cost-benefit analysis. Therefore, a regulatory

[17] *IDEM*, 29.

[18] See the fundamental essay of LLEWELLYN DAVID T. (1999), *The Economic Rationale for Financial Regulation*, cit.

[19] See *IDEM*, 13 ff. For an in-depth discussion on the concept of externalities, see DODD RANDALL (2002), *The Economic Rationale of Financial Market Regulation*, *Financial Policy Forum*, *Special Policy Report 12*, December, 4 ff.

[20] See: DODD RANDALL (2002), *The Economic Rationale of Financial Market Regulation*, cit., 4 ff.; BRUNNERMEIER MARKUS, CROCKET ANDREW, GOODHART CHARLES A.E., PERSAUD AVINASH D., SHIN HYUN (2011), *The Fundamental Principles of Financial Regulation*, cit., 18 ff.

[21] See, in general, the exhaustive analysis of TRACHMAN JOEL P. (2012), *The International Law of Financial Crisis: Spillovers, Subsidiarity, Fragmentation and Cooperation*, in Cottier Thomas, Jackson John H., Lastra Rosa Maria (eds), *International Law in Financial Regulation and Monetary Affairs*, Oxford (UK): Oxford University Press, 183 ff.

intervention is justified when the costs imposed on financial institutions and markets by this intervention are less than the expected benefits [22]. However, there are some problems when it comes to applying this criterion, as costs are usually quantifiable earlier and more easily than benefits. The benefits can only be forecast, or they are often to the advantage of politicians alone.

Concerning the appropriate nature of regulatory interventions, we argue that financial regulation aims to prevent risks and solve states of crisis to maintain financial stability. Therefore, the financial regulatory framework designed to contain risks and to solve financial intermediaries and market defaults is instrumental in reaching financial stability. According to this statement, in order to establish the appropriate nature of financial regulation, the economic literature starts from the identification of the financial risks that regulation has to address.

In principle, within the financial market, there are two main economic risks justifying regulation for financial stability: systemic risk (systemic externalities) linked to business, and information asymmetries risk connected to financial transactions [23]. Economic theory indicates two generic types of regulation to address each of these risks: these are, respectively, prudential standards, which are designed to safeguard the solvency of financial intermediaries and the stability of financial markets, and conduct of business rules, which are directed to investors' protection [24]. We shall analyse the two categories of risk and their corresponding specific regulation separately.

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[22] For example: the incidence of bank or insurance failure may be reduced by increasing capital requirements, but, correspondingly, returns to banks that arise from their assets will be lower; the types of investments offered to the public may be restricted, but, correspondingly, opportunity to diversify portfolio into more profitable assets will be constrained.

[23] See GOODHART CHARLES A.E. (2010), *How should we regulate the financial sector?*, in Turner Adair, Haldane Andrew, Wolley Paul, Wadhwani Sushil, Goodhart Charles A.E., Smithers Andrew, Large Andrew, Kay John, Wolf Martin, Boone Peter, Johnson Simon, Layard Richard, *The Future of Finance and the theory that underpins it, London School of Economics and Political Science*, 167 ff. More exactly, LLEWELLYN DAVID T. [(1999), *The Economic Rationale for Financial Regulation*, cit., 9-10] identifies seven components of the economic rationale for financial regulation and supervision. They include: 1) potential systemic problems associated with externalities (a particular form of market failure); 2) the correction of other market imperfections and failures; 3) the need for monitoring of financial firms and the economies of scale that exist in this activity; 4) the need for consumer confidence which also has a positive externality; 5) the potential for Grid Lock, with associated adverse selection and moral hazard problems; 6) moral hazard associated with the revealed preference of governments to create safety net arrangements: lender of last resort, deposit insurance, and compensation schemes, and; 7) consumer demand for regulation in order to gain a degree of assurance and lower transactions costs.

[24] See LLEWELLYN DAVID T. (1999), *The Economic Rationale for Financial Regulation*, cit., 10.

2.1. *Systemic Risk and Prudential Standards*

Interconnections and relationships among financial institutions on the one hand and between financial intermediaries and the real economy on the other are potential sources of systemic risk [25] due to the possible contagious effect of institutional failure in the financial sector [26]. It is clear that the financial system is prone to events of instability and contagion as it becomes more liberalised and international. The traditional systemic risk argument refers to banks' special position in the payments network, arising from their role in maturity transformation and liquidity provision [27], that could well cause a domino effect [28] on other financial and non-financial institutions [29]. At the current time, this argument may be extended to all types of financial institutions, banks and non-banks [30].

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[25] Systemic risk is a developing concept that does not yet have a univocal and objective definition. For an overview of definitions of systemic risk, see VAN HOOSE DAVID (2011), *Systemic Risks and Macroprudential Bank regulation: a Critical Appraisal*, 33 *The Capco Institute Journal of Financial Transformation*, 45 ff.

[26] See, in general: ALLEN FRANLIN, BABUS ANNA, CARLETTI ELENA (2010), *Financial Connections and Systemic Risk*, *NBER Working Paper*, No 16177, July, 1 ff.; BEVILLE MATTHEW (2010), *Financial Pollution: Systemic Risk and Market Stability*, 36 *Florida State Law Review*, 245 ff.; SCOTT HAL S. (2010), *The Reduction of Systemic Risk in the United States Financial System*, 33 *Harvard Journal of Law and Public Policy*, 671 ff.; KANE EDWARD J. (2010), *Redefining and Containing Systemic Risk*, May 8, 1 ff.; KAWAI MASAHIRO, POMERLEANO MICHAEL (2010), *Regulating Systemic Risk*, *ADBI Working Paper*, No. 189, 1 ff.; DE NICOLO GIANNI, KWAST MYRON L. (2002), *Systemic Risk and Financial Consolidation: Are They Related?*, *IMF Working Paper*, No. 02/55, 1 ff.

[27] Regarding the evolution of the banks' role in the payments system, see, among others, SCIARRONE ALIBRANDI ANTONELLA (2016), *Le banche e il sistema dei pagamenti*, in Brozzetti Antonella (ed), *Riflessioni su banche e attività bancaria, immaginando il futuribile*, Milano (IT): Giuffrè, 177 ff.

[28] Banks' central position in payments systems represents the classic systemic risk argument exposed by BAGEHOT WALTER (*Lombard Street: A Description of the Money Market*, 1st edn, London (UK): Henry S. King and Co., available at http://oll.libertyfund.org/titles/bagehot-lom bard-street-a-description-of-the-money-market) in the faraway 1873.

[29] ANDENAS MADS, CHIU IRIS H.-Y. [(2014), *The Foundations and Future of Financial Regulation – Governance for Responsibility*, cit., 31-32,] affirm that the domino effect may be the result of "real contagion" or "information contagion". The former refers "to negative effects spreading to financial institutions, which are connected to the failing institution through counterparty default, or other transactional connections. […] 'Information contagion' refers to negative effects spreading to financial institutions due to the perceptions of weaknesses, whether justified or otherwise, and such perceptions of weaknesses can result in asset price declines, seizure of activity, etc., which would then affect the real viability of those institutions".

[30] The channels of transmission of systemic risk may be classified into four categories: 1) the inter-bank, inter-institution, inter-instrument channel, 2) the payment systems channel, 3)

In principle, financial regulators must intervene to reduce the incidence of systemic crises, but, at the same time, they must intervene without excessively constraining the functionality of markets, business, and transactions [31]. Therefore, regulatory intervention is justified when it is able to find a suitable trade-off between the soundness of the financial system (firstly, through making institutions robust and resistant to failure, or alternatively, containing and resolving failure to mitigate its impact) and the benefits of competition arising from the freedom of financial markets and financial institutions.

Prudential standards represent the appropriate type of financial regulation to prevent systemic risk and thus to guarantee the stability of the financial system, because they aim to safeguard the solvency of financial intermediaries, making them more robust and resistant to failure. Their use in addressing systemic risk is justified by the existence of potential losses and costs related to the domino effect. In particular, the literature refers to two main costs: the cost of externalities and the cost of the lender of last resort [32].

The former is the potential cost for the system as a whole, related to the domino effect produced by a bank failure. In fact, the collapse or insolvency of one or several financial intermediaries generates potential external costs (negative externalities) for the financial system as a whole and for the real economy [33], which are unlikely to be internalised (covered) by individual financial intermediaries alone. Although the difficulty in establishing whether an individual intermediary failure may or may not be systemic, the existence of potential externalities justifies the enforcement by regulation of larger reserves than those provided by internal managers and shareholders, which usually take into account only the risk of internal losses (if they fail), in terms of lost jobs, lost reputation and lost shareholder value. The second type of cost is

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the information channel, and 4) the psychological channel. The systemic impact of non-bank financial institutions (*e.g.* IAIG or Lehman Brothers), that was highlighted by the crisis, suggested the need to review the traditional transmission mechanisms of risk. For an exhaustive overview of contagion channels, see LASTRA ROSA MARIA (2015), *International Financial and Monetary Law*, cit., 184 ff.

[31] See DAVIES HOWARD, GREEN DAVID (2010), *Global Financial Regulation: The Essential Guide*, cit., 16.

[32] See LLEWELLYN DAVID T. (1999), *The Economic Rationale for Financial Regulation*, cit., 15 ff.; DAVIES HOWARD, GREEN DAVID (2010), *Global Financial Regulation: The Essential Guide*, cit., 17 ff.

[33] In fact, the crisis of a bank can affect not only depositors and stakeholders, but also taxpayers, who might support the cost of a bailout (fiscal cost). For the effects or potential effects that failures in the financial sector could have on the real economy, see: KAWAI MASAHIRO AND POMERLEANO MICHAEL (2010), *Regulating Systemic Risk*, cit., *passim*; KANE EDWARD J. (2010), *Redefining and Containing Systemic Risk*, cit., 4; DE NICOLO GIANNI, KWAST MYRON L. (2002), *Systemic Risk and Financial Consolidation: Are They Related?*, cit., 4 ff.

the potential cost suffered by the lender of last resort when a domino effect arises from a bank failure[34]. In general, the regulatory intervention by the enforcement of prudential standards is justified, as it is cheaper than the potential costs for the economy and for the lender of last resort, due to the domino effect.

Prudential standards comprise both quantitative and qualitative requirements. Quantitative prudential standards include capital requirements, which provide a cushion against losses and increase market confidence mitigating pro-cyclical actions, and liquidity requirements designed to reduce the institutions' vulnerability to shocks. Qualitative prudential standards encompass adequate management and control frameworks aiming to increase information flows to supervisors from managers and controllers, allowing supervisors to make an informed assessment.

Regarding prudential regulation, it must be asked whether this type of regulation should be different or, conversely, common to various states. There is persuasive evidence that globalised financial markets and cross-border financial institutions require the highest possible degree of standardisation of prudential rules at the international level for at least two fundamental reasons. The first is the need for competitive equality among cross-border financial institutions to ensure a level playing field. The second is the need for competitive equality among countries' financial regulation to avoid or mitigate so-called "regulatory arbitrage". In this connection, we recall that regulatory competition is a phenomenon in law, economics and politics, arising from the desire of lawmakers to compete with one another at regulatory level in order to attract businesses or other actors to operate in their jurisdiction. This phenomenon might generate a "regulatory convergence" towards two opposed regulatory frameworks. In fact, states could attempt a race to the top (*completion in stringency*), towards the strictest regulatory framework or, on the contrary, a race to the bottom (*competition in laxity*), towards the most permissive regulatory framework, with all potential negative effects in terms of over-regulation in the first case, or under-regulation in the second[35].

2.2. *Information Asymmetries Risk and Conduct of business regulation*

The risk of information asymmetries is the second main risk in the financial market that justifies the need for financial regulation. The identified regu-

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[34] For an in-depth analysis of the lender of last resort role of central banks, see LASTRA ROSA MARIA (2015), *International Financial and Monetary Law*, cit., 150 ff.

[35] In the case of no race, diversity among regulatory system continues to be.

latory intervention to prevent this type of risk is conduct of business regulation to protect investors and shareholders. Information asymmetries may substantially concern two types of situation: the economic state of a company or the terms of investment contracts [36].

In the first case, shareholders have less knowledge of the real economic situation of the company in which they invest than managers do. Thus, managers could use this knowledge to their advantage or they could easily hide the possibly poor state of the company and even leave the company. To solve the potential conflict of interests between managers, on the one hand, and shareholders, stakeholders and, investors in general, on the other, the private solution based on the presence of credit rating agencies is overall insufficient and inefficien [37]. Therefore, there is a strong justification for rules against the abuse of insider trading or the imposition of mandatory disclosure as appropriate regulatory tools to overcome these market failures [38]. In fact, these regulatory instruments provide an "informed" environment for decisions regarding securities and collective investment products [39].

In the second case, investors, specifically retail investors, have poor knowledge of the investment contracts proposed by a firm, especially when stipulated through financial intermediaries. Financial intermediaries provide a range of services including execution, investment advice and portfolio management for clients, which create a principal-agent relationship, the nature of which is often fiduciary [40]. Therefore, to mitigate agency problems related to

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[36] For an in-depth discussion on this argument, see LLEWELLYN DAVID T. (1999), *The Economic Rationale for Financial Regulation*, cit., 21 ff.

[37] In fact, rating agencies should aim to give an independent assessment of an investment risk. Instead, they do not usually provide investors' interests, as firms whose soundness they assess pay them. For more information on this subject, see MATHIS JEROME, MACANDREW JAMES, ROCHET JEAN-CHARLES (2009), *Rating the Raters: Are reputation concerns powerful enough to discipline rating agencies?*, 56 *Journal of Monetary Economics*, 675 ff.

[38] The arguments supporting the mandatory disclosure cover not only the primary market where acquisitions are made directly from investment products issuers, but also the secondary market. See: GORDON JEFFREY N., KORNHAUSER LEWIS A. (1985), *Efficient Markets, Costly Information and Securities Research*, 60 *New York University Law Review*, 761 ff.; FOX MERRITT B. (1997), *Rethinking Disclosure Liability in the Modern Era*, 75 (2) *Washington University Law Quaterly*, 903 ff.

[39] See: COFFEE JNR. JOHN C. (1984), *Market Failure and the Economic Case for Mandatory Disclosure System*, 70 *Virginia Law Review*, May, 717 ff.; FOX MERRITT B. (1997), *Rethinking Disclosure Liability in the Modern Era*, cit., 903 ff.; CAGE WILLIAM (1999), *Regulating through Information: Disclosure Law and American Health Care*, 99 *Columbia Law Review*, 1701 ff.

[40] On this subject, see, *ex multis*: EASTERBROOK FRANK H., FISCHEL DANIEL R. (1993), *Contract and Fiduciary Duty*, 36(1) *Journal of Law and Economics*, 425 ff.; COOTER ROBERT,

this type of relationship, legislation on intermediaries' conduct of business rules (fiduciary duties) can avoid abuse of their superior knowledge and client's trust invested in them[41].

Concerning the range of conduct of business regulation – national or international –, we can give the same answer as for prudential regulation due to the international dimension of financial markets. The need for a minimum standardised regulation in this field, too, arises from the fact that, in a globalised context, issuing firms could evade domestic conduct of business rules by operating in another country through subsidiaries that sell their financial investment products back to their domestic market. A common approach to conduct of business regulation must therefore have, for instance, a common definition of what insider information or retail investors are, in order to ensure the same level of protection across borders to investors and shareholders.

3. *Risk-based Regulatory Technique for financial markets and financial institutions*

Amongst the new methods of making rules ("new regulatory governance" techniques) for financial markets and financial institutions[42], the risk-based

FREEDMAN BRADELY J. (1991), *The Fiduciary Relationship: Its Economic Character and Legal Consequences*, 66 *New York University Law Review*, 1045 ff.

[41] See: KÖNDGEN JOHANNES (1994*), Rules of Conduct: Further Harmonisation?*, in Ferrarini Guido (ed), *European Securities Markets: Investment Services Directive and Beyond*, London (UK): Kluwer Law International, 118 ff.; CHIU IRIS H.-I. (2008), *The Nature of a Financial Investments Intermediary's Duty to his Client*, 28 *Legal Studies*, 254 ff.

[42] Regulators have a wide range of options to design regulation. These range from no regulation to self-regulation, to co-regulation, to market-based instruments, to state-based regulation with various options in between. They have to consider these regulatory options and assess costs and benefits of each one. However, they do not have, or only have as a last resort, to propose 'command and control' (CAC) regulation: detailed legal rules supported by criminal sanctions overseen by a government agency, although CAC is still strongly prevalent in financial regulation in many places. For other details on this topic, see: BALDWIN ROBERT (1997), *Regulation: After Command and Control*, in Keith Hawkins (ed), *The Human Face of Law: Essays in Honour of Donald Harris*, Oxford (UK): Oxford University Press, 65 ff.; GUNNINGHAM NEIL, KAGAN ROBERT A., THORNTON DOROTHY (2004), *Social License and Environmental Protection: Why Businesses Go Beyond Compliance*, 29 *Law and Social Inquiry*, 307 ff.; BALDWIN ROBERT (2010), *Better Regulation: The Search and the Struggle*, in Baldwin Robert, Cave Martin, Lodge Martin (eds), *Oxford Handbook on Regulation*, Oxford (UK): Oxford University Press, 259 ff. Amongst the examples of regulatory techniques performed by governments around the world as well as by transnational committees of regulators and private actors, notable are: principles based regulation, risk based regulation, meta-regulation, enrolling gatekeepers, and market based regulation. Many countries also have 'better regulation' pro-