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Abstract

The thesis explores the public foundations of transnational banking regulation through the lenses of public and international law. The discussion is carried out through the employment of the concepts of systemic risk and financial stability, that are shown to qualify, also in spite of their ordinary accounts, as the new public foundations of regulatory action in this field. The thesis analyses the characteristics of the banking system, also in the light of systems theory; hence, it focuses on the notion of systemic risk. In particular, it explores the underpinnings of this notion, which has been at the forefront of the international regulatory response to the global financial crisis; the thesis also details the preventive and protective measures taken, along with their critical assessment. Moreover, it points at the relationship between risk and law, discussing the potential shortcomings of risk-based regulation in this field. Further, the thesis focuses on the concept of financial stability and on its inherent ambiguities, along with the regulatory devices and arrangements agreed internationally. Central to the analysis is the public significance of financial stability. This substantiates in a critical discussion of the literature on global public goods, and in the analysis of the discretion acknowledged to the relevant public authorities, of which a critical comparative account is offered. The thesis aims at offering a discussion of the extent to which – unveiling the implications of systemic risk and financial stability – public interests may be detected in relation to the banking system, also in the forms of essential banking services. The analysis takes place against the backdrop of the transformations of public powers, and their exercise in the international context. A special focus is offered about the European Union, and the relevant governance arrangements devised for financial stability, with special reference to the different overlapping dimensions, and the transformation of the way in which powers are exercised.

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Acronyms and abbreviations

BCBS	Basel Committee on Banking Supervision
BIS	Bank of International Settlements
BRRD	Bank Recovery and Resolution Directive Directive no. 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
BTS	Binding Technical Standards (European System of Financial Supervision)
CFREU	Charter of Fundamental Rights of the European Union
CRD4	Capital Requirements Directive IV Directive no. 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
CRR	Capital Requirements Regulation Regulation no. 575/2013/EU of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms
DGSD	Deposit Guarantee Schemes Directive Directive no. 2014/49/EU of the European Parliament and of the Council of 16 April 2014 on deposit guarantee schemes
DFA	Dodd-Frank Act Dodd-Frank Wall-Street Reform and Consumer Protection Act, United States Congress, Pub. L. No. 111-203, 124 Stat. 1376 (2010)
EBA	European Banking Authority (European System of Financial Supervision)
EC	European Commission (also comprising the older denomination of 'Commission of the European Communities')
ECB	European Central Bank
ECHR	European Convention on Human Rights
ECJ	European Court of Justice
ELA	Emergency Liquidity Assistance
EP	European Parliament
ESAs	European Supervisory Authorities
ESCB	European System of Central Banks
ESFS	European System of Financial Supervision
ESM	European Stability Mechanism

ESRB	European Systemic Risk Board
IADI	International Association of Deposit Insurers
IMF	International Monetary Fund
ITS	Implementing Technical Standards (European System of Financial Supervision)
FCA	Financial Conduct Authority (United Kingdom)
FED	Federal Reserve (United States)
FDIC	Federal Deposit Insurance Corporation (United States)
FSB	Financial Stability Board
FSOC	Financial Stability Oversight Council (United States)
GDP	Gross Domestic Product
LGD	Loss given default
NCAs	National Competent Authorities
NCBs	National Central Banks
NDAs	National Designated Authorities
OCC	Office of the Comptroller of the Currency (United States)
OECD	Organization for Economic Cooperation and Development
OFR	Office for Financial Research (United States)
PD	Probability of default
PRA	Prudential Regulation Authority (United Kingdom)
RTS	Regulatory Technical Standards (European System of Financial Supervision)
SEC	Securities and Exchange Commission (United States)
SGEI	Services of General Economic Interest
SGI	Services of General Interest
SRMR	Single Resolution Mechanism Regulation Regulation no. 806/2014 of the European Parliament and of the Council of 15 July 2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund
SSMR	SSM Regulation Council Regulation no. 1024/2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions
SSMFR	SSM Framework Regulation Regulation of the European Central Bank of 16 April 2014 establishing the framework for cooperation within the Single Supervisory Mechanism between the European Central Bank and national competent authorities and with national designated authorities
TEU	Treaty on the European Union
TFEU	Treaty on the Functioning of the European Union

Introduction

"The credit which the apparent conformity with
recognized scientific standards can gain for
seemingly simple but false theories may,
as the present instance shows,
have grave consequences"

F.A. von Hayek, *The Pretence of Knowledge*, 1974

A study conducted on a number of English and French economic dictionaries published between early XIX century and mid-XX century reveals how only eleven nouns are present and explained in *all* of them. Neither the noun "risk", nor "bank" nor "stability" are among these.[1] Indeed, some of the concepts which shape the contemporary public debate about banking and financial regulation are mistakenly taken for granted. In other words, there seems to be a widespread insufficient awareness about the fact that an economic discourse is a cultural construct, hence historically and politically situated.[2]

The place held by public powers – and along with them by public law – relatively to the banking system is part of a long-dated, and complicated debate.

The banking system has been through centuries a unique combination of private entrepreneurship and public intervention. In the last century the regulatory reversal and tightening subsequent to the 1929 crisis have been slowly replaced by a drift towards deregulation. The conceptual underpinnings of the latter were that banking was essentially

[1] The eleven nouns are 'Need', 'Capital', 'Consumption', 'Crisis', 'Interest', 'Job', 'Price', 'Production', 'Rent', 'Savings' and 'Salary'; S. LATOUCHE, *L'invenzione dell'economia*, Turin, Bollati Boringhieri, 2010 (original edition *L'Invention de l'économie*, 2005), 21. As pointed out by the author, many other nouns existed and were used at that time, but they were not endowed with a distinctive economic meaning. On the history of banking from its early Italian origins, along with the emergence of key elements such as that of 'interest', A. FENIELLO, *Dalle lacrime di Sybille. Storia degli uomini che inventarono la banca*, Rome-Bari, Laterza, 2013, 9 ff.

[2] As it has been acknowledged, "a well-functioning free market is a socio-economic construct. It is created by a consistent accord of rules, instruments and institutions"; Y. MERSCH, 'Law, money and market – the legal dimension of monetary policy', Speech held at the Information Club Meeting, Luxemburg, 31 May 2014, 1. On how basic 'institutional' insights, despite neither particularly original nor innovative, are far from being taken for granted, J. BLACK, 'Reconceiving Financial Markets – From the Economic to the Social', Journal of corporate Law Studies, no. 401, October 2013, 412.

a private matter, and that the duty imposed upon public institutions was that of ensuring the existence of efficient banking and financial systems, possibly in compliance with international regulatory standards.[3] Prior to the financial crisis that hit the markets worldwide from 2008, the attention dedicated to public powers often amounted to demonstrating how the public ownership of banks could lead to sub-optimal economic results.[4]

In order to properly frame the issue, what is needed is nothing more than a step back. The banking business started flourishing with the XI-XII century trade fairs, where the credit supply was welcome, and actually required for the prosperity of businesses, and took place under the auspices of local political authorities.[5] A couple of centuries later, when the embryos of the banking system had already reached a significant stage of development, Walter Bagheot warned about the need that a public power – embodied in its account by the central bank – ought to act as backstop in case of severe banking crises.[6] As numerous and varied may be the examples of a broad awareness of a public dimension of the banking system, the question becomes how it has been possible for public powers to travel all the way from strict necessity, to mere relevance, up to irrelevance, and even perceived danger to the banking system itself. Indeed, in the last decades both academics and practitioners have been busy removing politics from the picture of the banking system, so that a broad trend has been consolidated internationally in tune with a more general tendency to remove political elements from social sciences.

Hence, the approach to the banking system today is the outcome of a pervasive culture which is a mix, among other things, of liberalization, privatization, deregulation, market efficiency, competition, financial innovation, entrepreneurship, primacy of the economic technique, and risk diversification; this marked a severe shift from the older vision of the banking system and of the world altogether.[7] At the regulatory level, the

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[3] Finance has been portrayed as "a purely private activity having little to do with, or need for, private-collective or government involvement"; G.J. SCHINASI, *Safeguarding Financial Stability. Theory and Practice*, Washington D.C., International Monetary Fund, 2005, 15. Although valuable, issues of constitutional arrangements at work in times of crisis resolution do not seem to suffice for a broader account of the public side of the banking system; J. BLACK, 'Managing the Financial Crisis - The Constitutional Dimension', London School of Economics and Political Science, Law, Society and Economy Working Papers no. 12/2010.

[4] R. LA PORTA, F. LOPEZ DE SILANES, A. SHLEIFER, 'Government Ownership of Banks', Journal of Finance, no. 57/2002, 265 ff. Only recently it has been underlined how public-owned banks are characterized by less pro-cyclical lending, and therefore also produce positive effects on the financial cycle; A.C. BERTAY, A. DEMIRGÜÇ-KUNT, H. HUIZINGA, 'Bank Ownership and Credit over the Business Cycle: Is Lending by State Banks Less Pro-cyclical?', Centre for Economic Policy Research, CEPR Discussion Paper no. 9034/2012.

[5] A. FENIELLO, *Dalle lacrime di Sybille. Storia degli uomini che inventarono la banca*, 19 ff.

[6] W. BAGHEOT, *Lombard Street. A Description of the Money Market*, Greenwood Publications, 2010 (original edition 1873).

[7] P. MOTTURA, *La banca di credito e di deposito. La stabilità monetaria e le reagioni di una regolamentazione 'speciale'*, Milan, Bocconi University, Honorary lecture held on 5 November 2012, 7.

correspondent outcome has been that of an ever increasing importance of prudential regulation and a strong focus on the technical support that legal science could give to that regulatory design.

One of the aims of this thesis is indeed to discuss how this approach is neither feasible (in terms of ability to deliver a satisfactory account of banking regulation at the international level) nor probably desirable (in terms of danger of overriding or silencing the public interest inherent to banking activities).

For sure, much has changed since the vast and severe financial crisis manifested following to the 2007 United States subprime crisis. If one were to find positive sides to it, the crisis actually called into question many of disputable underpinnings of the international banking regulation consensus. The degree of the involvement of public powers – along with public money – in banking and financial issues cannot be questioned anymore. Along with these, stands an unquestionable increased regulatory intensity;[8] to many extents, all elements prompt the acknowledgment that the banking system still is a matter of public law. Statements such as "a fiscal backstop remains necessary for a banking system", whose strength "ultimately depends on the strength of the sovereign behind it"[9] prior to the financial crisis would have probably amounted to a curse.

The XXth century overall political retreat in international banking regulation hitherto has been followed by what could be labelled a 'new public wave'. What is central to the understanding of this feature is that the common understanding of the role of public powers within the banking and financial system has changed dramatically. Such change, as will be further discussed through the thesis, has been prompted by a bold and active search for an economic rationality on which the concept of public interest could be grounded. As a result, in the field of international banking regulation the concept of public interest has taken nowadays new forms, namely those embodied by systemic risk and financial stability. In a nutshell, when the public interest entered back into the banking system, it occurred in an altogether different way than it used to. How and why this happened is discussed throughout the thesis, which aims to unveil how much the currently leading concepts of systemic risk and financial stability have to do with the new public foundations of banking regulation. As it has been convincingly argued, the publicity of credit activities is nowadays expressed in four broad terms, namely in relation to financial aspects; to property rights; to the functions performed; and to regulation. As explicitly acknowledged, while the first three ones (public money, public property, public functions) would be a direct byproduct of the financial crisis, the fourth is the one

[8] This also marks a shift from the pre-crisis literature stating that de-regulation and re-regulation could not "be ordered in any neat, temporal succession"; E.L. RUBIN, 'Deregulation, Reregulation, and the Myth of the Market', Washington&Lee Law Review, no. 45/1988, 1249.

[9] D. SCHOENMAKER, 'On the need for a fiscal backstop to the banking system', DSF Policy Paper Series, no. 44/2014, 2-3. The author explores this evidence also by mean of a comparison with the currency; "there is prima facie evidence that the soundness of the banking system depends on the soundness of the government behind it, just like the standing of a currency dependent on that of the sovereign behind it in former times". The monetary term of reference is borrowed by C. GOODHART, *The Two Concepts of Money: Implications for the Analysis of Optimal Currency Areas* European Journal of Political Economy 14, 407-432.

envisaged to take the lead in the steady-state.[10] How will this happen? The assumption that acts as a starting point of this thesis is that this will not take place just by mean of more intrusive public controls exerted on bank intermediaries, but rather by the employment of two –relatively new – concepts, namely those of *systemic risk* and *financial stability*.

Nowadays, many stand ready to acknowledge that "banks have a quintessentially symbiotic relationship with politics";[11] however, the 'political' character of banking regulation is never really explored. As a background to the thesis, it is maintained that three reasons for the involvement of public powers into banking regulation may be identified. The oldest and most obvious reason is because of the functions that the banking system performs for the economy and society as a whole; the second is related to the interests that are served by such system; the third – which has benefitted from increased awareness in the wake of the financial crisis – is because of the way this system functions (mainly because of the possible lack of market discipline, and of the persistent danger of moral hazard).

At the scientific level, there is a sharp contrast between a potential spurred interest about the debate on the public foundations of banking regulation, and the acknowledgment that "the post-crisis regulatory agenda is developing piecemeal technocratic solutions without a clear analytical and cognitive framework".[12] Many reasons may be actually identified for this, among which the leading role is for sure that played by specialization, or at least by its contemporary understanding:

> "*specialization* has always been a more or less pronounced feature of highly developed cultures. But while a specialist of earlier times was aware of the need to relate his results to more general principles, and while he was prepared to consider a criticism that would question the value of his enterprise as whole, the fact of specialization is now accentuated by the added demand for *autonomy*. Not only do we have many different fields; but these fields are anxious to protect their boundaries and they object to any outside interference"[13]

The words of Paul Feyerabend offer a pitiless illustration of the state-of-the-art in the academic debate. This is all the more true for legal disciplines that – besides being normally quite wary of inserts from outside their boundaries – also tend to eliminate from the legal discussion all elements that are not black letter ones; for contemporary lawyers,

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[10] G. NAPOLITANO, 'L'intervento dello Stato nel sistema bancario e i nuovi profili pubblicistici del credito', Giornale di diritto amministrativo, no. 4/2009, 429 ff. The title itself openly borrows from the milestone contribution of M. Nigro, *Profili pubblicistici del credito*, 1969.

[11] EUROPEAN SYSTEMIC RISK BOARD, *Is Europe Overbanked?*, Report of the Advisory Scientific Committee, no. 4/2014, 38.

[12] J. BLACK, 'Reconceiving Financial Markets – From the Economic to the Social', Journal of corporate Law Studies, no. 401, October 2013, 441.

[13] P.K. FEYERABEND, *On the Improvement of the Sciences and the Arts, and the Possible Identity of the Two*, Proceedings of the Boston Colloquium for the Philosophy of Science 1964/1966, Boston Studies in the Philosophy of Science, no. 3/1967, 387.

"having grown up under the influence of positivism, there is a danger of forgetting that the foundations of legal order are political".[14] This is how legally-aware analyses too have fallen short of a clear understanding of the legal dimensions entailed by some concepts,[15] as if theoretical reflections about the political dimension of such concepts were a second-order issue. But fresh intellectual elaborations are needed today, in order to come to grips with the "failure of the collective imagination of many bright people, both in this country and internationally, to understand the risks to the system as a whole" referred to in the letter sent by the British economists to Queen Elizabeth II.[16]

In striving to this end, some argumentations in the thesis could resemble an attempt to perform an *archaeology* of a number of concepts (systemic risk, financial stability), in the meaning of a deconstruction of their common understanding with the aim of reaching what Foucault would have labelled an 'archaeology of knowledge'. However, central to this try is the awareness that within the legal world definitions matter much more than normally acknowledged.[17] They compel reflection on theoretical issues that are often disregarded due to a common, albeit ignored, feature of mainstream legal scholarship on banking regulation. Indeed, a key problem seems to be that most scholarly contributions are more busy at serving as prompt policy advice to public institutions – where the public

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[14] M. LOUGHLIN, *The Idea of Public Law*, Oxford, Oxford University Press, 2003, 133. It is also always useful to bear in mind that "there is no such thing as a perfect symmetry between law and legal method" (translation mine), also calling for the need to employ the method which is the most suited to study a given topic; S. CASSESE, in BANK OF ITALY, 'Legislazione bancaria, finanziaria e assicurativa', Quaderni di Ricerca Giuridica della Consulenza Legale, no. 72/2012, 70.

[15] It is has been convincingly argued that the key difference between economics and other social science disciplines (among which law) is that what is actually *assumed* in economics is the object of enquiry in the other disciplines; "the difference is of critical importance to regulators, for if the financial crisis taught them anything, it is that they need to assume less and find out more"; J. BLACK, 'Reconceiving Financial Markets – From the Economic to the Social', Journal of corporate Law Studies, no. 401, October 2013, 409.

[16] "In summary, your majesty, the failure to foresee the timing, extent and severity of the crisis and to head it off, while it had many causes, was principally a failure of the collective imagination of many bright people, both in this country and internationally, to understand the risks to the system as a whole". The letter, signed by T. Besley and P. Hennessy on behalf of the British Academy was sent to the Queen on 22 July 2009 as a response to the question posed by the Queen herself on occasion of the visit at the London School of Economics and Political Science on 5th November 2008, when she asked "If these things were so large, how come everyone missed them?".

[17] However childish a search for definitions may seem, it is worth reminding that definitions have indeed always shaped western culture in quite a deep way. Reference here is to Socrates' 'theory of definition'; a *Socratic* definition would amount to an answer to a question about the form of ideas, and it is essential due to the purported 'priority of definition'. Many representations are given in Plato's dialogues about Socrates looking for various definitions. As it has been put in an altogether different, although related context, "definitions are rarely exciting but rarely can be completely ignored"; R. JERVIS, *System Effects. Complexity in Political and Social Life*, Princeton, Princeton University Press, 1997, 5.

debate is actually taking place – than to give space to broader and deeper intellectual elaborations. As a proxy for this need for deeper academic reflections, it is worth noting that valuable contributions preceding the financial crisis display a different *language* compared to other equally valuable ones *after* the crisis. Thus comes to the rescue the Latin *adagium* stating that *Caesar non (est) supra grammaticos*;[18] that has been duly interpreted with the meaning that "when studying the grammar of a practice, we are obliged to investigate the type of background assumptions that anchor it".[19]

Turning now closer to the very contents of the thesis, Chapter 1 deals with systemic risk in the banking system, both at the theoretical, and at the practical (regulatory) level.[20] As it has been boldly asserted, "the central problem for financial regulation … is to

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[18] Literally, *Caesar is not superior to the grammarians* or *Caesar has no power over the grammarians*. Two explanations have been given to this expression. The first belongs to Svetonius and Cassius Dio who reports that the Roman emperor Tiberius had once used in a speech a non-existent noun; against the proposal of somebody to introduce it in the Latin language, a grammarian would have replied 'You, Caesar, can confer Roman citizenship upon men, but not upon words'. The second belongs to the Council of Constance in 1414, when the Holy Roman Emperor Sigismund used a neuter noun as if it were feminine. Members of the Council explained to the Emperor the mistake he had incurred in, but he nevertheless insisted upon the new noun. An archbishop then stood up and declared that "Caesar is not superior to the grammarians"; the noun remained in use as a neuter one.

[19] M. LOUGHLIN, *Foundations of Public Law*, Oxford, Oxford University Press, 2010, 178.

[20] The main concern of the thesis is the banking sector, although aware of the increasing degree to which the banking and financial system are intermingled with one another, something that actually pushed some authors to advocate an enlarged definition of financial regulation; "although historically these areas of regulation have been distinct, in light of the intermingling of traditional banking and underwriting securities a broad definition of financial regulation has become appropriate"; D.M. DRIESEN, *The Economic Dynamics of Law*, Cambridge, Cambridge University Press, 2012, 79. The problematic relationship between different areas of the financial sector when some of them are regulated and some of them are not, thus creating regulatory boundaries, is described in C.A.E. GOODHART, 'The Boundary Problem in Financial Regulation', National Institute Economic Review, no. 206/2008, 48 ff. On the "increasingly intertwined nature of banks and financial markets" and the distinctive role of banks (both as 'information-processing intermediaries' and providers for liquidity) see A.W.A. BOOT, A.V. THAKOR, 'Commercial Banking and Shadow Banking. The Accelerating Integration of Banks and Markets and its Implications for Regulation', in A.N. BERGER, P. MOLYNEUX, J.O.S. WILSON (eds.), *The Oxford Handbook of Banking*, Oxford, Oxford University Press, 2015, 47 ff. However, many distinctive elements of the banking system persist; banks would be special when compared to other business entities in that they "provide a large share of financing for consumers, business firms, and governments; banks operate much of the nation's payment system that transfers payments from buyers to sellers on a timely and certain basis; and as creators of deposits, banks function as the primary transmitter of monetary policy to the economy"; R.A. Eisenbeis, G.G. Kaufman, 'Deposit Insurance Issues in the Post-2008 Crisis World', in A.N. Berger, P. Molyneux, J.O.S. Wilson (eds.), *The Oxford Handbook of Banking*, 535. In addition to this, the European context – that is examined more deeply, especially in the last part of the thesis – is still to many extents a bank-based system.

reduce systemic risk".[21] Actually, systemic risk has gained in the aftermath of the financial crisis a noble place in regulation, magnified by a booming economic literature on the topic. After all, if one narrative ought to be chosen for contemporary times, that would be the one of 'risk', and along with it that of 'contagion', in social sciences and liberal arts altogether. The semantics of contagion was already established in the XIXth century, when due to its success "quickly spread to social areas outside the medial and biological realm, turning into a general analytic all-encompassing concept". [22] However, the novelty about systemic risk in the banking system would relate to the emergence of previously ignored aspects, such as the multiple dimensions through which it takes place; "contagion implies a media theory of transmitting diseases, it problematises the weakening of subjective rationality, and it prepares political strategies of control".[23] As a consequence, an altogether new understanding of the banking *system* would be needed, to an extent never reached before the crisis. The latter showed how banking regulation had gone short of a clear understanding of the whole system. In the face of these new strands of literature, the times seem mature to challenge the sacred character of some economic assumptions which tend to disregard that "economic theory is the product of creative imagination; its concepts and constructs are the result of human thought".[24]

However, things are not as easy as occasionally portrayed. First of all, "system resilience is not simply a technological fix. It can only begin with both the will and capacity to *describe* the financial system and its vulnerabilities";[25] therefore, a much deeper theoretical understanding of the underlying mechanics of the elements at stake is needed. Secondly, the very concept of systemic risk assumes the existence of a 'steady state' of the banking system, that would be threatened by the manifestation of systemic risk; so what is needed is again an enquiry about the extent to which it is actually possible to draw a line between *physiology* and *pathology*,[26] given that risk itself is one of the building blocks of the banking system, along with money and credit. Finally, what is needed outmost is a verification about the extent to which the concept of 'systemic risk' is the expression of a

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[21] H. SCOTT, 'The Reduction of Systemic Risk in the United States Financial System', Harvard Journal of Law and Public Policy, no. 1/2011, 673.

[22] U. STHÄELI, *Political Epidemiology and the Financial Crisis*, in P. KJAER, G. TEUBNER, A. FEBBRAJO (eds.), *The Financial Crisis in Constitutional Perspective*, Oxford, Hart Publishing, 2011, 111 ff. The author recalls that the use of this noun may be traced back to Thucydides when it assumed a medical and moral meaning, while was employed with a biological meaning from the XVIth century onwards.

[23] U. STHÄELI, *Political Epidemiology and the Financial Crisis*, 115.

[24] H.P. MINSKY, *Stabilizing an Unstable Economy*, New York, McGrawHill (original edition: New Haven, Yale University Press, 1986), 3.

[25] M. POWER, 'Preparing for Financial Surprise', Journal of Contingencies and Crisis Management, no. 19/2011, 28-29.

[26] The issue had been often dealt with by mean of fashionable, albeit questionable, reference to the literature on complexity; J. BLACK, 'Restructuring Global and EU Financial Regulation: Capacities, Coordination and Learning', London School of Economics and Political Science, Law, Society and Economy Working Papers no. 18/2010, 4.

widespread – almost irresistible – temptation to model problems upon the available (or most convenient) theoretical tools,[27] rather than the other way round.

As the exercise of a number of powers on the side of public authorities has come to depend on the concept of systemic risk, the question is compelling about how these powers will be exerted. Hence, an exploration on the largely neglected relationship between law and risk is due (indeed, risk "does not figure prominently in legal writing"),[28] also based on the valuable insights coming from the literature on risk-based regulation. Additionally, constructive understanding about the issues at stake come from systems theory, whose tools are useful to detect how and why risk has come to be intended as a constitutive condition of human existence in complex societies. Whether or not this is related to the wide diminution (or loss) of certainties which seems to characterize contemporary times,[29] what is certain is that an incredibly high number of issues today are framed in terms of risk. This is not without consequences at the regulatory level; to frame the issue of systemic risk "primarily as an *economic* problem or primarily as a *political* issue [has] serious consequences for the role of law".[30] The *deceptive simplicity* of the concept of risk comes to surface with far-reaching consequences.

Chapter 2 examines the ways in which systemic risk has been implicitly recognized as a driver for institutional action,[31] as it is shown by its links with the now overarching concept of 'financial stability'. As a policy area intended as a safeguard for the stability of the banking and financial systems, 'macro-prudential policy' has gained nowadays the status of an *ideology*, as a bundle of beliefs, opinions, and values that are reflected in the scientific and regulatory attitude towards regulation and supervision in the banking system. Notwithstanding the claims that *micro*-prudential failures have been the most harmful ones in the recent past,[32] "following to the Crisis, the term 'macroprudential' went from virtual obscurity – the idiom of a few cognoscenti – to rock-star status almost

[27] Think for instance to the inherent complexity of the very concept of risk; "we also have a linguistic concept of risk, but it has turned out not to have a unidimensional scale of measurement. In everyday language we may speak of the 'amount of risk' in a situation, but the expression has diverse meanings, and in risk theory there is no universal measure of risk"; R.F. NAU, 'De Finetti Was Right: Probability Does Not Exist', Theory and Decision, no. 51/2001, 120. The issue will be further explored in the first chapter.

[28] A. GIDDENS, Risk and Responsibility, The Modern Law Review, no. 62/1999, 1.

[29] A. MARINELLI, *La costruzione del rischio*, Milan, Franco Angeli, 1993, 7.

[30] H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, Frankfurt-on-Main, Campus Verlag, 2013, 7.

[31] For instance, it has been defined 'pivotal' in N. MOLONEY, *EU Securities and Financial Markets Regulation*, Oxford, Oxford University Press, 2014, 1010.

[32] Reference is to "the easing in US mortgage lending standards, the growing reliance on short-term wholesale funding, the low risk weights applied to complex and highly leveraged structured securities"; L. ELLIS, 'Macroprudential Policy: A Suite of Tools or a State of Mind?', Speech held at the Paul Woolley Centre for Capital Market Dysfunctionality Annual Conference, Sydney, 11 October 2012.

overnight, with the international community's full endorsement".[33] The Chapter explores the very underpinnings of this concept, and the desirability and implications of the enhancement of such policy area, also in the light of the agreeable claim about the need for a 'macro-prudential state of mind' – i.e. the need for an approach taking a holistic view of the system taken into consideration – rather than a mere application of a set of tools labelled as 'macro-prudential'.[34]

While the literature has mostly concentrated upon the technicalities inherent to individual macro-prudential tools, discussions about the general characteristics of this policy area and its very foundations have been scarce so far. As a rule, a regulatory framework which has financial stability at its very basis, without this being clearly identified as a concept and thoroughly examined risks being a fundamentally flawed one, if not in its technical consistency and robustness, at least in terms of legitimacy. As it has been acknowledged,

> "bold policy initiatives are rarely preceded by long periods of careful reflection. On the contrary, they are often taken in response to dramatic and unforeseen changes in the economic environment and (or hence) often at times when little is known about what the future holds in store. The situation we find ourselves in today is no exception to this rule. The financial turmoil created the rationale to introduce [macroprudential policy], but our knowledge of the potential of this new tools is less than perfect"[35]

Now that the dust of the crisis has almost settled, it is time to take advantage of the crisis itself as an 'anomaly' serving as basis for the emergence of scientific discoveries – as generally anomalies do.[36] From a scientific viewpoint, only recently scholarly interest has begun to spread about the *institutional* aspects related to macro-prudential policy.[37] As a response to this, the thesis explores the notion of 'global public goods', that has been often recalled in the literature with reference to financial stability without ever being really discussed. At the basis of this discussion stand very deep public law underpinnings, such

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[33] C. BORIO, 'Macroprudential frameworks: (Too) great expectations?', in D. SCHOENMAKER (ed.), *Macroprudentialism*, Centre for Economic Policy Research, CEPR Press, 2014, 29.

[34] L. ELLIS, 'Macroprudential Policy: A Suite of Tools or a State of Mind?'.

[35] F. PANETTA, 'On the special role of macroprudential policy in the euro area', Speech held at De Nederlandsche Bank, Amsterdam, 10 June 2014, 10.

[36] T.S. KUHN, *The Structure of Scientific Revolutions*, Chicago, The University of Chicago Press, 1962, 52.

[37] An especially interesting work is L. GOODHART. 'Brave New World? Macro-prudential Policy and the New Political Economy of the Federal Reserve', London School of Economics and Political Science, Systemic Risk Center, SRC Discussion Paper no. 29/2015; the work also considers as a case study the 1979 shift in monetary policy promoted by the Federal Reserve chaired by Paul Volcker, that, without any change to the mandate of the institution, modified the relationships with both the legislative and the executive powers (with increased operational independence acknowledged to the Federal Reserve itself).

as the concepts of *Gemeinschaft* and *Gesellschaft*;[38] broadly coincident with the nouns 'community' and 'society'. Roughly summarizing, the point has been made that, while ancient times were characterized by a strong *community*, modern ones would be the times of *society*. Only the former would entail both "*mutual* possession and enjoyment" and "possession and enjoyment of goods held in common".[39] Therefore, a discussion about the extent to which financial stability – along with other key elements and concepts related to the banking system – may qualify to such label is an extremely important side of the issue. Moreover, the concern has also been expressed recently that

> "intellectual pendulums have a habit of swinging too far. There is a risk of entertaining unrealistic expectations about what macroprudential schemes can do on their own. If these expectations become entrenched in policy, there is even an outside risk that, far from being part of the solution, macroprudential frameworks could paradoxically become part of the problem. Complacency is always not too far around the corner. If the quest for financial stability has proved so elusive, it must be for a reason".[40]

In other words, if one were to take a genuine institutional perspective with regard to financial stability, the question should be posed about the grounds on which extremely extensive powers have been granted to mostly newly-established macro-prudential authorities, and the guarantees associated with the exercise of such powers. [41] An exploration of the theoretical elaboration and case-law of a number of legal orders shows how such guarantees (for instance in terms of judicial review) are in general both limited and patchy. As a consequence, it seems possible to identify what we could call a 'banking paradox', namely a situation in which in the very moment when banks have become increasingly important to the economy and society, the determination of public interests

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[38] The key academic elaboration on these concepts dates back to F. TÖNNIES, *Community and Civil Society*, Cambridge, Cambridge University Press (first edition 1887); in particular, on *Gemeinschaft* 22 ff. and on *Gesellschaft* 52 ff.

[39] F. TÖNNIES, *Community and Civil Society*, 36. As it has been summarized, "the societal mode of association is marked by the continuous functional differentiation of social spheres"; M. LOUGHLIN, *Foundations of Public Law*, 201.

[40] C. BORIO, 'Macroprudential frameworks: (Too) great expectations?', 30.

[41] Although at times openly admitting the lack of full awareness about the tools, overall regulators did not show doubts about the overall robustness of the framework; "given the lack of practical experience of the different macroprudential tools contained in the CRR/CRDIV framework at this stage, it is not possible to make an empirical assessment of the macroprudential measures"; EUROPEAN BANKING AUTHORITY, *Opinion on the macroprudential rules in CRR/CRD. EBA Response to European Commission on Article 513 CRR call for advice*, June 2014, 13. In relation to the ESRB it has been noted how "issues of legal certainty also arise. The ESRB's role in 'macro-prudential oversight' for the prevention or mitigation of 'systemic risks' embraces concepts that are not easy to pin down from a legal perspective"; E. FERRAN, K. ALEXANDER, 'Can Soft Law Bodies be Effective? Soft Systemic Risk Oversight Bodies and the Special Case of the European Systemic Risk Board', University of Cambridge Faculty of Law, Legal Studies Research Paper Series, Paper no. 36/2011, 26.

within the banking system is increasingly subtracted to political scrutiny and judicial review.

Chapter 3 of the thesis tries to elaborate on the intuition of the existence of a *fil rouge* linking systemic risk, financial stability and public banking services to rights, the scientific challenge being how to bring together allegedly separate areas of research such as banking regulation and public law. One main idea underlying this is that, while much attention is often directed to the banking system's ability to produce wealth, insufficient heed is instead given to the aspects related to redistribution. After all, "what the press describes as a sudden 'financial crisis' may be more accurately described as the surfacing of tensions caused by the longstanding efforts of loss-making institutions to force the rest of society to accept responsibility for their unpaid bills for making bad loans".[42] Issues of redistribution are normally 'silenced' in scholarly discussion as inherently political issues,[43] also in spite of the occasional acknowledgment that "financial instability ... has important national and international redistributive implications".[44] Failure to acknowledge this is likely to prove especially detrimental to legal science; it should be never overlooked how law has intrinsically to deal with *choices*.[45]

Once some fundamentally economic concepts – whose employment is nowadays widely accepted in regulation and supervision, like systemic risk and financial stability – are given a legal weight, they end up clashing with an array of legal concepts. As a consequence, they call into question notions such as public interest, public powers, essential public services. On the one hand, they call then for a sort of evolutionary use of public law tools; on the other hand, they call into question the extent to which the employment of the latter is still a meaningful one. Buried in the technicalities of transnational banking regulation lie fundamental issues related to the extent to which rights are granted in contemporary nation States, public administrations adopt decisions that are subject to the rule of law, and essential services to the citizens and to the economy are provided. In other words, the public foundations of transnational banking regulation.

Unlike germane areas of international economic law, "international financial regulation is not populated by treaties, but instead by non-binding protocols and

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[42] E.J. KANE, 'Regulation and Supervision. An Ethical Perspective', in A.N. BERGER, P. MOLYNEUX, J.O.S. WILSON (eds.), *The Oxford Handbook of Banking*, Oxford, Oxford University Press, 2015, 523.

[43] This seems to be somehow in coherence, for instance, with the acknowledgment – characterized by rare intellectual honesty – that in early phases of harmonization and integration in the European Union financial system there was "a certain philosophical bankruptcy across the regime concerning the underlying regulatory objectives being pursued"; N. MOLONEY, *EC Securities Regulation*, Oxford, Oxford University Press, 2008, 15.

[44] C. WYPLOSZ, 'International Financial Instability', in I. KAUL, I. GRUNBERG, M.A. STERN, *Global public goods: international cooperation in the 21st century*, Oxford, Oxford University Press, 1999, 162.

[45] Among others, interesting reflections on this may be found in N. IRTI, *Diritto senza verità*, Rome-Bari, Laterza, 2011.

accords".[46] This is probably the main reason why banking regulation have been so far relatively marginalized within international law studies. The global financial crisis has marked quite a shift in this regard too, with some fundamental changes actually occurring in international financial regulation scholarship.[47] In any case, never a real enquiry into the international state-of-the-art of banking regulation, along with its deeper legal and political implications, has been more useful than in the present times. The profound changes that have occurred in the global financial system in the aftermath of the actual demise of Bretton-Woods arrangements "have created a tightly coupled and interdependent global system without adequate institutions of governance and with insufficient international coordination".[48]

This already complex state-of-the-art is even more delicate, as discussed in Chapter 3, in the light of two additional elements. Firstly, the complex arrangements needed at the level of the European Union in order to accommodate for an integration that, while perfect to some extents, still shows severe shortcomings essentially related to the lack of the emergence of a genuine *European* public interest, and to an imperfect political integration. Secondly, because while during the late XXth century "policymakers, economists and politicians invested great time and effort designing monetary regimes that could be fit for purpose in modern liberal democracies", by contrast macro-prudential institutional arrangements "have been assembled in a great hurry in the wake of the Global Financial Crisis",[49] with an insufficient awareness of their real payload. The obvious result is not just a substantial variety in the policy solutions adopted (in terms of institutional set-up, scope of action, and the legal status of tools employed), but also key uncertainty about the very basis of macro-prudential regimes.

What has been shown by the global financial crisis is that intellectual failures may be as hazardous as real-world ones. This is why this thesis should be approached as an effort to bring together legal notions, intellectual tools and research methods from an array of disciplines as diverse as public law, international law, European law, administrative law, sociology of law, along with banking regulation and economics,[50] for the final purpose of

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[46] J.R. BARTH, C. BRUMMER, T. LI, D.E. NOLLE, 'Systemically Important Banks (SIBS) in the Post-Crisis Era. The Global Response, and Responses Around the Globe for 135 Countries', in A.N. BERGER, P. MOLYNEUX, J.O.S. WILSON (eds.), *The Oxford Handbook of Banking*, 649.

[47] A. RILES, *New Approaches to International Financial Regulation*, November 2014, available at the Social Science Research Network (SSRN).

[48] H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, Frankfurt-on-Main, Campus Verlag, 2013, 13.

[49] P. TUCKER, The political economy of macroprudential regimes, in D. SCHOENMAKER (ed.), *Macroprudentialism*, 61.

[50] In borrowing from an array of disciplines, comfort may come well from the lesson of Karl Popper, according to which we don't study subjects, but problems, and the latter naturally cut across the boundaries of disciplines. Additional comfort to this is the opinion of von Hayek: "nowhere is the baneful effect of the division into specialisms more evident than in … economics and law"; F.A. VON HAYEK, *Law, Legislation and Liberty vol. I*, 1973. Such inter-disciplinary approach is also necessary for the very understanding of what is at stake: "Briser le cloisons qui séparent artificiellement les disciplines n'ést que le préamble nécessaire à la

calling into question the very foundations of transnational banking regulation. In doing this, the strategy employed will be that of stepping back, and looking into the future of transnational banking regulation[51] from a more distant viewpoint, calling into question even the very words that nowadays populate regulations, newspapers and textbooks.

découverte de leur unité profonde"; G. LEBRETON, *Libertès publiques et droits de l'Homme*, Paris, Sirey-Dalloz, 2009.

[51] Throughout the thesis, an all-encompassing notion of regulation will be employed, comprising all the stages from policy-making to regulation enforcement. By the same token, at the *horizontal* level the term is intended to comprise micro-prudential, macro-prudential, and resolution issues.

1. The advance of systemic risk

"A meaning of a word is a kind of employment of it.
For it is what we learn when the word
is incorporated into our language"

L. Wittgenstein, *On Certainty*, 1949

1.1 Epitome or commonplace?

The *nonchalance* which normally characterizes scholars when referring to systemic risk, along with its pervasive employment in the contemporary regulatory discourse, are valuable witnesses of how this notion has definitively entered the current language both for practitioners and regulators.[52] In many ways, the fashionable use of the label 'systemic' echoes the words that were used many decades ago to describe the rising interest in systems theory.[53]

This is not without consequences; indeed, "the terms in which a problem is stated and in which the relevant information is organized can have a great influence on the solution".[54]

To many extents, the employment of this concept is a by-product of a widespread "unconditional belief in the idea of scientific prediction regardless of the domain, the aim to squeeze the future into numerical reductions whether reliable or unreliable".[55] It is undoubted today how far quantitative techniques have gone within the financial system and its regulation, along with the autonomy they claim on occasion *vis-à-vis* many forms of value judgment.[56]

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[52] Just to make one example out of innumerable ones, "the only exception to the least cost principle is if there are systemic risks affecting the financial system"; D. SCHOENMAKER, 'On the need for a fiscal backstop to the banking system', 6.

[53] "If someone were to analyze current notions and fashionable catchwords, he would find 'systems' high on the list. The concept has pervaded all fields of science and penetrated into popular thinking, jargon and mass-media"; L. VON BERTALANFFY, *General Systems Theory. Foundations, Development, Applications*, New York, G. Braziller, 1968, 3.

[54] J. TOBIN, 'The Intellectual Revolution in U.S. Policy Making', Noel Buxton Lectures, University of Essex, 1966, 14.

[55] "For we have managed to transfer religious belief into gullibility for whatever can masquerade as science"; N.N. TALEB, *Antifragile*, London, Allen Lane, 2012, 109.

[56] J. BLACK, 'Reconceiving Financial Markets – From the Economic to the Social', 429-430.

However, one should always bear in mind that "the numbers have no way of speaking for themselves. We speak for them. We imbue them with meaning".[57] From a more epistemological perspective, the awareness should be always present that risks are only estimations of possible events, and therefore, unlike generic dangers, they "never exist outside of our knowledge of them".[58] What follows logically, is that no mechanical understanding should be ever reserved to them.

Occasionally, it has been acknowledged how systemic risk, in spite of its widespread use, is a term difficult to both define and quantify.[59] This is not necessarily dangerous or worrying in principle, but it may be so due to the inherent delicacy that characterizes the banking system.[60]

In addition to this, and notwithstanding the uncertainties attached to this concept, in recent times systemic risk has ranked very high in the priorities of regulators worldwide. In a report of the Federal Reserve Bank of New York which followed to an internal enquiry about things that ought to be changed in the aftermath of the financial crisis, systemic risk enjoys an altogether predominant role.[61]

For the purposes of this thesis, if one were to assume the viewpoint of positive law only, a research work on systemic risk would only concentrate on what regulation defines as such, and to the regulatory consequences that are attached to it. However, in this field a *positive* legal enquiry proves to many extents unsatisfactory. Well on the contrary, what is needed is an enquiry that takes in due account the relevant empirical aspects, also drawing on the attention that the economic literature has been recently paying to it. In addition to this, insights from other disciplines are also necessary, and contribute to show how systemic risk amounts today to an all-pervasive frame of reference, rather than an occasional regulatory problem. The logical steps that will be explored are its context, its definition and its measurement. These steps are obviously strongly intertwined with one

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[57] N. SILVER, *The Signal and the Noise. The Art and Science of Prediction*, London, Allen Lane, 2012, 9.

[58] D. GARLAND, 'The Rise of Risk', Ericson, R., Doyle, A. (eds.), *Risk and Morality*, Toronto, University of Toronto Press, 2003, 51.

[59] See for instance INTERNATIONAL MONETARY FUND, *Global Financial Stability Report: Responding to the Financial Crisis and Measuring Systemic Risks*, Washington, 2009, 36. It seems no valid alternative to focus the analysis, instead of or along with systemic risk, on the 'too-big-to-fail' issue. Indeed, this has more a nuance of a *factual* condition rather than of a regulatory concept when compared to systemic risk. Moreover, the too-big-to-fail issue is mainly concentrated on the failure of a single intermediary, while failure is just one of the many elements concurring to systemic risk. Overall, systemic risk is a much wider phenomenon than the 'too-big-to-fail' issue, which is essentially one condition of the many out of which systemic risk may arise.

[60] T. PADOA-SCHIOPPA, *Regulating Finance*, Oxford University Press, Oxford, 2004, 29.

[61] The list of recommendations stemming from the document ranks second and third the need to "build the intellectual and political case for systemic risk regulation" and "establish a new senior position of systemic risk advocate and dedicate resources from various areas of the bank in support of this position"; FEDERAL RESERVE BANK OF NEW YORK, *Report on Systemic Risk and Bank Supervision*, 2009 (draft as of 10 September 2009), 14-17.

another, and bear a functional relationship with action that is consequently taken at the regulatory level.[62]

Along this enquiry, one should not overlook the real drivers of regulatory action, on which light has started to be shed only recently. Indeed, 'the psychology of central banking' has actually been to date a "largely unexplored territory".[63] Much in the same way as in other policy areas,[64] the concept of systemic risk has stabilized in a context where little effort has been devoted to question its broader intellectual underpinnings. Such intellectual underpinnings are the object of this Chapter, along with the regulatory framework that has been built around them.

1.1.1 Making sense of a system

Well before the outbreak of the financial crisis, the issue of unexpected large-scale risks had already been explored in relation to quite a high number of areas. Indeed, besides the oldest forms they took, such as epidemic diseases,[65] such risks have started manifesting in a distinctive way due to some of the characteristics that the world has assumed from the 20th century onwards.

Just to name some, large-scale risks have manifested in areas such as demography, technology, the environment, infrastructures and grids, in the form of terrorism, cyberattacks, climate change, earthquakes, tsunamis, hurricanes, volcanic eruptions, nuclear accidents, and geophysical events.[66] However, in spite of the wide attention that has been casted on the 'natural' ones, today "major disasters affecting human societies

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[62] FEDERAL RESERVE BANK OF NEW YORK, *Report on Systemic Risk and Bank Supervision*, 1.

[63] A.G. HALDANE, *Central bank psychology*, Speech held at the 'Leadership: stress and hubris conference' hosted by the Royal Society of Medicine, London, 17 November 2014, 2. Four main types of biases are identified, namely 'preference biases', 'myopia biases', 'hubris biases', 'groupthink biases'; *ibidem*, 3 ff.

[64] Referring to the Bank of England, "to caricature slightly, Bank research in the past was typically used to nourish and support the Bank's policy thinking and framework. Relatively rarely was it used to challenge that prevailing policy orthodoxy"; A.G. HALDANE, *Central bank psychology*, 15.

[65] WORLD ECONOMIC FORUM, *Global Risks 2014*, Ninth Edition, 26; O. DE BANDT, P. HARTMANN, *Systemic Risk: A Survey*, 10; R.M. LASTRA, *Legal Foundations of International Monetary Stability*, 138; I. GOLDIN, T. VOGEL, Global Governance and Systemic Risk in the 21st Century: Lessons From the Financial Crisis, Global Policy, no. 1/2010, 12.

[66] ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, *Emerging Risks in the 21st Century. An Agenda for Action*, 2003; I. GOLDIN, M. MARIATHASAN, *The Butterfly Defect. How Globalization Creates Systemic Risks, and What to Do About It*, Princeton, Princeton University Press, 2014, xiv; I. GOLDIN, T. VOGEL, Global Governance and Systemic Risk in the 21st Century: Lessons From the Financial Crisis, 12; G.G. CASTELLANO, 'Rising from the Ashes: A Governance Perspective on Emerging Systemic Risks', in A. ALEMANNO (ed.), *Governing disasters: the challenges of emergency risk regulation*, Cheltenham, Edward Elgar, 2011, 246; D. HELBING, 'Systemic Risks in Society and Economics', International Risk Governance Council, October 2010, 2.

relate to social problems",[67] such as famines, shortages of resources, wars, excessive migration flows and other issue pertaining to socio-economic structures, beside population density and growth. Indeed, the key drivers for 'global shocks' have been identified in the heightened mobility; the interdependency of production and delivery systems; the centralisation and concentration within systems; urbanisation, concentration of populations and assets; herd behaviour and 'groupthink'.[68] An additional recurrent characteristic is that large-scale risks may prove particularly disruptive for all industries organized through networks (such as transport, energy, communication) due to the forms taken there by the mechanism of shock propagation, especially where adequate investments have not been made in their robustness and resilience.[69]

The number of studies dedicated to this topic has grown recently, both from international organizations and the academia, and along with them a call has been advanced for a stronger role to be played by social sciences.[70] Just to make one example, a report periodically published by the World Economic Forum has recently underlined the existence of "seeds of dystopia" (intending with the latter "what happens when attempts to build a better world unintentionally go wrong).[71] The study elaborates and revise on a yearly basis a global risk map that distinguishes among economic, environmental, geopolitical, societal and technological risks.[72] A similar report from an international organization now list financial crises right after pandemics (and ahead of areas such as cyber risks and geomagnetic storms) as far as large-scale risks are concerned.[73] This

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[67] D. HELBING, 'Systemic Risks in Society and Economics', 2.

[68] ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, *Future Global Shocks. Improving risk governance*, 17 ff.

[69] F.B. LÓPEZ-JURADO, 'Systemic Risks and the Reformation of the European Union Law Concerning Network Industries', in A. ALEMANNO (ed.), *Governing disasters: the challenges of emergency risk regulation*, 2011, 182.

[70] See for instance ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, ASIA-PACIFIC ECONOMIC COOPERATION, *Disaster Risk Financing in APEC Economies. Practices and challenges*, 2013; R.A. POSNER, *Catastrophe: Risk and Response*, Oxford, Oxford University Press, 2004.

[71] WORLD ECONOMIC FORUM, *Global Risks 2012*, Seventh Edition, 2012, 16.

[72] WORLD ECONOMIC FORUM, *Global Risks 2014*, Ninth Edition, 17. In the last years, the top-ranking global risk in terms of likelihood has been found to be income disparity, while the one in terms of impact have been that of major systemic financial failure (2012 and 2013) and fiscal crises (2011 and 2014). Extremely interesting is that how the risks were perceived among respondents to the WEF survey varies quite sensibly between female and male respondents, and younger and older ones, so as to witness the importance of risk perception issues also as for global risks; *ibidem*, 18-19. That attitudes towards risk may be a major part of the risk issue has been verified for large-scale risks in the health sector: "in cases such as the bovine spongiform encephalopathy crisis of the late 1990s in Europe, for instance, a large share of the total costs incurred were due to society's reaction to a perceived risk rather than to the physical reality of the risk itself"; ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, *Emerging Risks in the 21st Century. An Agenda for Action*, 15.

[73] ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, *Future Global Shocks. Improving risk governance*, OECD Reviews of Risk Management Policies, 2011.

explains why, at least in principle, elements emerging from this strand of literature may be useful in approaching the issue of systemic risk in the financial system. Indeed, especially useful may be elements such as the emergence of systemic risk from social contagion and some tragedy of the commons; the intensification of uncertainty in times of emergency; the ability of risk-managers to assess only their own institutions' risk exposure; a dependence of the systemic dimension more on the features of the phenomenon rather than on its source; a common reaction in the form of 'emergency risk regulation'.[74]

Generally speaking, a lack of synergies has been lamented in the studies upon risk in different disciplinary areas.[75] However true, this seems to be partially justified by some inherent differences between the financial system and other sectors which may come at stake as far as large-scale risks are concerned. For instance, the notion of 'irreversibility' which is employed in environmental sciences, and expresses the highest degree of seriousness in damages, has no direct translation in banking or financial terms.[76] Differences also pertain to the strategies that may be employed in order to tackle these risks, since only a sub-set of them may be effectively employed as far as the financial system is concerned.[77]

What may be useful and interesting, instead, is to bear in mind the analyses that have been performed on the difficulties related to a scientific assessment of large-scale risks. These are the reliance of assessment processes on models, which may have difficulties in accounting for reality in an accurate way, especially where past occurrences are not a safe ground on which analyses may be based; the inherent inability to deal with complex phenomena which are characterized by different sources of risk; the lack of attention towards long-term effects, as well as impacts deployed outside the system considered; the underestimation of human factors, along with the employment of stylized behavioural models.[78] All of them play some role within the financial system.

What should be already apparent form the above is that, when considering large-scale disruptive risks belonging to different areas, the employment of the word 'system' is not common to all of them. This prompts further reflection, which, besides its linguistic characterization, has to do with the very essence of the concept of systemic risk that is discussed here. To some extents, indeed, the very employment of the noun *system*

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[74] A.M. VIENS, 'Normative Uncertainty and Ethics in Emergency Risk Regulation' in A. ALEMANNO (ed.), *Governing disasters: the challenges of emergency risk regulation*, 138; F.B. LÓPEZ-JURADO, 'Systemic Risks and the Reformation of the European Union Law Concerning Network Industries', 186-188; A. ALEMANNO, *Governing disasters: the challenges of emergency risk regulation*, xix.;

[75] A. GIDDENS, Risk and Responsibility, The Modern Law Review, no. 62/1999, 10.

[76] M. DOUGLAS, A. WILDAVSKY, *Risk and Culture. An Essay on the Selection of Technological and Environmental Dangers*, Berkeley, University of California Press, 1982, 21.

[77] These are identified in mitigation measures; accountability measures; supply-chain diversification; avoidance of less profitable risks; transfer of risk; retention of risk; early-warning systems; simulations and tabletop exercises; back-up sites; WORLD ECONOMIC FORUM, *Global Risks 2014*, 44.

[78] ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, *Emerging Risks in the 21st Century. An Agenda for Action*, 15-16.

witnesses the peculiarity and seriousness of systemic risk in its financial meaning as compared to large-scale risks in different fields.[79]

An extremely valuable remark is the one that underlines the all-peculiar type of relationships within the banking system.[80] Indeed, these tend to be framed not only in terms of *competition*, as it is common within industries, but also of *cooperation*; "we frequently refer to the banking 'system', but never to the automobile 'system'. This different attitude is largely due to the fact that in the banking industry there are certain services which do call for cooperation, while this is not the case in other industries".[81] Other remarks point to a special vulnerability to systemic risk which is due to the structure of banks' balance sheets; to the large network of exposures; to the inter-temporal character of financial contracts; to the speed and reach of contagion.[82] The likelihood of industry-wide effects would contribute differentiating the failure of a bank from "the failure of a steel mill, software manufacturer, or grocery store [which] is not widely perceived to spill over to other firms in the same industry".[83]

Systems have been in time an object for enquiry to many academic disciplines throughout natural and social sciences,[84] so that it may well be claimed that 'system' is indeed one of the most important concept in modern science.[85] Dealing with something that may be qualified as a system, of course, is fraught with consequences. First, it means dealing with a set of sub-units interconnected with one another "so that changes in some elements or their relations produce changes in other parts of the system"; second, it means having a system which "exhibits properties and behaviours that are different from those of the parts", in such a way that the whole system is *different from*, and not just *greater than*, the sum of the parts.[86] Such properties are generally referred to as 'emergent properties'", i.e. properties that are with the system, and may not be attached to the single elements composing it.[87] In addition to this, social and economic ones may be deemed

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[79] O. DE BANDT, P. HARTMANN, *Systemic Risk: A Survey*, 10.

[80] The same applies, although to a lesser extent, to the broader financial system.

[81] T. PADOA-SCHIOPPA, *Regulating Finance*, Oxford University Press, Oxford, 2004, 36.

[82] O. DE BANDT, P. HARTMANN, *Systemic Risk: A Survey*, 13; G.G. KAUFMAN, Bank Contagion: A Review of the Theory and Evidence, Journal of Financial Services Research, no. 8/1994, 123.

[83] G.G. KAUFMAN, Bank Failures, Systemic Risk, and Bank Regulation, The Cato Journal, no. 1/1996, 3.

[84] R. JERVIS, *System Effects. Complexity in Political and Social Life*, 4.

[85] G. Hardin, 'The Cybernetics of Competition', Perspectives in Biology and Medicine, no. 7/1963, 77, cited in R. JERVIS, *System Effects. Complexity in Political and Social Life*, 5. However, in spite of its importance, the very idea of system is often overlooked in social and political life; *ibidem*, 3.

[86] "The result is that systems often display nonlinear relationships, outcomes cannot be understood by adding together the units or their relations, and many of the results of actions are unintended. Complexities can appear even in what would seem to be simple and deterministic situations"; R. JERVIS, *System Effects. Complexity in Political and Social Life*, 6, 13.

[87] R. JERVIS, *System Effects. Complexity in Political and Social Life*, 15; D. HELBING, 'Systemic Risks in Society and Economics', 14.

complex systems, in that they are characterised by a high number of interacting elements, which are tied with one another by non-linear interactions, thus prompting a dynamic and fairly unpredictable system behaviour.[88]

If appropriate attention is due to the noun 'system', the same applies to the adjective 'systemic', instead of which 'systematic' is sometimes employed. In truth, a difference actually exists between 'systemic' and 'systematic', in spite of the common misunderstanding associated with them.[89] The former is generally meant to indicate something which naturally arises from the system in such a way that is unplanned and not foreseen, and is mainly due to the inherent characteristics of the system. Conversely, the latter would rather refer to something which is somehow planned, and is linked to an idiosyncratic event which arises due to system dynamics. Based on this distinction, and in the light of the meaning that is normally associated with systemic risk,[90] the employment of the adjective 'systemic' seems more correct than 'systematic'.[91]

However, and again, from a scientific perspective this is fraught with consequences. Indeed, 'systemic' "is a core term of systems thinking and systems theory, thus carrying the weight of an extended theoretical background which contradicts – or at least challenges – core assumptions of mainstream theorizing, particularly in economics and finance".[92]

The adjective 'systemic' has been assigned in time a whole array of meaning in the fields of 'pure' sciences (such as mathematics, and physics), 'natural' sciences (such as botanic, zoology, and medicine), and 'human' sciences (such as psychology, and anthropology) by extremely rich intellectual contributions. To different extents, these

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[88] D. HELBING, 'Systemic Risks in Society and Economics', 3. For a detailed explanation of these aspects, *ibidem*, 4 ff. However, such statement should not be interpreted as an absence of regularities: "indeed, crucial to a systems approach is the belief that structures are powerful and that the internal characteristics of the elements matter less than their place in the system"; R. JERVIS, *System Effects. Complexity in Political and Social Life*, 4-5.

[89] H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 18. To the best of knowledge, the only academic contextual definition of 'systemic' and 'systematic' risk in financial regulation literature is the one contained in J.C. HULL, *Risk management e istituzioni finanziarie*, Luiss University Press, 2012 (original edition *Risk Management and Financial Institutions*, 2006). While the former coincides with many other in the literature (see later in the chapter), to the latter is assigned the meaning of risk that may not be eliminated through diversification; *ibidem*, 631.

[90] For different possible definitions of systemic risk, see later in the paragraph.

[91] With totally different meanings, the ECB employs a distinction between 'systematic risk' and 'systemic risk' that is tied to their alleged origin; "systematic risk, also sometimes called market risk or undiversifiable risk, should be carefully distinguished from systemic risk. Systemic risk is the risk associated with overall aggregate market returns"; EUROPEAN CENTRAL BANK, *Financial Stability Review*, December 2009, 102.

[92] H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 18. The authors would then tend to assume "that usage of the term systemic is simply a case of conforming to a new important catchword and has nothing to do with a reflected incorporation of systems thinking"; *ibidem*, 18. This position, however, may be criticized in that it disentangles a concept from its original frame of reference for no worthwhile reason.

contributions have borrowed from the general theory of systems first developed in the 1950s by von Bertalanffy,[93] after which many and far reaching theoretical elaborations have followed. The question that is of outmost interest here, however, is the effective transposition of such intellectual heritage into social sciences;[94] if this is difficult with economics, it is even more difficult with law. In order to do this, reference necessarily has to be made to the intellectual elaborations offered by scholars such as Parsons and Luhmann.[95] As for the former, what matters is especially the accent posed on the *functions*

[93] L. VON BERTALANFFY, *General Systems Theory. Foundations, Development, Applications*. The main merit of the mathematician and biologist Ludwig von Bertalanffy was that of exploring and theorizing structural and functional rules governing systems, by exploring concepts related to the extent to which systems were 'open' and 'close' relatively to the outside; the characteristics and conditions under which systems are meant to maintain their own stability by compensating for deviations (homeostasis); the ability of systems to regulate their own functioning (self-regulation); the extent to which an open system, albeit perturbations in its growth, is not prevented from reaching a given objective. This was partly a result of a general intellectual movement aimed at challenging the mechanicistic idea that the microscopic world was simpler than the macroscopic one, and that the latter could be explained by detailed knowledge of the former. Subsequently, scholars elaborated notions which were key to the understanding of basic dynamics governing systems. As a sub-set of general systems theory, Norbert Wiener labelled as 'self-correcting retroaction' or 'cybernetics' the process through which the information regarding the past were fed back into the system thus influencing its future (*Cybernetics or the Control and Communication in the Animal and the Machine*, 1948). Tools deriving from cybernetics were employed by Gregory Bateson for analysing and understanding human interactions both in society and within families (*Steps to an Ecology of Minds*, 1972). This type of cybernetics still postulated the possibility of separating the system that was observed by the observer, something which later on was instead called into question by the so-called 'second-order cybernetics', which claimed instead, among other things, the need for a greater consideration of the observer. Another sub-set of systems theory is also represented by game theory, whose seminal contribution may be dated back to John von Neumann and Oskar Morgenstern (*Theory of Games and Economic Behavior*, 1947).

[94] On general issues about general systems theory and social sciences, L. VON BERTALANFFY, *General Systems Theory. Foundations, Development, Applications*, 194 ff.

[95] Talcott Parsons developed a theory under which the main characteristic of a system is interdependence of the single parts composing it. Interdependence acts as 'order' in the relationships among the elements composing the system. Such order is geared at *self-maintenance*, that is at the maintenance of an equilibrium also after that endogenous perturbations inherent to the system have occurred (a characteristic defined as 'homeostasis'). However, such systemic approach did not entail for Parsons the abandonment of a normative approach (although mainly having a cultural meaning). This is related to the role that is still acknowledged to the legal system (along with economy and politics) as for the identified fundamental functions necessary for the functioning of systems; T. PARSONS, *The Structure of Social Action*, New York, The Free Press, 1968 (original edition 1937); T. PARSONS, *The Social System*, New York, The Free Press, 1964 (original edition 1951). Niklas Luhmann advanced an elaboration of systems theory that is more directly connected to the original work of von Bertalanffy. Among other things, what characterizes Luhmann's contribution is an attempt to shift from a theory that is mainly concentrated on the *structure* of the system to one that is more oriented towards an analysis of the *functions* of the system. By the same token, stability is not meant any more as a byword for invariability, but

of the system, which is something of outmost interest in dealing with systemic risk in the banking system. Indeed, this necessarily compels a determination about *what are in reality* the functions of this system, something that is not as predictable as it may seem.[96] To recognize law as an 'ordinary' social science along with others would lead to deprive it from what is generally understood and intended as its all-encompassing character, which has so far also meant it to be sovra-ordinated *vis-à-vis* the others. This element is in particular tension with the account of the relationship between systems theory and the legal 'system' developed by Luhmann.[97]

As for what it is of interest here, four main elements may be derived from system theory that could prove useful for an elaboration of systemic risk in the banking system. These are the relevance of phenomena having a 'collective', or 'common' character, that may give useful insight as for the explanation about the functioning of the banking system; the importance of 'emergent properties' of the banking system, i.e. properties of the system which are not entirely also properties of the institutions composing it; the potentially problematic relationship between the 'micro' and the 'macro' dimension of the banking system, along with potential clashes; the role of the 'observer' of the system (the regulator, the supervisory authority, the macro-prudential authority).[98] In addition to this, and as for the approach that has to be taken, insights from systems theory demonstrate for sure the need to a necessary interaction among disciplines, so that different approaches and concepts are involved. Apparently, the topic of systemic risk in the banking system may not be understood (not partially, but) *at all* without accepting to blur the lines drawn along academic disciplines.[99]

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rather as a relationship between the system and the environment surrounding it, therefore as relative stability of the structure and the borders of the system relatively to mutations in the environment; N. LUHMANN, *Social Systems*, Stanford, Stanford University Press, 1995 (originally published 1984). On systems theory and Luhmann's thinking relatively to law and risk, see also paragraph 1.2.3.

[96] This becomes especially clear when one attempts an in-depth examination of the concept of financial stability; for further discussion, see chapter 2.

[97] On this point see N. LUHMANN, *Law as a Social System*, Oxford, Oxford University Press, 2004 (originally published 1993). On this point Luhmann's account differs quite significantly from Parsons' one, in that he substantially refuses the idea of some forms of hierarchy among systems. In Luhmann's view, a society characterized by systems resembles more a network than a pyramid, with the obvious consequence of having no centre, nor apex. The idea of a 'closed' legal system which has no overarching role *vis-à-vis* other systems seems then to assume a self-referential and formal character. In turn, it may end up quite paradoxically closer to a 'pure theory of law' than to an account acknowledging the fruitful and legitimate social function of law.

[98] To the best of knowledge, the only interpretation of systemic risk given so far is the one for which the area of systemic risk (as opposed to an area of mere financial risk) as the area characterized by consequences which "become *politically relevant* and force political systems to intervene"; H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 28. On this possible interpretation, see later in the chapter.

[99] This may not be interpreted as a lack of rigorousness any more, as it is instead common in the legal academia when drawing upon other disciplines. In no way this approach deprives of meaning a rigorous understanding, in this case, of regulatory details, trends and topics. Again in

The consequence of characterizing the banking system as such, and moreover as a complex one,[100] are made apparent if compared with its economic theoretical framework of reference. The point has been correctly made that in order to talk about systemic risk is necessary to discuss beforehand the main characteristics of the system, along with its 'emergent' properties.[101]

Modern financial economics is backed by a combination of frameworks dating back to mid-twenty-first century, under which portfolio risks may be calculated, priced, and hedged.[102] Much in the same way "financial regulation is indeed predicated on the assumptions of classical economists".[103] A re-examination of these predicates, however, is necessary both in the light of the theoretical advances of the last decades, and of the sensible transformations experienced by the financial system in recent times, such as a trend towards 'disintermediation'; massive technical change, involving a reduction of information-management costs, and new techniques available; institutional change, with a rising importance of hedge funds and private equity firms.[104]

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the words of von Bertalanffy, "modern science is characterized by its ever-increasing specialization, necessitated by the enormous amount of data, the complexity of techniques and of theoretical structures within every field. Thus science is split into innumerable disciplines continually generating new sub-disciplines. In consequence, the physicist, the biologist, the psychologist and the social scientist are, so to speak, encapsulated in their private universes, and it is difficult to get word from one cocoon to the other"; L. VON BERTALANFFY, *General Systems Theory. Foundations, Development, Applications*, 30.

[100] On the point, see later in the paragraph.

[101] H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 48, 52.

[102] Reference is to K.J. ARROW, G. DEBREU, "Existence of an Equilibrium for a Competitive Economy", *Econometrica*, no. 3/1954, 265 ff.; H.M. MARKOWITZ, 'Portfolio Selection', *Journal of Finance*, no. 1/1952, 77 ff; R.C. MERTON, 'Lifetime Portfolio Selection under Uncertainty: The Continuous-Time Case", *Review of Economics and Statistics*, no. 3/1969, 247 ff. A departure from this would entail calling into question, among other things, two basic assumptions of the economic science, namely what Schumpeter called the 'methodological individualism', i.e. the possibility to link all economic phenomena, however complex they are, to the choice autonomously made by an individual; and that that individual would be self-interested and would rationally exploit all the information available to him according to this purpose. A brief summary of such evolution is provided by A.G. HALDANE, V. MADOUROS, 'The dog and the Frisbee', Speech held at the Federal Reserve Bank of Kansas City's, 36th Economic Policy Symposium, Jackson Hole, 31 August 2012, 2 ff..

[103] J. BLACK, 'Financial Markets', in P. Cane and H. Kritzer (eds.), *The Oxford Handbook of Empirical Legal Research*, Oxford, Oxford University Press, 2010, .155

[104] R.G. RAJAN, *Has Financial Development Made the World Riskier?,* 313. In order to do this, it is necessary to a couple of over-simplifying notions, namely "to conceive finance as a classical market and then decry all regulation and government intervention as impurities which cripple the operation of a regular market", and "to assume that governments know better than markets and therefore should control financial markets"; H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 55-56. On the need to provide a different

In particular, the need to come at grips with the economic phenomena underlying systemic risk entails the need to call into question the traditional theoretical framework of the 'efficient market hypothesis'.[105] Under one of its operational frameworks, the 'capital asset pricing model', markets are "assumed to be driven only by an external inputs of information and only reflect them".[106] Generally speaking, the efficient market hypothesis is deemed to have quite survived in theory and in practice despite being largely criticized, especially due to the advance of behavioural economics and the new understandings of *group dynamics* and *herding behaviour*.[107]

With reference to these two elements, significant advances have actually been made. In truth, the issue of strategic behaviour by market participants has been long explored, and it is best exemplified by Keynes' example of the 'beauty contest'. The market is driven not only by market participants' independent preferences, but much more by participants' belief about what average opinion is believed by average market participants.[108] Another interesting contribution to the study of herd behaviour within financial markets is that of R. Schiller, according to which individuals make decisions based on the behaviour of other market participants.[109] Strategic behaviour on the side of individuals is rooted in both social and psychological factors.[110] Among other things, this leads to a phenomenon which is labelled 'homogenisation', i.e. market participants tend to

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cognitive framework for the understanding of financial markets, J. BLACK, 'Reconceiving Financial Markets – From the Economic to the Social', 403.

[105] E.F. FAMA, 'Efficient Capital Markets: A Review of Theory and Empirical Work', Journal of Finance, no. 25/1970, 383. This may be deemed a parallel in financial economics of the theory of 'rational expectations'; F.S. MISHKIN, *The Economics of Money, Banking and Financial Markets*, New York, Pearson, 2010, 156.

[106] V. FILIMONOV, D. SORNETTE, 'Quantifying Reflexivity in Financial Markets: Towards a Prediction of Flash Crashes', Department of Management, Technology and Economics ETH Zürich, April 2012, 2.

[107] S.J.GROSSMAN, J.E. STIGLITZ, 'On the Impossibility of Informationally Efficient Markets', American Economic Review, no. 70/1980, 393; W.F.M. DE BONDT, R. THALER, 'Does The Stock Market Overreact?', Journal of Finance, no. 40/1985, 793; R. SHILLER, *Irrational Exuberance*, Cambridge, Cambridge University Press, 2000; FINANCIAL SERVICES AUTHORITY, *The Turner Review. A Regulatory Response to the Global Banking Crisis*, March 2009, 40. Under an even more radical position, "unexpected emergent properties mystify the financial system's rationality and shatter the economic axiom of the efficient market hypothesis"; H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 52.

[108] J. EATWELL, M. MILGATE, *The Fall and Rise of Keynesian Economics*, Oxford, Oxford University Press, 2011, 30.

[109] R. SCHILLER, 'From Efficient Market Theory to Behavioural Finance', Journal of Economic Perspectives, no. 83/2003

[110] Actually, many have underlined the role of an underestimation of behavioural aspects and psychological patterns before and during the financial crisis; Among others, see E. AVGOULEAS, 'The Global Financial Crisis, Behavioral Finance and Financial Regulation: in Search of a New Orthodoxy', Journal of Corporate Law Studies, no. 9/2009; G.A. AKERLOF, R.J. SHILLER, *Animal Spirits: How Human Psychology Drives the Economy, and Why it Matters for Global Capitalism*, Princeton, Princeton University Press, 2009.

move in the same direction. A further consequence of this is a reduction in diversity, which deprives "the global financial system from many of its market stabilisers".[111]

For what's on stake here, suffice it to mention two more contributions to a deeper and wider understanding of how the financial system works. First, the contribution of Tversky and Kahneman that goes under the name of 'prospect pheory', whose main finding is that the appreciation of a risk associated to a choice also depends on the way in which the choice is presented.[112] Second, the contribution of Douglas and Wildavsky, which advanced the idea of a *cultural* theory of risk perception, under which the attitude of society towards risk is decisively influenced by cultural elements.[113]

Then, in the words of Kahneman, "if subjective confidence is not to be trusted, how can we evaluate the probable validity of an intuitive judgement? When do judgements reflect true expertise? When do they display an illusion of validity?". The answer would lie in "the two basic conditions for acquiring a skill: an environment that is sufficiently regular to be predictable; an opportunity to learn these regularities through prolonged practice".[114]

However, even the first (at least) of these conditions may be called in to question by one of the recurrent features of studies on the banking systems, namely its *complexity*.

The financial system presents many of the characteristics which have been deemed to be an expression of the degree of complexity of systems.[115]

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[111] E. AVGOULEAS, 'The Global Financial Crisis, Behavioral Finance and Financial Regulation: in Search of a New Orthodoxy', Journal of Corporate Law Studies, no. 9/2009, 29.

[112] D. KAHNEMAN, A. TVERSKY, 'Prospect Theory: An Analysis of Decision under Risk', Econometrica, no. 2/1979, 263 ff. In addition to this, it is worth considering evidence for which "providing someone with a random numerical forecast increases his risk taking, even if the person *knows* the projections are random (emphasis original)"; N.N. TALEB, *Antifragile*, London, Allen Lane, 2012, 135 (evidence referenced comes from the work of D. Kahneman).

[113] M. DOUGLAS, A. WILDAVSKY, *Risk and Culture. An Essay on the Selection of Technological and Environmental Dangers*, Berkeley, University of California Press, 1982. Moreover, based upon neuroscience insights, the human need has been demonstrated of finding patterns, even in random noise (something which in statistics takes the name of *overfitting*; N. SILVER, *The Signal and the Noise. The Art and Science of Prediction*, 12, 163.

[114] D. KAHNEMAN, *Thinking, Fast and Slow*, London, Penguin Books, 2012 (original edition 2011), 240.

[115] An interesting taxonomy of characteristics of complex systems is offered by the OECD, which has identified the following characteristics: 'adaptability', as "elements of complex systems adapt to the action of other components and to changes in their environment"; 'emergence', where "system-level patterns that are not easily identified by examining the system's individual constituents" may be identified; 'self-organisation', namely, "at a system level, the autonomous adaptation to changing conditions as a result of the adaptability of the individual components"; 'attractors', characterized by "a recognisable dynamic state of a system that may continuously reappear"; 'self-organised criticality', when "a self-organising attractor state with an inherent potential to engender abrupt transitions"; 'chaos', when systems show an "extreme sensitivity to the initial conditions of the system"; 'non-linearity', with "a system in which changes in one property or component may have a disproportionately large effect on another property or component"; 'phase transitions', when "a system's behaviour may change radically, and

The way in which such complexity may fit into the classical theoretical framework is still not fully clear. In spite of prestigious precedents,[116] the relationship between complexity and contemporary financial markets has been explored only in recent times. The necessary question to explore was whether increased complexity, in the form of an increased amount and range of products in the financial markets (which in turn generated enhanced borrowing, and risk-diversification/risk-sharing) would have come to a cost to the system in terms of overall risk.[117] Both because of individual compensation structures, and of the role of relative performance between managers (generating incentives to take hidden risks or to herd with others), the managerial incentive structure has changed, and along with it the very nature of risks undertaken within the system.[118] How relevant this may be from the viewpoint of systemic risk may be appreciated by thinking at how incentives to take hidden risks may favour the risks that may be more easily hidden, i.e. the 'low-probability/high-impact' ones, or 'tail' risks[119]. Two additional elements deserve to be mentioned. First, the increased homogeneity of market participants. This is mostly expressed by the reliance of banks "on wholesale funding on the liabilities side of the balance sheet; in structured credit on the assets side of their balance sheet", which adds to risk-management activities performed with similar VaR models.[120] The same holds true for liquidity, that has been proved to be more a function of the diversity of participants, than of their size.[121] Second, the bold increase in the size of the financial system witnessed in the last years and decades has coupled with a move towards product diversification, which in turn has enhanced complexity in the sector.[122]

However, the appreciation of complexity is controversial.

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sometimes irreversibly, when a certain "tipping point" or phase transition point is reached"; 'power laws', "when the frequency of an event varies as a power of some attribute of that event (e.g. its size), the frequency is said to follow a power law"; ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, *Future Global Shocks. Improving risk governance*, 58. See also I. GOLDIN, M. MARIATHASAN, *The Butterfly Defect. How Globalization Creates Systemic Risks, and What to Do About It*, Princeton, Princeton University Press, 2014, 19. When complex systems are close to a 'tipping point' "even small changes may cause a sudden 'regime shift', also known as 'phase transition' or 'catastrophe'"; "control attempts may also be obstructed by '*irreducible randomness*', i.e. a degree of uncertainty or perturbation which cannot be eliminated"; the problem is especially felt of " 'unknown unknowns', i.e. hidden factors which influence system behaviour, but have not been noticed before"; D. HELBING, 'Systemic Risks in Society and Economics', 9-10.

[116] The issue of complexity in economics was also addressed by Friedrich von Hayek, who charged statistics with the allegation of dealing "with the problem of large numbers essentially by eliminating complexity"; von HAYEK F.A., 'The Theory of Complex Phenomena', in Martin, M., McIntyre, L., *Readings in the Philosophy of Social Science*, Cambridge, MIT Press, 1994, 59.

[117] R.G. RAJAN, *Has Financial Development Made the World Riskier?,* 313.

[118] R.G. RAJAN, *Has Financial Development Made the World Riskier?,* 315-316.

[119] R.G. RAJAN, *Has Financial Development Made the World Riskier?,* 339.

[120] A.G. HALDANE, R.M. MAY, 'Systemic Risk in Banking Ecosystems', Nature, no. 469/2011, 355.

[121] J. EATWELL, M. MILGATE, *The Fall and Rise of Keynesian Economics*, 45.

[122] On the size of the banking system relative to the gross-domestic product of many nation States and its consequences, see chapter 3.

Indeed, complexity may well prompt an increase in the efficiency and depth of financial markets;[123] in addition to this, "in the absence of correlations in the fundamentals, diversification can enable the mitigation of risk".[124] There are empirical findings showing how risk diversification may have ambiguous consequences when the systemic level is considered. Investigating the probability of defaults as a function of the network density, researchers have found that a tension can be identified between individual risk and systemic risk, so that an increase in the number of counterparties in the credit network will, after a given point, increase individual and systemic default probabilities.[125]

As a complex system, the financial system exhibits some characteristics which are common among systems of the same token, but which appears to be especially at odds with the classical theoretical framework. In complex systems there are limits to the predictability of the system itself; "a large number of non-linearly coupled system components can lead to *complex dynamics* … well-known examples for this are the phenomena of *turbulence* and *chaos*, which make the dynamics of the system unpredictable after a certain time period".[126] Barriers to the prediction of the behaviour of the system are both randomness and the 'butterfly effect'.

1.1.2 Characterizing systemic risk

In getting closer to come at grips with the notion of systemic risk it is of outmost importance to recall once more that the concept of risk has not always had the employment it has today, nor has been always used in the same way it is today. As an evidence for this, suffice it to recall the original meaning and role of the concept of risk at the time of its formalization; it was the way through which the interest started to be seen

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[123] S.L. SCHWARCZ, Regulating Complexity in Financial Markets Washington University Law Review, no. 2/2009, 214. The key question, however, would then become whether risk has been transferred to those institutions characterized by a greater ability to bear it, or to those characterized by a greater risk-appetite; J. EATWELL, M. MILGATE, *The Fall and Rise of Keynesian Economics*, Oxford, Oxford University Press, 2011, 27.

[124] J. DANÍELSSON, H.S. SHIN, J.P. ZIGRAND, *Endogenous and Systemic Risk*, NBER Research Paper no. 12054, National Bureau of Economic Research, August 2011, 13.

[125] S. BATTISTON, D. DELLI GATTI, M. GALLEGATI, B.C. GREENWALD, J.E. STIGLITZ, *Liaisons Dangereuses: Increasing Connectivity, Risk Sharing, and Systemic Risk*, NBER Working Paper no. 15611, National Bureau of Economic Research, January 2009, 19, 147. Therefore risk diversification, even though helping the system to "diversify across small shocks", would also expose it "to large systemic shocks"; R.G. RAJAN, *Has Financial Development Made the World Riskier?,* 346. Empirical evidence seems to suggest that "despite a deepening of financial markets, banks may not be any safer than in the past"; R.G. RAJAN, *Has Financial Development Made the World Riskier?,* 317. Indeed, the endogenous character of risk (and of systemic risk in particular; see later in the paragraph) entails that assets with unrelated fundamentals may nevertheless experience correlations; J. DANÍELSSON, H.S. SHIN, J.P. ZIGRAND, *Endogenous and Systemic Risk*, 13.

[126] D. HELBING, 'Systemic Risks in Society and Economics', 8.

as the premium acknowledged for the intermediary function performed by banks, thus being no more a 'theft of time' and therefore a sin, because the latter would only belong to God.[127] From this viewpoint, the concept of risk lies at the very heart of financial economics.

However, it is not the pivotal role of risk that should lead to an indiscriminate employment of the corresponding concept. To this purpose, it is fundamental to recall the distinction between risk and uncertainty introduced and studied by Frank Knight back in his seminal work, first published in 1921.[128] Building upon this distinction, has been stated that "managing risks requires that causal connections between actions and events *are* or *can be* known" in that this is necessitated "for the construction of decision-making scenarios in which the consequences of actions may be anticipated".[129]

Those who have considered both the categories of risk and uncertainty in their Knightian meaning, and the characteristics that are normally attached to systemic risk, have called into question the notion of risk as it has been understood so far. The point has been made that "the traditional concepts of risk have become increasingly inappropriate as a basis of modern global governance (the classical distinction between risk and uncertainty is beginning to unravel, in our view, due to rising complexity and the difficulty of classifying real-world phenomena as either of these two".[130] The approach seems overall mistaken, since it adds confusion to a concept which is already quite delicate. In principle, it is a legitimate scientific option to change the meaning of theoretical categories and concepts along with changes witnessed in reality; however, it must be acknowledged that if a noun has come to a consolidated employment in terms as for its meaning such an operation might be substantially misleading. What may be conceded, however, is that systemic risk shows distinctive characteristics when compared to the traditional understanding of the concept of risk, namely the fact that unlike other

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[127] A. MARINELLI, *La costruzione del rischio*, Milan, Franco Angeli, 1993, 14.

[128] F.H. KNIGHT, *Risk, Uncertainty and Profit*, London School of Economics and Political Science, 1933. Here was advanced the distinction between *uncertainty*, as s situation where the decision-maker is unable to assign probabilities, and *risk*, as a situation where, by contrast, probabilities may be assigned. For a discussion of the correct meaning of the Knightian distinction, J. RUNDE, 'Clarifying Frank Knight's discussion of the meaning of risk and uncertainty', Cambridge Journal of Economics, no. 22/1998, 539 ff. Interestingly enough, the widespread inability to clearly distinguish between risk and uncertainty has been pointed as the major reason why rating agencies experienced multiple failures in correctly rating products and issuers; N. SILVER, *The Signal and the Noise. The Art and Science of Prediction*, 29.

[129] I. GOLDIN, M. MARIATHASAN, *The Butterfly Defect*, 27.

[130] I. GOLDIN, M. MARIATHASAN, *The Butterfly Defect*, 27. In particular, the authors argued that "the notion of risk needs to be expanded to include nonstochastic elements that cannot be easily quantified or defined using traditional tools and formulas from probability theory and mathematics"; I. GOLDIN, M. MARIATHASAN, *The Butterfly Defect*, 27. The plea of the authors for an analysis of systemic risk "drawing on the tools designed for *uncertain* environments" seems agreeable and promising in principle, also because it leads to the acknowledgment of the increasing difficulty in identifying direct causality links. However, it does not seem to have been adequately further elaborated.

risks, it cannot be removed (not even virtually),[131] and that it is unlikely to be amenable for diversification or hedging. This maybe explains why, perhaps taking the argument slightly too far, but not without merit, it has been argued that taking Frank Knight seriously "would force us to speak of *systemic uncertainties* rather than of systemic risk, since *systemic risk* as understood in the broad discussion includes areas of risk and areas of uncertainty".[132]

As a further layer of complexity, the role performed by risk in current financial economics (and therefore financial regulation) could not be understood without the notion of *probability*. In turn, this too is a concept far from uncontroversial, even though a mainstream approach is nowadays taken for granted. Overall, inductive reasoning remains fraught with theoretical and philosophical assumptions. Although it has developed in a closer relationship with mathematics, probability exerts an high influence both on natural and on social sciences.[133] Probability has been framed within different broader philosophical approaches in centuries, assuming quite distinctive characters as a result.[134] What matters here about the different theoretical frameworks of probability is that to

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[131] I. GOLDIN, M. MARIATHASAN, *The Butterfly Defect*.

[132] H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 9.

[133] Among other functions, one useful employment of probability was that of serving as an analysis tool for complex phenomena, which require the employment of mean values in order to be analysed; M.C. GALAVOTTI, *Interpretazioni della probabilità*, in L. Floridi (ed.), *Linee di Ricerca*, Servizio Web Italiano per la Filosofia, 2006, 942.

[134] After having started developing as a science in the seventeenth century, approaches to probability have been extremely varied over centuries. One example is the one proposed by Ludwig von Mises, which interpreted probability as frequency, therefore as an attribute within a given sequence. In 'frequentist probability', probability is a property of empirical phenomena, which is expressed by the frequency in which they may be observed. Another key pace in the history of probability was the one made by Karl Popper, who interpreted probability as a physical property, or more precisely as property of the whole context in which experiments take place. This approach was given the label of 'propensity probability', due to the key role played by the notion of propensity, which generates frequency. Propensity, on its side, needs to be verified experimentally, something which takes place through the comparison between probabilistic statements (those expressing theoretical propensity) and statistic statements (those expressing observed frequency). At one extreme of possible theories lies the subjective notion of probability elaborated by Bruno de Finetti, according to which probability would amount to a personal opinion, largely depending both on the context and on elements of psychological nature; "my thesis, paradoxically, and a little provocatively, but nonetheless genuinely, is simply this: PROBABILITY DOES NOT EXIST. The abandonment of superstitious beliefs about the existence of Phlogiston, the Cosmic Ether, Absolute Space and Time… or Fairies and Witches, was an essential step along the road to scientific thinking. Probability, too, if regarded as something endowed with some kind of objective existence, is no less a misleading conception, an illusory attempt to exteriorize or materialize our true probabilistic beliefs"; B. DE FINETTI, *Theory of Probability. A critical introductory treatment (vol. I)*, John Wiley & Sons, New York, 1974, x. On Popper and de Finetti, see A.P. DAWID, 'Probability, Causality and the Empirical World: A Bayes-de Finetti-Popper-Borel Synthesis', Statistical Science, no. 1/2004, 44–57.

some extent they *coexist* in contemporary times. Indeed, they seem to be employed differently depending on the academic context. In other words, each discipline tends to pick the notion of probability which better suites the cognitive framework which characterized the discipline itself, and the theoretical and practical needs that are associated with it. While 'fequentist probability' seems prevalent within natural science and statistics, 'propensity probability' is widespread in philosophy of science, while the subjective notion of probability is relatively more popular among philosophers, scholars and theoretical statisticians.[135] This is to say that in employing notions of risks one should also take into account the theoretical underpinnings of probability, which may well reflect on the notions of risks which are better suited to the case at stake and to the discipline concerned. 'Frequentist probability' seems to many extent the theoretical underpinning of systemic risk too, but there is no proof that this is actually the one that best serves the concept.[136]

Given its complex characteristics and blurred features, one key element of an analysis of systemic risk clearly rests on its *definition*. In order to do this, it necessary to remind preliminarily that the concept was already dealt with before the recent global financial crisis. Indeed, early experiences of global contagion had already occurred in 1995 and 1998-99.[137] Prior to the crisis, systemic risk was generally framed in terms of a cross-border externality,[138] and "was predominantly understood as the probability of contagion effects that cause cascades of defaults".[139] Overall, the awareness about systemic risk by the brightest scholars *before* the financial crisis may be found even surprising.[140]

In more recent times, uncertainty about a meaningful definition of systemic risk was felt by many. Regulators have been pointed as responsible for applying "Justice Potter

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[135] M.C. GALAVOTTI, *Interpretazioni della probabilità*, 960-961.

[136] Indeed, while in principle for instance the adoption of a subjective notion of probability would necessarily harm statistical inference or economic modelling (see R.F. NAU, 'De Finetti Was Right: Probability Does Not Exist', 108 ff.), this may still be useful where also non-purely economic-issues are at stake.

[137] D.W. ARNER, *Financial Stability, Economic Growth, and the Role of Law*, Cambridge, Cambridge University Press, 2007, 32 ff.

[138] N. MOLONEY, *EC Securities Regulation*, 27.

[139] I. GOLDIN, M. MARIATHASAN, *The Butterfly Defect*, 55.

[140] "Systemic risk is obviously the main externality requiring public control"; T. PADOA-SCHIOPPA, *Regulating Finance*, 48. Comparable awareness is also witnesses on the side of regulators; systemic risk was defined as "the risk that an event will trigger a loss of economic value or confidence in, and attendant increases in uncertainty about, a substantial portion of the financial system that is serious enough to quite probably have significant adverse effects on the economy ... the adverse real economic effects from systemic problems are generally seen as arising from disruptions to the payment system, to credit flows, and from the destruction of asset values"; GROUP OF TEN, *Consolidation in the Financial Sector*, Bank for International Settlements, 2001, 126-127. For a review of selected literature on systemic risk in the pre-crisis scientific environment, see J. DOW, 'What is Systemic Risk? Moral hazard, initial shocks and propagation', Institute for Monetary and Economic Studies, Bank of Japan, Discussion Paper no. E/17/2000, 10 ff.

Stewart's definition of pornography, i.e., systemic risk may be hard to define but they know it when they see it".[141] However, difficulties in circumscribing this phenomenon are material, and ought not be underestimated.

The concept of systemic risk many would find themselves comfortable with is that of the 'bank run' discussed by Bagheot.[142] If this demonstrates once more that talks on the regulation of systemic risk have always existed, though now they have been taken to an unprecedented level, nowadays many share the idea that definitions of systemic risk modelled on the idea of bank run would be incomplete, since a systemic crisis might take many other different forms.[143]

Many definitions of quite simple character have focused on the features of the trigger event and of the subsequent shock; systemic risk would then be the possibility of "a disruption in the monetary and payment systems";[144] the risk of a "common shock which is not the result of direct causation" but of "indirect impacts";[145] a large shock "triggered when relatively modest tipping points, breaking points, or regime shifts hit their threshold", and a shock "propagated through a network via risk sharing".[146]

Slightly more complex definitions tend to focus on the effects that are produced upon the financial system; systemic risk would be "the risk that an event will trigger a loss of economic value or confidence in a substantial portion of the financial system";[147] "the risk or probability of breakdowns in an entire system, as opposed to breakdowns in individual parts and components";[148] "the risk that the failure of one significant financial institution can cause or significantly contribute to the failure of other significant financial

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[141] US TREASURY, *A Survey of Systemic Risk Analytics*, Office of Financial Research Working Paper no. 1/2012, 1. Interestingly, the same has been said in an altogether different context as for systems in general; "Perhaps we should simply say about systems what Justice Potter Stewart said about obscenity: 'I know it when I see it'"; R. JERVIS, *System Effects. Complexity in Political and Social Life*, 5.

[142] W. BAGHEOT, *Lombard Street. A Description of the Money Market*, Greenwood Publications, 2010 (original edition 1873).

[143] V.V. ACHARYA, *A Theory of Systemic Risk and Design of Prudential Bank Regulation*, CEPR Discussion Paper no. 7164, Centre for Economic Policy Research, February 2009, 2. See also G.G. KAUFMAN, Bank Failures, Systemic Risk, and Bank Regulation'; G.G. KAUFMAN, K.E. SCOTT., 'What is Systemic Risk and Do Bank Regulation Retard or Contribute to It?', The Independent Review, no. 7/2003, 371; M.I. OVERMYER, 'The 'Foreign Private Adviser' Exemption: a Potential Gap in the New Systemic Risk Regulatory Architecture', Columbia Law Review, no. 110/2010, 2193.

[144] R.M. LASTRA, *Legal Foundations of International Monetary Stability*, Oxford, Oxford University Press, 2006, 111; P. DAVIS, *Debt, Financial Fragility and Systemic Risk*, Oxford, Clarendon Press, 1992, 117.

[145] I. GOLDIN, T. VOGEL, Global Governance and Systemic Risk in the 21st Century: Lessons From the Financial Crisis [2010] Global Policy 1, 5.

[146] I. GOLDIN, M. MARIATHASAN, *The Butterfly Defect*, 28.

[147] D. SCHOENMAKER, *Governance of International Banking. The Financial Trilemma*, 24.

[148] G.G.KAUFMAN, K.E. SCOTT, What is Systemic Risk and Do Bank Regulation Retard or Contribute to It?, The Independent Review, no. 7/2003, 371.

institutions";[149] a "negative externality imposed by each financial firm on the system";[150] "threats of adverse events diverging, to a varying extent, from the medium-term experience-based expectations", accompanied by adverse events affecting the whole system.[151]

Moving to a further level, some definitions account for possible effects outside the financial system; systemic risk would be "the risk that the intermediation capacity of the entire financial system is impaired, with potentially adverse consequences for the supply of credit to the real economy";[152] "the risk that a localized economic shock can have worldwide repercussions because of the interconnections between financial institutions";[153] "a combination of an unexpected operational disruption of global finance which translates into a direct and immediate threat to the whole or parts of the global economic system and, as such, poses an unacceptable threat to the affected political systems";[154] a risk whose essential feature is its potential "to lead to substantial, adverse effects on the *real* economy, for example, by causing a reduction in productive investment, by reducing credit provision, or destabilizing economic activity".[155]

The tendency may be problematic to frame the issue in terms of 'market failure', such as that after a systemic event "one observer might use the term 'market failure' to describe what another would deem to have been a market outcome that was natural and healthy, even if harsh".[156] To many extents this is an outdated definition. Indeed, to portray systemic risk as a market failure implies the possibility to identify a deviation from a *normal* functioning of the system. However, from many disciplines comes today the comfort that systemic risk may be a 'natural' consequence of the shape of the system.[157]

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[149] H. SCOTT, 'The Reduction of Systemic Risk in the United States Financial System', 673.

[150] V. ACHARYA, M. RICHARDSON, *Restoring Financial Stability: How to Repair a Failed System*, New York, Wiley, 2009, 286.

[151] R. MAINO, *Tackling the "Too Big To Fail" Conundrum: Integrating Market and Regulation*, LSE Financial Markets Group Paper Series, Special Paper no. 207, April 2012, 2.

[152] A. TOBIAS, M.K. BRUNNERMEIER, 'CoVaR', National Bureau of Economic Research, Working Paper no. 17454, September 2011, 1.

[153] J.C. Jr. COFFEE, 'Systemic Risk after Dodd-Frank: Contingent Capital and the Need for Regulatory Strategies Beyond Oversight', Columbia Law Review, no. 111/2011, 797.

[154] H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 43. Indeed, "only when operational failures of the financial system impinge on other societal subsystems and critically on the political system, forcing politics to somehow mitigate and manage the politically unacceptable effects of a dysfunctional financial system, it does make sense to invoke a conceptual threshold and introduce the category of systemic risk as opposed to *normal accidents* of the operation of the financial system"; ibidem, 37.

[155] J. KAMBHU et al., 'Hedge Funds, Financial Intermediation, and Systemic Risk', Federal Reserve Bank of New York Economic and Policy Review, December 2007, 5.

[156] A. GREENSPAN, *Remarks at a Conference on Risk Measurement and Systemic Risk*, Board of Governors of the Federal Reserve System, Washington D.C., 1995.

[157] Indeed, historical enquiries have incorporated the notion of systemic risk in the analysis of boom-bust cycles; C.P. KINDLEBERGER, *A Financial History of Western Europe*, Oxford, Routledge, 1984, 270. On the point, see also H.P. MINSKY, The Financial Stability Hypothesis:

In other words, that systemic risk may be something closer to an 'emergent property' (in the meaning outlined before) of the global financial system.[158]
Compared to the academia, much more consensus seems to have gathered around definitions of systemic risk as far as regulators are concerned, be they international standard setters, or institutions or agencies of the European Union. The FSB has defined systemic risk as "a risk of disruption to financial services that is (i) caused by an impairment of all or parts of the financial system and (ii) has the potential to have serious negative consequences for the real economy".[159] This definition is closely resembled by the one employed in the ESRB Regulation, where systemic risk is defined as "a risk of disruption in the financial system with the potential to have serious negative consequences for the internal market and the real economy".[160] The ECB, on its side, has performed a valuable in-depth enquiry on the concept of systemic risk, which broadly speaking is referred to "to the risk that financial instability becomes so widespread that it impairs the functioning of a financial system to the point where economic growth and welfare suffer materially".[161]

Overall, it seems apparent that different definitions of systemic risk show common elements and patterns. However, it is also apparent that no consensus has gathered around one single notion of systemic risk, in that the only common element shared by all the definitions above is the presence of an unexpected trigger event fraught with undesirable consequences for both the financial system and the real economy.

However, it does not seem true that "if a problem cannot be defined, it cannot be solved".[162] Notwithstanding the importance of definitions,[163] the complexity itself inherent to the issue may prevent a synthetic definition, if one just bears in mind how a *definition* requires to many extents also a *simplification*.[164]

Capitalistic Processes and Behavior of the Economy, in C.P. KINDLEBERGER, J.P. LAFFARGUE (eds.), *Financial Crises: Theory, History and Policy*, Cambridge, Cambridge University Press, 1982 (on issues of instability which is inherent to the financial system, see more in detail chapter 2).

[158] H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 8.

[159] FINANCIAL STABILITY BOARD, INTERNATIONAL MONETARY FUND, BANK OF INTERNATIONAL SETTLEMENTS, *Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations*, October 2009, 5-6.

[160] Regulation 1092/2010/EU on European-Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board, Art. 2; on the ESRB, paragraph 3.3.

[161] EUROPEAN CENTRAL BANK, *Financial Stability Review*, December 2009, 134 ff.

[162] S.L. SCHWARCZ, 'Systemic Risk', The Georgetown Law Journal, no. 97/2008, 197.

[163] Even in the absence of a single definition, it may be useful "to give some general structure to our thinking in this area in order to help avoiding piece-meal policy making"; O. De BANDT, P. HARTMANN, *Systemic Risk: A Survey*, 8. On the 'cultural' role played by definitions, see the Introduction.

[164] The 'linguistic' dimension is couple with the quantitative one: one single measure of systemic risk "may neither be possible nor desirable, as such a "Maginot" strategy invites a blindsided surprise from some unforeseen"; US TREASURY, *A Survey of Systemic Risk Analytics*, 2.

Besides theoretical clarifications and definitions, the attempt to gain a comprehensive understanding of systemic risk naturally requires a turn to empirics. In the last years, the literature on the topic has actually experienced a bust. Many contributions in the field of financial economics and econometrics have been published with the main aim of coming at grips with sources and forms of systemic risk, along with tools apt to its measurement.

One general trend which is common to such contributions is the overall increased attention to endogeneity, i.e. to changes arising from *within* the system instead of outside it. Under the older views on systemic risk, the sources of this risk were mainly seen as exogenous, while shocks were associated with real or monetary events such as wars or other civil unrests, economic recession, or environmental catastrophes.[165] In truth, some commentators had already discussed possible endogenous sources,[166] and some move towards a theoretical framework taking in due account endogeneity ha already be done.[167] However, the whole point has been made apparent only with the financial crisis. More recent characterizations of systemic risk increasingly concentrated upon shocks generated from inside the system.[168] The attention towards endogeneity is also required by a real increase in the extent to which markets are driven by endogenous dynamics: "the level of endogeneity has increased significantly from 1998 to 2010, with only 70% in 1998 to less than 30% since 2007 of the price changes resulting from some revealed exogenous information".[169]

In the study of complexity and endogeneity, financial economics has benefitted of insight from other disciplines, especially from natural sciences and the physics of

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[165] A. CROCKETT, in BANK FOR INTERNATIONAL SETTLEMENTS, ***Risk Measurement and Systemic Risk***, Proceedings of the Third Joint Central Bank Research Conference, October 2002, 14; C.P. KINDLEBERGER, ***A Financial History of Western Europe***, 270; A.G. HALDANE, R.M. MAY, 'Systemic Risk in Banking Ecosystems', Nature, no. 469/2011, 351.

[166] A. CROCKETT, in BANK FOR INTERNATIONAL SETTLEMENTS, ***Risk Measurement and Systemic Risk***, 13.

[167] R.G. RAJAN, ***Has Financial Development Made the World Riskier?***, 346.

[168] I. GOLDIN, T. VOGEL, Global Governance and Systemic Risk in the 21st Century: Lessons From the Financial Crisis, Global Policy, no. 1/2010, 5. For instance, reference has been made to "a two-way connection between thinking and reality", introducing "an element of uncertainty into the participants' thinking and an element of indeterminacy into the course of events", named 'reflexivity'; G. SOROS, ***The New Paradigm for Financial Markets***, New York, Public Affairs, 2008, 64. The critique is mainly directed against the idea that supply and demand are independently given, defined as "an assumption disguised as a methodological device"; ***ibidem***, 68. This would result in an incorporation of expectations and perceptions within decisions, so that markets would have the capacity of affecting "the fundamentals that they are supposed to reflect"; ***ibidem***, 73.

[169] V. FILIMONOV, D. SORNETTE, 'Quantifying Reflexivity in Financial Markets: Towards a Prediction of Flash Crashes', 17. This illuminates a key character of the financial system ***vis-à-vis*** other ones, where the relative importance of endogeneity is lower.

disordered systems.[170] Indeed, studies borrowing from ecology's models of food webs and epidemiological networks have showed how an homogeneous, 'herding' behaviour would make individual banks safer, while enhancing the risk for the system as a whole.[171] A comparison has been made between the characteristic of natural systems called 'disassortativity' (i.e. nodes with few connections, labelled as 'specialists', tend to be linked to nodes with many connections, labelled as 'generalists') generates networks which have "an overall appearance similar to that of the Fedwire network operated by the US Federal Reserve System for interbank payment transfers".[172]

The hierarchical structure which enhances biodiversity in networks of plants and animal would increase the risk of large-scale failures. Indeed, in spite of facilitating biodiversity, mutualism "creates the potential for many contingent species to go extinct, particularly if large, well-connected generalists (for example, certain large banks) disappear".[173] Valuable contributions developed in the field of study about the instability of systems in relation to "perturbations of small amplitude", a phenomenon which is commonly referred to as *butterfly effect*.[174]

The basic idea behind all this line of study is that lessons drawn from other disciplines might support the ability of policymakers to assess and manage large-scale risks to the financial system.[175] However, there is a point in putting forward perplexities as for the ability of tools of natural science to contribute to a clear understanding. Differences between ecosystems and the financial system are indeed obvious, but the real question is the extent to which these differences may impair the very explanatory power of the theories employed. Generally speaking,

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[170] A.G. HALDANE, R.M. MAY, 'Systemic Risk in Banking Ecosystems'; G. SUGIHARA, H. YE, 'Cooperative Network Dynamics', Nature, no. 458/2009; E.N. LORENZ, *Predictability: Does the Flap of a Butterfly's Wings in Brazil Set Off a Tornado in Texas?*, Presentation before the American Association for the Advancement of Science, 29 Dec. 1972. The idea behind the *butterfly effect* is that even small changes in one given place may have major (and unexpected) consequences in both distant and unconnected areas. The effect was studied by Lorenz in the field of hurricane formation and was originally referred to the flapping of the wings of a seagull; E.N. LORENZ, 'Deterministic Nonperiodic Flow', Journal of the Atmospheric Sciences, no. 20/1963, 130 ff. The idea has been also developed by I. PRIGOGINE, *The End of Certainty*, New York, The Free Press, 1997; F. CACCIOLI, M. MARSILI, P. VIVO, 'Eroding Market Stability by Proliferation of Financial Instruments', The European Physical Journal, no. 71/2009; and F. CACCIOLI, M. MARSILI, 'Information Efficiency and Financial Stability', Economics, no. 3/2010.

[171] A.G. HALDANE, R.M. MAY, 'Systemic Risk in Banking Ecosystems', 353.

[172] G. SUGIHARA, H. YE, 'Cooperative Network Dynamics', 979.

[173] G. SUGIHARA, H. YE, 'Cooperative Network Dynamics', 980.

[174] E.N. LORENZ, *Predictability: Does the Flap of a Butterfly's Wings in Brazil Set Off a Tornado in Texas?*. The same holds as for the notion of 'singularity', i.e. the critical state in which the market becomes sensitive to small perturbations, strong fluctuations in the stock market take place, and correlations in the derivative market manifest as a consequence; F. CACCIOLI, M. MARSILI, P. VIVO, 'Eroding Market Stability by Proliferation of Financial Instruments', The European Physical Journal, no. 71/2009, 468.

[175] P. GAI, *Systemic Risk. The Dynamics of Modern Financial Systems*, 2.

> "analogies with the systems linking biological organisms or industrial operations are suggestive in different ways, particularly in emphasizing the need for resilience, which has long been a feature of sociological analysis of risk. However, they can de-personalize markets. Whilst this may make them attractive to economists or engineers, the agency of individual makes financial systems qualitatively different. Using an ecosystem analogy captures the system attributes of markets but not the strategic behaviour of market actors".[176]

In addition to the lack of an account for strategic behaviour, differences pertain to two more key aspects: "first, in epidemiological models, the susceptibility of an individual to contagion from a particular infected neighbour does not depend on the health of their other neighbours", while in the financial system contagion consequent to a default has an higher probability to occur if another counterparty has already defaulted, and "second, in most epidemiological models, higher connectivity simply creates more channels of contact through which infection can spread, increasing the potential of contagion", whereas in the financial system a greater connectivity also entails risk-sharing benefits related to exposures diversification.[177] Most importantly, from a legal point of view, these studies fail to acknowledge that economic systems are *not* natural system, in that "an economy is a social organization created either through legislation or by an evolutionary process of invention and innovation. Policy can change both the details and the overall character of the economy, and the shaping of economic policy involves both a definition of goals and an awareness that actual economic processes depend on economic and social institutions".[178] Put in terms which are more amenable to lawyers, the "difference in present character and ultimate ideal between legal rules and scientific rules is wrapped up with the centrality of authority in law".[179]

No doubt about the fact that in some cases these model may be useful and indeed *fascinating*. As an example of this, suffice to remind the 'too-big-to-fail' description given by Haldane, who defined the essence of this problem borrowing from a theory of an evolutionary biologist, according to which "the sheer size of an object, institution or animal determined their structure ... as their size rose, their structure needed to strengthen

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[176] J. BLACK, 'Reconceiving Financial Markets – From the Economic to the Social', 434. With specific reference to resilience, quite advanced accounts have been given on it in ecological studies: see for instance C. FOLKE, S.R. CARPENTER, B. WALKER, M. SCHEFFER, T. CHAPIN, AND J. ROCKSTRÖM, 'Resilience thinking: integrating resilience, adaptability and transformability', *Ecology and Society*, no. 4/2010, 20 ff.; B. WALKER, C.S. HOLLING, S.R. CARPENTER, A. KINZIG, 'Resilience, adaptability and transformability in social-ecological systems', Ecology and Society, no. 2/2004, 5 ff.

[177] P. GAI, *Systemic Risk. The Dynamics of Modern Financial Systems*, 24.

[178] H.P. MINSKY, *Stabilizing an Unstable Economy*, 7.

[179] J. VINING, 'The Resilience of Law', Law&Economics Working Papers, University of Michigan, 2008, 8; 'authority' would actually amount to "the premise and the object of legal thinking, legal argument, and legal conclusion, kept untouched by modernity's challenges to authority elsewhere"; 9.

more than proportionally if they were to remain robust and resilient".[180] However, the point here is that in most cases these scientific paradigms may prove useful *descriptively*, but not *prescriptively*.[181]

Getting closer to economic and financial disciplines, two broad areas need to be identified as for the understanding and measurement of systemic risk. The first is a model-based approach, the path which has been travelled by academic literature, while the second is an indicator-based approach, the one that has been more successful among international standard setters and regulators.[182]

What follows is a brief overview of some of the major contributions that have been published in recent times on the topic, and mainly deal with the identification and measurement of institutions' characteristics that constitute drivers of their contribution to systemic risk.[183]

A remarkable contribution is that of Adrian and Brunnermaier, which is based on the idea that "the most common measure of risk used by financial institutions – the value at risk (VaR) – focuses on the risk of an individual institution in isolation", thus being

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[180] A.G. HALDANE, *On Being the Right Size*, Speech delivered at the Institute of Economic Affairs 2012 Beeslery Lecture, Institute of Directors, London, 25 October 2012, 1. Reference is to J.B.S. HALDANE, *On Being the Right Size*, March 1926. Here interestingly the scientist Haldane stated that "for every type of animal there is a most convenient size, and a large change in size inevitably carries with it a change of form" and "the higher animals are not larger than the lower because they are more complicated. They are more complicated because they are larger. Just the same is true of plants"; *ibidem*, 1-3. However interesting and suggestive, the same cautions apply as seen with comparisons between natural science and social science.

[181] Apart from specificities that cannot be overcome, different fields also entail different *languages* employed, and insofar as they are the expression of theoretical elaborations behind them, this could obviously be a source of misunderstandings.

[182] Of course the distinction mainly serves for exposition purposes, being the two areas closely intertwined with one another; in particular, the definition of the indicators has borrowed from the insights of academic literature. On the indicator-based approach envisaged by the FSB and the BCBS, see later in the chapter. In the European context, see also the ESRB Risk Dashboard, serving not as an early warning system, but rather as a set of quantitative indicators for purposes of analysis, due to the high degree of judgment needed in handling it; areas considered are interlinkages and composite measures of systemic risk; macro risk; credit risk; funding and liquidity; market risk; profitability and solvency. The dashboard is updated every three months.

[183] A useful review of different methodologies employed for the identification and measurement of systemic risk may be found in FINANCIAL STABILITY BOARD, INTERNATIONAL MONETARY FUND, BANK OF INTERNATIONAL SETTLEMENTS, *Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations*, October 2009, 24 ff. The document broadly distinguishes a strand of network analysis from one of portfolio models of risk relying on market data. As for the former, a problem which is common to network simulations and applications of network analysis is the data gap normally experienced, with special reference to cross-institution and cross-border exposures. A detailed review of the quantitative measures of systemic risk in the economics and finance literature is also contained in US TREASURY, *A Survey of Systemic Risk Analytics*.

inherently inapt to account for phenomena occurring at the level of the whole financial system. To this purpose, what is proposed is to employ another measure, namely CoVaR, which expresses the value-at-risk of the financial system conditional on the distress of institutions.[184] Such measure would be able to indicate the institution's contribution to systemic risk.[185]

The model presented by Acharya et al. relies on a measure which is the sum of an institution's expected default losses and its expected contribution to a systemic crisis, which is labeled Systemic Expected Shortfall (SES). The latter is identified with the institution's "propensity to be undercapitalized when the system as a whole is undercapitalized".[186] The SES would be allegedly able to predict risks emerged during the 2007-2009 financial crisis, along with the outcome of stress-tests, the dynamics of equity valuations of large financial firms, and credit default swaps spreads.[187]

Martínez-Jaramillo et al. model systemic risk around a random shock and a transmission mechanism, making use of a *Systemic Risk Network Model*, which is shown to be able to estimate the distribution of losses within the banking system, also distinguishing between those incurred to the initial shock and those resulting from its transmission.[188]

Huang et al. build an indicator of systemic risk which is based on credit default swaps, which are meant to be the cost of insurance against systemic financial distress; they rely on the analysis of the marginal contribution of each credit institution to the hypothetical distress insurance premium of the banking system as an indicator of its systemic importance.[189] Segoviano and Goodhart also employ credit default swaps to evaluate how individual credit institutions contribute to systemic risk, with the aim of

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[184] Where "the prefix 'Co' … stands for *co*nditional, *co*ntagion, or *co*movement"; T. ADRIAN, M.K. BRUNNERMEIER, 'CoVaR', National Bureau of Economic Research, Working Paper no. 17454, September 2011, 2, 7 ff..

[185] "The difference between the CoVaR conditional on the distress of an institution and the CoVaR conditional on the 'normal' state of the institution, ΔCoVaR, captures the marginal contribution of a particular institution (*in a non-causal sense*) [emphasis added] to the overall systemic risk"; T. ADRIAN, M.K. BRUNNERMEIER, 'CoVaR', 2, 13 ff.. The paper only considers banks belonging to the US system; for an analogous analysis on European banks, N. BORRI, M. CACCAVAIO, G. DI GIORGIO, A.M. SORRENTINO, 'Systemic Risk in the Italian Banking Industry', Economic Notes by Banca Monte dei Paschi di Siena SpA, no. 1/2014, 21 ff.

[186] V.V ACHARYA, L.H, PEDERSEN, T. PHILIPPON, M.P. RICHARDSON, 'Measuring Systemic Risk', Centre for Economic Policy Research, Discussion Paper no. 8824/2012, 1-3, 13-16.

[187] V.V ACHARYA, L.H, PEDERSEN, T. PHILIPPON, M.P. RICHARDSON, 'Measuring Systemic Risk', 17 ff.

[188] S. MARTÍNEZ-JARAMILLO, O. PÉREZ, F. AVILA EMBRIZ, F. LÓPEZ GALLO DEY, 'Systemic risk, financial contagion and financial fragility', Journal of Economic Dynamics & Control, no. 34/2010, 2358 ff.

[189] X. HUANG, H. ZHOU, H. ZHU, 'Systemic Risk Contributions', , Journal of Financial Services Research, no. 42/2012, 55–83

providing a set of quantitative measures of their financial stability which may be evaluated over time.[190]

Billio et al. examine a wide set of participants to the financial market (hedge funds, banks, brokers, insurance companies) and propose five measures of systemic risk base on statistical relations among their market returns, and employing correlations, cross-autocorrelations, principal components analysis, regime-switching models, and Granger causality tests. The main findings seems to pertain to the general increase in the interconnection among the four set of participants examined, along with a decrease in their liquidity in the last decade.[191]

A last advocate of an advanced understanding of the concept of systemic risk by mean of network models is Gai, whose elaboration is based on the assumption that "the connectivity and concentration of the players in the network play important roles, with key nodes acting as *super-spreaders* of contagion"[192]

As a general remark about these models, leaving aside technicalities related to their development, one should refrain from assigning them a role different from the one they are actually devised to play. Such models, and to many extents models in general, naturally rely on assumptions and simplifications; they analyse only limited sub-sets of a system; their elaboration suffers from important data gaps.[193] In short, they *model* reality by offering a simplified explanations of how complex mechanisms work. As a consequence, models may prove extremely useful insofar as they are employed as a guidance tool, but in the awareness that they ought not relief in any way decision-makers from their tasks and responsibilities.[194] However conclusive these models may seem to their proponents, the danger that their development prevent broader (and qualitative, too) elaborations on the topic should be avoided. Models are tools for *analysis*; as far as systemic risk is concerned the step of extreme delicacy is that of a *synthesis*, when decisions taken by regulators may impinge of the rights of many.[195]

Also due to the complexity that is associated with the account of systemic risk, the forms that its manifestation may take are different and various. Building upon

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[190] M.A. SEGOVIANO, C.A.E. GOODHART, Banking Stability Measures, International Monetary Fund Working Paper, no. 4/2009

[191] M. BILLIO, M. GETMANSKY, A.W. LO, L. PELIZZON, 'Measuring Systemic Risk in the Finance and Insurance Sectors', MIT Sloan School of Management Working Paper no. 4774/2010.

[192] P. GAI, *Systemic Risk. The Dynamics of Modern Financial Systems*, Oxford, Oxford University Press, 2013, 4, 79 ff.. A model has been also co-developed by the author himself at the Bank of England, known as Risk Assessment Model for Systemic Institutions (RAMSI).

[193] To some extents, this is also recognized by authors themselves; "[the model] is less well-equipped to handle situations where shocks strike financial players external to the core banking system, or where off-balance sheet activity by banks makes true linkages between financial institutions difficult to gauge"; P. GAI, *Systemic Risk. The Dynamics of Modern Financial Systems*, 101.

[194] "It is not realistic to expect a single measure of systemic risk to cater to *all* purposes; in fact, it is actually dangerous to do so"; C. BORIO, 'Implementing a Macroprudential Framework: Blending Boldness and Realism', Bank for International Settlements, 22 July 2010, 7.

[195] Further discussion on this will be carried out in chapter 3.

breakdowns proposed in the literature, it seems useful to distinguish systemic risk according to whether it arises from institutions (through a 'domino effect', a 'contagion effect', or the discontinuation of a critical function), from markets, or from the payment and settlement systems.[196]

Generally speaking, institutions may contribute to the emergence of systemic risk in three main ways, namely through a 'domino effect', when "counterparties of a failing firm are placed under severe strain when the firm does not meet its financial obligations to them. Their resulting inability to meet their own obligations leads, in turn, to severe strains at their other significant counterparties, and so on through the financial system"; through a 'contagion effect', when "market participants conclude from the firm's distress that other firms holding similar assets or following similar business models are likely themselves to be facing similarly serious problems";[197] through the discontinuation of a critical function they may perform, which other institutions in the market may be unable or unwilling to perform. Among institutions, an all peculiar role is played by banks. The main risks pertaining to the banking activity are credit risk (repayment from a subject for which a credit position has been assumed will not take place); liquidity risk (a temporal mismatch between cash inflows and outflows); market risk (a decrease in the market value of assets). All of them are potentially amenable for a growth to systemic proportions, although with different intensity. In principle, the progressive shift in banks' portfolio composition towards a larger share of securities over total assets, may lead to a consequent, with a consequent increased sensibility to financial market fluctuations.[198] As for operational risk, it seems that it may grow to systemic dimensions either by taking other forms, or by virtue of the 'systemic character' of the institution involved. Apart from banks, other subjects within the financial system deserve adequate attention too. Still a couple of decades ago the question whether investment firms could possibly pose any systemic risk was answered in a doubtful way.[199] Today the shift that has occurred in many jurisdictions from a pre-eminently bank-based to a market-based system explains the potential seriousness of the involvement of these market participants.[200] To investment firms, systemic risk would normally imply their inability "to absorb, in an orderly manner, unexpected losses and, in particular, losses arising from market-risk events,".[201] Along with them, a potentially dangerous role could be played by hedge funds, especially where similar investment styles and strategies are employed, and many of

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[196] G.J. SCHINASI, *Preserving Financial Stability*, 6; O. De BANDT, P. HARTMANN, *Systemic Risk: A Survey*, 18; D.K. TARULLO, 'Regulating Systemic Risk', Speech held at the 2011 Credit Markets Symposium Charlotte, North Carolina, 31 March 2011, 1-2.

[197] D.K. TARULLO, 'Regulating Systemic Risk', 1-2.

[198] J. CARMASSI, S. MICOSSI, 'Time to Set Banking Regulation Right', LSE Financial Markets Group Paper Series, Special Paper no. 206, April 2012, 13; O. DE BANDT, P. HARTMANN, *Systemic Risk: A Survey*, 31.

[199] C.A.E. GOODHART, P. HARTMANN, D. LLEWELLYN, L. ROJAS-SUÁREZ, S. WEISBROD, *Financial Regulation. Why, how and where now?*, London, Routledge, 1998, 12-13.

[200] J. EATWELL, M. MILGATE, *The Fall and Rise of Keynesian Economics*, 23.

[201] N. MOLONEY, *EC Securities Regulation*, Oxford, Oxford University Press, 2008, 523.

their positions are correlated.[202] Their intensive use of leverage and their average lack of transparency might further contribute to the determination of systemic events.[203]

As for financial markets, they have been long considered "the most difficult element in the analysis of systemic risk", due to the growth that has been witnessed even in bank-based systems.[204] Such growth has been even enhanced by market practices such as securitization, that is the shift from an originate-*and*-distribute to an originate-*to*-distribute) model.[205] As it has been effectively summarized, systemic risk may arise from

> "a fire-sale effect in asset markets, when a failing firm engages in distress sales in an effort to obtain needed liquidity. The sudden increase in market supply of the assets drives down prices, often substantially. As we saw in the recent crisis, this effect transmits not only to firms that must sell assets to meet immediate liquidity needs but, because of margin calls and mark-to-market accounting requirements, to many other firms as well. The result is an adverse feedback loop".[206]

The element that could potentially serve as a tie between institutions and financial market is liquidity, that has been labelled as the 'transmission-belt' between the two, and whose key role has been widely acknowledged.[207] Different reasons have been advanced to justify the increased importance of liquidity: an increased need for systemic resilience, along with the presence of a high number of players; the uncertainty associated with the increased complexity of instruments; the shift of asset prices away from fundamentals.[208] The perception of a liquidity shortage in the system is a clear way in which contagion may be created, with market liquidity becoming highly sensitive to modifications in funding conditions[209]. Interestingly, this role of liquidity has been interpreted as marking a shift

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[202] S.J. BROWN et al., 'Hedge Funds in the Aftermath of the Financial Crisis', in V. ACHARYA, M. RICHARDSON, *Restoring Financial Stability: How to Repair a Failed System*, 162; see also J. KAMBHU, T. SCHUERMANN, K.J. STIROH, 'Hedge Funds, Financial Intermediation, and Systemic Risk', Federal Reserve Bank of New York Economic Policy Review, December 2007.

[203] S.J. BROWN et al., 'Hedge Funds in the Aftermath of the Financial Crisis', 164.

[204] O. DE BANDT, P. HARTMANN, *Systemic Risk: A Survey*, 26

[205] M. HELLWIG, *Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis*, Max Planck Institute for Research on Collective Goods, no. 43/2008, 14.

[206] D.K. TARULLO, 'Regulating Systemic Risk', 2.

[207] FINANCIAL SERVICES AUTHORITY, *The Turner Review. A Regulatory Response to the Global Banking Crisis*, 68; INTERNATIONAL MONETARY FUND, *Sovereigns, Funding, and Systemic Liquidity*, Global Financial Stability Report, 2010, 57. Within liquidity risk, a useful distinction is the one between 'market liquidity risk' (the worsening of market liquidity that renders more difficult or prevents trading), and 'funding liquidity risk', where positions may not be funded.

[208] R.G. RAJAN, *Has Financial Development Made the World Riskier?,* 343.

[209] D.W. DIAMOND, R. RAJAN, Liquidity Risk, Liquidity Creation and Financial Fragility. A Theory of Banking, Journal of Political Economy, no. 2/2011, 287; M.K. BRUNNERMEIER, L.H. PEDERSEN, 'Market Liquidity and Funding Liquidity', The Review of Financial Studies, no. 6/2008, 2204.

from liquidity as an *adjective* to liquidity as a *noun*; it is in relation to the latter that systemic risk would mainly manifest.[210]

The last element of the broad picture is represented by payment and settlement systems. Every settlement system may experience risks that could grow to a systemic dimension, namely legal risk, pre-settlement risk, operational risk, and custody risk.[211] As for the risk that may arise from different types of interbank payment systems, a distinction has been proposed between the net settlement system, where systemic risk could be either mitigated because of the reduction of the effective debit positions, or increased because of the amount of gross exposures accumulating between settlement times; the gross settlement systems, where systemic may arise from 'queuing phenomena'; correspondent banking, where systemic may manifest in case of failure of an important player.[212]

However, apart from any taxonomy, it is necessary to bear in mind that "the failure of almost any financial firm could bring about systemic problems if markets believe that failure reveals heretofore unrecognized problems with one or more significant classes of assets held by many financial actors, especially where the assets are associated with considerable degrees of leverage, maturity transformation, or both".[213] The remark could be even expanded since not just failure, but a large number of events of different types may acts as triggers of systemic risk.

If one were to draw some conclusions from what has been discussed above on the general directions that regulation ought to take to tackle systemic risk, the most important element to consider would be complexity. Indeed, "complex systems cannot be controlled in the conventional way ... the right approach to influencing complex systems is to support and strengthen the self-organisation and self-control of the system by mechanism design".[214] In spite of this call for an attention to the self-correcting elements of the system, the experience of the global financial crisis – along with its alleged causes – is still too recent to make politically amenable regulatory techniques different from a centralized, command-and-control approach.[215] As a consequence, the regulators have travelled so far a way that has for sure lead to complexity *within* the regulatory framework, and calls for

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[210] J. EATWELL, M. MILGATE, *The Fall and Rise of Keynesian Economics*, 21.

[211] N. MOLONEY, *EC Securities Regulation*, 862. The likelihood of the emergence of systemic risk is related to specific market practices, for instance short selling, with the consequent settlement risk that may rise; K. ALEXANDER, N. MOLONEY, *Law reform and financial markets*, Cheltenham, Edward Elgar, 2011, 92.

[212] O. DE BANDT, P. HARTMANN, *Systemic Risk: A Survey*, 32.

[213] D.K. TARULLO, 'Regulating Systemic Risk', 3.

[214] D. HELBING, 'Systemic Risks in Society and Economics', 10.

[215] An example of this are the warnings against excessive rely of the regulator upon banks' risk management, on the ground that it would rely "on the assumption that the companies had a keen self-interest in identifying and controlling their risks and could establish an internal risk management function capable of monitoring and/or carrying out these functions. Supervisors would 'leverage' off a bank's risk management apparatus"; FEDERAL RESERVE BANK OF NEW YORK, *Report on Systemic Risk and Bank Supervision*, 2009 (draft as of 10 September 2009), 5.

simplicity in regulation have generally gone unanswered.[216] However, it is a long-dated awareness the one about the fact that variables targeted by regulators may be deprived in time of their economic meaning ('the Goodhart law'),[217] and that regulation itself could lead to instability.[218]

Overall, quite a dismal portray has been drawn of the regulatory action taken towards systemic risk in the US context; "even if implemented decisively and administered prudently (neither of which can be safely assumed), the Dodd-Frank Act will still not prevent the failure of another systemically significant financial institution" due to three interrelated factors, namely an inherent bank fragility; a recurring cyclical pattern in regulation; cognitive limitations of private gatekeepers and public regulators to perceive new risks.[219]

The following paragraph illustrates the element through which a judgement may be expressed over the efforts of regulators at the international and European Union level.

1.2 The regulatory framework

In the light of what has been discussed so far, there may be indeed some truth in keeping a sceptical stance towards the ability of regulators to impinge upon the real causes of systemic risk. Moreover, regulation often exerts influence on market participants differently from "the linear manner that instrumental policy-makers and 'reforming-through-law' scholars would find comforting".[220] Nevertheless, in sketching the

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[216] A.G. HALDANE, V. MADOUROS, 'The dog and the Frisbee'.

[217] The recurrent pattern under which when policy-makers target a variable, this starts being deprived of value as an economic indicator has been observed in the field of monetary policy by C.A.E. GOODHART, 'Problems of Monetary Management: the UK Experience', Papers in Monetary Economics, The Reserve Bank of Australia, 1975. To some extents, it recalls the Heisenberg uncertainty principle, under which the very act of observing and measuring a variable changes it, so that the very observation end up modifying it.

[218] "In managing instability, law can itself create instability ... the paradox can have systemic effects where contracts are standardised across the markets, as homogenisation itself creates risks. As a result, the terms of contract ... and the judicial and legal market infrastructure for determining that decision ... are of critical significance to understanding systemic risk within the markets"; J. BLACK, 'Reconceiving Financial Markets – From the Economic to the Social', 418; examples given are the triggers for contingent convertible bonds of debt instruments, as well as the notion of 'credit event' for derivatives purposes. The point is also made by J. GOLDEN, 'The Courts, the Financial Crisis and Systemic Risk', Capital Markets Law Journal, no. 4/2009.

[219] J.C. Jr. COFFEE, 'Systemic Risk after Dodd-Frank: Contingent Capital and the Need for Regulatory Strategies Beyond Oversight', Columbia Law Review, no. 111/2011, 815. The cyclical pattern in regulation has been labelled the 'regulatory sine curve', and refers to the phenomenon under which, following to major economic events, rigorous regulatory scrutiny follows, in turn followed by a "gradual relaxation of the rules and possibly partial capture of the regulator by the industry"; *ibidem*, 815.

[220] C.P. KINDLEBERGER, R.Z. ALIBER, *Manias, Panics and Crashes. A History of Financial Crises*, Basingstoke, Palgrave McMillan, 2005, 301; J. BLACK, 'Financial Markets', in P. CANE AND

framework for systemic risk the examination of the regulatory sides of the issue still plays a key role, one that should be dealt with net of the 'fearsome risks' and the danger of overregulation that are generally enhanced in the aftermath of a crisis.[221]

From a general regulatory perspective, the key question is how to deal with issues related to the system as a whole while employing "rules governing the *bilateral* relation between the regulator and the individual financial institution".[222] When it comes to systemic issues, regulatory action may also be hampered by strong influences of private market interests, as well as by the danger that homogeneity *within* regulation could entail destabilizing effects similar to those observed in complex financial networks.[223]

While in principles there seems to be consensus over the key principles needed to deal with systemic risk,[224] things become more complex when it comes to details. In the following pages the focus will be on the regulatory tools relevant for systemic risk purposes, with special attention to the European implementation of recent reforms, including those prompted by international standard setters.[225]

H. KRITZER (eds.), *The Oxford Handbook of Empirical Legal Research*, Oxford, Oxford University Press, 2010, 165.

[221] C.R. SUNSTEIN, R.J. ZECKHAUSER, *Overreaction to Fearsome Risks*, Harvard University Law School Program on Risk Regulation, Research Paper no. 17/2008, 3; R. ROMANO, *Regulating in the Dark*, John M. Olin Center for Studies in Law, Economics, and Public Policy, Research Paper no. 442/2011.

[222] M. HELLWIG, *Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis*, Max Planck Institute for Research on Collective Goods, no. 43/2008, 63. For further elaborations on this as for what relates to financial stability, see chapter 2.

[223] UNDERHILL G., *The New World Order in International Finance*, Basingstoke, Macmillan, 1997, 43; I. GOLDIN, T. VOGEL, Global Governance and Systemic Risk in the 21st Century: Lessons From the Financial Crisis, 6.

[224] For instance, the need to look to broad developments in the market ("the macro-micro issue"), to ensure stability to the system as a whole ("the interconnectedness issue"), to cater for all subjects populating the financial system ("the silo issue"); J. BLACK, 'Restructuring Global and EU Financial Regulation: Capacities, Coordination and Learning', London School of Economics and Political Science, Law, Society and Economy Working Papers no. 18/2010, 14.

[225] The analysis will leave aside US-specific issues; for instance, the 'systemic risk determination' that can be made by the Secretary of the Treasury under Section 203 of the Dodd-Frank Act in case a financial institution is in (danger of) default where this would imply 'serious adverse effects on financial stability' in the US. As a consequence of such determination, the institution enters receivership. Very relevant is also the possibility for the FSOC to designate a financial company as deserving to be supervised by the Federal Reserve following to an assessment which takes into consideration aspects such as 'the nature, scope, size, scale, concentration, interconnectedness' of its activities (Dodd-Frank Act, Section 113; see paragraph 3.3). On the legal tools and procedures introduced by the Dodd-Frank Act and on how they interact with the power of the institutions, G. NAPOLETANO, 'Legal aspect of macroprudential policy in the United States and in the European Union', 44 ff.

For purposes of both explanation and exposition, the question will be framed around one main juncture, namely the one between systemic risk *prevention* and *protection*.[226]

The prevention of systemic risk has to do with the *probability* of its manifestation, therefore with the instruments available to regulators in order to decrease the probability that such an adverse event manifest. Moreover, it has to do with the *propensity* to bear risks.[227] A further distinction may be drawn between *direct* prevention and *indirect* prevention, depending on the extent to which the regulatory tool is specifically devised for targeting the emergence of systemic risk. As for direct prevention, the tools examined are prudential tools and the regulation of systemically important institutions. As for indirect prevention, this requires the examination of accounting rules; rules on compensation; specific market practices; clearing by central counterparties; instruments of fiscal nature.

Conversely, the protection from systemic risk has to do with the *magnitude* associated with its manifestation, and to the tools available for mitigating the consequences of the event in case it occurs. Put differently, protection from systemic risk has to do with the degree to which market participants are *vulnerable* to the manifestation of risks. Preventive tools deal with the reduction of the effects of any potentially harming event which has already manifested (for instance, but not limited to, the failure of an institution). The tools examined to this purpose are resolution tools,[228] deposit guarantee schemes, and the lender of last resort.[229]

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[226] The comparison and contrast between prevention and protection is clearly exposed in D. SCHOENMAKER, *Governance of International Banking. The Financial Trilemma*, Oxford, Oxford University Press, 2013, 10 ff.; however, the reduction in the probability and the reduction in the impact are considered only in relation to failure, instead of a number of adverse events potentially triggering other adverse effects. For other elaborations of the literature on possible breakdowns of regulatory tools for the regulation of systemic risk, A.G. HALDANE, R.M. MAY, 'Systemic Risk in Banking Ecosystems', 354; R. MAINO, *Tackling the "Too Big To Fail" Conundrum: Integrating Market and Regulation*, LSE Financial Markets Group Paper Series, Special Paper no. 207, April 2012, 2. Here the viewpoint according to which one instrument is labelled as 'preventive' or 'protective' is that of the financial system. This clarification is necessary since some instruments may be protective for a single intermediary, but preventive at the level of the system, as well as the other way round.

[227] Since those we are considering here may be labelled as human-crafted risks, and not by nature or any divine intervention.

[228] These tools are considered protective, even though of course resolution tools may also have a preventive nature, by for instance preventing an institution from failing and give it back to its going concern; see paragraph 1.2.2.

[229] Categorizations like this may be deemed artificial, and indeed have a prevalent exposition function. The classification of tools employed for the prevention of/protection from systemic risk and the enhancement of financial stability is far from uncontroversial. To a wide extent, it depends upon the dimensions employed to classify the whole tool-box; EUROPEAN BANKING AUTHORITY, *Opinion on the macroprudential rules in CRR/CRD. EBA Response to European Commission on Article 513 CRR call for advice*, 17 ff. The EBA classifies these tools according to three criteria, base on the distinction between micro or macro-prudential tools; between system-wide and idiosyncratic measures; and between structural and countercyclical measures. Other

1.2.1 The prevention of systemic risk

Starting with the *direct* prevention of systemic risk, an all-peculiar role is played by capital requirements. Though dating back to the regulatory reforms subsequent to the 1929 economic crisis, international prudential regulation finds its milestone in the 1988 Basel capital accord (Basel I), which introduced risk classifications of bank assets ('risk-weighted' assets approach). It was revised in time to account for new business techniques and models, including an increased role for banks' internal Value-at-Risk (VaR) models.[230] Further reforms followed in 2006 (Basel II), which enhanced the role of VaR, refined the classification of asset-riskiness, and also fine-tuned capital ratios in a three-pillar structure.[231]

Apart from more radical critiques, negative judgments have been expressed in time as for the employment of VaR models.[232] However, leaving aside the and the

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macro-prudential instruments (which are mainly preventive in nature) will be dealt with in Chapter 2. Instruments which are more macro-prudential in nature, have a prevalent system-wide application, and are characterized by a countercyclical/forward looking fashion will be examined there. However, a graphical illustration of the whole set of tools will be also provided in Chapter 2. Structural reforms (which are mainly protective in nature) will be dealt with in Chapter 3 along with public interest issues, since their examination prompts broader considerations about the possibility to qualify banking services general interest ones.

[230] T. PADOA-SCHIOPPA, *Regulating Finance*, 33; J. CARMASSI, S. MICOSSI, 'Time to Set Banking Regulation Right', LSE Financial Markets Group Paper Series, Special Paper no. 206/2012, 25.

[231] Three risks were considered under Pillar 1, namely credit risk (through a 'standardized approach', a 'foundation internal rating-based approach', and an 'advanced internal rating-based approach'), market risk and operational risk; BASEL COMMITTEE ON BANKING SUPERVISION, *International Convergence of Capital Measurement and Capital Standards*, June 2006, 12. For an 'historical' perspective, see M.B. GORDY, E.A. HEITFIELD, J.J. WU, 'Risk-Based Regulatory Capital and The Basel Accords', in A.N. BERGER, P. MOLYNEUX, J.O.S. WILSON (eds.), *The Oxford Handbook of Banking*, 550 ff.

[232] Indeed, they have been defined as "the darling of risk managers and banking regulators since the early 1990s"; J. BLACK, 'Restructuring Global and EU Financial Regulation: Capacities, Coordination and Learning', 13. The literature has underlined the 'political relevance' of the models; M. DE GOEDE, 'Repoliticizing Financial Risk', Economy and Society, no. 2/2004, 199; I. GOLDIN, T. VOGEL, Global Governance and Systemic Risk in the 21st Century: Lessons From the Financial Crisis, 7. Commentators have also stressed how models would amount to sophisticated versions of the normal distribution ('bell curve'), with the related inability to cope with 'tail-risks' and potential effects of 'herd behaviour'; R.G. RAJAN, *Has Financial Development Made the World Riskier?,* 355; C.A.E. GOODHART, 'Financial Regulation, Credit Risk and Financial Stability', National Institute Economic Review, no. 192/2005, 122. Regulators have had in time only a limited appreciation of the flaws of quantitative models employed, and of the assumptions and simplifications they relied on; M. HELLWIG, 'Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis', Max Planck Institute for Research on Collective Goods, no. 43/2008, 44; I. GOLDIN, T. VOGEL, Global Governance and Systemic Risk in the 21st Century: Lessons From the Financial Crisis, 9; FINANCIAL SERVICES

(unconscious?) search for a scapegoat,[233] the problem seems not to lie necessary in VaR models in themselves, but rather in the – mistaken – belief that they could serve for anything, acting like a panacea, and count account for any kind of risk without need of intervening aside them.[234]

What matters here is rather the way in which these models, along with prudential regulation in general, have proved of poor quality in relation to the systemic dimension.[235] Undoubtedly, an institution-specific approach mirrors an economic "partial equilibrium approach", that tends to overlook how in 'general equilibrium' individual investment choices affect investment payoffs and therefore investment choices of all market participants. Intuitively, a full assessment of the exposure to systemic risk would entail looking beyond the balance sheet of a single institution.[236] Indeed, a reform of prudential regulation in the light of the need to account for systemic risk would necessitate taking on an inedited 'collective nature'.[237] Many contributions have underlined so far the need to fill the informational gaps from which market participants and regulators may suffer to

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AUTHORITY, *The Turner Review. A Regulatory Response to the Global Banking Crisis*, March 2009, 22. Additionally, they have been found to suffer from rapid obsolescence; C.A.E. GOODHART, 'Financial Regulation, Credit Risk and Financial Stability', 122.

[233] On the extent to which the blame on the role played by the Basel II framework in the leading up to the financial crisis is to be considered misplaced, F. CANNATA, M. QUAGLIARIELLO, 'The role of Basel II in the subprime financial crisis: guilty or not guilty?', CAREFIN Working Paper no. 3/2009, especially 5-14, where the authors challenge all the main arguments that are normally employed in the critique towards the framework (inadequacy of the level of capital required; harmful interaction with fair value accounting; cyclicality of capital requirements; possible conflicts of interest with rating agencies; alleged failure of banks' internal models; alleged incentives to deconsolidate risky exposures).

[234] On the shortcomings normally more frequently attributed to VaR models, and on why they are only partially justified, A. RESTI, A. SIRONI, *Rischio e valore nelle banche. Misura, regolamentazione, gestione*, Milan, Egea Editore, 330 ff.

[235] J. DANÍELSSON, 'Blame the Models', Journal of Financial Stability, no. 4/2008, 321; FINANCIAL SERVICES AUTHORITY, *The Turner Review. A Regulatory Response to the Global Banking Crisis*, 23; M. HELLWIG, 'Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis', 57; J. CARMASSI, S. MICOSSI, 'Time to Set Banking Regulation Right', 42. Although less interest has generally attached in time to Basel II Pillar 2 (enhancement of supervisory review, and risks not considered in the first pillar) and Pillar 3 (transparency and disclosure of risk-taking positions), they may be also be interesting for systemic risk purposes; BASEL COMMITTEE ON BANKING SUPERVISION, *International Convergence of Capital Measurement and Capital Standards*, 204; J. CARMASSI, S. MICOSSI, 'Time to Set Banking Regulation Right', 31; J. EATWELL, M. MILGATE, *The Fall and Rise of Keynesian Economics*, 28; R.J. HERRING, J. CARMASSI, 'Complexity and Systemic Risk. What's Changed Since the Crisis?', in A.N. BERGER, P. MOLYNEUX, J.O.S. WILSON (eds.), *The Oxford Handbook of Banking*, 101-102.

[236] A.G. HALDANE, R.M. MAY, 'Systemic Risk in Banking Ecosystems', Nature, 354; V.V. ACHARYA, *A Theory of Systemic Risk and Design of Prudential Bank Regulation*, CEPR Discussion Paper no. 7164, Centre for Economic Policy Research, February 2009, 2; M. HELLWIG, 'Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis', 60.

[237] V.V. ACHARYA, *A Theory of Systemic Risk and Design of Prudential Bank Regulation*, 3.

assess their own exposure to systemic risk; to concentrate on easily measurable and transparent variables; and to expand the number of indicators employed, aiming at establishing an all-encompassing range of financial soundness indicators.[238]

All these issues have been addressed at the international level through the approval of the new framework of the Basel Accord (Basel III),[239] that has been incorporated in the European legal order mainly by mean of the regulatory package CRR-CRD4. As a consequence, a whole set of tools designed for tackling systemic risk has been implemented by the European legislator, of which the main characteristics will be sketched in the following pages, along with their critical aspects. A synthesis of the regulatory references is provided by the table on pages 42-45. Additional regulatory tools which are undoubtedly related to the policy area of systemic risk will be examined in Chapter 2, due to some specific characteristics they feature.[240]

First, capital requirements have been strengthened through the introduction of a capital conservation buffer,[241] which under Art. 129-130 CRD4 is set at 2,5% of risk-weighted assets and shall be made up of Common Equity Tier 1 capital. Although macro-prudential objectives are not explicitly mentioned, its usefulness in retarding the moment in which banks would reach a point of non viability is apparent. The function of capital cushioning is also made clear by the sanctions associated with its infringement, i.e. the limitation to the payment of dividends and interests and the need to submit a capital

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[238] J. DANÍELSSON, H.S. SHIN, J.P. ZIGRAND, 'Endogenous and Systemic Risk', 18 ; M. HELLWIG, 'Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis' 61; R.G. RAJAN, *Has Financial Development Made the World Riskier?,* 318; V.V. ACHARYA, M. RICHARDSON, *Restoring Financial Stability: How to Repair a Failed System*, 86; G.J. SCHINASI, *Preserving Financial Stability*, Washington D.C., International Monetary Fund, 2005, 9.

[239] BASEL COMMITTEE ON BANKING SUPERVISION, *Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems*, June 2011.

[240] This is the case of the countercyclical capital buffer regulated by Art. 130 and Art. 135-140 CRD4 and other macro-prudential tools. While to some extent this division may appear arbitrary, differences are also acknowledged in the regulatory texts; for instance, while dealing with 'systemic risk', CRD4 also refers to 'macro-prudential risk', thus seemingly indicating a difference between the two; Art. 133(1) CRD4, 'in order to prevent and mitigate long term non-cyclical *systemic or macro-prudential risks* not covered by Regulation (EU) No 575/2013, in the meaning of a risk of disruption in the financial system with the potential to have serious negative consequences to the financial system and the real economy in a specific Member State'. In addition to this, CRD4 also refers to '*cyclical systemic risk*', thus postulating the existence of a systemic risk which would be cyclical in nature, i.e. related to the economic and financial cycles; Art. 136(3) CRD4, 'other variables that the designated authority considers relevant for addressing *cyclical systemic risk*'. Borderline provisions like Art. 458 CRR and Art. 513 CRR will also be dealt with in chapter 2.

[241] BASEL COMMITTEE ON BANKING SUPERVISION, *Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems*, 54. The capital conservation buffer applies in principle to all institutions and prevents minimum capital requirements from being breached, by constituting capital that can be drawn according to the need of the institutions where losses are experienced.

conservation plan (Art. 141-142 CRD4)[242] (on the capital conservation buffer, see also Chapter 2).

To a limited extent, European Union regulation has departed from the Basel framework in the design of an instrument which has no comparable equivalent at the international level, namely the systemic risk buffer (Art. 133 CRD4). In principle, this is an extremely versatile tool (useful for instance to tackle possible dangerous innovations within the financial system), but it is also characterized by uncertainties about its possibility to be effectively employed. Indeed, the option of applying such buffer to a sub-set of institutions makes it possible to employ it "for ring-fencing purposes".[243] Put differently, this could be the way through which national authorities willing to impose capital requirements higher than the minimum could in some way circumvent the maximum harmonization approach of CRD4-CRR. This also explains the cumbersome institutional process that is associated to the imposition of the buffer above given thresholds, and why specific provisions are laid down in Art. 133 to regulate those cases where impediments to the functioning of the internal market are more likely to materialize.

If capital requirements have proved inadequate buffers against illiquidity during the financial crisis,[244] regulators seem to have taken quite a bold action as far as liquidity is concerned. The flaws of the old regime are well summarized in what has been called 'the paradox of bank regulation', where the capital held to meet regulatory requirements did not actually act as a reserve for times of liquidity distress.[245] This paradox is described masterly by Charles Goodhart's metaphor of the taxicab. A traveller arrives late at night to a train station, where only one taxicab is present; the taxi driver refuses him the service due to a sign reading that local regulations impose the presence of a taxi at the taxi stand at all times. Out of the metaphor, the regulation sometimes does *not* serve the very reason why it was imposed. Of course, this is especially critical where a systemic event manifests; in order to avoid a breach of capital requirements, institutions may be forced to sale assets, to withdraw deposits, and to reduce lending, with the danger of sharpening the effects of the systemic distress.[246] The newly established liquidity metrics rest upon the introduction of two liquidity ratios serving two different time horizons. The Liquidity Coverage Ratio (LCR) is designed as a pool of high quality assets and cash intended to

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[242] The capital conservation buffer is also mentioned by Art. 458(2) CRR in that its increase is a measure that can be taken by member States where risks to the financial system are identified that cannot be addressed otherwise.

[243] EUROPEAN BANKING AUTHORITY, *Opinion on the macroprudential rules in CRR/CRD. EBA Response to European Commission on Article 513 CRR call for advice*, 32. However, safeguards in favour of the internal market also applies; *ibidem*, 32.

[244] R.G. RAJAN, *Has Financial Development Made the World Riskier?,* 356.

[245] M. HELLWIG, 'Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis', 46.

[246] M. HELLWIG, 'Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis', 46.

serve short-term needs (30 days),[247] while the Net Stable Funding Ratio (NSFR) is a ratio between available and required stable funding, and serves instead for long-term needs (one year).[248]

A point on which the European regulatory package did not set a definitive rule is Leverage Ratio, which has also been experimentally set at 3% minimum (of capital measure on exposure measure) by the Basel framework.[249] Advocates of an effective application of such tool argue in favour of the simplicity that is inherent to such measure,[250] that would also downsize the role of risk-management models and their alleged flaws.[251]

Getting closer to institutions, much in the same way epidemiology has set forth the case for focusing on so-called 'super-spreaders' within the network to limit their potential for system-wide contagion,[252] a large part of systemic risk regulation deals with the objective of identifying institutions capable of posing systemic risk, and imposing special requirements on them, under the label of 'systemically important institutions'.[253] Two aspects may be disentangled, which are both logically and chronologically subsequent to each other, namely the identification of such institutions and their regulatory treatment.[254]

The regulatory process targeting institutions of systemic importance at the global level has been decisively prompted at the international level, with all relevant international institutions involved in the process. In a background paper jointly prepared for the G20, the results were presented of a country survey on systemic issues by the FSB, together

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[247] BASEL COMMITTEE ON BANKING SUPERVISION, *Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems*, 9. Within European Union level 1 and level 2 texts the term 'requirement' is also employed along with 'ratio'. Further details on the liquidity coverage requirement for credit institutions are enshrined in the Commission Delegated Regulation 2015/61/EU of 10 October 2014.

[248] BASEL COMMITTEE ON BANKING SUPERVISION, *Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems*, 9. Some doubts have been casted on the predictive ability of NSFR; INTERNATIONAL MONETARY FUND, *Durable Financial Stability. Getting There From Here*, Global Financial Stability Report, 2011, 82.

[249] BASEL COMMITTEE ON BANKING SUPERVISION, *Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems*, 61. Following to a consultation initiated in June 2013, the detailed framework has been recently set, along with disclosure requirements; BASEL COMMITTEE ON BANKING SUPERVISION, *Basel III leverage ratio framework and disclosure requirements*, January 2014. At the European Union level, further details with regard to the leverage ratio are enshrined in the Commission Delegated Regulation no. 2015/62/EU.

[250] A.G. HALDANE, V. MADOUROS, 'The dog and the Frisbee', 18 ff.

[251] J. CARMASSI, S. MICOSSI, 'Time to Set Banking Regulation Right', 52.

[252] A.G. HALDANE, R.M. MAY, 'Systemic Risk in Banking Ecosystems', 354; MAINO R., *Tackling the "Too Big To Fail" Conundrum: Integrating Market and Regulation*, LSE Financial Markets Group Paper Series, Special Paper no. 207, April 2012, 9.

[253] BASEL COMMITTEE ON BANKING SUPERVISION, *Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems*, 7.

[254] Here the identification and the treatment provided by CRD4-CRR only will be dealt with. For other regulatory consequences attaching to the qualification as systemically important institutions, see later in the paragraph.

with the IMF and the BCBS.[255] The FSB took quite a lead on the topic as for the general policy stance, also acknowledging how characterizing an institution as 'systemic' may be quite a difficult task, due to the endogenous dimension which is rooted in it; to the likelihood of a dependence on the economic environment and on the purposes for which it is performed; to a high degree of judgment needed, and non-negligible conceptual challenges related to market functioning.[256] Back in 2010 the FSB promoted the adoption of enhanced capital requirements for Global Systemically Important Financial Institutions (G-SIFIs), potentially including a wide-ranging number of subjects in the financial system (i.e. also infrastructures, insurances and non-bank financial institutions not part of a banking group).[257] The FSB then proposed a capital surcharge for systemically important banks, (ranging from 1% to 3.5%) assigned according to five buckets in which systemically important banks are distributed.[258]

The issue has been dealt with at a more technical level by the BCBS, whose attention has especially focussed upon special requirements for Global Systematically Important Banking Institutions (G-SIBs), whose additional loss-absorbency requirement was set in the range 1-2,5% of risk-weighted assets, to be met with capital of the highest quality.[259] To this purpose, the BCBS developed an indicator-based measurement

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[255] The survey was sent to 27 central banks worldwide and consistent of both quantitative and qualitative elements, discussing entities, factors, and procedures involved in the determination of systemic relevance, before and after the financial crisis; FINANCIAL STABILITY BOARD, INTERNATIONAL MONETARY FUND, BANK OF INTERNATIONAL SETTLEMENTS, *Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations*, October 2009.

[256] FINANCIAL STABILITY BOARD, INTERNATIONAL MONETARY FUND, BANK OF INTERNATIONAL SETTLEMENTS, *Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations*, October 2009, 7, 10.

[257] FINANCIAL STABILITY BOARD, *Reducing the Moral Hazard Posed by Systemically Important Financial Institutions*, October 2010.

[258] FINANCIAL STABILITY BOARD, *Policy Measures to Address Systemically Important Financial Institutions*, November 2011 FINANCIAL STABILITY BOARD, *Update of Group of Systemically Important Banks (G-SIBs)*, November 2012. As of 2012, the banks considered 'systemic' by the FSB were Bank of China, BBVA, Banque Populaire CdE, Group Crédit Agricole, ING Bank, Mizuho Financial Group, Nordea, Santander, Société Générale, Standard Chartered, State Street, Sumitomo Mitsui Financial Group, Unicredit, Wells Fargo&Co.(first bucket), Bank of America, Bank of New York Mellon, Credit Suisse Group, Goldman Sachs, Mitsubishi UFJ Financial Group, Morgan Stanley, Royal Bank of Scotland, UBS (second bucket), Barclays, BNP Paribas (third bucket), Citigroup, Deutsche Bank, HSBC, JP Morgan Chase&Co. (fourth bucket). No bank falls within the fifth bucket, which has been rather left void as a 'warning' for banks not to increase their systemic importance in order to avoid the particularly punitive regulatory treatment associated with it (3.5% surcharge).

[259] After discussion, compliance with the additional requirement has been reserved to Common Equity Tier 1 instruments only. While 'low-trigger contingent capital' ('LT CoCos'), converting at the point of non-viability of the institution, were excluded, more complex evaluations have been made relatively to 'high-trigger contingent capital' ('HT CoCos'), converting when the institution is still in viable conditions; BASEL COMMITTEE ON BANKING

approach based on size, interconnectedness, amenability to substitution, cross-jurisdictional activity and complexity.[260] The assessment methodology for G-SIBs developed by the BCBS is based on five, equally-weighted, indicators, namely size (total assets); global activity (international assets and liabilities); interconnectedness (assets and liabilities within the financial system, reliance of wholesale funding); substitutability, intended as the lack of readily available substitutes for the services provided (assets under custody, payments cleared and settled, underwriting activities); complexity (OTC derivatives, trading book).

The different regulatory layers are described in the figure on page 46, which outlines the relevant international standards; the specific rules that were set by CRD4-CRR in order to transpose the former into the European legal order; the additional rules provided by delegated and implementing acts for which draft BTS were prepared by the EBA; the Guidelines issued by the EBA. As for the surcharge applied to these institutions, in line with the international standards, details are provided in the tables on pages 46-50.

As for the authority that identifies systemically important institutions, in the European Union Art. 131(1) CRD4 requires member States to designate an authority in charge of identifying systemically important institutions. From the beginning of 2015 onwards, national authorities will therefore identify G-SIIs. So far, a sort of transitional process has been in place, with FSB/BCBS soft-law applied by national authorities. Indeed, some of them have already asked credit institutions to disclose indicators employed in the assessment methodology, in compliance with the July 2013 BCBS text.[261] The last evolution, in chronological terms, of the regulatory framework of global systemically important institutions relates to Total Loss-Absorbing Capacity (TLAC). Indeed, a preliminary agreement has been reached internationally to require global systemically important banks to hold capital in excess of Basel III requirements in order

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SUPERVISION, *Globally Systemically Important Banks: Assessment Methodology and the Additional Loss Absorbency Requirement*, 17, 20.

[260] Supervisory judgement is always meant to complement the employment of indicators; BASEL COMMITTEE ON BANKING SUPERVISION, *Globally Systemically Important Banks: Assessment Methodology and the Additional Loss Absorbency Requirement*, November 2011, 1-15. The document has been further updated in time; BASEL COMMITTEE ON BANKING SUPERVISION, *Global Systemically Important Banks: updated assessment methodology and the higher loss absorbency requirement*, July 2013; BASEL COMMITTEE ON BANKING SUPERVISION, *Global Systemically Important Banks: information regarding the end-2012 exercise published by the Basel Committee*, November 2013; BASEL COMMITTEE ON BANKING SUPERVISION, *The G-SIB assessment methodology – score calculation*, November 2014.

[261] In 2015 "the scoring process will take place twice. In early 2015, authorities will identify G-SIIs based on a score for 2014 ... the higher own funds requirement will apply as of 1 January 2016. In the second half of 2015, the scores will be updated. This scoring will form the basis for the own funds requirement as of 1 January 2017"; EUROPEAN BANKING AUTHORITY, *Final Draft Regulatory Technical Standards on the methodology for the identification of global systemically important institutions (G-SIIs) under Article 131 of Directive 2013/36/EU*, 3. For a deeper discussion on the role of national authorities in this respect and on the identification of G-SIIs, see chapter 3.

to better absorb losses before and after these institutions enter resolution.[262] Such buffer should be equivalent to up to 16-20% RWA, and should consist primarily of equity and subordinated debt.[263] The determination of TLAC should also be calibrated with a view to the 'systemic footprint' of institutions;[264] systemic risk is also considered as for the determination of instruments eligible for TLAC purposes. The novelty of this approach seems essentially to lie in the awareness that this regulatory stance would actually entail a choice, namely between higher capital and lower credit to the economy.[265] However, the approach seems to carry potentially serious flaws since, as it has been convincingly argued, it does not really investigate some aspects of material importance, such as the role of liquidity throughout the resolution process, the possibilities and conditions for recovery, along with the potential for pro-cyclicality and contagion.[266]

The FSB and the BCBS have investigated the macroeconomic impact of the measures proposed at the international level to improve the loss-absorbency capacity of systemically important banks. The assessment has been carried out in terms of costs and benefits of the proposals, expressed in terms of impact on the GDP. While the costs are found to stem from the negative impact on the economy of banks' build-up of capital buffers, benefits are primarily found to derive from a reduction in the exposure of the financial system to crisis of systemic dimension. Leaving aside technicalities, what needs to be underlined is the significant reliance on forecasts, estimations, and assumptions, especially as for what relates to benefits (which are on average more difficult to quantify as compared to costs). Moreover, aggregate figures tend to hide meaningful differences

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[262] FINANCIAL STABILITY BOARD, *Adequacy of loss-absorbing capacity of global systemically important banks in resolution*, Consultative Document, 10 November 2014. The document is open to consultation until February 2015; if approved, the new requirements would be effective as of 2019. The background to this document is the FSB's Report to the G20 *Progress and Next Steps Towards 'Ending Too Big To Fail'*, September 2013 setting out action required at the international level in this policy area.

[263] More in general it should consist of instruments 'that can be effectively written down or converted into equity during resolution of a G-SIB without disrupting the provision of critical functions or giving rise to material risk of successful legal challenge or compensation claims'; FINANCIAL STABILITY BOARD, *Adequacy of loss-absorbing capacity of global systemically important banks in resolution*, 7.

[264] FINANCIAL STABILITY BOARD, *Adequacy of loss-absorbing capacity of global systemically important banks in resolution*, 10.

[265] Quite surprisingly, the impact assessment of the proposed rules will *follow* the proposal of rules contained in the Consultation Paper, as it is scheduled for early 2015; FINANCIAL STABILITY BOARD, *Adequacy of loss-absorbing capacity of global systemically important banks in resolution*, 8. On the different choices that are *implicit* to the tasks performed by authorities in the regulation of systemic risk, see chapter 3.

[266] C.A.E. GOODHART, *Bank Resolution under T-LAC: The Aftermath*, Centre for Economic Policy Research (VoxEU), 24 December 2014.

among countries, preventing an assessment in a dimension coherent with the one in which public interests arise.[267]

If institutions qualifying as systemically important at the global level have catalysed so far much consideration, attention has also been paid recently to the issue of the identification of principles for the assessment of *domestic* systematically important banks, which would act as the complements of G-SIBs at the national level.[268] Upon invitation of a G-20 meeting, the Basel Committee has addressed the issue of negative externalities produced at the domestic level.[269] The approach adopted has been aimed at ensuring the adequate national discretion through a principle-based approach. In particular, the document focuses on two sub-sets of principles, namely the assessment of D-SIBs and their higher loss-absorbency.[270] The correspondent legislative measures have been consequently taken at the European Union level, although the European level 1 text slightly departs from the Basel one. In compliance with Art. 131(1) CRD4 member States are required to designate the authority in charge of identifying 'other systemically

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[267] The investigation was materially carried out by their Macroeconomic Assessment Group. To some extent, an astonishing (chrono)logical inversion may be witnessed between the proof of benefits stemming from the regulation proposed and their introduction: "More analysis is needed to understand these effects fully. It will also be important to engage in further study of the impact of other elements of the FSB's broader framework for global systemically important financial institutions … as they are implemented, such as the proposal that unsecured and uninsured creditors be "bailed in" at the point of resolution. *We will only be able to fully understand these effects, and assess the relevant costs and benefits, as more experience is gained*" (emphasis added); FINANCIAL STABILITY BOARD and BASEL COMMITTEE ON BANKING SUPERVISION (MACROECONOMIC ASSESSMENT GROUP), *Assessment of the macroeconomic impact of higher loss absorbency for global systemically important banks*, 10 October 2011, 2. A different – but related – question is that of the real effectiveness of surcharges imposed on systemically important institutions; put differently, by how much systemic surcharges do reduce expected losses to the financial system. Some analysis seem to show, based on empirical work made on system-wide losses that "a large chunk of the systemic externality would remain untouched. If too-big-to-fail is the problem, then systemic surcharges seem to offer only a partial solution"; A.G. HALDANE, *On Being the Right Size*, 3-4.

[268] BASEL COMMITTEE ON BANKING SUPERVISION, *A framework for dealing with domestic systemically important banks*, October 2012.

[269] G-20, *Cannes Summit Final Declaration – Building Our Common Future: Renewed Collective Action for the Benefit of All*, 4 November 2011.

[270] As for the former, the need to establish a methodology to assess the potential impact of, or externality imposed by, a bank's failure relatively to domestic economy; the different levels at which such assessment should take place; the regard due to factors such as size, interconnectedness, substitutability, and complexity; the regularity of the assessment process; public disclosure of information about the methodology. As for the latter, the documentation of (possibly quantitative) methodologies for the calibration of HLA, as commensurate to systemic importance; the compatibility between the G-SIB and D-SIB frameworks; the appropriate cooperation and coordination between home and host authorities; compliance with HLA requirement by mean of additional Common Equity Tier 1 capital; BASEL COMMITTEE ON BANKING SUPERVISION, *A framework for dealing with domestic systemically important banks*, 9 ff.

important institutions' (O-SIIs). The identification will take place pursuant to the criteria contained in the Guidelines that will be soon published by the EBA.[271]

Apart from remarks of more technical nature (for which reference may be had to the table and the figure), some aspects of the regulatory framework seem of outmost interest.

Taking a look at the whole regulatory process, what is apparent is how international standards actually fed directly into the regulatory process. Such standards are openly recalled by the EBA itself in presenting its technical standards and to some extent reproduce them almost *verbatim*. There is something that may be labelled as an 'international drift', which at some point may become dangerous, at least insofar as it could be a way in which regulatory loopholes or mistakes are spread over the globe. What may come at some surprise, however, is that the justification for their employment does not lie only in their technical robustness, but also in the willingness to reduce the administrative burden upon institutions thus achieving operational efficiency.[272] The same holds true for disclosure subsequent to the identification as G-SIIs, whose contents and time frame have been harmonized with BCBS ones.[273]

An additional interesting characteristic of the process is interconnectedness, something which is made apparent by the explicit recognition of the need of having "common timelines and procedures" as for the identification process of systemically important institutions, which would be otherwise technically unfeasible.[274] Indeed, the

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[271] EUROPEAN BANKING AUTHORITY, *Consultation Paper on the Guidelines on the criteria to determine the conditions of application of Article 131(3) of CRD4 in relation to the assessment of other systemically important institutions (O-SIIs)*, 18 July 2014.

[272] "To reduce the administrative burden for institutions as much as possible, the identification of G-SIIs in the EU is synchronized with the BCBS process, and institutions must report the same data as reported to the BCBS to Member State's authorities. The methodology and parameters applied in the scoring process are substantially the same"; EUROPEAN BANKING AUTHORITY, *Final Draft Regulatory Technical Standards on the methodology for the identification of global systemically important institutions (G-SIIs) under Article 131 of Directive 2013/36/EU*, 5 June 2014, 4. The very same message is also contained in the Cost-benefit analysis/Impact assessment when justifying the choice of not departing from the FSB/BCBS process and methodology, in that this "would involve a higher administrative burden on the institutions and require additional resources for authorities … the process would probably lead to very similar results to the FSB/BCBS process as far as the Member States already taking part in that exercise are concerned"; *ibidem*, 18.

[273] More generally, "the bundle of draft RTS on the identification methodology, these draft ITS and the Guidelines will be under ongoing review, as the ... BCBS identification process provides for regular reviews of the identification methodology every three years"; EUROPEAN BANKING AUTHORITY, *Final Draft Implementing Technical Standards on uniform standards for the disclosure of indicators used for determining the score of G-SIIs*, 5 June 2014, 4. As for what specifically pertains to the disclosure process, "the date will be aligned with dates for publication under the BCBS identification process, which are already established in several Member States"; *ibidem*, 13.

[274] "Without specifications on these points, the methodology would be incomplete: in the absence of consistent parameters, the scoring process stipulated in Article 131(2) of the Directive could not be carried out because there would be no basis for normalisation and ensuring that

systemic significance is measured through the calculation of a score – leading then to the allocation to an appropriate sub-category – which also measure the relative position of an institution relative to other entities. In this way, a characteristic observed in the financial system has found its direct correspondent at the regulatory level.

Further, an element deserving attention is the residual role played by qualitative indicators and supervisory judgement. How bold will supervisors be in this respect, is something still open to question. Indeed, supervisors are supposed to behave in quite a brave way in order to challenge through expert judgment a score resulting from internationally agreed quantitative indicators.[275] This is all the more true in the light of the fact that choices in this field are not between absolute values, but about trade-offs; more capital required may be equivalent to a more stringent credit policy (see Chapter 3 for further discussion on this point).

As for the regulatory style chosen, the identification of O-SIIs follows more a principle-based approach as compared to the one for G-SIIs. This is justified by both the Basel text and the very aims of this regulatory tool. A surprising element of the O-SII framework, however, is that in its common understanding their individuation tend to be deprived of whatsoever political meaning. Against the argument that "national authorities are more aware of national specificities" it has been counter-argued how "an analysis of the likely impact of the distress or failure of banks on the domestic economy does not necessarily have to be made by the national authority, as the relevant data and tools are available to assess this".[276] Statements like these show how there still is a broad misunderstanding about the deep difference between the measurement of a risk and the extent to which that risk may be deemed acceptable; and, additionally, about the fact that these two steps may impinge upon different geographical and political levels (for a discussion on this, see Chapter 3).

In coherence with the regulatory style chosen, little is said about the 'domestic economy'. This may be especially important for banking systems (like the Italian one) which are both highly fragmented and characterized by the presence of credit institutions which keep close ties to their areas of establishment. The issue will be dealt further in Chapter 3. However, what has to be specified here is that a full array of elements may in principle influence domestic significance.[277]

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indicators are comparable"; EUROPEAN BANKING AUTHORITY, *Final Draft Regulatory Technical Standards on the methodology for the identification of global systemically important institutions (G-SIIs) under Article 131 of Directive 2013/36/EU*, 4.

[275] Not to mention the possibility that regulators could be somehow prone to capture from extremely large intermediaries. However, it seems worth reminding that Art. 131(3) CRD4 allows a re-allocation to a *higher* sub-category based on sound supervisory judgment, while leaving no room for allocation to a *lower* one.

[276] EUROPEAN BANKING AUTHORITY, *Opinion on the macroprudential rules in CRR/CRD. EBA Response to European Commission on Article 513 CRR call for advice*, 30.

[277] Consider for instance, in the Italian banking system, the presence of a banking foundation, i.e. of a subject which is supposed to give back to the community of the area where the bank is located (just to name some, in terms of support to the non-profit, to schools and universities, to public housing, or to the artistic heritage); the more a bank 'gives' to the

Overall, much effort seems to have been spent in qualifying systemic risk as something radically different from other accounts of risks already known in prudential regulation.[278] However, it is still doubtful whether the new regulatory framework may overcome the objection that the adjective 'systemic' "is a contingent not an absolute qualifier".[279] To assign the 'systemic' label to an institution may end up in an underestimation of the inherent complexity of the financial system that has been sketched above, due to which the systemic character may *in itself* change in a largely unpredictable way. Difficulties in the categorization of institutions, the presence of an additional layer of regulation, the possibility of elusive conducts, along with the focus on institutions more than markets may be significant challenges for the regulatory framework described.

Problems inherent to an indicator-based approach may materialize too, namely that a great part of the results will depend on technical operational decisions, such as the selection of the sample; the choice of the indicators, along with their weights and reference variables; the lines drawn among the categories identified, and between institutions falling within these categories and those that do not. Every now and then it is acknowledged how "systemic risk is not binary by nature as all institutions have a potential impact on the financial system or the real economy";[280] however, the argument has not been taken any further. In other words, this does not seem to have challenged in any way the broader approach taken.[281]

As a further element, the feeling is often prompted of a tendency by the side of public authorities to share information with the market as an implicit way of sharing

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community, the more it can be labelled as 'systemic'; P. Zucca, 'Mps e Carige, chi risarcisce la collettività?', Plus Il Sole 24 Ore, 31 May 2014. For a broader discussion upon a possible contrast between 'universalism' and 'particolarism', where the latter amounts to the protection of what is not in harmony with the sovraordinated regulatory framework, in terms of protection and valorisation of local identities (G. MORBIDELLI, *Il diritto amministrativo tra particolarismo e universalismo*, Naples, Editoriale Scientifica, 2012, 75), see chapter 3.

[278] EUROPEAN BANKING AUTHORITY, *Final Draft Regulatory Technical Standards on the methodology for the identification of global systemically important institutions (G-SIIs) under Article 131 of Directive 2013/36/EU*, 7 (Recital 7).

[279] H. DAVIES, D. GREEN, *Banking on the Future: the Fall and Rise of Central Banking*, Princeton, Princeton University Press, 2010, 58.

[280] EUROPEAN BANKING AUTHORITY, *Consultation Paper on the Guidelines on the criteria to determine the conditions of application of Article 131(3) of CRD4 in relation to the assessment of other systemically important institutions (O-SIIs)*, 7.

[281] To some extent this is quite in line with the situation precedent to the regulatory overhaul; "Respondent countries typically do not have a legal or formal definition of what constitutes 'systemic importance' … Numerous countries note the state dependent nature of what constitutes systemic. They argue that conditions are likely to vary over time and that systemic importance would be dependent on the shocks to the system, the structure of the system and the condition of individual markets and balance sheets at that particular point in time"; FINANCIAL STABILITY BOARD, INTERNATIONAL MONETARY FUND, BANK OF INTERNATIONAL SETTLEMENTS, *Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations*, 10.

responsibilities.[282] This is made apparent, for instance, by the disclosure prompted by the EBA ITS and the EBA Guidelines on the disclosure of indicators, that have been the legal ground for the actual publication on 29 September 2014 of indicators from 28 large EU institutions.[283]

[282] Indeed, disclosure would "enable scrutiny by the public at large and achieve the aim of improving data quality and strengthening market discipline"; EUROPEAN BANKING AUTHORITY, *Final Draft Implementing Technical Standards on uniform standards for the disclosure of indicators used for determining the score of G-SIIs*, 4. There seems to be some confusion, or at least a lack of clarity, about whether such disclosure requirements "are necessary to guarantee fair competition between comparable groups of institutions and to ensure greater convergence of supervisory practices and the accurate assessment of risks across the EU"; EUROPEAN BANKING AUTHORITY, *Guidelines on disclosure of indicators of global systemic importance*, 5 June 2014, 3. The issue will be further explored in chapter 3.

[283] The disclosure has taken place in compliance with the discussed ITS and Guidelines on disclosure rules applicable to institutions with exposure exceeding 200 billion euro. The EBA requirements do take a step forward as compared to the BCBS approach, as for both the granularity of data and the scope of institutions involved. Moreover, only a few jurisdictions all over the world performed similar exercise with comparable degree of transparency. The EBA has played so far – and is likely to maintain it in the future – the role of 'data hub', something which is also meant to practically facilitate disclosure.

POLICY ISSUE	POLICY ASPECTS CONSIDERED AND REGULATORY TOOLS EMPLOYED	LEGAL SOURCE
Systemic risk	Tools to prevent and mitigate systemic risk have been built into CRR and CRD4 to ensure both flexibility and a controlled use of such tools in order not to harm the function of the internal market while also ensuring that the use of such tools is transparent and consistent	Recital 15 CRR
	National competent authorities collaborate closely by sharing information relevant to facilitate the supervision and monitoring of institutions, also in consideration of the aspects that may influence the systemic risk posed by institutions	Art. 50 CRD4
	Competent authorities share information concerning monetary, deposit protection, systemic and payment aspects to the ESCB, the ESFS, the ESRB and other public authorities. Possible obstacles to this are removed, especially for emergency situations; information is subject to professional secrecy	Art. 58 CRD4
	When determining the type or level of penalties, the competent authorities also take into account any potential systemic consequences of the breach	Art. 70 CRD4
	Within the Supervisory Review and Evaluation Process (SREP) the competent authorities review arrangements, strategies, processes and mechanisms implemented by the institutions, and evaluate the risks posed by an institution to the financial system. SREP technical criteria comprise an assessment of systemic risk. The frequency and intensity of the review have regard to systemic importance; if a review shows that an institution may pose systemic risk, the EBA is informed in a timely manner	Art. 97-98 CRD4
	The supervisory examination programme adopted by competent authorities contain institutions that pose systemic risk to the financial system	Art. 99 CRD4
	In determining the appropriate level of own funds, the competent authorities assess whether any imposition of an additional own funds is necessary to capture risks to which an institution might be exposed, also taking into account systemic risk	Art. 104 CRD4
	In reporting financial information, institutions take into account the need for obtaining a comprehensive view of the risk profile of activities and a view on the systemic risks posed by institutions to the financial sector or the real economy. Authorities may consult EBA for possible needs relatively to an extension of reporting requirements	Art. 99 CRR
	Considerations about potential systemic risks originating in the real-estate sector may justify the imposition of higher risk-weights to exposures secured by mortgages on immovable property. Much in the same way, higher exposure-weighted LGD floors may be set for retail exposures secured by residential/commercial property. Both measures require prior consultation with the EBA and are subject to compulsory reciprocity.	Art. 124 CRR Art. 164 CRR
Systemically important	A systemically important institution is an EU parent institution, an EU parent financial holding company, an EU parent mixed financial holding company or an institution the failure or malfunction of which could lead to	Art. 3(1) CRD4

institutions	systemic risk	
	Member States require each institution to disclose annually a wide set of country-by-country information. Global systemically important institutions authorised within the Union, as identified internationally, submit to the Commission some of this information on a confidential basis. The Commission is in charge of performing, after having consulted EBA, EIOPA and ESMA, a general assessment as regards potential negative economic consequences of the public disclosure of such information, including the impact on competitiveness, investment and credit availability and the stability of the financial system	Art. 89 CRD4
Significant branches	The competent authorities of a host member State may request to the consolidating supervisor or to the home competent authorities for a branch of an institution to be considered as significant. Regard should be had to the likely impact of a suspension or closure of the operations of the institution on systemic liquidity and the payment, clearing and settlement systems	Art. 51 CRD4
Global Systemically Important Institutions (G-SIIs)	Authorities shall impose higher own funds requirements on G-SIIs so as to compensate for the higher risk they pose to the financial system and the potential impact of their failure on taxpayers and the global economy	Recital 90 CRD4 Recital 32 CRR
	Member States designate the authority in charge of identifying, on a consolidated basis, among EU parent institutions, EU parent financial holding companies, and EU parent mixed financial holding companies, those which are G-SIIs. The identification methodology is based on five categories (size; interconnectedness with the financial system; substitutability of the services or of the financial infrastructure provided; complexity; cross-border activity). Each category shall receive an equal weighting and shall consist of quantifiable indicators. The methodology shall produce an overall score which allows G-SIIs to be allocated into a sub-category. Each G-SII shall, on a consolidated basis, maintain a G-SII buffer which corresponding to the sub-category to which the G-SII is allocated, and consisting of additional Common Equity Tier 1 capital. At least five subcategories of G-SIIs are identified, characterized by increasing systemic significance (the expected impact exerted by the G-SII's distress on the global financial market). The buffer ranges from 1% to 2,5% of total risk exposure amount for the first four sub-categories, while it is fixed at 3,5% of the total risk exposure amount for the fifth sub-category. Authorities may exercise sound supervisory judgment in re-allocating G-SIIs to a lower or a higher sub-category than the one corresponding to their scores, provided that they notify the EBA accordingly. The names and respective sub-categories of G-SIIs identified are notified to the Commission, the ESRB and EBA, and disclosed to the public. Both the identification and the allocation to sub-categories are reviewed annually. As a general rule, the higher buffer shall apply in case a G-SII buffer, an O-SII buffer and a systemic risk buffer are set upon the same group (the latter will cumulate only in case it applies to all exposures located in the member State setting it, but does not apply to exposures outside the Member State). By 2015 the Commission will submit a report to the Parliament and to the Council based on international developments and an EBA opinion on the possibility of	Art. 128(1) CRD4 Art. 131 CRD4 Art. 132 CRD4 Art. 441 CRR

	extending the framework for G-SIIs to additional types of systemically important institutions. By 2016 the Commission after consulting the ESRB and EBA, will submit a report to the Parliament and to the Council on whether G-SIIs provisions should be amended, taking into account international regulatory developments. Institutions identified as G-SIIs disclose, on an annual basis, the values of the indicators used for determining the score of the institutions in accordance with the identification methodology	
Other Systemically Important Institutions (O-SIIs)	Member States designate the authority in charge of identifying on a individual, sub-consolidated or consolidated basis, among EU parent institutions, EU parent financial holding companies, EU parent mixed financial holding companies, those which are O-SIIs. Their systemic importance is assessed on the basis of four criteria (size; importance for the economy of the Union or of the relevant member State; significance of cross-border activities; interconnectedness of the institution or group with the financial system). The O-SIIs may be required to maintain a buffer of up to 2% of the total risk exposure amount, consisting of additional Common Equity Tier 1 capital. Such buffer must not entail disproportionate adverse effects on the whole or parts of the financial system or be an obstacle to the functioning of the internal market, and must be reviewed at least annually. Decision relatively to the buffer are notified to the Commission, the ESRB, and the relevant authorities, along with a detailed justification for why the buffer is considered effective and proportionate to mitigate the risk, and an assessment of its likely impact on the internal market. The names of the O-SIIs are notified to the Commission, the ESRB and the EBA and disclosed to the public. Such identification is reviewed on an annual basis. Limits are set for specific cases in which an O-SII is a subsidiary of either a G-SII or an O- SII which is an EU parent institution and subject to an O-SII buffer on a consolidated basis. As a general rule, the higher buffer applies in case a G-SII buffer, an O-SII buffer and a systemic risk buffer are set upon the same group (the latter will cumulate only in case it applies to all exposures located in the member State setting it, but not to exposures outside it)	Art. 128(1) CRD4 Art. 131(5) CRD4
Systemic risk buffer	Member States designate authorities to which the power is assigned of introducing a systemic risk buffer of Common Equity Tier 1 capital for the banking and financial sector or one or more subsets of it, in order to prevent and mitigate long term non-cyclical systemic or macro-prudential risks not covered by CRR (a risk of disruption in the financial system with the potential to have serious negative consequences to the financial system and the real economy in a specific Member State)	Recital 85 CRD4 Recital 19 CRR
	The buffer is set at least at 1% and applies on an individual, consolidated, or sub-consolidated level. As a general rule, the higher among a G-SII buffer, an O-SII buffer, and the systemic risk buffer applies, save when the systemic risk buffer applies to all exposures located in a member State, but does not apply to exposures outside the member State (when it shall be cumulative). The systemic risk buffer may apply to exposures located in the member State setting it, as well as to exposures located in other Member States or located in third countries. The buffer applies to all institutions, or one or more subsets of them, and shall be set in gradual or accelerated steps of adjustment of 0,5%. The buffer does not entail disproportionate adverse effects on the financial system of other	Art. 128(1) CRD4 Art. 133 CRD4

	Member States or of the Union forming or creating an obstacle to the functioning of the internal market. The buffer is reviewed at least biennially. Before (re)setting the systemic risk buffer, authorities notify in advance the Commission, the ESRB, the EBA and other relevant authorities, giving information detailing the systemic or macro-prudential risk; the reasons why its dimension threatens the stability of the financial system at national level; the justification for why the systemic risk buffer is considered likely to be effective and proportionate to mitigate the risk; an assessment of the likely impact on the internal market; the justification for why none of the existing measures is sufficient to address the risk identified; the buffer rate. Different obligations follow from different rates at which the buffer is set (a special procedure is devised for cases where authorities wish to set a buffer rate between 3% and 5%, characterized by an increased role of the Commission). Transparency obligations are imposed upon authorities willing to set a systemic risk buffer, in terms of key information that has to be published on the internet (rate, institutions, justification, time limits, country exposures)	
	Member States may recognise the systemic risk buffer rate set by another member State and apply it to domestically authorised institutions for exposures located in the member State setting it. Notification is due to the Commission, the ESRB, the EBA and the member State that has set the systemic risk buffer. The exercise of such power should not prevent the appropriate macro-prudential oversight across the Union performed by the ESRB, also by mean of recommendations subject to a 'comply or explain' rule. A member State setting a systemic risk buffer may ask the ESRB to issue a recommendation to one or more member States which may recognise the systemic risk buffer	Recitals 86-87 CRD4 Art. 134 CRD4
Liquidity	A concentration of assets and overreliance on market liquidity may create systemic risk to the financial sector. For what concerns liquidity risk, competent authorities shall ensure that institutions have robust strategies, policies, processes and systems for the identification, measurement, management and monitoring of liquidity risk over an appropriate set of time horizons. These should be proportionate to the complexity, risk profile, scope of operation, and risk tolerance of the institutions, and reflect the institutions importance in the member State where it carries out business. Action is taken where developments in these aspects may lead to systemic instability	Recital 100 CRR Art. 86 CRD4
	For determining the appropriate level of liquidity requirements, regard is due to whether a liquidity requirement is necessary to capture liquidity risks to which an institution might be exposed, taking into account systemic liquidity risk that threatens the integrity of the national financial market	Art. 105 CRD4

FSB and BCBS
Regulatory framework for G-SIBs (G-SIFIs)
Size, interconnectedness, lack of substitutability, global (cross-jurisdictional) activity, complexity. Additional loss-absorption capacity and enhanced resolvability

Art. 131 CRD4 on the identification of G-SIIs
Basic principles are set for the identification methodology and the allocation to sub-categories. A score has to be calculated annually, and parameters are set for the calculation and the allocation to sub-categories. The 5 categories of indicators, related to different possible negative externalities, are size, interconnectedness, substitutability of services or infrastructure, complexity, cross-border activity

Art. 441 CRR on G-SIIs disclosure
The values used for the identification and scoring process of G-SIIs has to be made public

EBA draft RTS on the methodology for the identification of G-SIIs
The EBA, taking into account the BCBS sample, identifies the institutions whose indicator values are used as reference values for the global banking sector for the calculation of scores. Denominators are computed by the EBA based on indicator values reported by national authorities. The 12 sub-indicators identified by the EBA for the 5 categories set by CRD4 are: 1) total exposure 2) intra financial-system assets and liabilities, securities outstanding 3) assets under custody, payments activity, underwritten debt/equity 4) OTC derivatives, level-3 fair value assets, trading and AFS securities 5) cross-jurisdictional claims and liabilities. National authorities allocate G-SIIs to subcategories in accordance with their scores. Room is left to supervisors for re-allocation to a higher category

EBA draft ITS on disclosure standards of indicators used for G-SIIs score
Besides capital requirements, enhanced public scrutiny and market discipline are needed for G-SIIs. Templates are set in accordance with international standards for disclosure of the values of indicators

EBA Guidelines on the disclosure of indicators
Detailed requirements and instructions are set for disclosure and communication of the value of the variables related to indicators used for the determination of the scores. They apply to both G-SIIs and entities with exposure > 200 bln €

FSB and BCBS
The identification of D-SIBs and their regulatory framework is better dealt with by national authorities, especially for the evaluation of the potential impact of a failure. Five categories: size, interconnectedness, substitutability of services or infrastructure, complexity

Art. 131 CRD4 on the identification of O-SIIs
Basic principles are set for the identification methodology and the corresponding surcharge. O-SIIs identified by ate least one category
Buffer set at max 2% RWA

EBA Guidelines on the Assessment of O-SIIs
The GL aim to promote convergence in the process of identification of O-SIIs, thus ensuring comparability and transparency of data. The GL set forth a two-step process. This is based on 10 quantitative indicatos: 1) total assets 2) payment transactions; deposits and loans 3) OTC derivatives; cross-jurisdictional claims and liabilities 4) interbank liabilities and assets; debt securities outstanding. A score is calculated, which determines mandatory inclusions and exclusions. For remaining banks supervisory judgment applies. The scores of banks designated as O-SIIs have to be published

Turning to the *indirect* tools for the prevention of systemic risk, one first set of tools is represented by Pillar 2 requirements. In addition to capital requirement rules that apply to the whole system or to a sub-set of it, attention should be also paid to measures applying individually to institutions. These may be useful as indirect prevention tools in that they may help addressing institution-specific risks previously to the built-up of risks of systemic dimension. Meaningful measures that may be taken under Art. 104 CRD4 are the requirement to hold funds in excess of the requirements set out in the CRR; to apply a specific provisioning policy; to restrict or limit the business, operations, or network of institutions or to request the divestment of activities that pose excessive risks to the soundness of an institution; to impose specific liquidity requirements, including restrictions on maturity mismatches between assets and liabilities; to require additional disclosures. These may be labelled as indirect prevention tolls since they serve the purpose of addressing potential dangers to the institutions, but in this way they may also prevent these to spill-over to the system. Authorities have the power to impose requirements on an individual basis; this is the point where micro-prudential and macro-prudential supervision actually seem to merge, in that these requirements have a heavily restricted application from a subjective viewpoint, but from an objective one may indeed serve as macro-prudential instruments.

Additionally, the attention of regulators has been called to the relationship between systemic risk and accounting standards, with special reference to the fair-value method employed in both the European and North-American context by the International Accounting Standards (IAS 39) and the Financial Accounting Standards (FAS 157). As witnessed by the financial crisis, this method may prove particularly delicate for the financial system, and it has happened to generate, through mark-to-market asset evaluation, self-reinforcing mechanisms of write-downs and retreat of credit lines where systemic events occur and a fall in market prices is therefore witnessed.[284] In other words, by allowing book losses to feed back directly into the financial system, with the potential of "strong, mutually reinforcing, pro-cyclical effects"[285] fair-value accounting rules have shown quite a pro-cyclical character. The *incurred losses* model employed to account for loan losses actually fell short of provisions allowing an *ex ante* recognition of credit risk in financial statements.[286] This is how it exacerbates the credit cycle when a crisis has

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[284] G. PLANTIN, H. SAPRA, H.S. SHIN, Marking-to-Market: Panacea or Pandora's Box?, Journal of Accounting Research, no. 2/2008, 435; M.K. BRUNNERMEIER, A. CROCKETT, C.A.E. GOODHART, A.D. PERSAUD, H.S. SHIN, 'The Fundamental Principles of Financial Regulation', Geneva Reports on the World Economy, no. 11/2009.

[285] M. HELLWIG, 'Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis', 6, 42. On the point see also G. PLANTIN, H. SAPRA, H.S. SHIN, Marking-to-Market: Panacea or Pandora's Box?, 435. The effect would be even more pronounced for long-term investors (i.e. pension funds and insurance companies), with the consequence of preventing their function as 'stabilizers'; J. EATWELL, M. MILGATE, *The Fall and Rise of Keynesian Economics*, 40.

[286] For different reasons, provisioning has not been decisive, besides widely under-employed. In jurisdictions where provisioning was more widespread (such as Germany), this has proven to have a significant counter-cyclical role; C. DOMIKOWSKY, S. BORNEMANN, K.

manifested or is about to manifest; "the current incurred-loss provisioning method contributes to pro-cyclicality by delaying the recognition of expected losses up until economic downturns – exactly when capital becomes more expensive or simply unavailable to weaker institutions, thereby magnifying the impact of economic downturns".[287] Many empirical analyses have indeed found that fair-value reporting is associated with contagion among banks, especially in periods of market illiquidity.[288]

In spite of this, this method also has some merits, and may not be rejected altogether.[289] This explains why action has been taken at the international level in order to reform the framework although no radically departing from it. In July 2014 the IASB formally approved the definitive version of IFRS 9 which will be fully in place as of 2018. The implementation at the European Union level is still under discussion.[290] As far as credit is concerned, the new IFRS 9 introduces an Expected Credit Losses model, which broadly speaking marks a shift from *incurred* losses to *expected* losses. Indeed, the model underlying the IFRS 9 is articulated along three stages, reflecting a potential progressive deterioration of credits. In the first stage, where no significant deterioration in credit quality occurs or a low credit risk is identified, a 12-month expected credit losses is recognized in the income statement, and the interest revenue is on a gross basis. In the second stage, where an increase in the credit risk is witnessed the lifetime expected credit losses are recognized, while interest revenue still is on a gross basis. In the third stage, where the counterparty defaults, the lifetime expected losses are used again, but interest revenue is on a net basis.[291] What is interesting to underline is that in the first stage the

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DUELLMANN, A. PFINGSTEN, 'Loan Loss Provisioning and Procyclicality: Evidence from an Expected Loss Model', May 2014.

[287] T. HARRIS, U. KHAN, D. NISSIM, 'The Expected Rate of Credit Losses on Banks' Loan Portfolios', Columbia University Working Paper, January 2013, 3.

[288] U. KHAN, 'Does Fair Value Accounting Contribute to Systemic Risk in the Banking Industry?', SSRN Electronic Journal, March 2014

[289] V.V. ACHARYA, M. RICHARDSON, *Restoring Financial Stability: How to Repair a Failed System*, 226; M.K. BRUNNERMEIER, A. CROCKETT, C.A.E. GOODHART, A.D. PERSAUD, H.S. SHIN, 'The Fundamental Principles of Financial Regulation'.

[290] In November 2009 the first IASB Exposure Draft, the second Exposure Draft in March 2013. Publication followed in 2014. The BCBS is now updating the Guidance for the homogeneous application of the model, even thug it largely remains a principle-based framework. The BCBS is now working on updating the guidance contained in the 'Sound Credit Risk Assessment and Valuations for Loans' (SCARVL) document, where principles will be further specified so as to foster homogeneous application of the new standard. Even though effective from 2018, it is likely that significant implementation effort will be required to banks; DELOITTE, *Fourth Global IFRS Banking survey. Ready to Land*, June 2014. In the US context the FASB has taken a partially diverging approach; in December 2012 the Exposure Draft published, while in the second quarter of 2015 expected the finalization of FASB impairment model. In the end, the harmonization goal may be missed, since the IASB and the FASB have travelled somehow different roads.

[291] In stage 2 and 3 credit deterioration shall be evaluated by mean of the lifetime PD of the counterparty. The difference between a gross basis and a net basis for interest revenues brings a different representation in the income statement, respectively of the original credit or of the

model for calculating the 12-month-expected losses is similar to and coherent with the Basel model PD*LGD that is employed for prudential purposes. The prudential approach has been thus extended to the accounting world, even though differences remain, for instance as for the calculation of the PD itself.[292] The new approach may be overly complex for credit institutions themselves to comply with, and incorporates elements of significant discretion (e.g. with reference to the 'significant increase' of credit risk). As far as financial instruments are concerned the IFRS 9 aims at simplifying the framework for the classification of such instruments, by (marginally) reducing the number of portfolios and reshaping the criteria associated with the classification itself. What is interesting in that the overall effect of such modifications may be paradoxically an extension in the use of the 'fair-value' method, i.e. more financial assets could be end up to be measured at fair-value.[293]

Along with the extension of elements typical to the prudential world to the accounting one, a further key issue is whether this model may prove better than the old one as for its relation to the economic cycle. The new approach does not seem particularly anti-cyclical, even if at least it tries to avoid pro-cyclicality. In this regard, the issue may be that the sort of anticipation crystallized in the income statement may turn expected credit losses into self-fulfilling expectations, therefore to some extent generating the possibility of a systemic crisis. In this way the new model may be deemed even more pro-cyclical than the old one; sudden effects on provisioning may be generated in case conditions for a widespread crisis materialize effective the IFRS 9.[294] In addition to this, the evidence about the role of fair-value in generating crises is not clear-cut, and even if it were, the solution may not be a plain one.[295]

A further element possibly contributing to the emergence of systemic risk relates to managerial compensation schemes, with special reference to the short-termism and moral

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written-down one. In evaluating expected losses, regard should be had to all information 'available without undue cost or effort at the reporting fate about past events, current conditions and forecasts of future economic conditions'. Exceptions are also provided to this general model, notably for trade and lease receivables and financial assets that are credit impaired on initial recognition.

[292] Indeed, the PD employed for accounting purposes should have a 'point in time' approach, that is it should assume the economic cycle as given, although incorporating forward-looking elements. By contrast, the PD employed for prudential purposes shall have a 'through the cycle' approach, i.e. should fully incorporate elements derived by the possible evolution of the economic cycle.

[293] This could be mainly due to the conditions associated with the 'Sole Payments of Principal and Interest' (SPPI) test, failing which financial instruments will normally have to be classified in the 'Fair Value Through Profit and Loss' (FVTPL) category. On the divergent opinion on the point see EUROPEAN FINANCIAL REPORTING ADVISORY GROUP, *Classification and measurement of financial assets. Results of the field test conducted by EFRAG, ANC, ASCG, FRC and OIC*, 17 June 2013.

[294] DELOITTE, *Fourth Global IFRS Banking survey. Ready to Land*, 16.

[295] Among others, see B. BADERTSCHER, J.J. BURKS, P.D. EASTON, 'A Convenient Scapegoat: Fair Value Accounting by Commercial Banks during the Financial Crisis', The Accounting Review, no. 1/2012

hazard that may be inadequately counteracted or even favoured;[296] analyses have demonstrated a close relationship between executive directors' pay and excessive risk-taking, which has the potential of causing both individual failures and systemic distress.[297] In the aftermath of the financial crisis the regulatory response has been relatively mild..[298]

Quite a bold step further has been instead taken by the CRD-CRR, which set a number of rules directly dealing with the issue (Art. 75, Art. 92-96 CRD4), on the ground that appropriate and effective checks and balances are necessary to tackle excessively risky management strategies, along with a clear mandate to the competent authorities.[299] To this purpose, a distinction between variable and fixed remuneration is introduced, along with a maximum ratio between the two aimed at avoiding excessive risk taking. The design of remuneration policies is integrated in the risk management of the institution. In order to protect and foster financial stability, competent authorities are gifted with the appropriate powers of review.[300]

A further instrument adding to the regulators' toolbox is related to the temporary prohibition of market practices due to their potential systemic effects. A clear example of this is short selling, a practice towards which regulators have shown in time quite an unclear stance.[301] During the financial crisis short-selling was in the European context a clear example of uncoordinated action, with a number of countries banning the practice in different ways and to different extents. The Regulation enacted at the European level now establishes a link between short-selling and the need to protect the financial system. Indeed, Regulation no. 236/2012/EU recalls systemic risk several times (Recital 1, 7, and 8), and establishes for this purpose an institutional link between ESMA and the ESRB

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[296] EUROPEAN CENTRAL BANK, ***Risk Measurement and Systemic Risk***, Fourth Joint Central Bank Research Conference, Frankfurt, April 2007.

[297] L. BEBCHUK, A. COHEN, H. SPAMANN, 'The Wages of Failure: Executive Compensation at Bear Stearns and Lehman 2000-2008', Yale Journal on Regulation, no. 27/2010, 274; G. FERRARINI, N. MOLONEY, M.C. UGUREANU, 'Understanding Directors Pay in Europe: A Comparative and Empirical Analysis', European Corporate Governance Institute, ECGI Working Paper no. 126/2009, 75; R.G. RAJAN, ***Has Financial Development Made the World Riskier?,*** 356.

[298] Reference is to the 2009 'Principles for Sound Compensation Practices' of the Financial Stability Forum (the former vest of the FSB), the 2009 'High-level principles for Remuneration Policies' of the Committee of European Banking Supervisors, as well as the European Commission Recommendations (April 30, 2009, C2009-3177 and C2009-3159). In the US context, the issue has been framed in the narrower terms of 'excessive' compensation; see Section 956 of the Dodd-Frank Act.

[299] See also Recitals 53, 62-68 CRD4, and Recital 113 CRR.

[300] The cap to bonuses has been recently challenged by the UK before the European Court of Justice. The Advocate General Jääskinen expressed in favour of dismissing the claim, on the basis that the legislation imposing limits on variable remuneration is valid and should therefore be upheld by the ECJ. The lawsuit was filed in September 2014 on the ground that legislation on the issue had exceeded the limits set by the Treaties, lacking any proof of the regulation making the financial system any safer.

[301] J. BLACK, 'Financial Markets', 158.

(Recital 33). In case a threat to the financial system materialize, the former may intervene to either force a disclosure on short positions or to prohibit short-selling (Art. 28).

A different instrument for the prevention of systemic risk is the enhancement of transparency and information that are consequent to a move of over-the counter (OTC) trading, especially of derivatives, towards Central Counterparties (CCPs).[302] The literature has long explored dangers related to systemic risk in the net settlement operations, pointing at the beneficial effects of netting for the financial system as a whole.[303] Benefits specific to derivatives would be a decreased complexity and risk-intensity of the financial network, thus benefitting the whole system.[304]

From the regulatory viewpoint, a major regulatory move has been made at the European level with EMIR Regulation (Regulation no. 648/2012/EU), that introduced mandatory central clearing for standardized derivatives and risk-mitigations standards for non centrally-cleared ones (Art. 4 and Art. 11). Issues of systemic risk are recalled in several recitals,[305] and are especially relevant for the rules on the authorisation and supervision of CCPs and their prudential requirements (Art. 14 ff., Art. 40 ff.). Although the employment of central counterparties has been advocated in time by international standard setters,[306] some drawbacks of the use of CCPs may be also identified. These mainly relate to a potential enhancement of feedback effects; the fact that the safety of the components of the system does not necessarily entail the safety of the whole system; the endogenous risk posed by the central counterparty guarantee fund; the dangers

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[302] FINANCIAL SERVICES AUTHORITY, *The Turner Review. A Regulatory Response to the Global Banking Crisis*, 81

[303] Indeed, it would shield "systemically important market participants from the consequences of their counterparty's insolvency"; P. ANGELINI, G. MARESCA, D. RUSSO, 'Systemic Risk in the Netting System', Journal of Banking and Finance, no. 20/1996, 853; P. PAECH, *Systemic Risk, Regulatory Powers and Insolvency Law. The Need for an International Instrument on the Private Law Framework For Netting*, Institute for Law and Finance Working Paper no. 116/2010, 13.

[304] A.G. HALDANE, R.M. MAY, 'Systemic Risk in Banking Ecosystems', 355. "The public goods aspect of reducing systemic risk in the context of a clearinghouse or an exchange" outweighing benefits of the OTC market"; V.V. ACHARYA, M. RICHARDSON, *Restoring Financial Stability: How to Repair a Failed System*, 259. However, critics have also been addressed to CCPs, and the legal regime envisaged by Title VII of Dodd-Frank Act has been criticized for shifting systemic risk to central clearinghouses and not taking into account the technical difficulties inherent to the clearing of non-standardized contracts; J.C. Jr. COFFEE, The Political Economy of Dodd-Frank: Why Financial Reform Tends to be Frustrated and Systemic Risk Perpetuated, Columbia University Center for Law and Economic Studies, no. 414/2012, 59.

[305] Recitals 15, 21, 29, 31, 37, and 38 of EMIR Regulation.

[306] A broad support for the use of CCPs has come from the Basel III framework, which sets different regulatory capital treatment for exposition to central counterparties compliant with principles set by the Committee on Payment and Settlements Systems (CPSS) and the International Organization of Securities Commission (IOSCO); BASEL COMMITTEE ON BANKING SUPERVISION, *Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems*, 46; BASEL COMMITTEE ON BANKING SUPERVISION, *Capital Requirements for Bank Exposures to Central Counterparties*, July 2012.

associated with potential feedbacks effects from available prices of derivatives cleared.[307] Moreover, the point is sometimes made of how limited the role of increased information and enhanced transparency would be in relation to systemic risk.[308]

The last type of attempt to influence the topology of the financial system in order to tackle systemic risk indirectly is represented by the use of fiscal instruments. Early proponents of the use of fiscal instruments to influence the financial system have been various and numerous over time,[309] but the debate has been reinforced only in the aftermath of the financial crisis.[310]

Fiscal instruments may take different forms. Indeed, a fiscal tool could be a tax specifically imposed upon subjects which are deemed more prone to generate systemic risk, thus assuming a fiscal approach towards something that is already enshrined in regulation under prudential vests. Alternatively, a fiscal tool could also take the forms of a financial transaction tax, therefore impinging upon transactions rather than institutions, as fiscal measures normally do. As a premise, it is worth reminding that "in a perfect Pigouvian world, taxation and regulation would be equivalent", even though "in the real world, financial regulation is largely preferred", due to its "stronger impact on high-risk polluting portfolios, while taxation affects also low-risk polluting portfolios".[311]

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[307] J. DANÍELSSON, H.S. SHIN, J.P. ZIGRAND, 'Endogenous and Systemic Risk', 24.

[308] Disclosure would be limitedly useful in for "complex and dynamic" financial positions; R.G. RAJAN, *Has Financial Development Made the World Riskier?,* 319. Much in the same way, transparency may "add to the illusion of accuracy, and by reinforcing herd behaviour, it may well make things worse"; J. EATWELL, M. MILGATE, *The Fall and Rise of Keynesian Economics*, 48. Regulators focusing on information efficiency may prompt "the unintended consequence of propelling financial bubbles"; F. CACCIOLI, M. MARSILI, 'Information Efficiency and Financial Stability', Economics, no. 3/2010, 11. In any case, and decisively, individual market participants would be "motivated to protect themselves but not the system as a whole"; S.L. SCHWARCZ, 'Systemic Risk', 218.

[309] In the meaning of a tax on systemic risk externality via securities J.M. Keynes (*The General Theory*, 1936); as related to aggregate demand and its macroeconomic management J. Tobin (*A proposal for International Monetary Reform*, 1978); more recently, J.E. Stiglitz (*Using tax policy to curb speculative short-term trading*, 1989).

[310] Pigouvian-like measures have been proposed for instance by V.V. Acharya, L.H. Pedersen, T. Philippon, and M. Richardson (*A tax on systemic risk*, 2010); C.A.E. Goodhart (*The Emerging New Architecture of Financial Regulation*, 2010), arguing that the systemic surcharge may be deemed a Pigouvian measure; M.K. Brunnermeier et al. (*The Fundamental Principles of Financial Regulation*, 2009) also acknowledged the motivation for levying a Pigouvian tax on institutions posing systemic risk externalities. The potential effectiveness of a Pigouvian-like taxation is also underlined by T.F. COOLEY, T. PHILIPPON, V.V. ACHARYA, L.H. PEDERSEN, T. PHILIPPON, M. RICHARDSON, 'Regulating Systemic Risk', in V.V. ACHARYA, M. RICHARDSON (eds.), *Restoring Financial Stability: How to Repair a Failed System*, New York, Wiley, 2009, 283 ff.

[311] D. MASCIANDARO, F. PASSARELLI, 'Financial systemic risk: taxation or regulation?', in Journal of Banking & Finance, no. 2/2013, 587. This happens although, in principle, taxation would be superior to regulation, as better suited to an environment where information about agents' preferences is costly or unavailable; *ibidem*, 588. However, regulation may prove more effective as less subject to a measurement bias; *ibidem*, 589.

In principle, a 'bank-tax' imposed on too-big-to-fail intermediaries "would offset the implicit subsidy and thus reduce the incentive to take excessive leverage, while also funding a private insurance system to bail out the failing bank".[312] However, "taxes on banks are usually levied on ex-post basis, they are mostly based on funding, profits, or banking bonuses, rather than stricter measures of systemic risk";[313] this would be inherently at odds with the need of tackling systemic risk *ex ante*.

As for more specific fiscal measures, the proliferation has been underlined "of taxes on specific issues (securities transactions, currency transactions, capital levies, bank transactions, insurance premia, real estate transactions, etc.) which hardly fit into a coherent framework of systemic risk reduction".[314] The proposal to introduce a 'financial transactions tax' has been made in the context of the European Union in the form of a proposal from the European Commission. This generated fierce opposition on the side of a number of countries. Given the impossibility to achieve a political compromise on this, the way taken in October 2012 has been that of a 'strengthened cooperation' among a lower number of countries.[315] In the meanwhile, both Italy and France have gone further at the national level, where forms of FTT have been introduced. Its uncoordinated introduction, along with the high number of exceptions envisaged, is something that can severely affect the effectiveness of the measure, and a clear-cut evaluation about pros and cons associated to the measure is still lacking.[316]

1.2.1 The protection from systemic risk

Along with prevention, the protection of credit institutions, other financial institutions, depositors, and market participant altogether is also a way of fighting systemic risk. Indeed, when something labelled as 'systemic risk' is manifesting or has already manifested, a number of regulatory tools are still amenable for employment.

One important way for systemic risk mitigation is the orderly winding-up of credit institutions.[317] As shown by the financial crisis, this essentially means devising regulatory tools able to deal with the mismatch for which credit institutions would be 'global in life', but 'national in death'. At the international level, the FSB has been quite active in the

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[312] J.C. Jr. COFFEE, 'Systemic Risk after Dodd-Frank: Contingent Capital and the Need for Regulatory Strategies Beyond Oversight', 800.

[313] D. MASCIANDARO, F. PASSARELLI, 'Financial systemic risk: taxation or regulation?', 589.

[314] D. MASCIANDARO, F. PASSARELLI, 'Financial systemic risk: taxation or regulation?', 589.

[315] An agreement has been reached at the May 2014 Ecofin Council on a gradual application starting from 2016, although some technical aspects are still open to discussion.

[316] F. CACCIOLI, M. MARSILI, P. VIVO, 'Eroding Market Stability by Proliferation of Financial Instruments', 476.

[317] As a general remark, it has been noted how, as for the issue of the too-big-to-fail, "one cannot respond to that problem in the manner of King Canute and simply order that there be no more failures. Nor can one realistically expect that all future failures will be carefully managed under governmental supervision"; J.C. Jr. COFFEE, 'Systemic Risk after Dodd-Frank: Contingent Capital and the Need for Regulatory Strategies Beyond Oversight', Columbia Law Review, no. 111/2011, 799.

policy area of resolution, by setting out the core elements considered necessary for the establishment of an effective resolution regime. More specifically, the FSB has set principles applying to all institutions, but with special regard to systemically important ones, for which an effective resolution regime should be in place; recovery and resolution plans should be drafted; and crisis management groups should be established.[318] More recently, the FSB has provided guidance for the analysis of the firm's essential and systemically important functions, and specifically of critical functions and critical shared services.[319] In the context of the European Union, the legislative framework for the recovery and resolution of banks and investment firms is now carved in the Bank Recovery and Resolution Directive (BRRD).[320] On the one hand, the Directive aims at harmonizing existing rules and practices, such as those related to the assessment of resolvability and the removal of impediments to it; to infra-group financial support; and to early intervention measures. Moreover, requirements are set as for the drafting of recovery and resolution plans that have to be prepared respectively by credit institutions and supervisory authorities, in order to facilitate the recovery or the orderly resolution in case difficulties manifest.[321] On the other hand, the BRRD also aims at providing national resolution authorities with a set of legal tools which are alternative to ordinary insolvency proceedings,[322] and are characterized by harmonized core elements and employment conditions, namely the sale of business tool, the bridge institution tool, the asset separation tool, the bail-in tool.[323]

The issue of systemic risk is tackled by the BRRD by different angles. The Directive revolves around the idea of 'systemic crisis',[324] which may be deemed the correspondent

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[318] FINANCIAL STABILITY BOARD, *Key Attributes of Effective Resolution Regimes*, October 2011. A new version of the *Key Attributes* has been adopted recently, providing for clarifications about information sharing for resolution purposes, the protection of client assets in resolution, and sector-specific guidance on insurers and financial market infrastructures; FINANCIAL STABILITY BOARD, *Key Attributes of Effective Resolution Regimes for Financial Institutions*, 15 October 2014.

[319] Their identification "is meant to assist authorities in developing resolution strategies that minimise systemic disruption and preserve value"; FINANCIAL STABILITY BOARD, *Recovery and Resolution Planning for Systemically Important Financial Institutions: Guidance on Identification of Critical Functions and Critical Shared Services*, 16 July 2013, 5-6. For a more in-depth examination of the concept of 'criticality' and how this relates to the notion of 'general interest', see Chapter 3.

[320] The paragraph focuses on the regulatory framework of the European Union. As for the US system, be it sufficient to recall that the FDIC is gifted with resolution authority and is therefore empowered to impose on failing institutions a receivership, whose main consequence is probably the possibility to orderly liquidate it via the imposition of eventual losses upon shareholders and unsecured creditors (Sections 201-217 DFA).

[321] Art. 4-14 BRRD.

[322] A broad distinction that has been maintained since preparatory work for the Directive is the one between ordinary insolvency proceedings which have a *judicial* nature, and resolution tools and procedures, which are characterized instead by an *administrative* nature.

[323] On the sale of business tool see Art. 38-39 BRRD, on the bridge institution tool see Art. 40-41 BRRD, on the asset separation tool see Art. 42, on the bail-in tool see Art. 43-44 BRRD.

[324] Defined as 'a disruption in the financial system with the potential to have serious negative consequences for the internal market and the real economy'; Art. 2(1)(30) BRRD.

to systemic risk on the gone-concern side. The primary aim of the Directive is that of fighting the 'too-big-to-fail', by openly acknowledging that 'in order to avoid moral hazard, any failing institution should be able to exit the market, irrespective of its size and interconnectedness, without causing systemic disruption'.[325] The mitigation of systemic risk is considered among the objectives of the Directive, in both the meaning of the need to preserve the systemically important functions of institutions involved in resolution, and to resolve institutions in a way that prevents broader systemic damage.[326] The same may be said for the employment of tools. Systemic risk serves as guiding principle for competent authorities and institutions in dealing with the requirements set by the Directive. This applies, for instance, to recovery and resolution plans;[327] to information concerning the marketing of a failing institution which is vested with systemic importance and the consequent possibility for this to be delayed; to the use of the bail-in tool.[328] At the institutional level, one key rule is the one set by Art. 3(6) under which, in case the resolution authority is not the competent ministry, the former has a duty to inform the latter 'of the decisions pursuant to this Directive and, unless otherwise laid down in national law, have its approval before implementing decisions that have a direct fiscal impact or systemic implications'. It is an interesting and key provision relatively to the involvement of political power into the decision process.[329]

Resolution in undoubtedly a set of protective tools, naturally entailing a *political* decision. An 'orderly resolution' essentially amounts to a timely decision about *whom* losses have to be allocated to (think for instance to the bail-in tool).[330] Indeed,

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[325] Recital 45 BRRD.

[326] Recital 1, Recital 49, and Recital 67 BRRD; Recital 3 BRRD.

[327] They should be calibrated proportionately, also depending on the systemic importance of the institution; Recital 21 and Recital 25 BRRD. In addition to this, the Annexes (Section ' Information to be included in recovery plans', Section B 'Information that resolution authorities may request institutions to provide for the purposes of drawing up and maintaining resolution plans', and Section C 'Matters that the resolution authority is to consider when assessing the resolvability of an institution or group'), while applying proportionally to institutions, are meant to be minimum standards for those with systemic relevance.

[328] Recital 64 BRRD; Recital 68 and Recital 70 BRRD. The possible pro-cyclicality of *ex-post* contributions in case of a systemic crisis is also considered; Recital 106 BRRD.

[329] The institutional framework equivalent of the BRRD at the euro-area level is the Single Resolution Mechanism. The Single Resolution Mechanism Regulation (SRMR) that establishes it also provides valuable insights to the policy issue of systemic risk. The Single Resolution Board, which will be acting as resolution authority for credit institutions whose direct supervision responsibility lies with the ECB, should give priority to systemically important institutions pursuant to Recital 47 SRMR. This is also related to public interest assessed by the Board in relation to resolution schemes and procedures (on this, see chapter 3).

[330] Under Recital 73 SRMR, 'An effective resolution regime should minimise the costs of the resolution of a failing entity borne by the taxpayers. It should also ensure that systemic entities can be resolved without jeopardising financial stability. The bail-in tool achieves that objective by ensuring that shareholders and creditors of the failing entity *suffer appropriate losses and bear an appropriate part of the costs arising from the failure of the entity*' (emphasis added). On the role of bail-in as a replacement of bail-out, J.C. Jr.COFFEE, 'Systemic Risk after Dodd-Frank: Contingent

"policymakers face a trade-off between placing losses on a narrow set of taxpayers today (bail-in) or spreading that risk across a wider set of tax-payers today and in the future (bail-out)".[331] To many extents, the protection from systemic risk may be partial or subject to substantial value judgement.

An additional instrument through which the protection from systemic risk may be granted are deposit guarantee schemes.[332] Their usefulness is essentially uncontested,[333] in that they prevent the effects of systemic risk from spilling over bank depositors, and through them to the real economy. In the European Union context, although a minimum harmonization regulatory level playing field already existed (Directive 94/19/EC, amended by Directive 2009/14/EC), deposit protection offers one more example of uncoordinated reaction of supervisors during the financial crisis. This is essentially the reason why, after lengthy negotiations, Directive 2014/49/EU of 16 April 2014 on deposit guarantee schemes (DGSD) has been approved. The Directive sets important rules on aspects such as the extent to which deposits are eligible for protection, their coverage level, repayment, along with the financing of DGSs.[334] The Directive also sets rules on the use of funds. As a general rule, member States shall ensure that DGSs have in place adequate systems to determine their potential liabilities, and their available financial means shall be proportionate to those liabilities (Art. 10(1) DGSD). Art. 14(8) DGSD imposes on the EBA an obligation to cooperate with the ESRB on systemic risk analysis concerning DGSs. In coherence with this, macro-prudential authorities have to be involved in the process of the implementation of deposit guarantee schemes. Elements related to the economic and financial cycle are taken into consideration, in that a significant part of the DGS will need to be funded *ex ante*, thus eliminating possible drawback of DGS contribution in times of crisis.

In extremely recent times, progress in regulation has also be made at the international level. In November 2014 an update was published of Core Principles for Effective Deposit Insurance Systems by the International Association of Deposit Insurers.[335] The update of IADI Core Principles has been prompted by the need to reach

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Capital and the Need for Regulatory Strategies Beyond Oversight', 795. On the topic of the decisions about the allocation of losses, see also chapter 3.

[331] A.G. HALDANE, *On Being the Right Size*, 5.

[332] On examples of how, in spite of being considered a late XXth century phenomenon, the concept of deposit insurance is instead quite an old one, R.A. EISENBEIS, G.G. KAUFMAN, 'Deposit Insurance Issues in the Post-2008 Crisis World', 534-535.

[333] Deposit insurance schemes date back the establishment in the US of the Federal Deposit Insurance Corporation in 1933.

[334] Respectively Art. 5, Art. 6, Art. 7-8 and Art. 9 DGSD.

[335] INTERNATIONAL ASSOCIATION OF DEPOSIT INSURERS, *IADI Core Principles for Effective Deposit Insurance Systems*, November 2014. The original version of the Principles was released in June 20009. Although developed by the IADI, the Core Principles were discussed at the international level by a Joint Working Group that included representatives from the BCBS, the European Forum of Deposit Insurers, the European Commission, the FSB, the IMF and the World Bank. Therefore, more than IADI only, they reflect a consensus reached among most important international standards setters and institutions.

an agreement upon elements of deposit insurance essential to the performance of the key role assigned to deposit protection schemes following to the financial crisis.[336] In particular, essential elements are addressed such as public policy objectives; mandate, powers, governance and membership; the relationship with other subject composing the safety-net; coverage level and the use of funds; cross-border issues; early detection and intervention; role in resolution and crisis management; reimbursement of depositors. All these elements are articulated along sixteen core principles amenable for implementation in different legal environments.[337] Overall, a positive judgment may be assigned to the Principles and to the background work that is behind them. How much the Principles will positively influence the design of deposit protection schemes will obviously depend on the extent to which they will be incorporated in national and supra-national practice. However, the work done at the international level seems to witness once again how this tool may prove fundamental for the protection from systemic events.

In spite of recent regulatory novelties, the main role in the mitigation of systemic risk, especially insofar as banking institutions are concerned, perhaps still remains in the function of lender-of-last-resort (LOLR) performed by central banks. In its essential meaning, it is still close to the function described in Bagheot's magisterial account of lender-of-last-resort functions at the end of the nineteenth century.[338] Acording to him, in case of panic "the holders of the cash reserve must be ready ... to advance it most freely for the liabilities of others", in order to protect the stability of the system; indeed, "they ought not to it to serve others; they ought to do it to serve themselves".[339]

Since a long time Bagheot's analysis has been incorporated into the design of banking and financial regulation, and engraved in central banks statutes among the duties of these. The function of LOLR actually prevents the transformation of liquidity shocks into solvency shocks, thus being the last resort before the liquidation of an institution

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[336] Indeed, the Principles also have to be read in the light of the enhanced role that has been recently assigned to deposit protection schemes, that may be to different extents involved in the resolution process of institutions. This actually takes place under the assumption that these schemes may play an extremely important role well *before* an institutions goes into liquidation and depositors have to be reimbursed.

[337] The principles should be intended as minimum standards, in that national authorities are not only free, but also invited to top them up with other elements which take into account jurisdictional specificities.

[338] The financial crisis would have redefined the functions to be performed by the lender-of-last-resort in three ways, "by placing it at the intersection of monetary policy, fiscal policy, supervision, and regulation of the banking industry … by giving regulatory authorities the additional responsibility of monitoring the interbank market … by extending its role to cover the possible bailout of non-bank institutions"; X. FREIXAS, B.M. PARIGI, 'Lender of Last Resort and Bank Closure Policy. A Post-Crisis Perspective', in A.N. BERGER, P. MOLYNEUX, J.O.S. WILSON (eds.), *The Oxford Handbook of Banking*, 474. One element of extreme delicacy is correctly recognized in the difficulty of distinguishing between an illiquid and an insolvent bank, something that had been already acknowledged by Bagheot in its early formulation of the concept; *ibidem*, 488.

[339] W. BAGHEOT, *Lombard Street. A Description of the Money Market*, Greenwood Publications, 2010 (original edition 1873), 26-31.

and/or the employment of fiscal resources.[340] The main critique that has been moved in time to the function of LOLR is that it would favour moral hazard on the side of institutions, since for instance excessive risk taking will be backed by final support in case things go wrong. The main tool employed to counteract this may be summarized by the expression 'constructive ambiguity', that is the *ex ante* uncertainty about the circumstances under which the central bank will actually perform such function.[341]

Notwithstanding LOLR functions has been deemed to be of greater importance the greater the proportion of speculative finance (as it seems to be today compared to centuries ago),[342] recent regulatory developments following the emotional push of the financial crisis have attempted to limit it, though in different ways. Indeed, the very existence of such functions has been associated with an undue favour to financial institutions and an expression of tolerance towards moral hazard.

In the US context, the Dodd-Frank Act has seek to limit "the possibility of central bank emergency funding for a bank in distress in order", in what has actually been labelled "a Draconian policy".[343] Even more strongly as it has been put, "the Dodd-Frank Act appears to turn Bagheot's advice on its head. Essentially, it denies bank regulators the ability to target funds to threatened financial institutions, except in cases where the financial institution is to be liquidated pursuant to the FDIC's resolution authority".[344] This is in sharp contrast with the regulatory framework prior the crisis, when both the FED and the FDIC "had authority to make emergency loans to a troubled financial institution to avert its insolvency".[345] While the DFA "makes FDIC receivership the exclusive route by which such a firm can receive funds from these agencies ... this

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[340] M. HELLWIG, 'Systemic Risk in the Financial Sector: An Analysis of the Subprime-Mortgage Financial Crisis', 45; INTERNATIONAL MONETARY FUND, *Containing Systemic Risks and Restoring Financial Soundness*, Global Financial Stability Report, 2008, 86.

[341] R.M. LASTRA, *Legal Foundations of International Monetary Stability*, 124. On the employment of 'constructive ambiguity' in macro-prudential policy, see chapter 2.

[342] H.P. MINSKY, The Financial Stability Hypothesis: Capitalistic Processes and Behavior of the Economy, in KINDLEBERGER C.P., LAFFARGUE J.P. (eds.), *Financial Crises: Theory, History and Policy*, Cambridge, Cambridge University Press, 1982, 35.

[343] J.C. Jr. COFFEE, The Political Economy of Dodd-Frank: Why Financial Reform Tends to be Frustrated and Systemic Risk Perpetuated, 55.

[344] J.C. Jr.COFFEE, 'Systemic Risk after Dodd-Frank: Contingent Capital and the Need for Regulatory Strategies Beyond Oversight', 824. Essentially, "the FDIC can advance funds, or guarantee debts, to those firms under the death sentence of a liquidation, but neither it nor the Federal Reserve can do much to help the potentially solvent firm that is teetering on the brink. Because most financial firms are unlikely to concede that they are insolvent (but may readily acknowledge that they need liquidity), the central banker after Dodd-Frank is curtailed in its ability to performs its traditional 'lender of last resort' function and must act more as a financial undertaker"; *ibidem*, 824.

[345] J.C. Jr.COFFEE, 'Systemic Risk after Dodd-Frank: Contingent Capital and the Need for Regulatory Strategies Beyond Oversight', 825. Under Section 1101 DFA emergency loans can be made "for the purpose of providing liquidity to the financial system, and not to aid a failing financial company". Under the same Section, also requirements on the side of collateral which is needed in order to make such loans.

presents a major problem for the firm that is not yet insolvent ... but that faces a serious liquidity crisis"[346]

Within the European Union credit institutions may receive today central bank credit not only through ordinary monetary policy operations, but also exceptionally through Emergency Liquidity Assistance (ELA).[347] A definition of ELA is contained in the procedures that have been set to this purpose by the European Central Bank, where ELA is referred to as the provision by a Eurosystem national central bank central bank money and/or 'any other assistance that may lead to an increase in central bank money to a solvent financial institution, or group of solvent financial institutions, that is facing *temporary liquidity problems*, without such operation being part of the single monetary policy'.[348] The instrument, therefore, is aimed at fighting a liquidity shortage that is only temporary, thus not entailing any solvency issue with the credit institution.[349] The authority responsible for the provision of ELA is the relevant national central bank, which bears both the costs and the risks deriving from such operations. Nevertheless, pursuant to Art. 14(4) of the ESCB Statute, the ECB Governing Council is granted the right to evaluate the possible need to restrict ELA operations in case they may interfere with the objectives and tasks of the Eurosystem. In order to perform such assessment, the ECB is also granted timely information, through a procedure in place since 1999. This procedure revolves around a set of information which shall be provided for any ELA operation about its fundamental elements,[350] including the assessment of cross-border and systemic implications of the situation requiring the ELA. Further, the Governing Council may require additional information, and is granted the right to set a threshold in case large ELA operations are deemed to interfere with the objectives and tasks of the Eurosystem.[351]

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[346] J.C. Jr.COFFEE, 'Systemic Risk after Dodd-Frank: Contingent Capital and the Need for Regulatory Strategies Beyond Oversight', 825.

[347] On ELA in general, O. DE BANDT, P. HARTMANN, J.-L. PEYDRÓ ALCALDE, 'Systemic Risk in Banking After the Great Financial Crisis', in A.N. BERGER, P. MOLYNEUX, J.O.S. WILSON (eds.), *The Oxford Handbook of Banking*, 675.

[348] EUROPEAN CENTRAL BANK, *ELA Procedures,* the official document setting the procedures underlying the Governing Council's role pursuant to Article 14(4) of the Statute of the European System of Central Banks and of the European Central Bank with regard to the provision of ELA to individual credit institutions. The same definition is employed by Art. 2(1)(29) BRRD.

[349] In compliance with this, the need for emergency liquidity assistance from a central bank should not be *per se* a condition that sufficiently demonstrates that an institution is or will be, in the near future, unable to pay its liabilities as they fall due, pursuant to Recital 41 BRRD.

[350] Within two business days after the operation the NCB shall inform the ECB about the counterparty of the operation; the value, maturity, volume, and currency of the operation; the collateral, guarantees and interest rated provided; the reasons leading to the request of ELA; the supervisor's assessment of the liquidity position and solvency of the institution.

[351] The rule applies to ELA operations above 2 billion euro. The threshold possibly set by the ECB implies that no objection will be raised by the ECB against intended operations *below* that threshold.

The extraordinary character attached to the provision of emergency liquidity assistance from the central bank helps explaining the confidentiality character of such operations, which are not disclosed to the market exactly for the reason of avoiding negative impact on the markets.[352] The high degree of confidentiality of this operations also seems to explain why little academic debate has taken place on this. This confidential character is also the reason why this may be qualified as protective measure, in that it prevents panic from spreading due to a liquidity shortage.

The ELA framework is completed by instruments that in the context of the European Union receive the label of 'government financial stabilization tools', and may be employed as a last resort tool for the resolution of a going-concern institution (Recital 8 BRRD). The assessment carried out by the European Commission under State aid rules (Art. 107 ff. TFEU) should consider indeed, among other things, 'whether there is a very extraordinary situation of a systemic crisis justifying resorting to those tools under this Directive while ensuring the level playing field in the internal market' (Recital 57 BRRD). It is therefore apparent how the very use of such tools depends on the qualification of a crisis as 'systemic', and, in turn, it refers to the very concept of systemic risk. Specific conditions have been set to harmonize the use of such tools with the existing legislative framework – especially State aid rules – and in order to prevent their indiscriminate use.[353]

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[352] Interestingly enough, the SRMR sets that 'access to liquidity facilities including emergency liquidity assistance by central banks may constitute State aid pursuant to the State aid framework' (Recital 57 SRMR). However, the full appreciation of the consequences of such qualification in the light of existing regulation is not easy. Moreover, such extraordinary character is also well grounded in the regulatory framework, and exemplified by a number of provisions within the BRRD. For instance, the resolution plan shall not assume central bank emergency liquidity assistance Art. 10(3)(a) BRRD, nor should this be mentioned among the financing of resolution options pursuant to Art. 10(7)(i) BRRD; the same holds true for group resolution plans under Art. 12(3)(f) BRRD. Similar considerations have driven the rule of not assuming any emergency liquidity assistance in the assessment of the resolvability of institutions and groups pursuant to Art. 15(1)(b) and Art. 16(1)(b) BRRD, as well as valuations made for the purposes of resolution under Art. 36(5)

[353] In the aftermath of the financial crisis, the European Commission has used the possibility envisaged by Art. 107(3)(b) TFEU that empowers the Commission to approve state support if this is necessary to remedy a serious disturbance in the economy of a Member State. In the light of this, the Commission has issued in time a number of special rules crystallized in the so called 'Crisis Communications', i.e. the Banking Communication (*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*, 2013/C 216/01), the Recapitalisation Communication (*The recapitalisation of financial institutions in the current financial crisis: limitation of aid to the minimum necessary and safeguards against undue distortions of competition*, 2009/C 10/03), the Impaired Assets Communication (*Communication from the Commission on the treatment of impaired assets in the Community banking sector*, 2009/C 72/01) and the Restructuring Communication (*Commission communication on the return to viability and the assessment of restructuring measures in the financial sector in the current crisis under the State aid rules*, 2009/C 195/04). All the Communications to different extents set out the conditions under which different forms of State aid might be granted to credit institutions.

The use of government stabilisation tools as a last-resort measure is also made apparent by those rules that have been set containing conditions and requirements that have to be met prior to their employment.[354] Art. 37(10) BRRD states that the use of government stabilisation tools will only be possible when two conditions are met, namely that a contribution to loss absorption and recapitalisation at least equal to 8% of total liabilities has been made by shareholders and creditors; and that such use has been approved under the State aid framework. In addition to this, the BRRD clarifies that action for extraordinary public financial support 'shall be carried out under the leadership of the competent ministry or the government in close cooperation with the resolution authority' (Art. 56(2) BRRD) thus making clear how the political element is important.[355]

To conclude, if one were to evaluate all the preventive and protective tools examined so far, while protective instruments may actually allow for bold action on the side of regulatory authorities, preventive instruments (especially direct ones) show a reliance on the very concept of systemic risk that could not prove as safe as believed. What is clear from the discussion so far is that undoubtedly no systemic event may be said to take place "as long as the political systems does not perceive and define a given situation as politically unbearable".[356] In other words, an economic approach to both an understanding and regulation of systemic risk necessarily encounters problems of quantification, and by the same token falls short of clear directions about what is acceptable and what is not, not just from an economic viewpoint, but also from a social and political one. This explains why an analysis of systemic risk may not take place short of an employment of legal and political concepts. However, if systemic risk is a *political* concept, and not just an economic one, the natural consequence would be that there will be as many relevant levels of systemic risk as public interests emerged at the corresponding political levels; the very existence of O-SIIs seems to confirm this.[357]

A main final critique would then be that the concept of risk has been (contentious, but) useful for the treatment of elements *composing* the financial system, but may prove to be inherently inapt when applied to the *system* itself. Moreover, from a legal viewpoint, if we were to apply the whole set of tools of systems theory we should be ready to

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[354] 'The government financial stabilisation tools shall be used as a last resort after having assessed and exploited the other resolution tools to the maximum extent practicable whilst maintaining financial stability, as determined by the competent ministry or the government after consulting the resolution authority' (Art. 56(3) BRRD). See also the further conditions laid down in Art. 56(4) BRRD.

[355] The financial stabilisation tools are: a) public equity support tool, under which member States provide capital in exchange for capital instruments (Art. 57 BRRD); b) temporary public ownership tool, under which Member States take a credit institution into temporary public ownership. (Art. 58 BRRD).

[356] H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 90-94. As also noted here, the concept of 'politically unbearable' is slightly different from that of 'socially unacceptable' employed in A.J. LEVITIN, 'In Defense of Bailouts', Georgetown Law Journal, no. 99/2011, 438; for a further discussion on this, see chapter 3.

[357] Further elaborations on the different levels at which public interests may be deemed to emerge, see chapter 3.

acknowledge no preeminent role to the legal order, something which does not seem entirely neither convincing nor reassuring. Additionally, the employment of risk as a term of reference also produces a whole set of consequences from the viewpoint of regulatory theory, as will be explored in the following paragraph.

3.1 Risk and law, *liaisons dangereuses*

To many extents, because of the parameter taken as element of reference (systemic risk), the regulatory framework examined so far exhibits very close ties to the concept of 'risk'. In this respect, again, from a scientific perspective more in-depth examination seems worthwhile.

Indeed, the regulation of systemic risk prompts a broader reflection upon the legal significance of risk. The increased role of risk in regulation (serving alternatively in the context of regulation as an object, a justification, an organisational and procedural tool, and a framework for accountability)[358] calls for a deeper understanding of the relations between 'law' and 'risk'. The same may be said for law today of what was said for sociology two decades ago: there are marked difficulties in handling the concept of 'risk' for two main reasons, namely that the concept does not derive directly from the legal theoretical tradition, and that the concept is not easily amenable to an inclusion in the scientific paradigms of the latter.[359]

Although the relationship between the legal discipline and empirical tools is quite old, the emergent role of public powers as 'risk managers' is a relatively recent phenomenon.[360]

Risk-based regulation, as a regulatory technique which focuses on risks instead of rules, has been acknowledged to be fraught with a number of difficulties. The most remarkable among these are the very identification of risks; the choice between putting more emphasis on the anticipation of risks rather than on the resilience from them; the

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[358] J. BLACK, 'The Role of Risk in the Regulatory Process', in R. BALDWIN, M. CAVE AND M. LODGE, *The Oxford Handbook of Regulation*, Oxford, Oxford University Press, 2010, 302.

[359] A. MARINELLI, *La costruzione del rischio*, Milan, Franco Angeli, 1993, 13. An extremely valuable contribution on the topic is the one from P. SAVONA, 'Dal pericolo al rischio: l'anticipazione dell'intervento pubblico', Diritto amministrativo, no. 2/2010, 355-394.

[360] Statistical information had a role in the emergence of modern States under the label of 'political arithmetic'; K. JOHANNISSON, Society in Numbers. The Debate over Quantification in Eighteenth Century Political Economy, in T. FRÄNGSMYR, J.L. HEILBRON, R.E. RIDER (eds.), *The Quantifying Spirit in the Eighteenth Century*, Berkeley, University of California Press, 1990, 343. On what has been called the 'risk-management of everything', M. POWER, *The Risk Management of Everything. Rethinking the Politics of Uncertainty*, London, Demos, 2004. In Europe risk-based regulation was quite deciseively prompted by the UK-based Better Regulation movement; P. HAMPTON, *Reducing Administrative Burdens: Effective Administration and Enforcement*, London, HM Treasury, 2005.

use of specific regulatory tools; the extent to which risks may be traded off; the actual identification of risks.[361]

In addition to this, some specific flaws of risk-based regulation may be identified that seems particularly delicate with the case of systemic risk.

First and foremost is the widespread tendency to try to 'optimize' regulation by drying up the political element; this attempt is inevitably bound to delusion, insofar as assigning probabilities may not be considered equivalent to a value-free exercise".[362] The public dimension that lies behind systemic risk and financial stability (as will be further explored in the following chapters), which naturally entails value-judgements and policy choices, may be severely at odds with the usual ties that risk-based regulation displays relatively to a Kaldor-Hicks model allocative efficiency.[363] In the light of such public dimension, all-peculiar problems attach to risk-based regulation in the context of systemic risk, where this is used as an 'immunization' of "decision-making against failure", also in the light of the difficulty to attribute and assume responsibility in the case of manufactured risk.[364]

As it has been discussed previously, regulating systemic risk naturally requires an ability to grasp elements and issues that pertain to the system as a whole. However, as for the systemic dimension of regulatory problems, risk-based regulation may not be particularly apt for the detection of 'non-firm-specific' risks, as well as risks which are particularly difficult to predict or lack past records. [365]

Risk-based regulation also relies to a wide extent on cost-benefit analysis. When issue of systemic risk are at stake, however, difficulties emerge as for distributional issues and data constraints; problems in making reliable predictions, often within resource constraints; in general, the fact that cost-benefit analysis "in a strict quantitative sense

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[361] R. BALDWIN, M. CAVE, M. LODGE, *Understanding Regulation*, Oxford, Oxford University Press, 2011, 93; J. BLACK, 'The Emergence of Risk-based Regulation and the New Public Risk Management in the United Kingdom', Public Law, no. 512/2005, 519.

[362] M. DOUGLAS, A. WILDAVSKY, *Risk and Culture. An Essay on the Selection of Technological and Environmental Dangers*, Berkeley, University of California Press, 1982, 71; U. BECK, *Risk Society: Towards a New Modernity*, London, Sage, 1992, 28.

[363] A. OGUS, 'Risk Management and 'Rational' Social Regulation', in R. BALDWIN (ed.), *Law and Uncertainty: Risks and Legal Processes*, 147. As it has been underlined, "the dominant policy approach of the past thirty years – the approach emanating from neoclassical law and economics – is ill equipped to deal with dynamic and potentially catastrophic phenomena" in that it "tends to focus policymakers on the static normative criterion of allocative efficiency D.M. DRIESEN, *The Economic Dynamics of Law*, Cambridge, Cambridge University Press, 2012, 3.

[364] N. LUHMANN, *Risk: A Sociological Theory*, Berlin, de Gruyter, 1993, 13; M. POWER, *The Risk Management of Everything. Rethinking the Politics of Uncertainty*, 42; A. GIDDENS, Risk and Responsibility, The Modern Law Review, no. 62/1999, 8.

[365] With reference to financial regulation, already with the 1999 FSA *Advanced Regulatory Risk Operating Framework* was evidenced how regulators might be prone to fail in the detection of trends and cumulative effects; J. BLACK, 'The Emergence of Risk-based Regulation and the New Public Risk Management in the United Kingdom', 535; G.G. CASTELLANO, 'Rising from the Ashes: A Governance Perspective on Emerging Systemic Risks', 255.

becomes impossible or incomplete and unreliable when we face important future consequences"[366]

A further element that deserves analysis is the role of 'precaution' in the context of risk-based regulation and systemic risk. Precaution has evolved to date into a fully-fledged 'precautionary principle', which has enjoyed quite a wide application originally under the *Vorsogeprinzip* label.[367] The principle has been criticized as it has often been read as "a plea for aggressive regulation", and as lacking proper foundations, with the further consequence of bringing distortions in regulatory priorities.[368] What seems necessary here is to underline how the precautionary principle does not provide *in itself* "any guarantee as to the hierarchy of such values"; as a consequence, it bring back into the picture all the issues left open by the definition of public interest.[369] However, in spite of being *empty* from a normative viewpoint, the precautionary principle may help to ensure that "collective, often non-economic, democratically-derived interests are given due prominence in processes which may otherwise be dominated and/or damaged irreversibly by economic interests".[370]

If many difficulties arise in reconciling the regulatory process with a risk-based approach, problems are not likely to disappear when it comes to adjudication.[371] Well on the contrary, the judicial handling of cases where systemic events are at stake and risk assessments come into play, makes clear how difficult it may be to bring risks before

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[366] R. BALDWIN, M. CAVE, M. LODGE, *Understanding Regulation*, 322; BALDWIN R. (ed.), *Law and Uncertainty. Risks and Legal Processes*, The Hague, Kluwer Law International, 1997, 6; D.M. DRIESEN, *The Economic Dynamics of Law*, 3. In the light of what has been said, it seems all the more surprising that the role of cost-benefit analysis is frequently reasserted in the context of systemic risk in the financial and banking system, even by most valuable commentators; R.G. RAJAN, *Has Financial Development Made the World Riskier?,* 348; however, here it is conceded that since the probability of the materialization of systemic risk is unknown, there would be a lack in one fundamental element; *ibidem*, 350. The same holds true also for R.A. POSNER, *Catastrophe: Risk and Response*, Oxford, Oxford University Press, 2004, 148, 173; S.L. SCHWARCZ, 'Systemic Risk', The Georgetown Law Journal, no. 97/2008, 237.

[367] P. HARREMOËS (ed.), *The Precautionary Principle in the 20th Century: Late Lessons from Early Warnings*, London, Earthscan Publications, 2002, 5.

[368] C.R. SUNSTEIN, *Laws of Fear. Beyond the Precautionary Principle*, Cambridge, Cambridge University Press, 2005, 224; G. MAJONE, 'What Price Safety? The Precautionary Principle and its Policy Implications', Journal of Common Market Studies, no. 40/2002, 89.

[369] M. FEINTUCK, *The Public Interest in Regulation*, Oxford, Oxford University Press, 2004, 216-217.

[370] M. FEINTUCK, 'Precautionary Maybe, but What's the Principle? The Precautionary Principle, the Regulation of Risk, and the Public Domain', Journal of Law and Society, no. 32/2005, 398. The need for increased responsiveness to public interests is mirrored in the analyses calling for a 'really responsive' risk-based regulation; J. BLACK, R. BALDWIN, 'Really Responsive Risk-Based Regulation', Law and Policy, no. 2/2010, 186.

[371] On the complexity of the relationship between statistics and judicial review, B.V. FROSINI, *Le prove statistiche nel processo civile e nel processo penale*, Milan, Giuffrè, 2002.

courts. Unfortunately, save notable exceptions in the philosophical field,[372] the academia has shown so far very little interest in the profound legal issues related to the legal proceedings following to large scale events, with special reference to natural ones.[373]

However, what has on occasion emerged from such trial is interesting for a number of reasons which may be common to the legal significance of risk and systemic risk in particular. For instance, the responsibility upon public bodies to provide the population with sufficient elements in order for everybody to evaluate the risk, is something which reveals the inability and/or the unwillingness for such bodies to perform an evaluation by themselves. Another key question is that of the subject (or the body) in charge of weighing risks, *rectius* (in the Knightian meaning) of deciding how to act under uncertainty. This obviously goes in parallel with the question of who is to be found guilty in cases where the general public is not able to assess such uncertainty. Another core element is that of the pivotal role played by the *communication* of uncertainty and risks;

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[372] "The procedure in a court of law rests on the fact that circumstances give statements a certain probability. The statement that, for example, someone came into the world without parents wouldn't ever be taken into consideration there"; L. WITTGENSTEIN, *On Certainty*, 1949-1951, Proposition 335.

[373] One meaningful example is that of the earthquake that devastated on 6th April 2009 the Italian city of L'Aquila and over fifty towns and villages in the nearby. Following to it 309 people were left dead, over 1.550 injured, and over 67.000 homeless. Prior to the earthquake, an 'earthquake swarm' took place. An extraordinary meeting of the High Risk Commission of Italian Civil Protection Agency was then called, and essentially conveyed the message that the situation ought not to be considered extraordinarily dangerous. As a consequence, the population felt reassured by authorities about the possibility to keep staying at home, where many of them eventually died. Great attention has been catalyzed at the international level by the following trial against six scientists members of that Commission. The judgment rendered on 22 October 2012 condemned all scientists, which were found guilty of having underestimated the danger, and given "inaccurate, incomplete and contradictory" information about the earthquake. The trial has raised much debate within the international scientific community as it has been interpreted to some extent as "a trial to science", similar to those famously held against Galileo. It has been underlined how predicting earthquakes is "the holy grail of earthquake science" and impossible at the state-of-the-art; S. HOUGH, *Confusing Patterns With Coincidences*, New York times, 11 April 2009. Numerous scientists have expressed their concerns about how, where such judicial actions are brought forward, less of them may still be willing to work in the field of seismologic forecast. The appeal trial reversed the decision; on 10 November 2014 the judges acquitted all defendants save one from the charges of manslaughter. Also this decision has had quite a wide echo in the international press; *The laws and the physics*, The Economist, November 15th-21st, 70. An interesting analysis of the scientific implications of L'Aquila earthquake may be found in N. SILVER, *The Signal and the Noise. The Art and Science of Prediction*, 142 ff. The distinction between *prediction* ("a definitive and specific statement about when and where an earthquake will strike") and *forecast* ("a probabilistic statement, usually over a longer time scale") is especially valuable in this context; *ibidem*, 149. To these purposes, much interest may be also raised by the incoming trial about the flood hitting the Italian city of Genoa in early October 2014, when weather forecasts provided to the population proved partially wrong. From a political viewpoint, the road to travel before these problems are framed in terms of *resilience* of the city to such phenomena, rather than forecast of them, seems still quite long.

people normally understand things also in the light of what they know, so it is essential for public authorities also to consider what they *can* presumably understand.[374] Overall, a lesson learnt so far is that uncertainty and politics do not go along very well, even though situations characterized by uncertainty physiologically calls for decision to be taken , therefore for politics to step in. On top of this, judges have not proven so far particularly keen on handling probabilistic language and dealing rigorously with the prediction of uncertain events; the notions of impossibility and probability; the notions of forecasts and predictions.[375]

More in general, an examination of the broader relationship between law and risk also reveals many problematic aspects.

To some extents, the concept of 'law' and 'risk' do seem to exhibit some common characteristics. Much in the same way law is intrinsically related to cause-and-effect relationships (such as crime–punishment, right–enforcement), in what could be labelled a 'normative causality', so the notion of risk "necessarily involves an assumed cause and effect relationship between the event or activity ... and the undesirable state of affairs".[376] As risks are normally associated to future events, so "law aims to influence the future",[377] and along with it the uncertainty, changes and dynamics that are associated with it; law-enacting and risk-management activities therefore share the same chronological orientation.[378]

To many other extents, however, the two concepts are in severe contrast. One main tension is the one between law and 'uncertainty'.[379] Law has to do with *rules*, therefore – also etymologically – it deals with *regularity*, while risk is inherently related to *irregularity*. Law may at times exhibit characteristics of 'epistemic arrogance' (i.e. arrogance *vis-à-vis* the limits of knowledge),[380] being inherently related to certainty, for instance in the capacity of adjudicatory bodies to deal with every issue (the *non liquet*,[381] in the form of a refusal to decide, is unlawful); the 'completeness' of the legal order, that is postulated as having an all-encompassing character; the 'rule of law', that pertains to the predictability of legal action by public powers. Causal relationships in law are of outmost importance because of the link between responsibility and causality. This is all the more important about

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[374] This is all the more true where high technical skills are involved in the full appreciation of uncertainty; with specific reference to financial stability, see chapter 2.

[375] In the light of this, there actually seems to be some merit in the call for "a scientifically literate legal profession"; R.A. POSNER, *Catastrophe: Risk and Response*, 200.

[376] J. BLACK, 'The Role of Risk in the Regulatory Process', 309.

[377] D.M. DRIESEN, *The Economic Dynamics of Law*, 2.

[378] Risk management activities has been defined as a true "colonization of the future"; A. GIDDENS, *Modernity and Self-Identity*, Cambridge, Polity Press, 1991, 117.

[379] On the different possible meaning of uncertainty, in its epistemic, analytical, teleological, normative, and regulatory dimensions, see A. ALEMANNO (ed.), *Governing disasters: the challenges of emergency risk regulation*, 106.

[380] N.N. TALEB, *The Black Swan*, London, Penguin, 2007.

[381] The issue is delicate. It has been underlined how the *non liquet* might need to be reinterpreted in the light of the ever increasingly difficult role of the judiciary at the point of making it 'the garbage can of social conflicts'; S. RODOTÀ, *Il diritto di avere diritti*, 60.

systemic risk, where "it is thus very difficult and maybe even impossible to establish clear causality. This raises the question of how we attribute responsibility in situations in which causality is not clearly established".[382] Finally, law and risk belong to altogether different linguistic dimensions; whereas "the dice and the roulette wheel, *along with the stock market and the bond market*, are natural laboratories for the study of risk because they lend themselves so readily to quantification; their language is the language of numbers",[383] in the legal discipline this is not always the case.

Moving to a further level of complexity, the question becomes whether in general it is either acceptable or desirable that complex regulatory frameworks are framed in terms of risk. In turn, this would require acceptance that to a large extent regulation takes *risks*, instead of (or at least, along with) *rights* as its building blocks.[384] Even a partial shift from rights to risks should not leave scholars indifferent, provided that the emergence of subjective rights is closely tied to modern legal science.[385] On the other hand, it is obvious that legal elements have historical, social and political constraints; rights have not always had the role they have played in modern times.[386] However, the move from rights to risks is especially worrying in the light of the warnings that have been raised about the emergence of a new 'natural law', the one of the market, characterized by the pretence of both incorporating and defining the conditions for the acknowledgment of rights[387]

The 'colonization' of different fields, among which the legal one, by the 'risk culture', is extremely important to understand. Valuable insights may come from systems theory, since sociological sciences have since a long time tried to come at grips with the semantic of risk.[388] One essential element is the 'structural coupling' between the economic system and the legal system;[389] the economic system is increasingly able to "specialise its own internal structures for the processing of cognitive expectations" – something that goes in parallel with the increased technical specialization and room for quantitative elaboration in economics – while it "can 'delegate' the processing of

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[382] I. GOLDIN, M. MARIATHASAN, *The Butterfly Defect*, 60.

[383] P.L. BERNSTEIN, *Against the Gods*, New York, Wiley, 1996, 7.

[384] To appreciate how far the risk-management culture has gone, refer for instance to the following sentence: "in order to derive meaningful policy measures for regulating systemic risk, it is necessary for regulatory authorities to measure and operationalize systemic risk"; I. GOLDIN, M. MARIATHASAN, *The Butterfly Defect*, 59.

[385] "A radical shift is effected when modern constitutional thought is reconstructed on the foundation of subjective right"; M. LOUGHLIN, *Foundations of Public Law*, Oxford, Oxford University Press, 2010, 47.

[386] Indeed, "bills of rights were not initially conceived as being of central constitutional significance"; M. LOUGHLIN, *Foundations of Public Law*, 350.

[387] S. RODOTÀ, *Il diritto di avere diritti*, 7.

[388] On system theory, see previously in the paragraph. On the account of Niklas Luhmann in particular, N. LUHMANN, *Law as a Social System*, Oxford, Oxford University Press, 2004 (originally published 1993) and N. LUHMANN, *Social Systems*, Stanford, Stanford University Press, 1995 (originally published 1984).

[389] M. RENNER, *Death by Complexity – the Financial Crisis and the Crisis of Law in World Society*, in P. KJAER, G. TEUBNER, A. FEBBRAJO (eds.), *The Financial Crisis in Constitutional Perspective*, 96.

normative expectations to the legal system".[390] The question clearly becomes: how does this happen, and what does it entail? Building on the work of Luhmann, it has been suggested how "in order for one system to succeed in parasitically exploiting the code of a second system, it must employ semantics ... that allow the parasite's exploitative conduct to appear acceptable, or even necessary, to the host system".[391] This seems to provide an extremely useful insight as far as systemic risk is concerned, with special reference to "the interest of the economic system in having the issue framed in its own terms".[392] The most important consequence is that "the insinuation of private economic interests into the code of the political system (in the public interest/not in the public interest) makes it possible to categorise economic events as belonging to the political system, with the result that economic decisions are made upon the basis of political criteria".[393] For sure, the contribution of systems theory to the issue should not be overestimated. Indeed, it presents its own shortcoming, although the idea of the blending of semantic codes seems particularly valuable.[394]

Overall, the very concept of 'right' seems to be called into question by risk-based regulation, so that it is worth reminding that regulation "is about ethical issues, or rights", and not only risks.[395] This is all the more important when dealing with systemic risk, for the following reasons. The formulation of human rights has increasingly come to include

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[390] M. RENNER, *Death by Complexity – the Financial Crisis and the Crisis of Law in World Society*, 97.

[391] M. AMSTUTZ, *Eroding Boundaries: On Financial Crisis and an Evolutionary Concept of Regulatory Reform*, in P. KJAER, G. TEUBNER, A. FEBBRAJO (eds.), *The Financial Crisis in Constitutional Perspective*, 255 ff.

[392] M. AMSTUTZ, *Eroding Boundaries: On Financial Crisis and an Evolutionary Concept of Regulatory Reform*, 256. The critique of the author here is very harsh: in examining the UBS sequence of events and the behavior of the Swiss Federal Council he notes that "by means of the TBTF semantics, the costs of the operations involved are metamorphosed from real economic costs (to the UBS) into potential political costs (the survival of the global economic system), which then translate back into economic benefits for the so-called 'systemically relevant' financial institutions"; *ibidem*.

[393] M. AMSTUTZ, *Eroding Boundaries: On Financial Crisis and an Evolutionary Concept of Regulatory Reform*, 256-257.

[394] "At the level of societal subsystems such as politics, economy or law, it is clear that each functionally differentiated system operates along its specific logic and code – such as for instance the logic of money, power or justice – and observes and interprets the world along the lines of this logic. However, as part of the whole of society, each subsystem is still connected to other parts of society through defined channels of structural coupling and internal representations of relevant dimensions of its environment … it this coupling or connecting ability breaks down the result may be a learning disability close to autism"; H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 83.

[395] J. BLACK, 'The Role of Risk in the Regulatory Process', 305. For further elaborations on this, see chapter 3.

economic and social rights.[396] An instrumental relationship may be identified between social rights and 'negative' liberties, with livelihood serving as a basis for the full enjoyment of political, civil and economic liberties. Fundamental liberties too would not be adequately guaranteed if, due to the lack of basic economic resources, people were not in the condition to act in a way coherent with the liberties formally guaranteed.[397] Through an erosion of the economic capacity of public apparatuses, systemic events may frustrate the recognition of rights, along with their effectiveness. To put it in a very crude way, in developed economies "the social contract that has in recent decades been taken for granted is in danger of being destroyed".[398]

In order to deal with such perceived legal *empasse*, the idea has been advanced to reject a conception of regulation as founded upon individual rights in favour of one based on social risks' management.[399] This would actually bring about an homogenisation of the language of risks (employed in financial regulation) and the language of public law. Nevertheless, the approach is mistaken for two main reasons. First, it is grounded upon an idea of 'right' as something "that will not be balanced against other social interests";[400] well on the contrary, rights are *intrinsically* a balance among contrasting societal interests. Second, the label 'risk' entails an amenability to quantification, and eventually to 'risk-benefit analysis', something that would not be possible or easy for 'social rights'.

Overall, it seems far too hazardous to get rid of a notion, that of 'individual right', that is one of the building blocks of the vocabulary of public law.

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[396] The characterization of social rights in the light of their necessary connection to economic resources available has led some scholars to deny that they may be genuinely rooted into the legal dimension; S. RODOTÀ, *Il diritto di avere diritti*, 13.

[397] J. HABERMAS, *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy*, Cambridge, MIT Press, 1996, 123. The idea has been also advanced that all rights are indeed positive, since they require intervention from the government, least of all in the form of organized protection, and thus government expenditure; S. HOLMES, C.R. SUNSTEIN, *The Cost of Rights. Why Liberty Depends on Taxes*, New York, W.W. Norton&Company, 1999, 35.

[398] WORLD ECONOMIC FORUM, *Global Risks 2012*, 16.

[399] C.R. SUNSTEIN, *After the Rights Revolution. Reconceiving the Regulatory State*, Cambridge, Harvard University Press, 1990, 230. This echoes the interpretation of the welfare state "as a form of collective risk management"; A. GIDDENS, Risk and Responsibility, 10.

[400] C.R. SUNSTEIN, *After the Rights Revolution. Reconceiving the Regulatory State*, 90.

2. The conundrum of financial stability

"All capitalisms are unstable, but
some capitalisms are more
unstable than others"

H. Minsky, *The Financial Instability Hypothesis*, 1982

2.1 Financial stability and macro-prudential policy

Valuable insights about the role of public powers in the banking system may be gained from the exploration of the concept of financial stability, which, openly or impliedly, is considered as the positive equivalent of systemic risk.[401]

Despite it being usually portrayed as one major intellectual outcome of the global financial crisis, even prior to its formal definition scholars and regulators were aware of the concept,[402] however weak had been its translation into concrete policy action. If the financial crisis' narrative itself fed the rhetoric of a 'discovery' of financial stability, what has been painfully realized in the last years is that the ability of central banks to achieve a 'Great moderation',[403] thus eliminating macro-economic risks, shall not be taken for granted.[404]

The extent to which the 'Great moderation' itself was probably part of a broader flawed economic narrative is made apparent by the literature on banking crises, that gives

[401] G.J. SCHINASI, 'Defining Financial Stability', IMF Working Paper no. 187/2004, 3; H. DAVIES, D. GREEN, *Banking on the Future: the Fall and Rise of Central Banking*, 53. During the financial crisis and in its immediate aftermath a widespread tendency could be witnessed to deal with stability by mean of its negative, namely 'instability'; *ibidem*, 57. Very early contributions on financial stability already tended to underline the almost substitutability of the concepts of financial stability and management (or avoidance) of systemic risk; G.J. SCHINASI, 'Responsibility of Central Banks for Stability in Financial Markets', International Monetary Fund, IMF Working Paper no. 121/2003, 4.

[402] There was awareness in the literature that "a financial system that is robust is less susceptible to the risk of a crisis in the wake of real economic disturbances and is more resilient in the face of crises that do occur"; D.W. ARNER, *Financial Stability, Economic Growth, and the Role of Law*, 71.

[403] The expression is deemed to have been first employed by B. Bernanke, and indicates a long-lasting period of absence of macro-economic shocks, also characterized by stability in economic growth, inflation, and banking activity.

[404] On this point, see A.G. HALDANE, *Central bank psychology*, 2.

extremely valuable insights into the notion of financial stability. Traditionally, there have been different explanations for banking crises. In short, on the one hand there have been explanations pointing at crises as events randomly occurring due to mechanisms that we would label of 'mass psychology'.[405] Other scholars have pointed rather to a more 'inherent' character of crises and hence instability as a component of the business cycle or as a constitutive element of capitalist economy; among these, remarkable contributions are those of the early works of Wesley C. Mitchell,[406] and especially the comprehensive explanation developed by Hyman Minsky.[407]

The latter devoted much intellectual effort into demonstrating, to put it crudely, that "the *normal* functioning of our economy leads to financial trauma and crises, inflation, currency depreciations, unemployment, and poverty".[408] Such statement led to the formulation of the 'financial instability hypothesis', whose fundamental propositions are "1. Capitalist market mechanisms cannot lead to a sustained, stable-price, full employment equilibrium. 2. Serious business cycles are due to financial attributes that are essential to capitalism".[409] The illustration of the hypothesis is the following

> "Our economy is unstable because of capitalist finance. In a particular mix of hedge and speculative financing of positions and of internal and external financing of investment rules for a while, then there are, internal to the economy, incentives to change the mix. Any transitory tranquillity is transformed into an expansion in which the speculative financing of positions and the external financing of investments increase. An investment boom that strips units of liquidity and increases the debt-equity ratios for financial institutions follows. Margins of safety are eroded even as success leads to a belief that the prior – and even the present – margins are too large. A break in the boom occurs whenever short- and long-term interest rates rise enough so that attenuations and reversals in present-value relations take place. Often this

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[405] A thorough, historically-documented account in support of this thesis is the one contained in C.P. KINDLEBERGER, R.Z. ALIBER, *Manias, Panics and Crashes. A History of Financial Crises*, Basingstoke, Palgrave McMillan, 2005.

[406] W. MITCHELL, *Business Cycles and Their Causes*, Berkeley, University of California Press, 1941.

[407] As it has been observed, "it is striking how many features stressed by Minsky … as being typical of previous banking crises have been present in recent events"; G. CAPRIO JR., P. HONOHAN, 'Banking Crises. Those Hardy Perennials', in A.N. BERGER, P. MOLYNEUX, J.O.S. WILSON (eds.), *The Oxford Handbook of Banking*, 717. On the main points derived from Keynes' contribution, H.P. MINSKY, *Stabilizing an Unstable Economy*, 324-325.

[408] H.P. MINSKY, *Stabilizing an Unstable Economy*, 287, 320. The illusion of stability is attributed by Minsky to Adam Smith, and in particular to its famous dictum that "it is the self-interest of the butcher and the baker that leads to the provision of meat and bread", misinterpreted so as to stand for a reassurance that "the pursuit of self-interest leads to the achievement of market equilibrium"; *ibidem*, 279-280. Minsky also points at the evidence showing a progression in the seriousness of financial crises from the mid-1960s onwards; *ibidem*, 245.

[409] H.P. MINSKY, *Stabilizing an Unstable Economy*, 194. H.P. The thesis has been also restated in MINSKY, The Financial Stability Hypothesis: Capitalistic Processes and Behavior of the Economy, especially 13, 36.

> occurs after the increase in demand financed by speculative finance has raised interest rates, wages of labor, and prices of material so that profit margins and thus the ability to validate the past are eroded"[410]

Other valuable accounts have also been offered in time of financial stability and instability. For instance, banking crises would be explained by five distinctive and interrelated features of banking … first, the highly leveraged nature of modern banks; second, the degree of maturity transformation (or liquidity creation) with which they are associated; third, the demandable or very short-term nature of the bulk of their liabilities ; fourth, the opaque nature of bank assets; and fifth, the fact that the bulk of their assets and liabilities are denominated in fiat currency".[411] Problematic aspects that have been also underlined are the incapability of the system, even acknowledging instability as a 'natural' characteristic, to price it;[412] and the possibility that practices adopted in order to foster stability may have unwanted consequences.[413] Additional evidence of counterfactual nature relates to episodes of financial instability experienced by both developing and developed countries.[414]

However, the purported 'natural' character of instability should not lead to conclude that no intervention is either possible or desirable on the side of public authorities. In the words of Minsky himself, "institutions and policy can contain the thrust to instability. We can, so to speak, *stabilize instability*".[415]

In order to do so, both conceptual and regulatory advances are needed. As for the former, a discussion of the attempts that have been made towards a (working) definition of financial stability, and of its main characteristics, is needed. As for the latter what is in order instead is an illustration of the regulatory framework that has been elaborated so far.

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[410] H.P. MINSKY, *Stabilizing an Unstable Economy*, 244-245.

[411] G. CAPRIO JR., P. HONOHAN, 'Banking Crises. Those Hardy Perennials', in A.N. BERGER, P. MOLYNEUX, J.O.S. WILSON (eds.), *The Oxford Handbook of Banking*, 707.

[412] "Financial instability ... is a natural by-product of the business of dealing with risk ... but the "excessive" volatility that leads to crises is not priced"; C. WYPLOSZ, 'International Financial Instability', in I. KAUL, I. GRUNBERG, M.A. STERN, *Global public goods: international cooperation in the 21st century*, 157.

[413] "At high levels of encumbrance, the financial system as a whole may even be riskier, as it is more susceptible to procyclical swings in the underlying value of banks' assets. The quest for individual security generates system-wide instability"; A. HALDANE, *Financial arms races*, Remarks based on a speech delivered at the Institute for New Economic Thinking, Berlin, 14th April 2012, 9.

[414] "We tend to associate financial instability and crisis with development failures. If this were consistently the case, then historically speaking the successful developing (now rich) countries could not have experienced financial or monetary turbulence, but they did ... Much of the turbulence and disequilibria of the monetary and financial system is thus due to success as well as failure"; G. UNDERHILL, *Theorizing Governance in a Global Financial System*, in MOOSLECHNER P., SCHUBERTH H., WEBER B. (eds.), *The Political Economy of Financial Market Regulation: The Dynamics of Inclusion and Exclusion*, Cheltenham, Edward Elgar, 2006, 30.

[415] H.P. MINSKY, *Stabilizing an Unstable Economy*, 11.

Getting closer to the notion of financial stability, its contours tend to blur. The lack of a clear definition is even clearer when compared to the long-standing definition of monetary stability.[416] Besides attempts to posit an equivalence between 'stability' and 'absence of instability',[417] the average understanding still seems quite confused.[418] To this purpose, much comfort actually comes from the fact that distinguished scholars have pointed that "it is striking that although a number of central banks regularly publish financial stability reports, they tend either to avoid the question of how to define financial stability entirely (e.g. the Bank of England) or to explicitly acknowledge the elusiveness of a consistent definition (e.g. the Austrian National Bank".[419] Still after the financial crisis, some intellectual embarrassment about the concept of financial stability exists. In examining the notions of financial stability that are more often proposed, what is important to note is that a trend towards an encompassing notion of financial stability seems to have taken place.

In the pre-crisis literature, financial stability was considered "only one in a range of public interests, which also includes competition policy and depositor and investor protection policy",[420] while now it seems to qualify more as an overarching guiding principle. Definition of both academic and regulatory character tend to underscore both the financial and the real economy dimension of the concept. Thus financial stability is "a condition in which the financial system is able to withstand shocks without giving way to cumulative processes that impair the allocation of savings to investment opportunities and the processing of payments in the economy",[421] or "a precondition for the real economy to provide jobs, credit and growth".[422]

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[416] G.J. SCHINASI, 'Defining Financial Stability', 3; H. DAVIES, D. GREEN, *Banking on the Future: the Fall and Rise of Central Banking*, 55. One definition of monetary stability is "the maintenance of the internal value of money (i.e. price stability) as well as the external value of the currency (i.e. the stability of the currency vis-à-vis other currencies, which is, in turn, influenced by the choice of exchange rate regime"; R.M. LASTRA, *Legal Foundations of International Monetary Stability*, Oxford, Oxford University Press, 2006, 35.

[417] "Financial stability is usually more clearly defined by what it is not than by what it is: financial stability is often defined as the absence of a major financial crisis"; D.W. ARNER, *Financial Stability, Economic Growth, and the Role of Law*, 72.

[418] See for instance statements such as "financial stability is closely related to systemic risk"; D. SCHOENMAKER, *Governance of International Banking. The Financial Trilemma*, 24.

[419] T. PADOA-SCHIOPPA, *Regulating Finance*, 94, 109-110.

[420] T. PADOA-SCHIOPPA, *Regulating Finance*, 83.

[421] T. PADOA-SCHIOPPA, *Regulating Finance*, 110. A similar definition is the one in G.J. SCHINASI, 'Defining Financial Stability'; "a financial system is in a range of stability whenever it is capable of facilitating (rather than impeding) the performance of an economy, and of dissipating financial imbalances that arise endogenously or as a result of significant adverse and unanticipated events", thus contributing to "the efficient allocation of real resources, the rate of growth of output, and the processes of saving, investment, and wealth creation"; *ibidem*, 8. Essentially the same definition is employed by E.S. ROSENGREN, 'Defining Financial Stability, and Some Policy Implications of Applying the Definition', Speech held at the Stanford Finance Forum, Stanford University, 2011.

[422] ESRB Regulation (Regulation no. 1092/2010), Recital no. 1.

In spite of many genuine attempts, what seems to have happened with financial stability is that, "to paraphrase Paul Krugman writing on the competitiveness of nations, has passed from jargon to *cliché* without moving through the usual intermediate stage of meaning".[423] Even setting aside the need for a definition, what matters is rather the grievous doubt about whether the defect of a definition of financial stability is a symptom of the lack of a clear understanding of it.[424] This is all the more reinforced by sincere statements of admission of how much we *don't* know about financial stability.[425]

Quite in contradiction with such uncertainty – or perhaps exactly as a result of it – a quite recent tendency may be witnessed towards the *quantification* of the concept of financial stability. This seems part of a broader trend towards the enhancement of transparency about financial stability,[426] which is not fully satisfied by the success of financial stability reports published by central banks;[427]

> although central banks have long used formal models to guide monetary policy decisions, their financial stability risk-assessment work is usually couched in qualitative terms. The lack of any convincing analytical framework has meant that the *Financial Stability Reports* produced by central banks typically resemble a laundry list of things that could go wrong and, more recently, have gone wrong[428]

The lack of a formal framework has been actually considered the main culprit for the neglecting of financial stability prior to the global financial crisis.[429] The shame has been put on "the derisory investment over the years by central banks in analytical tools for financial stability analysis".[430] This is essentially how (and why) the term 'macro-

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[423] H. DAVIES, D. GREEN, *Banking on the Future: the Fall and Rise of Central Banking*, 54.

[424] For instance, definitions of financial stability in terms of allocative efficiency *vis-à-vis* investment opportunities seem fraught with both theoretical contradictions and practical difficulties; W. ALLEN, G. WOOD, *Defining and Achieving Financial Stability*, LSE Financial Markets Group no. 160/2005.

[425] For instance, see D. SCHOENMAKER, *Governance of International Banking. The Financial Trilemma*, candidly admitting that "the lack of a rigorous underpinning [of the financial trilemma] is related to the lack of a clear and consensus definition of financial stability"; "while we know ex post what went wrong in a crisis, financial stability is not easy to define ex ante"; *ibidem*, 6, 24.

[426] Financial stability ranked first in the recommendations made by the New York Federal Reserve: "the mission of financial stability should be made more public, more explicit and put on a par with monetary stability"; FEDERAL RESERVE BANK OF NEW YORK, *Report on Systemic Risk and Bank Supervision*, 14.

[427] For a discussion on the contents and quality of financial stability reports published by different authorities, M. ČIHÁK, S. MUÑOZ, S.T. SHARIFUDDIN, K. TINTCHEV, 'Financial Stability Reports: What Are They Good For?', International Monetary Fund, IMF Working Paper no. 1/2012.

[428] P. GAI, *Systemic Risk. The Dynamics of Modern Financial Systems*, 79.

[429] P. GAI, *Systemic Risk. The Dynamics of Modern Financial Systems*, 79.

[430] P. GAI, *Systemic Risk. The Dynamics of Modern Financial Systems*, 1. This would be even more so in the light of the sharp "contrast to the clear terms of reference available for both monetary policy and prudential supervision"; T. PADOA-SCHIOPPA, *Regulating Finance*, 94, 109.

prudential' was given birth,[431] under an attempt to switch the issue from the 'negative' notion of systemic risk to the 'positive' one of financial stability, a move also convenient in terms of policy-making objectives and tools.[432]

Setting aside for now the thorny question of *what* is financial stability, the following discussion aims at giving an answer to the question of *how* to achieve financial stability. The purpose of the remainder of the paragraph is neither to survey macro-prudential tools, nor to explore them as the economic literature is extensively doing after the financial crisis. Its purpose is rather to give a critical overview of macro-prudential powers, so as to be able to understand the terms at stake in the discussion that will follow.

The 'macro-prudential' adjective normally enjoys the company of quite a number of companion nouns, which are used – with some levity – as a substitute for one another such as 'approach', 'analysis', 'policy, 'supervision' and 'oversight'. This is partially related to the broad range of elements available for assumptions of a macro-prudential nature, such as "analysis, warning and recommendations, regulation, individual measures, and inspections".[433] Additionally, this seems related to the still blurred contours of macro-prudential regulation in general.[434] 'Minimalist' interpretations tend to underscore that the term 'macro-prudential' would only stand for "an intellectual orientation or lens through which the task of achieving financial stability is understood",[435] while others point at its alleged essence as "factoring macroeonomic evaluation into financial regulation for the precise purpose of preventing growth models from becoming unsustainable, impairing the financial system and damaging the real economy"[436]

However correct such minimalist approaches may be, it has been rightly acknowledged that too often the debate on macro-prudential policy has been reduced to the advantages and disadvantages associated with tighter capital requirements,

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[431] The label 'macro-prudential' gained undeniable and unprecedented momentum in the aftermath of the financial crisis, also in spite of early employment of the term by international standard setters; indeed, it was mentioned in internal documents of the predecessor of the Basel Committee in the late Seventies, while the BIS started employing it by the mid-Eighties, as underlined by L. ELLIS, 'Macroprudential Policy: A Suite of Tools or a State of Mind?'. A simple research through GoogleTrends shows how interest for the research of the term 'macroprudential' was close to zero up until 2009, when it experienced a sharp increase; the trend has since then remained a positive one, peaking in 2014. However, even before the term 'macro-prudential' became a fashionable one, reputable studies pointed to financial stability as "a 'land in between' monetary policy and prudential supervision", suggesting an increasing degree to which these functions would be bundled with one another; T. PADOA-SCHIOPPA, *Regulating Finance*, 93.

[432] G.J. SCHINASI, 'Defining Financial Stability', 3.

[433] G. NAPOLETANO, 'Legal aspect of macro-prudential policy in the United States and in the European Union', 25.

[434] "While virtually every central banker in the world is on record supporting the concept of 'macroprudential regulation', there is still no agreed upon definition of what it means or how best it should be implemented"; A.K. KASHYAP, D.P. TSOCOMOS, A.P. VARDOULAKIS, 'A programme for improving macroprudential regulation', in D. SCHOENMAKER (ed.), *Macroprudentialism*, 21.

[435] C. BORIO, 'Macroprudential frameworks: (Too) great expectations?', 31.

[436] G. NAPOLETANO, 'Legal aspect of macro-prudential policy in the United States and in the European Union', 92.

overlooking broader policy choices that underlie these regimes.[437] An attempt to downsize the reach of the debate on macro-prudential policies is disputable for two main reasons.

Most importantly, macro-prudential policy measures, when compared for instance to monetary policy ones, "have much more direct and more easily identified distributional effects" being therefore "politically very sensitive".[438] This is the reason why they have indeed an inherently public legal qualification (on this see also Chapter 3).

Additionally, the importance of a comprehensive account of this policy area may be appreciated since, for instance, the major crisis which affected the euro area was due to both an "inconsistency *within* policy areas" and "*between* policy areas".[439] As for its relation with monetary policy, "it is a fact that significant episodes of financial crises – or situations that could have easily led to crises – took place in the last two or three decades in a context of overall price stability";[440] indeed, "in a context of general price stability there may be sectors or regions of the economy subject to a price shock, which in turn may cause a financial crisis of sufficient proportions to entail systemic risk".[441] In addition to such potential tensions, the geopolitical dimension also matters, since, as it has been maintained, "macroprudential policy is even more important in a monetary union. With a 'one-size-fits-all' monetary policy, pro-active macroprudential policies are needed to address financial imbalances at the country level".[442] To many extents, a comparative exercise is also useful; many of the trade-offs already apparent with monetary policy, and fuelled the debate about the role of central banks, also apply for the case of macro-prudential policy; suffice it to mention the need of shielding such policy from short-term political pressure, while at the same time ensuring an acceptable degree of political accountability (on this point, see Chapter 3).

Moreover, in the light of early analyses about the need for a macro-prudential policy and about its interplay with micro-prudential ones,[443] in spite of widespread employment of the micro/macro distinction, the effort should be made to avoid a complete opposition, as "strict separation of the macro-prudential and micro-prudential dimensions would be conceptually inappropriate and could even be detrimental in practice".[444]

As for the previous experience with tools of macro-prudential nature, interestingly enough much experience has been gained by developing economies. Conversely, experience in developed economies is quite limited, with notable exceptions such as

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[437] F. PANETTA, 'On the special role of macroprudential policy in the euro area', 7.

[438] Additionally, "these costs are set against the very poorly perceived mitigation of systemic risk that the measures intend to achieve"; R. PORTES, 'Macroprudential policy and monetary policy', in D. SCHOENMAKER (ed.), *Macroprudentialism*, 56.

[439] Y. MERSCH, 'Law, money and market – the legal dimension of monetary policy', 3.

[440] T. PADOA-SCHIOPPA, *Regulating Finance*, 112.

[441] T. PADOA-SCHIOPPA, *Regulating Finance*, 112.

[442] D. SCHOENMAKER, *Introduction*, in D. SCHOENMAKER (ed.), *Macroprudentialism*, 6.

[443] C. BORIO, 'Towards a macroprudential framework for financial supervision and regulation?', Bank of International Settlements, BIS Working Papers, no. 128/2003.

[444] T. PADOA-SCHIOPPA, *Regulating Finance*, 118. Think for instance to the need of appropriate processes for sharing information.

"Spain, where dynamic provisioning has been applied since 2000; Switzerland, which recently introduced countercyclical capital requirements; New Zealand, which has autonomously applied a structural liquidity measure similar to the Basel III Net Stable Funding Ratio; and the UK, where a fully-fledged operational framework for MAP policy has been set up and the authorities are ready to start experimenting with countercyclical and sector-specific capital requirements".[445] Overall, the evidence about the effectiveness of macro-prudential policies seems to be quite mixed.[446]

The 'Tinbergen rule' – the rule named after the economist Jan Tinbergen, who postulated that to find solution to issues of political economy, the number of objective variables must equal that of instrument variables, and these must be independent among each other – has been indicated as the reason why central banks tasked with the maintenance of both monetary stability and financial stability would actually need a set of tools (macro-prudential ones) geared at the latter.[447]

In a way, the development of tools has gone in parallel with the emergence of macro-prudential supervision as an autonomous sphere.

Overall, the employment of macro-prudential instruments "is still pretty much in its infancy",[448] as also are many open questions on matters of speed and size of adjustments through macro-prudential tools.[449]

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[445] F. PANETTA, 'Macroprudential tools – where do we stand?', Speech held at the presentation of the 2013 Financial Stability Review, Central Bank of Luxembourg, Luxembourg, 14 May 2013, 3. Reasons for the deeper experience gained in developing economy are given in relation to the widely experienced episodes of financial instability (that would have somehow forced regulators to develop expertise in these areas), couple with patchy monetary policy frameworks; *ibidem*, 3. On the current employment of macro-prudential tools, S. CLAESSENS, S.R. GHOSH, R. MIHET, Macro-Prudential Policies to Mitigate Financial System Vulnerabilities', International Monetary Fund, IMF Working Paper, no. 155/2014, 8 ff. On further examples of macro-prudential instruments currently employed in European national jurisdictions, EUROPEAN SYSTEMIC RISK BOARD, *Flagship Report on Macro-prudential Policy in the Banking Sector*, March 2014, 5.

[446] S. CLAESSENS, S.R. GHOSH, R. MIHET, Macro-Prudential Policies to Mitigate Financial System Vulnerabilities', International Monetary Fund, IMF Working Paper, no. 155/2014, 4. As it has been summarized, "the invention of macro-prudential regulation as an agenda requires for its implementation the development of technologies to measure the financial system and to derive indicators that can tell regulators in advance when a 'bubble' is forming, and thus when and how it should be contained or burst. In the absence of those technologies, macro-prudential regulation cannot occur in the way envisaged"; J. BLACK, 'Reconceiving Financial Markets – From the Economic to the Social', 431.

[447] D. SCHOENMAKER, *Foreword*, in D. SCHOENMAKER (ed.), *Macroprudentialism*, Centre for Economic Policy Research, CEPR Press, 2014, xi.

[448] C.A.E. GOODHART, 'The use of macroprudential instruments', in D. SCHOENMAKER (ed.), *Macroprudentialism*, 15. This refers not only to instruments of an altogether different nature, but also to those that are already known, and may "incidentally support financial stability while directed principally to other objectives, such as monetary policy, fiscal policy, taxation and capital controls"; G. NAPOLETANO, 'Legal aspect of macro-prudential policy in the United States and in the European Union', Bank of Italy, Quaderni di Ricerca Giuridica della Consulenza Legale, no. 76/2014, 23-24.

Much work has been undertaken at the international level by international standards setters.[450] The IMF has embarked in a comprehensive work aiming at giving both general guidance to macro-prudential authorities[451] and setting standards on single macro-prudential tools.[452] A complex framework has also been designed at the European Union level, under the auspices of the ESRB. In its work the ESRB has primarily dealt with the issue of the identification of objectives in the macro-prudential field. In this regard, the ultimate objective identified has been "to contribute to the safeguard of the financial system as a whole, including by strengthening the resilience of the financial system and decreasing the build-up of systemic risks, thereby ensuring a sustainable contribution of the financial sector to economic growth".[453] Subsequently, five intermediate objectives were isolated and recommended to national authorities entrusted with macro-prudential functions, namely "to mitigate and prevent excessive credit growth and leverage", "to mitigate and prevent maturity mismatch and market illiquidity", "to limit direct and indirect exposure concentration", "to limit the systemic impact of misaligned incentives with a view to reducing moral hazard" and "to strengthen the resilience of financial infrastructures".[454]

While these objectives appear rather clear and agreeable in principle, things get more blurred while bringing the aforementioned objectives to real practice. Of course, there is a direct link established between objectives and tools, in the meaning of regulatory instruments available to these purposes. However, in getting from (intermediate) objectives to instruments the whole framework starts being footed on a slightly more uncertain basis, with also the ESRB acknowledging every now and then that there are reasons for not recommending any *exclusive* set of specific instruments.

Both at the ESRB and at the IMF level a general distinction is usually made between a 'time dimension' (or 'cyclical dimension') and a 'structural dimension'. This essentially entails that the design and the employment of macro-prudential tools shall take into consideration both the financial cycle and the various components of the system at the

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[449] F. PANETTA, 'Macroprudential tools – where do we stand?', 7.

[450] BANK OF INTERNATIONAL SETTLEMENTS, *Macroprudential instruments and frameworks: a stocktaking of issues and experiences*, Report submitted by the Committee on the Global Financial System', CGFS Papers no. 38/2010.

[451] INTERNATIONAL MONETARY FUND, *Staff Guidance Note on Macroprudential Policy*, 6 November 2014. The note addresses a number of key issues in different sensitive areas, such as the conditions under which macro-prudential tools should be activated, tightened, and relaxed; issues arising with their implementation; communication issues; possible ways to address leakages; guidance on country-specific issues; the institutional aspects of macro-prudential action.

[452] INTERNATIONAL MONETARY FUND, *Staff Guidance Note on Macroprudential Policy – Detailed Guidance on Instruments*, 6 November 2014.

[453] EUROPEAN SYSTEMIC RISK BOARD, *Recommendation on intermediate objectives and instruments of macro-prudential policy*, 4 April 2013, ESRB/2013/1, Recommendation A, paragraph 1.

[454] EUROPEAN SYSTEMIC RISK BOARD, *Recommendation on intermediate objectives and instruments of macro-prudential policy*, 4 April 2013, ESRB/2013/1. These intermediate objectives are derived for their identification by based on market failures; however correct from a technical viewpoint, a general remark on this approach may be that it could be overly market-driven. Additional intermediate objectives may well be identified by national macro-prudential authorities.

same time (so to say, both the 'time' and 'space' dimensions).[455] Each category of tools displays both merits and shortcomings. For instance, 'targeted' macro-prudential instruments, i.e. those that apply not to the entire system, but rather to one of its subsets, "tend to be more prone to two related problems: circumvention/elusion and leakages/waterbed effects".[456]

In order to have a closer look to the tools, rather than referring to them at the level of their theoretical elaboration, it seems useful to employ the terms in which they have been given a regulatory standing within the European Union. It goes without saying, that the regulatory framework thus designed is also the result of the debate taking place at the international level and of the work done within international organizations.

The table below gives a synthetic overview of macro-prudential tools available to authorities within the European Union.[457] The table follows the taxonomy employed by the ESRB in its Recommendation 2013/1.[458] Within the European Union the very set of tools provided, and the way these are regulated, essentially derives from the interplay between the regulatory package CRD4-CRR and the work done at the ESRB level. What naturally follows is that these tools show a different extent to which they are already embodied in hard-law; indeed, some of them have already been approved, some of them have not, some have found application only at a national level, or have been merely proposed in the literature.[459] Recommendation ESRB/2013/1 is also useful as the tools are grouped into five areas corresponding to five intermediate objectives – that may also serve as guidance to authorities – and impinge on areas as diverse as the mitigation and prevention of excessive credit growth and leverage; the mitigation and prevention of excessive maturity mismatch and market illiquidity; the limitation of direct and indirect

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[455] EUROPEAN SYSTEMIC RISK BOARD, *Recommendation on intermediate objectives and instruments of macro-prudential policy*, Annex, Paragraph 2; INTERNATIONAL MONETARY FUND, *Staff Guidance Note on Macroprudential Policy – Detailed Guidance on Instruments*, 9-10.

[456] The two consequences would consist either in "when the agents to which the policy measure is directed find ways to mitigate or even neutralize it" or "when the agents to which the measure is directed are fully affected, but other sectors are also affected and adjust their behaviour so as to contain the impact of the measures"; F. PANETTA, 'Macroprudential tools – where do we stand?', 4. Circumvention would tend to be more acute when macro-prudential measures are targeted, and that it is more likely to take place during cyclical upturns; *ibidem*, 4-5. The tools to deal with these shortcomings are arguably identified in the employment of on-site inspections, the simultaneous use of different tools, some dynamic extension of the perimeter of application, along with cross-border cooperation; *ibidem*, 6.

[457] The column labelled 'EU legal status' refers therefore to the highest level of 'hard-law' in place.

[458] Where relevant, the taxonomy has been integrated with operational advice containted in the ESRB Handbook, and reference will be also made to the macro-prudential framework set forth by the IMF.

[459] For instance, "time-varying limits on asset encumbrance may be a useful macro-prudential tool to forestall systemic crises"; P. GAI, *Systemic Risk. The Dynamics of Modern Financial Systems*, 5. On the institutional implications, see chapter 3.

exposure concentration; the limitation of the systemic impact of misaligned incentives; the strengthened resilience of financial infrastructures.[460]

Some of these tools – namely the SIFI capital surcharges, the systemic risk buffer, and the leverage ratio – have already been discussed in Chapter 1 as tools of direct or indirect prevention of systemic risk.

Of all instruments, a leading role is probably going to be played by the counter-cyclical capital buffer,[461] the tool that should *par excellence* drive macro-prudential action in its time (or 'cyclical') dimension'. This tool aims at tackling the long-lamented pro-cyclical nature of prudential regulation, which is deemed to fail to compel an increase in buffers in 'good times' and a decrease when difficulties appear. By contrast, a counter-cyclical approach would help to foster "system-wide resilience against the subsequent bust", whereas pro-cyclical prudential regulation would amplify aggregate systemic shocks.[462]

The CCB is probably the macro-prudential tool on which more discussion has taken place to date, including extensive enquiries upon its functioning, possible indicators that may be employed, elements for driving the calibration decision.[463] The discussion has been essentially fuelled by a perceived lack of understanding – or, at least, disagreement

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[460] According to Recommendation ESRB/2013/1, action based on the tools illustrated should go hand in hand with other initiatives, such as contribution to the national implementation of recovery and resolution regimes and deposit guarantee schemes (Recommendation B, Paragraph 4); the definition of a policy strategy that link ultimate and intermediate objective (Recommendation C, Paragraph 1); the periodic assessment and review of the tools (Recommendation D, Paragraph 1-2).

[461] As for work done at the level of international standard setters, BASEL COMMITTEE ON BANKING SUPERVISION, *Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems*, 57; BASEL COMMITTEE ON BANKING SUPERVISION, *Guidance for national authorities operating the countercyclical capital buffer*, December 2010, where key principles are laid down, as for objectives; common reference guide; risk of misleading signals; prompt release; other macro-prudential tools; *ibidem*, 3-5.

[462] C.A.E. GOODHART, 'Financial Regulation, Credit Risk and Financial Stability', National Institute Economic Review, no. 192/2005, 123; J. DE LAROSIÈRE, The High level Group on Financial Supervision in the EU, *Report*, 25 February 2009, 17; A.G. HALDANE, R.M. MAY, 'Systemic Risk in Banking Ecosystems', 354; J. DANÍELSSON, H.S. SHIN, J.P. ZIGRAND, 'Endogenous and Systemic Risk', 2. Prior to the financial crisis, one markedly counter-cyclical instrument employed was the 'pre-provisioning' measures adopted in Spain, though it was then found in tension with IFRS accounting requirements; FINANCIAL SERVICES AUTHORITY, *The Turner Review. A Regulatory Response to the Global Banking Crisis*, 62; Goodhart, in CEPR, 2009: 197. For a wider discussion on the economic and financial cycle and financial stability, see chapter 2.

[463] First guidance was provided by BASEL COMMITTEE ON BANKING SUPERVISION, *Guidance for national authorities operating the countercyclical capital buffer*, Bank for International Settlements, December 2010. On the ESRB view, see the extensive guidance provided in EUROPEAN SYSTEMIC RISK BOARD, *The ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector*, March 2014, 26-48. As for the IMF, INTERNATIONAL MONETARY FUND, *Staff Guidance Note on Macroprudential Policy – Detailed Guidance on Instruments*, 7-21. Doubts have been raised about the synchronization of the economic cycle *vis-à-vis* the financial cycle; R. REPULLO, J. SAURINA, 'The countercyclical capital buffer of Basel III: A Critical Assessment, CEMFI Working Paper, no. 1102/2011.

about the understanding – of financial cycles. Recent accounts of the financial cycle mainly rest on three key messages, namely that it would be longer than the business cycle; that to model it in a really correct way full acknowledgment would be required of the monetary nature of contemporary economies; that the financial system is not just a matter of allocation, but also of generation of purchasing power.[464] Some basic characteristics of financial cycles seem unquestioned at date, such as that they are normally quite long and severe, especially those in housing and equity markets; that they also tend to be highly synchronized within countries, in particular credit and house price cycles; that the extent to which they are synchronized across countries is both high and increasing.[465] From a practical viewpoint, however, the increasing awareness of possible discrepancies between economic and financial cycles is likely to make it increasingly difficult to operationalise the tool, especially in presence of different political layers (on possible institutional implications, see Chapter 3).

While the CCB is likely to take the lead of the cyclical dimension, sectorial capital requirements will likely play a meaningful role as for both the cyclical and the structural dimension. Such requirements have been developed mindful of the experience of the financial crisis, with special reference to the real estate segment of the market.[466] These instruments actually target *both* the banks and the borrowers, besides other stakeholders of the specifically considered segment. In this regard, the key political decisions are likely to be both the delimitation of the segment, and the development of indicators signalling the potential build-up of a macro-prudential risk, therefore prompting action.[467]

Two more types of tools, that are micro-prudential in nature, may actually be employed for macro-prudential purposes. Indeed, potentially very relevant and sensible is the dynamic employment of liquidity instruments.[468] Additionally, Pillar II too could be also used in a macro-prudential fashion under Art. 97-98 CRD4[469] (for more details on

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[464] C. BORIO, 'The financial cycle and macroeconomics: What have we learnt?', Bank of International Settlements, BIS Working Papers no. 395/2012, 2 ff. Some key features of the financial cycle are that "it is most parsimoniously described in terms of credit and property prices"; that "it has a much lower frequency than the traditional business cycle"; that "its peaks are closely associated with financial crises"; that "it helps detect financial distress risks with a good lead in real time"; and that "its length and amplitude depend on policy regimes"; *ibidem*, 2-7.

[465] S. CLAESSENS, M.A. KOSE, M.E. TERRONES, 'Financial Cycles: What? How? When?', International Monetary Fund, IMF Working Paper, no. 76/2011.

[466] EUROPEAN SYSTEMIC RISK BOARD, *The ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector*, 49-76; the IMF offers a breakdown between households and corporate, INTERNATIONAL MONETARY FUND, *Staff Guidance Note on Macroprudential Policy – Detailed Guidance on Instruments*, 32-75.

[467] EUROPEAN SYSTEMIC RISK BOARD, *The ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector*, 76-71.

[468] EUROPEAN SYSTEMIC RISK BOARD, *The ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector*, 102-133; INTERNATIONAL MONETARY FUND, *Staff Guidance Note on Macroprudential Policy – Detailed Guidance on Instruments*, 76-93.

[469] EUROPEAN SYSTEMIC RISK BOARD, *The ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector*, 134-140. Measures under this may include (but the list is not at all to be deemed exhaustive) requirements for additional own funds; to strengthen internal capital

both, see also Chapter 1). Although the list drawn by the ESRB seems quite accurate, input from practice as well as from further discussion at the international level will likely change, at least slightly, the framework illustrated in the table. Moreover, the list contained in the ESRB Recommendation no. 2013/1 is not exhaustive of a number of tools that are not directly mentioned, but may be important (even indirectly) for macro-prudential purposes. Additional tools may actually be known by and available to national supervisors – or the way itself in which the same tools are employed may change. For instance, examples of tools employed by the Bank of Italy include the on-site review of non-performing loans coverage ratios (and of the related accounting practices). This is also a clear illustration of action taken by employing purely micro-prudential tools with a macro-prudential flavour, since triggered by worries about financial stability, that also accompanied the subsequent remedial measures required from banks.[470] By the same token, additional examples may include adjustments to asset encumbrance limits, or limits on foreign exposures.

For a discussion on the institutional aspects regarding the employment of macro-prudential tools, see Chapter 3. For now, suffice it to make a number of basic remarks.

The responsibility for the employment of macro-prudential tools rest with national authorities which, in most Western countries, are likely to adhere to international standards of action. In the context of the European Union, national authorities will again take the lead, with the ESRB essentially playing a role of technical guidance,[471] along with extensive discussion and coordination effort to support national authorities.[472]

Along with tools that have already received an hard-law status, and soft-law guidance, national authorities will still play a role in identifying the appropriate tools. Indeed, under the 'flexibility clause' introduced by Art. 458-459 CRR, both the Commission and member States are empowered to take action in those cases where CRD4-CRR tools are deemed insufficient for macro-prudential purposes.[473] Pursuant to

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adequacy assessment and internal governance; to present a plan to restore compliance with supervisory requirements; to apply a specific provisioning policy; to limit given business or operations, or to reduce exposure to risks; to restrict the variable component of the remuneration, or the distributions or interest payments; to specific liquidity requirements; to enhanced reporting or disclosure requirements; *ibidem*, 136. See also Art. 103-105 CRD4.

[470] F. PANETTA, 'On the special role of macroprudential policy in the euro area', 10.

[471] Guidance is provided through all the stages of implementation of macro-prudential policy, namely the risk identification stage; the instrument selection and calibration stage; the implementation and communication stage; the evaluation phase; EUROPEAN SYSTEMIC RISK BOARD, *Flagship Report on Macro-prudential Policy in the Banking Sector*, 8 ff.

[472] EUROPEAN SYSTEMIC RISK BOARD, *The ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector*, March 2014.

[473] Interestingly enough, the authority empowered to act here is not just the national competent authority, but also the Commission, both independently or upon advice of the ESRB or EBA. Depending on whom they are adopted by, the requirements have different time limits. A notification has to be made in advance to the European Commission, the European Parliament, the European Council, the ESRB and the EBA, and no objection should be raised by the Council, based on a recommendation by the Commission, taking into account the ESRB and EBA opinions; the national authority willing to exercise such discretion also has to submit

Art. 458(2) CRR, such decisions would be subject to a notification process by national authorities addressed to the Commission, the ESRB and the EBA on the main reasons leading to the decision, technical grounds supporting the measures, along with explanations about the insufficient role of already existing CRR-CRD4 measures.[474]

Two more elements helps completing the sketch of this framework. The CRD4-CRR package is characterized, at the procedural level, by reciprocity arrangements that aim at acting against potential waterbed effects for the application of the CCB.[475] Further novelty will also derive from the implementation of the Single Supervisory Mechanism, that will represent to may extents an additional layer. On both these elements, and on their political and legal meaning, further discussion will take place in Chapter 3.

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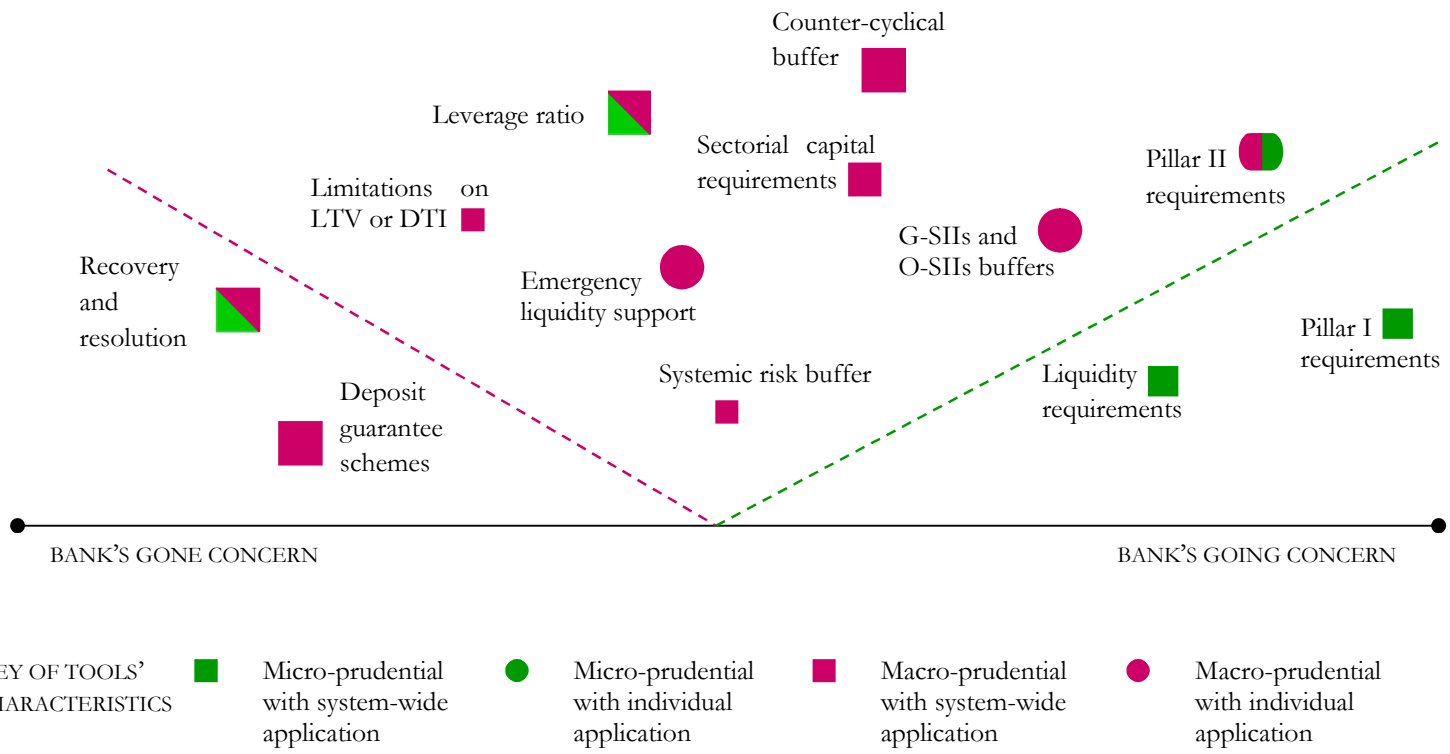
extensive evidence of the grounds on which the decisions has been taken. For the ESRB interpretation of this 'flexibility clause', EUROPEAN SYSTEMIC RISK BOARD, *The ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector*, 142-161.

[474] The notification process is then followed by a procedure aiming at verifying both the conditions for the exercise of such power and that the decision is adequate, under Art. 458(4). On the notification process, EUROPEAN SYSTEMIC RISK BOARD, *Decision on a coordination framework regarding the notification of national macro-prudential policy measures by competent or designated authorities and the provision of opinions and the issuing of recommendations by the ESRB*, ESRB/2014/2, 27 January 2014.

[475] F. PANETTA, 'Macroprudential tools – where do we stand?', 5.

INSTRUMENT	OBJECTIVE	EU LEGAL STATUS
	Mitigate and prevent excessive credit growth and leverage	
Countercyclical Capital Buffer (CCB)	Financial institutions are required to build up capital in good times with a view of using it in time of distress. It fights excessive credit growth and it can be released in case of a credit crunch. Conceived as ranging from 0% to 2.5%, the buffer would be applied to all credit institutions within a jurisdiction.	ESRB Recommendation no. 2013/1; Art. 128-140 CRD4
Leverage ratio	Expressed as the ratio between capital and non-risk-adjusted liabilities, this ratio aims at capturing (also in a time-varying fashion) an excessive growth in the balance sheet therefore constraining the use of the leverage. The ratio is conceived to be binding for all credit institutions within a jurisdiction.	ESRB Recommendation no. 2013/1; Art. 429-430 CRR; Art. 87, Art. 98 CRD4
Sectoral capital requirements	Specific activities are deemed as inherently risky, therefore deserving an enhanced capital requirement. Sectors of interest are residential and commercial property, along with intra-financial system exposure. The heightened requirement may be driven by either an increase in the Risk Weighted Assets (RWA) or in the Loss Given Default (LGD) parameters.	ESRB Recommendation no. 2013/1; Art. 124, Art. 164 CRR
Loan-to-Value (LtV)	It aims at limiting the value of the loan relatively to the collateral which underlies it. It fosters the sustainability of the loan and helps fighting real estate bubbles, thus also dampening the credit cycle.	ESRB Recommendation no. 2013/1
Loan-to-Income, Debt-to-Income (LtI, DtI)	It aims at limiting the value of the loan or the value of the debt relatively to the income of the receiver. It fosters the sustainability for the receiver of the loan and of the debt, respectively, thus indirectly dampening the credit cycle.	ESRB Recommendation no. 2013/1
	Mitigate and prevent excessive maturity mismatch and market illiquidity	
Adjustment to the liquidity ratio (LCR)	Liquidity requirements (for LCR, liquid resources with a time horizon of one month), while inherently micro-prudential in nature, may assume a macro-prudential character if they are treated as time-varying requirements, i.e. if the use of such buffers is allowed in times of distress.	ESRB Recommendation no. 2013/1; Art. 411, Art. 458-459 CRR
Restrictions on funding resources (NSFR)	The Net Stable Funding Ration (NSFR) aims at promoting the stability of sources of funding considered within a time horizon of one year. Relaxation is to be allowed in times of liquidity stress.	ESRB Recommendation no. 2013/1; Art. 428, Art. 458 459 CRR
Unweighted limit to less stable funding (LtD)	To tools aims at controlling how many loans are virtually backed by deposits, that are considered as a relatively stable source of funding. Therefore, it measures how	ESRB Recommendation no. 2013/1

	much the bank is depending on less stable funding sources.	
Margin and haircut requirements	Since margins and haircuts determine the level of collateralization in secured financing, this tool answers to the need of making such margins and haircuts relatively less dependent on market conditions.	ESRB Recommendation no. 2013/1
Limit to direct and indirect exposure concentration		
Restrictions upon Large Exposure	It reduces the exposure to shocks and idiosyncratic problems experienced by single intermediaries. Although micro-prudential in nature, this instrument also mitigates exposures to some specific sectors and reduces the average size of exposures.	ESRB Recommendation no. 2013/1; Art. 458-459 CRR; Definition in CRD4
Central Counterparties clearing requirements (CCP)	The requirement to clear transactions via central counterparties brings enhanced simplification and transparency due to the concentration of a network of former bilateral exposures. Benefits come at the cost of increasing concentration risk upon the central counterparties themselves. Central clearing requirement is required for OTC derivative contracts.	ESRB Recommendation no. 2013/1; Art. 4, Art. 9, Art. 24, Art. 81 EMIR
Limit to the systemic impact of misaligned incentives with a view to reducing moral hazard		
SIFI capital surcharges	The Surcharge imposed upon systemically important institutions in order to improve their loss-absorbency capacity (see table in Chapter 1).	ESRB Recommendation no. 2013/1; Art. 131 CRD4
Strengthen the resilience of financial infrastructures		
Margin and haircut on CCP clearing	Measures which aim at mitigating settlement default risk, by preventing disruptive changes in the margins and establishing predictable procedures. The tool should be used in a way so as to avoid an excessive pro-cyclical character.	ESRB Recommendation no. 2013/1; Art. 24 EMIR?
Increased disclosure	This tools build upon the idea that increased transparency helps reducing information asymmetry, thus enhancing in turn financial stability. An application of the requirement of increased disclosure may be found in the context of large exposures and highly leveraged Alternative Investment Funds.	ESRB Recommendation no. 2013/1; Art. 431-455, Art. 458-459 CRR; Art. 25 and 53 AIFMD
Structural systemic risk buffer	It is a capital surcharge of general application (either applied to all banks or to a subsector of the system) within national jurisdictions aiming to improve the loss-absorbency capacity of banks, thus enhancing the resilience of the financial system. A tool of rather residual character, to be employed only where risks are not covered by other instruments (see table in Chapter 1).	ESRB Recommendation no. 2013/1; Art. 133 CRD4



Note: the label 'system-wide' also refers to application to a sub-set of the system; what matters is the non-individual character of the measure at stake. The figure is a personal elaboration that also drawn on graphical illustration of CLAESSENS et al. (eds.), *Macroprudential Regulatory Policies – The new road to financial stability?*, 26; BANK OF INTERNATIONAL SETTLEMENTS, *Macroprudential instruments and frameworks: a stocktaking of issues and experiences*, 4, 5, 10; T. PADOA SCHIOPPA, *Regulating Finance*, 111.

2.2 Financial stability as a global public good?

As shown by the previous paragraph, the question of *what* is financial stability tend to be absorbed by the more practical question of *how* to deal with financial *instability*. However, also for the purpose of establishing a more rigorous legal perspective, it seems worth spending some more words on the broader conceptual qualification of financial stability.

Well before the outbreak of the global financial crisis, there were early proponents of an interpretation of financial stability conceived as a 'global public good'.[476] However, only after the crisis this qualification reached the stage of an undisputed consensus, with a whole range of scholars and practitioners assuming a public good perspective in relation to financial stability.[477] Thus, many references have been made to "the public good of international financial stability",[478] with the additional explanatory argument that "financial stability can be seen as an international public good because financial instability is a potential public bad that spreads across countries",[479] and the prescriptive argument that "financial stability can now be considered as a public good to be adequately promoted and protected".[480] This qualification has been subsequently attached also to other concepts broadly belonging to the banking and financial fields, as diverse as liquidity, the accuracy of asset prices, and the provision of a stable common currency in the euro area.[481]

However reputable these sources, what seems rather surprising is that, save for extremely rare exceptions, such qualification has been given without displaying any interest in (or even showing awareness of) its deeper meaning. As a consequence, almost

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[476] Among others, M. QUINTYN, M. TAYLOR, 'Regulatory and supervisory Independence and Financial Stability', International Monetary Fund, Working Paper no. 46/2002; "the achievement of financial stability ... is now generally considered a public good"; *ibidem*, 8.

[477] G.J. SCHINASI, *Safeguarding Financial Stability. Theory and Practice*, Washington D.C., International Monetary Fund, 2005, 15; I. GOLDIN, T. VOGEL, Global Governance and Systemic Risk in the 21st Century: Lessons From the Financial Crisis, 8; N. DORN, 'Policy Stances in Financial Market Regulation: Market Rapture, Club Rules or Democracy?', in K. ALEXANDER, N. MOLONEY (eds.), *Law reform and financial markets*, Cheltenham, Edward Elgar, 2011, 59; G. NAPOLITANO, 'The Two Ways of Global Governance After the Financial Crisis: Multilateralism Versus Cooperation Among Governments', 322; J. CARMASSI, S. MICOSSI, 'Time to Set Banking Regulation Right', 43; US TREASURY, *A Survey of Systemic Risk Analytics*, 12.

[478] D. SCHOENMAKER, *Governance of International Banking. The Financial Trilemma*, 3, 19.

[479] C. WYPLOSZ, 'International Financial Instability', in I. KAUL, I. GRUNBERG, M.A. STERN, *Global public goods: international cooperation in the 21st century*, Oxford, Oxford University Press, 1999, 156.

[480] G. NAPOLETANO, 'Legal aspect of macro-prudential policy in the United States and in the European Union', 187.

[481] Respectively R.G. RAJAN, 'Has Financial Development Made the World Riskier?', 349; *ibidem*, 353; GLIENICKER GRUPPE (composed by A. von Bogdandy, C. Calliess, H. Enderlein, M. Fratzscher, C. Fuest, F.C. Mayer, D. Schwarzer, M. Steinbeis, C. Stelzenmüller, J. von Weizsäcker, G. Wolff), 'Towards a Euro Union', Die Zeit, 17 October 2013.

no further enquiry has been carried out on the point of why financial stability should be considered a public good, and what consequence would be attached to this.

Broadly speaking, the attempt to qualify financial stability as a public good is likely to derive exactly from the problem of how to accommodate financial stability as a form of third-party interest that naturally lacks specific subjects that advocate for it. Generally speaking, this issue has been given in the recent past considerable political attention,[482] as a way to show awareness about the links that bind together different actors at the international level.

From a scientific perspective, the first and most important consequence of the qualification discussed here is that it brings into the picture the whole scientific elaboration on the topic, that is both long-standing and far-reaching. The very roots of the concept of 'public good' may be deemed to go back to David Hume and Adam Smith, or perhaps even to Aristotle ("that which is common to the greatest number has the least care bestowed upon it")[483]. In the economic literature the concept received early elaboration in the 1960s, following to Mancur Olson's framework explanation about incentives and free-riding.[484] A cornerstone contribution of the time was also that of Garret Hardin, a biologist who elaborated the conceptual framework that became known as the 'tragedy of the commons', in the famous example where a shared common pasture becomes over-exploited by its users, with an increased degree of herding behaviour that results in its final degradation and destruction.[485] Valuable recent academic elaborations on the topic essentially concentrated on the analysis of the conditions under which Hardin's finding that the 'common' nature of a good implies its tragedy may be dismissed ("*Au contraire, Monsieur Hardin!*").[486] In particular, scholars concentrated on the extent to which common goods may be sustainable, namely can be properly managed by communities in presence of given conditions, especially where competition among users is at least partially substituted by cooperation.[487]

A breakdown has been proposed in the literature between material commons (such as the environment, the forests, the sea, infrastructures, and utilities) and non-material

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[482] "Where a financial system weakens in one country, prosperity is hurt everywhere. When a new flu infects one human being, all are at risk. When one nation pursues a nuclear weapon, the risk of nuclear attack rises for all nations. When violent extremists operate in one stretch of mountains, people are endangered across an ocean. And when innocents in Bosnia and Darfur are slaughtered, that is a stain on our collective conscience. That is what it means to share this world in the 21st century"; US PRESIDENT, *Remarks by the President on a New Beginning*, Speech held by President Barack Obama at the University of Cairo on 4th June 2009.

[483] ARISTOTLE, *Politics*, Book II, Part III.

[484] On the relationship between utility maximization, profit maximization and cost minimization see M. OLSON, *The Logic of Collective Actions. Public Goods and The Theory of Groups*, Cambridge, Harvard University Press, 1965.

[485] G. HARDIN, 'The Tragedy of the Commons', Science, no. 162/1968, 1244.

[486] C. HESS AND E. OSTROM, 'Introduzione: Panoramica sui beni comuni della conoscenza' in C. HESS, E. OSTROM (eds.), *La conoscenza come bene comune. Dalla teoria alla pratica*, Milan, Mondadori, 2009 (original edition *Understanding Knowledge as a Commons*, 2007), 14.

[487] C. HESS AND E. OSTROM, 'Introduzione: Panoramica sui beni comuni della conoscenza', 14 ff.

commons (such as social trust, solidarity, security, knowledge, the provision of adequate food).[488] The list of global public goods acknowledged by scholars (and to some extents also by competent regulators) is nowadays as wide to comprise, for instance, defence from asteroids, peace-keeping activities, the suppression of infectious diseases, nuclear security, fight against species extinction, climate change mitigation, and ozone layer protection.[489] In recent times, in the areas of public health and the environment the concept of 'public good' has been paralleled by the use of that of 'sustainability',[490] which, despite being occasionally employed with reference to the financial system as a whole, or to sovereign debt,[491] has been so far quite recessive with reference to financial stability.

What has to be noted is that in some of the most recent academic contributions the reflection of scholars on global public goods has gone hand in hand with some kind of radical approach to the exercise of public powers, and to the issue of the category of 'common goods' as a distinct one from both private and public property, allegedly in need of being defended against both private and public attempts to spoil them.[492] However, such accounts seem quite distant from the spirit in which the 'public good' perspective has been brought into the picture of banking and financial regulation. In no way this amounts to an attempt to call into question the concept of private property; well on the contrary, the maintenance of financial stability could be read as a way of *reinforcing* private rights (see below in the paragraph).

What has to be acknowledged, however, is that the label itself of 'collective good' entails a political statement, since no such good *naturally* exists in the social sphere, but rather gains this qualification following to a value-laden judgment.[493]

Before undertaking a more in-depth analysis, a few more clarifications about public goods and common goods (or 'commons') are needed.[494] Indeed, there are subtle

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[488] P. FERRI, Introduction to C. HESS, E. OSTROM (eds.), *La conoscenza come bene comune. Dalla teoria alla pratica*, Milan, Mondadori, 2009 (original edition *Understanding Knowledge as a Commons*, 2007, xxiii; S. RODOTÀ, *Il diritto di avere diritti*, Roma-Bari, Editori Laterza, 2012, 125 ff.

[489] S. BARRETT, *Why cooperate? The Incentive to Supply Global Public Goods*, 20.

[490] The concept was notoriously elaborated in the environmental field from the 1987 *Bruntland Report*.

[491] R. MCCORMICK, 'Towards a more sustainable financial system: the regulators, the banks and civil society', Law and Financial Markets Review, 2011, 129; G. NAPOLITANO, 'The Two Ways of Global Governance After the Financial Crisis: Multilateralism Versus Cooperation Among Governments', International Journal of Constitutional Law, no. 2/2011, 332.

[492] U. MATTEI, *Beni comuni*, Rome-Bari, Laterza, 2011. In other words, this literature has been often rooted in a deeper critique of private property rights. Indeed, 'common goods' have been read as a possible way to call into question the binary opposition between private property and public property (in the Italian system, such binomial qualification also enjoys constitutional status under Art. 42 of Italian Constitution), acknowledged as a binary logic incapable to deliver satisfactory legal tools anymore; S. RODOTÀ, *Il diritto di avere diritti*, Roma-Bari, Editori Laterza, 2012, 106 ff.

[493] J. MALKIN, A. WILDAVSKY, 'Why the Traditional distinction between Public and Private Goods Should be Abandoned', Journal of Theoretical Politics, no. 4/1991.

[494] In the paragraph, reference is made alternatively to public good and common good. While the first is prevalent in economic literature and contemporary global administrative and

discrepancies in the way definitions are employed in this field of study. For instance, some scholars have drawn a line between commons which are 'common-pool resources' and commons which are instead 'common property'.[495] Additionally, other authors stress the question of the *purity* of global public goods; "while public goods are understood to have large externalities (and diffuse benefits), a stricter definition relies on a judgement of how the good is consumed: if no one can be barred from consuming the good, then it is non-excludable. If it can be consumed by many without becoming depleted, then it is non-rival in consumption. Pure public goods, which are rare, have both these attributes, while impure public goods possess them to a lesser degree, or possess a combination of them".[496] Indeed, in the political economy literature the characterization of public goods often occurs in terms of non-rivalry ("once provided, no country can be prevented from enjoying a global public good"), and non-excludability ("any country's enjoyment of the good [cannot] impinge on the consumption opportunities of other countries").[497]

In terms of policy, the key starting point should be that "all public goods, whether local, national or global, tend to suffer from underprovision. The reason is precisely that they are public. For individual actors, it is often the best and most rational strategy to let others provide the good – and then to enjoy it, free of charge".[498] As a consequence, in order to be qualified as such, commons need both to be shared by a group of people, and to be subject to social dilemmas (be them questions, controversies, doubts, and disputes).[499] Therefore, the key concepts against which policy decisions about the provision of public goods have to be evaluated are fairness (how much you draw from one resource and how sustainable it is), efficiency (optimal production, management and use of a resource) and sustainability (long-term effects).[500]

Coming closer to the issue of financial stability, what seems most needed is an attempt to explore this concept in the light of the outcomes of the literature on 'global

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constitutional law, the second has been mainly employed in Italy following to recent political debate.

[495] C. HESS AND E. OSTROM, 'Introduzione: Panoramica sui beni comuni della conoscenza', 6.

[496] I. KAUL, I. GRUNBERG, M.A. STERN, 'Introduction', in I. KAUL, I. GRUNBERG, M.A. STERN, *Global public goods: international cooperation in the 21st century*, Oxford, Oxford University Press, 1999, xx. An additional requirement for them is that "their benefits are quasi universal in terms of countries (covering more than one group of countries), people (accruing to several, preferably all, population groups), and generations (extending to both current and future generations, or at least meeting the needs of current generations without foreclosing development options for future generations)"; *ibidem*, 2-3.

[497] S. BARRETT, *Why cooperate? The Incentive to Supply Global Public Goods*, Oxford, Oxford University Press, 2007, 1.

[498] I. KAUL, I. GRUNBERG, M.A. STERN, 'Introduction', in I. KAUL, I. GRUNBERG, M.A. STERN, *Global public goods: international cooperation in the 21st century*, xxi.

[499] C. HESS, E. OSTROM, 'Introduzione: Panoramica sui beni comuni della conoscenza' in C. HESS, E. OSTROM (eds.), *La conoscenza come bene comune. Dalla teoria alla pratica*, Milan, Mondadori, 2009 (original edition *Understanding Knowledge as a Commons*, 2007), 3, and 5 ff.

[500] C. HESS, E. OSTROM, 'Introduzione: Panoramica sui beni comuni della conoscenza', 8.

public goods'. Such attempt would not be just a scientific newness,[501] but also an effort needed if one takes the view that the characteristics of these goods have to be examined in order to determine whether or not they are apt for the satisfaction of collective needs and the implementation of fundamental rights.[502]

The outcomes of the analysis of financial stability (and of a number of other elements and concepts relevant to the banking and financial systems) are illustrated in the figure below. All elements and concepts are framed in four quadrants ('private goods', 'club goods', 'public goods', and 'common resources') according to the degree to which they actually allow for the possibility of excluding others (i.e. whether others may be prevented from enjoying the good, or 'excludability'), and the possibility to subtract the good (i.e. whether the good itself may be subtracted to those that enjoy it, or 'rivalry').

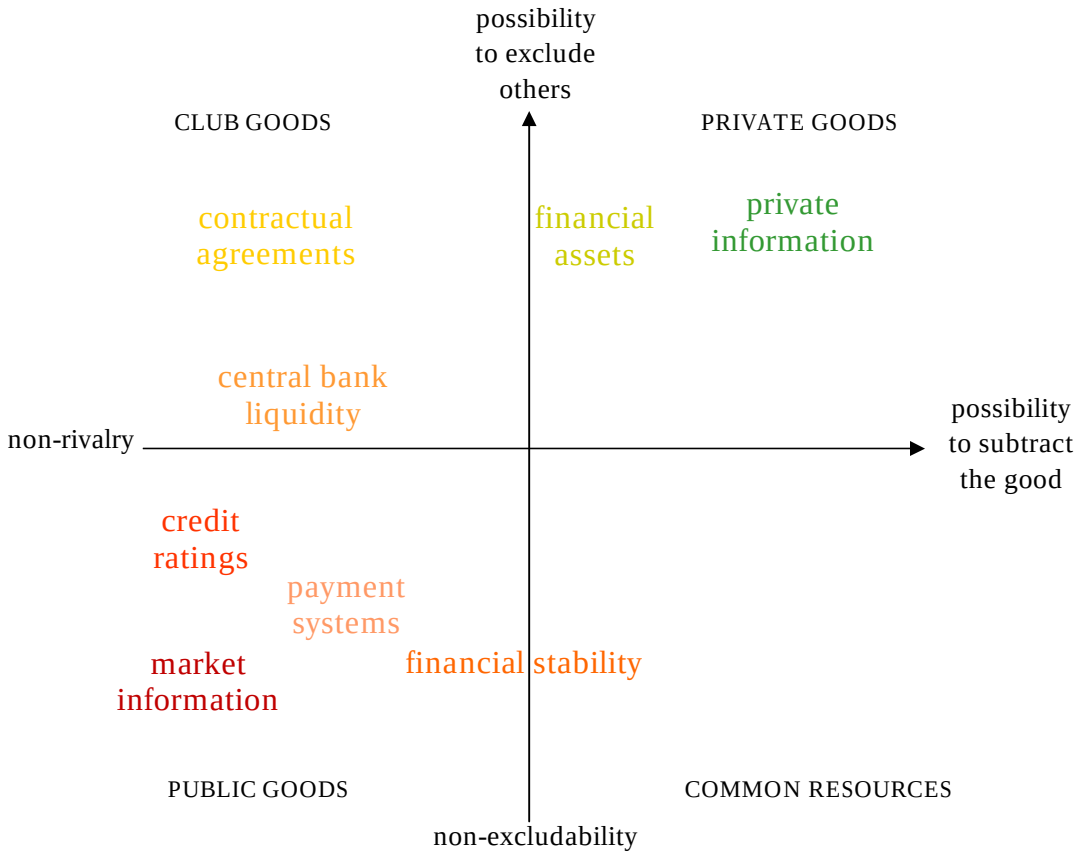
A closer look into the characteristics of financial stability shows how it would not perhaps classify as a *pure* public good, but rather as an *impure* one (following to the distinction illustrated above), or better as half-way between 'public goods' and 'common resources'. Indeed, it does not possess at the highest level both the qualities of non-excludability and non-rivalry in consumption. Financial stability may be considered non-excludable insofar as financial institutions and products are granted their 'entrance' into the market, something that is ultimately up to competent regulatory authorities. As for non-rivalry, this characteristic would be verified only as long as financial stability is enjoyed, and *used* in some ways, but not *abused* by any market participants, since at that point the enjoyment opportunities for other participants would be partially (or even totally) impaired. What may be noted from the figure below is that the qualities of non-excludability and non-rivalry are actually enjoyed by goods that are extremely important to the banking system, namely (to slightly different extents) market information, credit ratings, and payment systems.[503] Contractual agreements and central bank liquidity display

[501] To the best of knowledge, no real attempt has been made so far of exploring the concept of global public goods with specific reference to the banking and financial systems. The 'public good' approach has been occasionally adopted in relation to credit rating, but more than a real enquiry into the concept of public good, has rather amounted to an attempt to provide a sort of 'global public service', and to challenge private providers of credit rating with competition pressure in order to improve their ratings; J.-C. DUAN, E. VAN LAERE, 'A public good approach to credit ratings – From concept to reality', Journal of Banking & Finance, no. 36/2012, 3239-3247.

[502] S. RODOTÀ, *Il diritto di avere diritti*, Roma-Bari, Editori Laterza, 2012, 115.

[503] For the purposes of the figure, market information are those that are disclosed by participants to the market either at their will or by regulatory requirement, thus becoming part of the set of information upon which, among other things, market participants ground their investment choices. As for credit ratings, the model considered here is the one that seems more widespread in the market, i.e. under which the issue of ratings is actually paid for by the issuer, and then disclosed to the market. The more ratings are not disclosed to the market, the greater their degree of excludability. Finally, as for payment systems, the model considered here is that of the systems operated by public regulators, that are therefore normally both non-excludable and non-rival, save possible impairments deriving from disruptions in key participants to the market.

characteristics that induce to qualify them as 'club goods',[504] while genuinely 'private goods' characteristics are shown by private information and financial assets.[505]



Note: the chart is a personal elaboration that has as background the charts employed by C. HESS, E. OSTROM (eds.), *La conoscenza come bene comune. Dalla teoria alla pratica*, 11 and I. KAUL, I. GRUNBERG, M.A. STERN, *Global public goods: international cooperation in the 21st century*, 5.

Getting to the actual provision of global public goods, there are different ways identified in the literature, namely direct contributions, subsidies, compensation schemes, fees, newly-created property rights, and regulation. For the purposes of financial stability, 'regulation' actually seems the one that may better fit the purpose, even though 'compensation' may also play a role, for instance thinking to requirements for systemically

[504] Contractual agreements concluded among market participants tend to be highly excludable, but at the same time to show a low degree of rivalry. Central bank liquidity is a good potentially provided to a high number of market participants, but at the conditions set by the central bank, that is therefore in the position of potentially exclude intermediaries; is also show quite a low degree of rivalry.

[505] Private information are 'private goods' *par excellance*, being characterized by a high possibility of excluding others and subtracting the goods. Financial assets are highly excludable, while they show a mixed degree of rivalry depending on how one evaluates the possibility that elements outside the contractual arrangements (market trends) may influence their value.

important institutions as a form to compensate for the dangers imposed to the banking system. From a policy-making viewpoint, acknowledging the existence of many important goods belonging to the 'public goods'/'common resources' spheres, and their supra-national character, helps explaining the worries about the fact that if "the only jurisdiction equipped to provide a public good is the nation state, the overall global optimum (corresponding to the now-emerging notion of global public goods) may never be achieved", since "national authorities are unlikely to take into account the externalities of their actions at the international level. At worst, they work for the benefit of national financial institutions when implementing and interpreting commonly agreed standards, at the expense of the objectives of safety and soundness and even a level playing field".[506] From this perspective, the qualification of financial stability as a 'global public good' actually has some merits, if it serves the purpose of compelling regulation being pushed at the transnational level.

However, a more in-depth analysis against the backdrop of global public goods theory demonstrates at least very peculiar characteristics displayed by financial stability. Indeed, a classification for the production of global public goods has been proposed among 'single best efforts' (public goods can be supplied unilaterally); 'weakest links' (public goods depending on the States that is the least contributor to them); and 'aggregate efforts' (public goods depending on the combined efforts of all States"). As for their preservation, once they have been produced, the classification distinguishes 'mutual restraint' (public goods depending on countries not doing something), and 'coordination' (public goods depending on countries doing the same thing).[507] The all-peculiar character of financial stability seems to lie in the simultaneous presence of elements of all the three models at the same time. It is a 'single best effort' global public good due to the regulatory influence that some subjects (international standard setters, along with the most active nation States and supra-national organizations) may exert on a number of jurisdictions, in terms of rules, standards and practices. It is a 'weakest links' global public good because systemic events may in principle originate anywhere (the financial crisis unfolded in the US and then propagated worldwide could be a prominent example for this). Finally, it is also an 'aggregate efforts' global public good insofar as the mitigation of systemic risk is an incremental issue, and there is no subject (whatever its size or international standing) in the position of dealing effectively with the issue of financial stability by itself. As for the way in which public goods can be preserved, financial stability is both a 'mutual restraint' global public good, as it requires market participants and regulators not to behave in ways that may impair it, and a 'coordination' global public good, since it requires in many respects a common efforts by these two sets of subjects. What follows is that, at least, qualification of financial stability as a global public good requires some specifications that are uncommon in this literature trend.

An additional point that compels reflection is that the qualification as a 'common good' is normally conceived in a way implying that gaining access to it should be automatically subtracted to the availability of financial resources, since it does not pertain

[506] T. PADOA-SCHIOPPA, *Regulating Finance*, 50-51.

[507] S. BARRETT, *Why cooperate? The Incentive to Supply Global Public Goods*, 2-9.

to economic calculus (anymore).[508] Such a conclusion would be quite at odds with the common understanding of financial stability, and with the role that public powers are normally thought to play about it. However, this proves especially interesting in that it may witness a potentially misleading character of its qualification as a global public *good*. Indeed, the idea of a 'good' also literally implies something that benefits those who enjoy it, that is intrinsically good in itself. To some extents, insofar as financial stability is concerned, this could not be the case, as it may be considered more as a state-of-facts that has been qualified so, and that also displays some degree of artificiality. In other words, it may be rather understood as an all-encompassing condition that is good for someone and bad for someone else, even within the banking system itself (on the redistributive character of macro-prudential policies, see Chapter 3). As such, simply qualifying financial stability as a global public good is some part of a broader thrust towards simplification that affects the regulatory discourse altogether.

An effort to draw some constructive conclusions from the above could point to the institutional characteristics that have been found by empirical studies on the commons to be needed in order to deal with global public goods. They mainly relate to a clear definition of possibilities and limits; to the adequacy of the rules employed to the local needs and conditions; to the possibility for all individuals, which are bound to respect those rules, to participate to their modification; to the right for the members of the community to set rules respected by external authorities; to the existence of a self-monitoring system; to the adoption of a system of progressive sanctions; to the access for each member of the community to low-cost dispute resolution mechanisms; to the articulation on multiple levels of the organization for the management of the good.[509] If one considers the institutional safeguards deployed for financial stability, it is evident that the compliance with these requirements is only partial (for further analysis on this point, see Chapter 3).

2.3 Taking financial stability seriously[510]

As with the previous paragraph, the discussion performed so far shows the need for some in-depth enquiries having as objective the establishment of a more rigorous legal perspective on financial stability. Without aiming to an illustration of the details of macro-prudential policy, the discussion has shown how deep and how far-reaching policy actions taken on the ground of the defence or enhancement of financial stability may be.

To this end, there is one key question that has gone largely ignored so far, and has remained therefore essentially unanswered, namely that of judicial review of policy decisions taken for financial stability reasons. Either in the future macro-prudential policy will be factually irrelevant, or it will matter, meaning that decisions will be taken and a

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[508] S. RODOTÀ, *Il diritto di avere diritti*, Roma-Bari, Editori Laterza, 2012, 137.

[509] C. HESS AND E. OSTROM, 'Introduzione: Panoramica sui beni comuni della conoscenza', 8-9; see also E. OSTROM, *Governing the Commons: the Evolution of Institutions for Collective Action*, New York, Cambridge University Press, 1990, 90-102.

[510] The title of this paragraph is borrowed from the landmark book from Ronald Dworkin *Taking Rights Seriously* (1977).

potential for litigation will actually arise. If one is to take financial stability seriously, and thus vest macro-prudential tools with proper legal clothes, one should also come at grips with what will happen in case a decision taken on financial stability grounds is to be challenged before a court of law.

The lack of legal contributions on the topic has coupled with an attention dedicated to the exercise of discretion at a significantly lower level than the one devoted to the technical issues related to macro-prudential tools.[511] If it is true that macro-prudential policy is still in need of a proper development of its toolkit, what seems disputable is the ideal existence of a decision that actually is *right*, so that the real challenge for macro-prudential authorities would be how to *discover* that decision and put it in place (overcoming the much-feared inaction bias).[512]

Fortunately or unfortunately, this is not the case. Macro-prudential policy decisions are likely to be backed by a significant degree of discretion, one more reason why judicial review is likely to play an altogether delicate role.[513] Indeed, it is a fundamental principle of Western legal tradition that all administrative powers, especially those requiring the exercise of discretion by public administrations, would be tantamount to arbitrary actions if deprived of the chance of being reviewed by a court of law.

With regard to the importance of the question presented here, comfort comes from some enlightened minds that have seriously posed themselves the problem of how to hold to account public authorities on the issue of financial stability.[514] Answer to this question has gone so far as to call for a change of the *status quo*, since "a somewhat better defined financial stability anchor, set by Parliament and reflecting society's desires, could over time damp these criticism".[515] This seems especially important as acknowledgment of the *political content* associated to financial stability (with the consequent need for public authorities to be adequately backed by politics) and of the relevance of a right balance that has to be stricken among legislative, executive and judicial powers.

Much comfort as to the relevance of the question also comes from an outstanding synthesis of some of the public issues related to macro-prudential oversight, according to which

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[511] EUROPEAN SYSTEMIC RISK BOARD, *The ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector*, 173-180; on how countries have chosen so far a mixed approach between rules and discretion, *ibidem*, 179.

[512] The same holds true for IMF advice, INTERNATIONAL MONETARY FUND, *Staff Guidance Note on Macroprudential Policy*, 34-39, where the issue is framed in terms of 'willingness to act' and 'ability to act'.

[513] Additionally, "the benefit of macro-prudential policies – reduction of the probability and severity of a future crisis – cannot be measured with precision"; E.W. NIER, On the governance of macro-prudential policies, in S. CLAESSENS, D.D. EVANOFF, G.G. KAUFMAN, L.E. KODRES (eds.), *Macroprudential Regulatory Policies – The new road to financial stability?*, Singapore, World Scientific, 2010, 202-203.

[514] On the absence of a "clear objective against which the FPC and PRA can periodically be assessed", A.G. HALDANE, *Central bank psychology*, 10. In spite of the publication of financial stability indicators against which assessing systemic risk and be consequently held to account, "this has not fully allayed occasional criticisms of the Bank's regulatory policy choices"; *ibidem*, 10.

[515] A.G. HALDANE, *Central bank psychology*, 10.

> "there is a tendency here that slightly worries me, since a new function tends to be attributed to this new dimension, almost subtracted to the domain and the rule of law, a tendency to confer to the policy maker, so in essence to central banks, an almost totally discretional new function of manoeuvre of prudential instruments".[516]

The issue has been openly considered by qualified mature reflections about macro-prudential powers:

> "The main problem is not about administrative procedures, that is *to whom* should the FPC be accountable, but of technical management, *how* can one hold the FPC accountable. In the case of the MPC there is a quantified objective for price stability, with bounds on both sides which, if transgressed, require a letter of explanation. There is also a generally accepted instrument, the official short term rate, with a well-studied transmission mechanism from instrument to objective. Finally there is an Inflation Report forecast, indicating at each quarterly date how the MPC expects inflation to unfold in future, which involves an (implicit) expected path for interest rates. Against this background, it is *relatively* easy to assess what if anything went wrong, and why"[517] (emphasis original)

In addition to this – and despite litigation in the banking and financial fields being normally relatively mild *vis-à-vis* other regulated sectors[518] – it is sensible to foresee that litigation will increase in the future, also with regard to financial stability issues.[519]

Of course, this is not to table a critique of discretion. As such, what qualifies as 'discretion' of the public administration is a concept that is actually known in a number of European countries,[520] and generally stands for the possibility acknowledged to the

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[516] A. ENRIA, in BANK OF ITALY, 'Legislazione bancaria, finanziaria e assicurativa', 64; own translation. The author is the current chairperson of the European Banking Authority.

[517] C.A.E. GOODHART, 'The macro-prudential authority: powers, scope and accountability', 18-19; the reference made by the author to monetary policy is specific to the UK case, but comparable transparency and accountability settings may be deemed to exist, for instance, on the ECB side as well.

[518] Maybe because the regulatory dialogue is normally high, the presence of 'technical' administrative authorities makes it easier to have reliable interlocutors; this may be also due to a non-hostile environment, characterized instead by a cultural and technical strong contiguity between regulators and regulated subjects (not to mention the ever-present possibility of regulatory capture).

[519] The ever-present possibility of litigation is only occasionally considered by commentators when system-wide issues are at stake; for instance, on possible litigation following to recapitalization required after stress-tests, M. ONADO, 'Banche: il dilemma del regolatore', Il Sole 24 Ore, 12th July 2014. As for the financial stability side, the possibility of a lawsuit has been put forth relatively to the recent designation as 'systemically important financial institution' by the FSOC of the insurer MetLife; The Economist, *Everything is systemic: regulating MetLife*, 18 December 2014; on the actual lawsuit filed by MetLife, see later in the paragraph.

[520] It was borne in France as an attempt to shield administrative acts from judicial review, and subsequently developed in other jurisdictions, such as Austria and Germany. Subsequently, this idea underwent a long and complex process of revision, as a way in which the relationship between judicial power and administrative power actually confront each other; R. CHIEPPA (ed.),

administration to balance against each other all public and private interests coming into play before a decision is taken. Needless to say, this is one of the themes around which scholars and courts have been whirling in the last decades.[521] Generally speaking, "when exercising their public law jurisdiction, the courts review the decisions of other public bodies – that is, all agencies that have taken on the task of promoting or co-ordinating the 'public interest' – in the light of rationality, reasonableness, and proportionality of their action".[522]

What proves especially interesting in this enquiry about financial stability is the relationship between the discretion exercised by public authorities in taking decisions that naturally involve public interests, and the technical knowledge involved insofar as analytical tools of macro-prudential nature are employed. Indeed, in the case of financial stability, a further element complicating the framework is the inherent indeterminacy of the concept that act as a backdrop against which decisions must be taken. While it is true that a certain degree of indeterminacy is strictly inherent to the legal discourse, and even fully desirable for reasons of flexibility and obsolescence, the concept of 'indeterminacy' ends up significantly complicating the whole framework.

Discretion, *technical knowledge*, and *the indeterminacy of legal terms* have been provided in time with different legal elaborations, so that the different theoretical evolution actually influences the legal treatment and the space open for judicial review. Therefore, here follows a discussion of the possible answers of the courts of law in a number of jurisdictions (both national and supranational ones) to macro-prudential decisions taken by competent authorities.[523]

The German jurisdiction is the one from which it is worth starting, since it represents a legal system in which the judicial review towards acts of administrative bodies is significantly intrusive, and probably shows the highest standards in terms of judicial review.[524] In particular, reference will be made to the doctrine of the 'indefinite legal

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Materiali su Discrezionalità della pubblica Amministrazione e sindacato del Giudice, Seminari di aggiornamento sul diritto amministrativo, Avvocatura Generale dello Stato, 3 ff.

[521] Attention to the element of discretion started to be paid by Austrian administrative courts; H. EHMKE, *'Discrezionalità' e 'concetto giuridico indeterminato' nel diritto amministrativo*, Naples, Editoriale Scientifica, 2011 (original edition *Ermessen und umbestimmte Rechtsbegriffe im Verwaltungsrecht*, 1960), 24.

[522] M. LOUGHLIN, *Foundations of Public Law*, 460.

[523] The legal theoretical discussions underpinning the following part of the paragraph belong to an elaboration built up in the course of many decades by a number of bright minds. Needless to say, this does not mean to be an scientific contribution to the such elaborations, but rather an new kind of enquiry into their contemporary meaning, and their possibility to play a role in relation to the concept of financial stability.

[524] The intrusiveness characterizing the German system as for the judicial review of administrative decisions is normally explained by reference to Art. 19(4) of German Constitution (*Grundgesetz*) which in very broad terms grants legal protection via judicial review to all individuals whose rights have been infringed by any public administrative body. The elaboration of the German doctrine may be useful also due to the fact that the European Court of Justice may be (willingly or unwillingly) intellectually influenced by national models of review, also because of the activism which has been showed by German higher courts in dealing with European matters

term', or *unbestimmter Rechtsbegriff*, elaborated by the German doctrine, which is interesting for a number of reasons in the discussion about financial stability.

The doctrine of the 'indefinite legal term' actually represents a long-standing legal theoretical elaboration, which goes back to the beginning of the XXth century, when German scholars started elaborating on the interplay between indeterminacy and discretion,[525] and in particular on the very possibility of distinguishing an 'indefinite legal term' as something distinct from the discretion physiologically enjoyed by administrative authorities in performing their tasks. The issue of decisions on the side of public authorities that are not fully amenable for a complete and thorough regulation in legislative terms, and therefore require appreciation by the public authority itself, has been then framed in terms of '*unbestimmter Rechtsbegriff*' ('indefinite legal term'), with the key concept being that of 'indeterminacy'.[526] In principle, this would distinguish from '*Ermessen*' ('pure discretion') for a twofold reason, namely that it should not consist in an evaluation about interests, and that it should be conditional to compliance with non-legal (technical) rules. In other words, while discretion amounts to a 'freedom of choice' of the administration within the boundaries of law, the 'indefinite legal term' relates to a problem of interpretation, where only one of the many possible interpretations would be in harmony with the law.[527] Technically, 'indefinite legal terms' may be read as ordinary legal terms, different from the other ones just because of an indeterminacy which is higher than the one normally affecting legal terms.[528] As for judicial review, the

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in the financial field (reference is for instance, among others, to the *Bundesverfassungsgericht* (German Federal Constitutional Court) ruling on the Outright Monetary Transactions (OMT) performed by the ECB (BVerfG, 2 BvR 2728/13, 14 January 2014). For this reasons, the 'judge in Berlin' may be there for quite many 'millers' besides the one in Potsdam.

[525] With the contribution of scholars belong to different generations such as W. Jellinek (W. JELLINEK, *Gesetz, Gesetzanwendung und Zweckmäßigkeitserwägung*, Tübingen, Neudruck der Erstauflage, 1913) and H. Reuß (H. REUß, 'Der Umbestimmte Rechtsbegriff – Seine Bedeutung und seine Problematik', in Deutsche Verwaltungsblatt, no. 68/1953, 649 ff.). The former highlighted how the indeterminacy related to the 'indefinite legal term' was the one unwillingly produced by legislative activity (as opposed to the discretion entrusted on purpose to the public administration), while the latter underlined the knowledge problem (*Erkenntinsproblem*) which was related to such a legal term. Further elaborations of the doctrine were introduced by C.H. Ule (C.H. ULE, *Zur Anwendung unbestimmter Rechtsbegriffe im Verwaltungsrecht*, in *Forschungen und Berichte aus dem Öffentlichen Recht. Gedächtnisschrift für Walter Jellinek*, München, Isar Verlag, 1955) and O. Bachof (O. BACHOF, 'Beurteilungsspielraum, Ermessen und unbestimmter Rechtsbegriff im Verwaltungsrecht', in Juristenzeitung, 1955, 97 ff.). See also E. SCHMIDT-AßMANN, 'I limiti del sindacato dei tribunali amministrativi', Diritto Processuale Amministrativo, no. 4/1995, 683 ff.

[526] On the origins and the evolution of this concept, D. DE PRETIS, *Valutazione amministrativa e discrezionalità tecnica*, Padua, Cedam, 1995, 39 ff.

[527] H. EHMKE, *'Discrezionalità' e 'concetto giuridico indeterminato' nel diritto amministrativo*, Naples, Editoriale Scientifica, 2011 (original edition *Ermessen und umbestimmte Rechtsbegriffe im Verwaltungsrecht*, 1960), 41 ff.

[528] D. JESCH, 'Unbestimmter Rechtsbegriff und Ermessen in rechtstheoretischer und verfassungrechtlicher Sicht', in Archiv des Öffentliches Recht, no. 82/1957, 163 ff. The expression 'indefinite legal term' would then be misleading, since "strictly speaking, these are not legal terms, but terms from natural, economic or other sciences used in a statute. So the renaming

consequence that has traditionally attached to administrative determinations involving an indefinite legal term has been that of being amenable for full judicial review in courts.

However, the attitude towards the doctrine is not as univocal as it may appear. The concept itself of 'indefinite legal term' is indefinite in a way, not having been set by any given definition, apart from the intuitive one of an indefinite term which is relevant to the legal discourse. Many questions are still open, in relation to the exact contours of the doctrine and the extent to which its employment might shield the administrative body from judicial review. The attitude of German courts *vis-à-vis* the 'indefinite legal term' has been quite mixed over time. However, from the Sixties onwards the overall idea of allowing the court to review the way in which 'indefinite legal terms' have been applied seems to have prevailed.[529] Most importantly, scholars have often displayed scepticism, due to the difficulties in justifying the distinction between discretion and 'indefinite legal term' as well as its being allegedly useless in practice.[530]

In the past, major evolutions in the German doctrine and case-law have occurred in the area of indefinite legal terms, involving forecasts on the evolution of a factual situation that does not allow univocal solutions.[531] Indeed, it is in contexts like this the doctrine shows both its potential and its tensions.

Overall, the doctrine is shaped in terms which allow for a useful enquiry as far as financial stability is concerned. Indeed, what is interesting is the combination between an 'indefinite legal term' *and* a room for its discretionary evaluation by the administrative body. The situation seems to resemble that of 'mixed reserves' (*Mischtatbestände*) where these two things are mixed together. On top of this, the characteristics of the issue at stake may make the judgment more problematic. As for the side of the subjects that have taken the decision, less room for review is normally acknowledged to the judge in case the technical evaluation has been taken by a board, that is by many people involved in the decision. In this case, it is fictionally assumed that the discussion might have served *per se* as a device by which the decision has taken a somehow *objective* shape. Moreover, less room for review is normally also conceded to those cases where the evaluation performed by the administrative authority is characterized by a high degree of complexity or entails probabilistic evaluations.[532] What is important is that the existence of a probabilistic

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of the term to 'indefinite statutory term' would be adequate"; J.S. OSTER, 'The Scope of Judicial Review in the German and U.S. Administrative Legal System', German Law Journal, no. 10/2008, 1272.

[529] D. DE PRETIS, *Valutazione amministrativa e discrezionalità tecnica*, 96. The tendency has gone almost uninterrupted, save some early Seventies decisions argumenting in favour of a room for evaluation that ought to be reserve to the public administration in the definition of 'indefinite legal term'; *ibidem*, 98. The attitude of scholars has been quite in contrast with it, and more in favour of a greater room for evaluation reserved to administrative bodies; D. DE PRETIS, *Valutazione amministrativa e discrezionalità tecnica*, 113.

[530] H. EHMKE, *'Discrezionalità' e 'concetto giuridico indeterminato' nel diritto amministrativo*, 54-57. Overall, some recent tendency may be detected to deny the existence of a qualitative difference between 'indefinite legal terms' and 'discretion'; D. DE PRETIS, *Valutazione amministrativa e discrezionalità tecnica*, 81 ff.

[531] D. DE PRETIS, *Valutazione amministrativa e discrezionalità tecnica*, 109.

[532] D. DE PRETIS, *Valutazione amministrativa e discrezionalità tecnica*, 85 ff.

dimension in the technical evaluations made by the administrative body would not be sufficient *per se* to shield administrative decisions from review.[533] On the one hand, judicial control is exerted on the facts which are at the very basis of the prognosis. On the other hand, this control impinges upon the criteria chosen in order to evaluate these facts, as well as on their adequacy for the case at stake and on their correct application. In addition to this, the control is also extended to the proportionality, intended as the relationship between the uncertainty and the consequences entailed by the prognosis and the actions taken by the administrative body itself. What is *not* touched by the judicial review is the prognostic evaluation *stricto sensu* made by the administrative body.[534]

In coherence with the employment of the *unbestimmter Rechtsbegriff* in relation to financial market supervision issues,[535] the doctrine may actually play a role in the case of financial stability, where decisions would probably take the form of collective ones, and would show much complexity, besides heavily relying on probabilistic evaluations. With a statement that curiously echoes the epigraph to this Chapter, it has been argued that *all* legal concepts are indeterminate, but some of them would be *more* indeterminate than others.[536]

One final element is that no *Beurteilungsspielraum* (room for discretion for the public authority, correspondingly reflecting upon reduced room for courts to perform a judicial review) would be acknowledged in case of administrative decisions actually impinging on fundamental rights;[537] but what if we consider that financial stability indirectly (but not even too much) impinges upon social rights enshrined in constitutional texts?

In the Italian legal order the issue here at stake has been dealt with under the label of '*discrezionalità tecnica*' ('technical discretion'), with the key concept being that of 'technique'. As for judicial review, if compared to the German system, the Italian one has been in time quite deferential to administrative decisions involving the exercise of technical discretion, with limited grounds open for judicial review. The distinction has been often employed between 'administrative discretion' and 'technical discretion', the first substantiating in choices in the name of the public interest, while the second in the application of technical and scientific rules (however, with the latter always entailing some kind of the former).[538]

In general, courts are quite reluctant to acknowledge the very possibility to review decisions taken through exercise of technical discretion; justification to this has not found a clear-cut basis to date, being generally justified, among other things, with the knowledge

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[533] E. SCHMIDT-AßMANN, *Art. 19 Abs. IV*, in T. MAUNZ, G. DÜRIG, 'Grundgesetz, Kommentar. Loseblattsammlung seit 1958', München, Verlag C.H. Beck, 2003, 130 ff.

[534] E. SCHMIDT-AßMANN, *Art. 19 Abs. IV*, *ibidem*.

[535] For instance, A. THIELE, *Finanzaufsicht. Der Staat und die Finanzmärkte*, Tübingen, Mohr Siebeck, 2014, 462-483.

[536] M. LUCIANI, *La produzione economica privata nel sistema costituzionale*, Padua, Cedam, 1983, 108-109. Following to this, doubts have been casted on the German doctrine of the indefinite legal term; however, considerations pertaining to the sphere of constitutional law, that requires then partially different considerations when dealing with administrative issues.

[537] P. LAZZARA, *Autorità indipendenti e discrezionalità*, Padua, Cedam, 2002, 184.

[538] D. DE PRETIS, *Valutazione amministrativa e discrezionalità tecnica*, Padua, Cedam, 1995, 223 ff.

and technical skills that are with administrative bodies, and not with judges. Interestingly enough, a substantial part of scholars is against this impossibility to review decisions. The problem is that this is based upon an idea under which the administration should merely apply technical rules, without any room being left for the balancing of interests at stake. With the case of financial stability this idea would actually be called into question, since the very application of 'technical' rules would be entrenched with choices of political nature.[539]

Italian courts have employed the doctrine of the 'indefinite legal term' only from the case-law following to the landmark decision of the Council of State no. 601/1999. The technical discretion enjoyed by an administrative body and entailing an 'indefinite legal term' has been deemed subject to review only in limited cases, such as the apparent mistake (*errore manifesto*) or the illogical character (*manifesta illogicità*) of the administrative decision taken.[540] Nowadays, it is reasonable to assume that in the presence of multiple – equally rational – technical solutions, courts will refrain from challenging the solution chosen by the public administration on the ground that the latter, instead of the former, is the subject that has been institutionally charged with the task of performing technical evaluations.

By the same token, up to date decisions of Bank of Italy (that may be taken as a proxy of the judicial standard of review of the macro-prudential authority that is about to be established) have been challenged only where manifestly erroneous or unreasonable.[541] After all, and without embarking in any comprehensive assessment of the state-of-the-art, the tendency among Italian scholars to remove the political element naturally embedded in administrative choices was already spotted by Massimo S. Giannini, and actually populated in various ways the scientific production of the last quarter of the XXth century.[542] To many extents, judicial standards of review of administrative decisions taken on grounds of financial stability are likely to stretch this very tendency to its extreme; they will perhaps qualify as the administrative decisions – thus shielded from intrusive judicial review – mostly imbued with political content.

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[539] The discussion about technical discretion in the administrative field took momentum in Italy in the second half of last century, when the tasks entrusted to public administrations prompted a deeper reflection on the discretion recognized to them. Scholars became progressively aware of how an intellectual elaboration was needed in order to strike a balance between the autonomy of administrative bodies and the need to comply with the rule of law; on this see F. LEDDA, 'Potere, tecnica e sindacato giudiziario sull'amministrazione pubblica', Diritto Processuale Amministrativo, 1983, 371 ff.

[540] However, this judgment (Cons. Stato, IV Sez., n. 601 of 9 April 1999) has marked quite a substantial shift towards increased possibility to challenge decisions taken under 'technical discretion'; in any case, courts admitted at times that the purported distinction between appreciation of the public interest (that may not be challenged) and technical evaluation (that may be challenged) is quite blurred and the two are both chronologically and logically bundled.

[541] On the need of always keeping in mind that 'reasonableness' is no rule governing discretion, but rather a 'logic' – indeed, a rather opaque one – that shapes the use of discretion itself; F. MERUSI, *Ragionevolezza e discrezionalità amministrativa*, Naples, Editoriale Scientifica, 2011, 51.

[542] P. LAZZARA, *Autorità indipendenti e discrezionalità*, Padua, Cedam, 2002, 140.

From a comparative viewpoint, of much interest is a discussion on the standards of judicial review that might be adopted in the Anglo-Saxon legal orders; in particular, what is noteworthy is the influence that those courts could possibly exert towards greater deference *vis-à-vis* the decisions taken by administrative bodies.

Indeed, common law jurisdictions are not normally prone to grant extensive judicial review as far as matters of 'technical discretion' are concerned.[543] As for the United States, the most interesting theoretical elaboration is the so-called *Chevron doctrine* (also known as *Chevron test* due to its logical structure), that actually shapes the US system of judicial review of administrative decisions. Under this doctrine, deference should be ensured by courts of law to administrative decisions following statutory interpretation in line with a twofold test that has to be verified.[544] In the words of Justice Stevens,

> "when a court reviews an agency's construction of the statute which it administers, it is confronted with two questions. First, always, is the question whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress. If, however, the court determines Congress has not directly addressed the precise question at issue, the court does not simply impose its own construction on the statute, as would be necessary in the absence of an administrative interpretation. Rather, if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute".[545]

In the case of financial stability, the 'constructive ambiguity' that is inherently attached to the ultimate objective of financial stability is likely to make the first step of the test to be easily met.[546] Moreover, it is likely that macro-prudential authorities will also easily adopt permissible constructions (in the meaning of a reasonable accommodation of conflicting policies) of their powers, therefore allowing for the second step of the test to be met as well. In spite of having been judged as "functionally equivalent" to the

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[543] G.C. SPATTINI, 'Le decisioni tecniche dell'amministrazione e il sindacato giurisdizionale', Diritto Processuale Amministrativo, no. 1/2011, 162-163, 169 ff.; S. MIRATE, 'L'alternativa tra forma e sostanza: un'analisi fra vecchi e nuovi confini del *judicial review of administrative action* nel Regno Unito', in G. FALCON (ed.), Forme e strumenti della tutela nei confronti dei provvedimenti amministrativi, 149 ff.

[544] On the need to interpret the test as a single-step, M. STEPHENSON, A. VERMEULE, 'Chevron Has Only One Step', Virginia Law Review, no. 95/2009, 597-609.

[545] *Chevron U.S.A. Inc.* v. *Natural Resources Defense Council, Inc.*, 467 U.S. 837 (25 June 1984), paragraph 842-843; the judgment was rendered on matters of environmental law. As a general rule, under Art. 706 of the Administrative Procedure Act, courts are required to set aside administrative acts insofar as they are found to be, among other things, 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law'; ' contrary to constitutional right, power, privilege, or immunity'; 'in excess of statutory jurisdiction, authority, or limitations, or short of statutory right'; 'without observance of procedure required by law'.

[546] On constructive ambiguity, see later in the paragraph.

indefinite legal term doctrine,[547] the Chevron test seems likely to grant in principle less space for judicial review of decisions taken on grounds of financial stability.[548]

What is true is that, somehow close to the German system, the Chevron doctrine is framed in terms of allocation of authority between courts and administrative agencies.[549] Therefore, the most delicate test in the U.S. system ends up being the one of the qualification of administrative activity as one of statutory interpretation, or rather as an exercise of discretion. The latter would call for a more intrusive look into the exercise of power that would extend to the logical steps followed by the administration in taking the decision, along with the consideration of all relevant elements. However, in order to do so the court should assume beforehand that the case at stake is one of policy-making rather than law-finding. [550]

An answer to all the doubts expressed so far may come early from US courts. Indeed, on 13 January 2015 MetLife (as already announced shortly after its designation by the FSOC as 'non-bank systemically important institution') filed an action in the U.S. District Court for the District of Columbia with the aim of overturning the FSOC decision. The very possibility of judicial review is enshrined in Section 113(h) DFA, under which designated companies may access federal courts to ask 'that the final determination be rescinded'. Such very possibility was recognized by the Congress exactly for the important consequences attached to this designation. It will be now up to the courts to imbue with meaning the notion of financial stability that would be allegedly endangered by a potential distress at MetLife.

An additional legal order that needs to be examined here is the European Union's; administrative decisions that will take place at the level of the European Union (namely, those assumed by the European Central Bank in its macro-prudential vests) will be subject to ECJ judicial review.[551] Under Art. 263 TFEU the review of the legality of acts

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[547] J.S. OSTER, 'The Scope of Judicial Review in the German and U.S. Administrative Legal System', German Law Journal, no. 10/2008, 1273; however, on differences between the two *ibidem*, 1284.

[548] Indeed, the very same author has also acknowledges that, in spite of the asserted functional equivalence, if the Chevron test were employed in Germany that "would shift the balance of powers towards the executive"; J.S. OSTER, 'The Scope of Judicial Review in the German and U.S. Administrative Legal System', 1295.

[549] As discussed, differently from the Italian system, that is rather framed in terms of discretion and technical character of decisions.

[550] On the blurred relationship between policy-making and statutory interpretation, C.R. SUNSTEIN, 'Beyond Marbury: The Executive's Power to Say What the Law Is', Yale Law Journal, no. 115/2006, 2580-2610. The author underlines the actual need that may emerge for the executive to make "judgments of policy and principle on which resolution of statutory ambiguities often depends" due to the better position enjoyed for this purpose as compared to the legislative. In the case of financial stability the question may be complicated by its potential qualification as a matter impinging on property rights, that find protection under the Fifth Amendment of US Constitution, therefore qualifying the matter as a constitutional one.

[551] ECJ review would also extend to national acts that *presuppose* an ECB act, insofar as reference for a preliminary ruling would then be needed under Art. 267 TFEU; M. PERASSI,

of European Union bodies producing legal effects *vis-à-vis* third parties[552] is performed on the grounds of review of 'lack of competence, infringement of an essential procedural requirement, infringement of the Treaties or of any rule of law relating to their application, or misuse of powers'.[553] In the case of decisions taken on grounds of financial stability, what seems to matter more is the need for the administrative body not to abuse the discretion that has been granted to it by mean of a (manifest) error of assessment or an abuse of power.[554] As for the manifest error of assessment, one landmark case in European case-law is C-12/03 *Commission v. Tetra Laval BV* (15th February 2005), where the ECJ clearly stated that it retains the power to "establish whether the evidence relied on is factually accurate, reliable and consistent, but also whether that evidence contains all the information which must be taken into account in order to assess a complex situation and whether it is capable of substantiating he conclusions drawn from it". What follows from this is that "a distinction is therefore drawn between the assessment of the institution (not reviewable) and the grounds for the assessment (reviewable)".[555] This seemingly simple solution proves of course quite elusive in practice, and may be even the more so with the case of financial stability

> "the evaluation of whether the evidence is factually accurate, reliable and consistent requires evaluation, not simply observation ... this is *a fortiori* so in relation to issues such as whether the evidence contains all the information that must be taken into account in order to assess a complex situation and whether the evidence is capable of sustaining the conclusions drawn from it"[556]

Quite in contrast with the approach taken by U.S. courts following to the establishment of the Chevron doctrine, the approach taken by EU jurisprudence seems to have considerably consolidated around the idea that it is with the ECJ to "lay down the meaning of the disputed term", on the underlying premise that "courts should be the

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'Ruolo della Banca d'Italia e dell'autorità giudiziaria nel preservare l'integrità del sistema economico finanziario', Banca Impresa Società, no. 2/2014, 365-366.

[552] Reference is to acts other than recommendations and opinions.

[553] The grounds on which judicial revision can take place have been recalled in many cases, for instance in Case T-263/07 *Estonia v. Commission* (23rd September 2009), where is state that the Court 'cannot take the place of the Commission on issues where the latter must carry out complex economic [...] assessments [...] the Court is obliged to confine itself to verifying that the measure in question is not vitiated by a manifest error or a misuse of powers, that the competent authority did not clearly exceed the bound of its discretion and that the procedural guarantees [...] have been fully observed'.

[554] The last ground has been correctly linked to the ground historically developed by French administrative law, the 'détournement de pouvoir'; P.J.G. KAPTEYN, A.M. MCDONNELL, K.J.M. MORELMANS, C.W.A. TIMMERMANS, *The Law of the European Union and the European Communities*, Alphen aan den Rijn, Wolters Kluwer, 2008, 453.

[555] D. CHALMERS, G. DAVIES, G. MONTI, *European Union Law*, Cambridge, Cambridge University Press, 2010, 405.

[556] P. CRAIG, *EU Administrative Law*, Oxford, Oxford University Press, 2006, 470.

arbiters of all legal meaning".[557] Overall, the ECJ has set significantly high standards of review in terms of possibility for the Court to challenge the very substance of decisions taken, for instance, by the European Commission on technical grounds of economic nature. The existence of a risk assessment of scientific nature or the need for evaluation of a complex situation under the factual profile entails limitation of judicial review.[558] This being the standard, the actual intensity of review may obviously change over time; the last trends in case-law seem to show a more intrusive review than the one in early jurisprudence, albeit less intensive than in some landmark cases such as *Tetra Laval*.[559]

A couple of additional remarks still need to be added to this framework.[560]

It is especially important to underline the idea that has been advanced by scholars, that the technical discretion enjoyed by authorities may be somehow counterbalanced – or at least mitigated – by the duty to apply due process principles, therefore giving the opportunity to challenge decisions *before* they are taken. In this way, control may be exerted upon public authorities in a kind of preventative way. To this end, the administrative regime that will apply to macro-prudential decisions taken at the ECB level may not be entirely reassuring. Indeed, while micro-prudential decisions enjoy the safeguards provided by Art. 22 SSMR (that makes direct and exclusive reference to decisions taken by the ECB under Art. 4 SSMR, i.e. decisions of micro-prudential

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[557] P. CRAIG, *EU Administrative Law*, 405-407.

[558] "The court should not substitute its assessment of the facts for that of the Community institution, but should confine its review to manifest error, misuse of power or clear excess in the bounds of discretion"; P. CRAIG, *EU Administrative Law*, 408, 416. See also ECJ Case C-389/10, *KME Germany and Others vs European Commission*, on the issue of whether the decision taken was assisted by the examination of sufficient and reliable data. As for the review of risk-based regulation, the leading case is T-13/99 *Pfizer Animal Health SA* v *Council of the European Union*, 12 September 2002, characterized by an overall quite high degree of intensity of review.

[559] P. CRAIG, *EU Administrative Law*, 425.

[560] Additionally, it is worth reminding that what has been discussed so far is relevant for the hypothetical case where one or more regulated subjects might look for judicial review of a decision that affects them. However, given the inherently public nature of financial stability, the theoretical possibility might also be examined of an action taken by citizens, for instance on grounds of inactivity in a case where macro-prudential action would have been needed, and instead no decision has been taken by public administrations. This inactivity may hypothetically be challenged via an action against 'failure to act' under Art. 265 TFEU. The problem here arises of the very access to ECJ jurisdiction (*locus standi*). Indeed, the key ruling is the long-dated Case 25/62 *Plauman & Co. v. Commission* (15th July 1963), a test of 'individual concern' stemming from the idea that judicial review is open to those that are individually concerned, in the meaning that the decision taken "affects them by reason of certain attributes which are peculiar to them or by reason of circumstances in which they are differentiated from all other persons"; people representing in some ways an interest different from those directly at stake might be granted access to judicial review in case they enjoy a recognition from a procedural viewpoint in the process leading up to the decision; Case T-38/98 *Associazione Nazionale Bieticoltori v. Council* (8th December 1998). Therefore, it seems a sensible forecast to assume that financial stability is likely not to be a way through which group action may ever be taken, with the further consequence that something that is openly or impliedly acknowledged as a public interest risks remaining *mute* from a judicial viewpoint.

nature),[561] macro-prudential ones seem to fall short of such safeguards. The key question arising is then if European Union law may provide for such safeguards otherwise. In principle, protection would be granted by Art. 41 Charter of Fundamental Rights of the European Union on the right to a good administration:[562]

> (1) Every person has the right to have his or her affairs handled impartially, fairly and within a reasonable time by the institutions, bodies, offices and agencies of the Union
> (2) This right includes: (a) the right of every person to be heard, before any individual measure which would affect him or her adversely is taken; (b) the right of every person to have access to his or her file, while respecting the legitimate interests of confidentiality and of professional and business secrecy; (c) the obligation of the administration to give reasons for its decisions.

However, the right specifically enshrined in Art. 41(2)(a) CFREU requires an *individual* measure to be taken. Therefore, as it has been convincingly argued,[563] since decisions of macro-prudential nature would naturally tend to lack any individual addressee, this safeguard could not apply to the case; this approach seems actually confirmed by some ECJ case-law.[564]

As an additional element, Art. 6 European Convention on Human Rights (ECHR) deserves consideration. Notoriously, Art. 6 ECHR implies the concept of 'full jurisdiction'.[565] Indeed, the right to a fair trial, that comprises the review of administrative decisions, has been the object of a number of decisions that seem particularly interesting in the context examined hither. The European Court on Human Rights has taken the chance to clarify that, even in presence of decisions of highly technical nature, the right to a fair trial in the meaning of a 'full jurisdiction' must be satisfied. This seems especially valuable in the light of the discussed lack of instruments for participation to the administrative proceeding that is granted to the addressees of macro-prudential decisions. In two judgments rendered against the Czech Republic, the ECoHR has clarified that,

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[561] Art. 22 SSMR ('Due process for adopting supervisory decisions') provides, among other things, the opportunity to be heard for the addressee of a decision, the duty to base its decisions on objections on which comments were allowed, the right of defence, the access to ECB's file, and the duty to state reasons on which decisions were based.

[562] As for the legal status of the Charter, it seems worth reminding that, originally proclaimed in 2000 although with no binding legal effect, it became legally binding within the European Union with the entry into force of the Treaty of Lisbon in 2009.

[563] R. D'AMBROSIO, 'Due process and safeguards of the persons subject to SSM supervisory and sanctioning proceedings', Bank of Italy, Quaderni di Ricerca Giuridica della Consulenza Legale, no. 74/2013, 58-59.

[564] In case C-221/09 *AJD Tuna Ltd* vs *Direttur tal-Agrikoltura u s-Sajd* (17 March 2011) the ECJ held that the right to be heard under Art. 41(2)(a) does not apply to measures of general application, being rather geared at guaranteeing the right to be heard on individual measures that are to be taken.

[565] M. ALLENA, 'Il sindacato del giudice amministrativo sulle valutazioni tecniche complesse', Diritto Processuale Amministrativo, no. 4/2012, 1606 ff.

however technical the nature of the issues at stake (the two cases were both related to bank insolvency proceedings), national courts were obliged to carry out a thorough analysis of all relevant elements, including factual ones.[566]

Some peculiarities of the framework described may well derive from the peculiar institutional standing of the European Union, where the legislative and administrative powers are not sharply separated, since more generally powers are not divided, but rather shared.[567] As for national jurisdictions, scholars have underlined signals of (partial) convergence of models of judicial review of administrative decisions,[568] something that seems all the more important in those fields – like the banking one – where convergence is already high in regulation and supervision.

Getting closer to drawing some conclusions from the above, some important issues for discussion are still outstanding.

From an operational perspective, and for the reasons that will be now explained, it is worth remarking that decisions taken by public administrations in the exercise of technical discretion do presuppose in-depth, complex technical analyses, but also employ the 'ordinary' syllogism structure.[569] A rather problematic aspect is exactly that judicial review of 'technical decisions' taken by administrative bodies often tend to employ a rather simplistic image of the syllogism between a 'major premise' that is the regulatory text, a 'minor premise' that is the fact, with the act of subsuming the latter in the former that determines the decision. The problem with concepts coming from outside the legal world is the possibility in these cases of a *circularity* of the syllogism. It is the fact itself, along with its qualification (minor premise) to partially determine the meaning of the 'indefinite legal term' enshrined in the law (major premise) thus giving birth to a circular mechanism of progressive focalization of the two. In this way an undue interference between the fact and the legal term takes place,[570] something that may well happen with financial stability. What fundamentally follows from this is that, to some extent, technical discretion itself imbues the legal text with meaning, so that the process assumes both a deductive and an inductive character.[571] A large part of the story with financial stability is

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[566] ECoHR case no. 29010/95 of 21 October 2003 *Credit and Industrial Bank* v *the Czech Republic*; and ECoHR case no. 72034/01 of 31 July 2008 *Družstevní záložna Pria and Others* v *the Czech Republic*.

[567] S. CASSESE, *Il diritto amministrativo: storia e prospettive*, Milan, Giuffrè, 2010, 470.

[568] G. FALCON , 'Verso una convergenza dei modelli di processo amministrativo?', in G. FALCON (ed.), Forme e strumenti della tutela nei confronti dei provvedimenti amministrativi, Padua, Cedam, 2010, 8 ff.

[569] P. LAZZARA, *Autorità indipendenti e discrezionalità*, Padua, Cedam, 2002, 144.

[570] P. CARPENTIERI, 'Azione di adempimento e discrezionalità tecnica (alla luce del Codice del processo amministrativo', in Diritto Processuale Amministrativo, no. 2/2013, 417 ff. The point is also made in D. DE PRETIS, *Valutazione amministrativa e discrezionalità tecnica*, Padua, Cedam, 1995, 397 ff.

[571] In trying to answer to the question of what is the legal weight of the 'indefinite legal terms', a long dated theory would indeed state that they are an element, along with other ones, which concur to the description (and thus identification) of the public interest; therefore the public interest itself would be the criterion for its interpretation; F. LEVI, *L'attività conoscitiva della pubblica amministrazione*, Turin, Giappichelli, 1967, 263 ff.

about the evaluation of facts *and* their very qualification; moreover, with social phenomena often no clear-cut distinction can be made between object and concept, insofar as studying *objects* amounts to study *concepts*.[572] Put in a further different way, what may happen with financial stability is that the delimitation of the problem in itself might coincide with the identification of public interest.[573]

To treasure the extremely valuable contribution given by hermeneutics to the legal field,[574] with financial stability what seems utmost needed is to keep in mind the *structural* relationship existing between *quaestio juris* and *quaestio facti*.[575] The interpretation of the interplay among regulatory text, factual dimension and policy considerations shall not disregard the "candid recognition that assessments of policy are sometimes indispensable to statutory interpretation".[576] Technical discretion comes into play when the administrative body shall resort to notions lying outside the legal science, and indicates the free appreciation enjoyed by the administration itself. The category itself of 'technical discretion' is far from being uncontested. In any case, what matters is that the distinctive element of such 'technical' discretion is normally found *not* in the balance between different interests, *but* rather in the formulation of a judgment related to a *factual* situation. This distinction seems extremely difficult in the case of financial stability.

In other words, technical rules would be distinctive of the employment of technical discretion, somehow opposed to public interest as a yardstick for the exercise of administrative discretion. Technical discretion would be such because of both the non-political character of the evaluations made by the relevant public administration

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[572] D.M. PAPAYANNIS, 'Teorie economiche, spiegazione funzionale e spiegazione concettuale del diritto', Ars Interpretandi, no. 2/2013, 69 ff.

[573] This would imply blending the long-standing distinction that has been drawn between a technically incorrect, and therefore presumably false decision of the administrative body and one which is arguable, but grounded on a sound application of the technical rule; F. LEDDA, 'Potere, tecnica e sindacato giudiziario sull'amministrazione pubblica', in Diritto Processuale Amministrativo, no. 4/1983, 263 ff.

[574] Starting from Hans-Georg Gadamer, and from the contraposition between truth and method, the role of pre-comprehension has been explored between the interpreter and the text in its different possible meanings. In approaching the text the former would have a pre-comprehension of it, in this way giving a meaning to the latter. The interpretation could be either correct or incorrect, but in any case it will presuppose a pre-comprehension. On this, see G. ZACCARIA, *La comprensione del diritto*, Rome-Bari, Laterza, 2012, viii.

[575] In a way, this is also where the 'hermeneutic circle' starts from. On the one hand, if no hypothesis for interpretation is formulated, the normative text is unable to tell anything; on the other hand, how that hypothesis was trustworthy depends on the text itself; G. ZACCARIA, *La comprensione del diritto*, viii-ix. In the words of Karl Engisch, this would express the wandering gaze of the interpreter ('*Hin und Herwandern des Blicks zwischen Obersatz und Lebenssachverhalt*'). The difficulty of distinguishing between factual and normative questions is actually acknowledged by scholars, although its disruptive potential is never really explored; D. DE PRETIS, *Valutazione amministrativa e discrezionalità tecnica*, 396. On the structure of subsuming and balancing judgments and their possible logic qualification, R. ALEXY, 'Balancing and Subsumption. A Structural Comparison', Ratio Juris, no. 4/2003, 433 ff.

[576] C.R. SUNSTEIN, 'Beyond Marbury: The Executive's Power to Say What the Law Is', 2587.

(negatively), and the scientific character of the criteria applied in order to perform such evaluation (positively).[577] This is a pattern that does not work perfectly with financial stability. On the one hand, either clearly amenable for identification or masked by neutral choices, macro-prudential *technique* is all about conflicting interests and their appreciation. On the other hand, the attempt to build a comprehensive and widely agreed set of macro-prudential tools aims exactly at this, namely at enhancing the 'scientific character' of the rule applied in the exercise of technical discretion.

From an institutional perspective, "a recognition of the executive's law-interpreting power can be understood as a natural outgrowth of the twentieth-century shift from judicial to executive branch lawmaking" as a quest for specialized competence and democratic accountability.[578] In the case of financial stability, this entails that reference in regulatory texts to financial stability partially amounts to a 'delegation of meaning' towards the technical sphere mastered by the executive.

Of course, this is a part of a more general trend of contemporary legal orders of the developed world towards an increased technical nature of the juridical language. This is both a by-product of modernity and a consequence of the increased number of cases in which the legislator sought to establish a 'privileged relationship' with some technical languages belonging to particular field of knowledge. But what are the most important consequences to this? The first result is a semantic loss affecting the juridical language, that is driven by a loss in rigorousness. Moreover jurists, those who were previously masters of the juridical language, actually lose full linguistic control of the legal language.[579] The specific danger associated with this issue is depriving the interpreter of his competences, by transferring them to the masters of some specialist jargon.[580]

Having said this, the call for an even more technical nature of policy evaluations through the involvement of international organizations sounds quite surprising, as if distancing oneself were sufficient to judge whether a policy decision was good or not.[581]

Additionally, the state-of-the-art now illustrated is also populated by a flawed and dangerous drift from *technicality* to *objectivity*. It has been posited that the alleged 'objectivity' of 'technical rules', or anyway their conformity to the 'state-of-the-art' agreed within the expert community, would in some way compensate for their lack of a legal binding character.[582]

In the past, the need for decisions taken by public administrative bodies to be 'measurable' from a rational viewpoint was motivated with the argument that if the

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[577] D. DE PRETIS, *Valutazione amministrativa e discrezionalità tecnica*, 172 ff.

[578] C.R. SUNSTEIN, 'Beyond Marbury: The Executive's Power to Say What the Law Is', 2595. As a secondary effect, this would also allow for swift policy adjustment.

[579] G. ZACCARIA, *La comprensione del diritto*, Rome-Bari, Laterza, 2012, 123.

[580] G. ZACCARIA, *La comprensione del diritto*, 124. The consequence is the emergence of a *multilingual* language with a number of people and expertise involved, and organized around three poles: common language, juristic language, and the technical and specialist one; *ibidem*, 125.

[581] EUROPEAN SYSTEMIC RISK BOARD, *Flagship Report on Macro-prudential Policy in the Banking Sector*, 18.

[582] G. MORBIDELLI, *Il diritto amministrativo tra particolarismo e universalismo*, Naples, Editoriale Scientifica, 2012, 56.

sovereign were to pursue the common good, this had to be done rationally.[583] Indeed, rationality has served in the past as a restraint to the arbitrary use of power. The case of financial stability seems to unveil the danger that, quite on the contrary, rationality could now end up as a tool for some kind of arbitrary (as only partially subject to judicial review) use of power.

At a more practical level, there has been, at times, the necessity to accommodate for the need to exert some kind of control upon macro-prudential authorities in order to avoid, from the early stages of the decisional process, the fall of questions that are public in nature outside appropriate controls.[584]

A large part of this attempt is the development of the concept of 'constrained discretion', an expression that was first employed in the area of monetary policy with reference to inflation-targeting[585] and has gained as since many advocates. To act under 'constrained discretion' would amount to entrust the competent authority with the power of using the relevant technical instruments, while at the same time constraining the use of this power within shared and harmonized rules.[586] For the specific case of financial stability, the concept has been deemed to have a twofold meaning, namely relatively to the procedures that have to be followed in order to prevent undesired effects deriving from improper use of the tools (such as national ring-fencing); and the promotion of transparency, predictability and accountability.[587] The ESRB has also paid attention to the concept of 'guided discretion' in the implementation of macro-prudential policy, although it focused on just a few aspects. The first is the need for policy-makers to overcome a possible inaction bias, that are made apparent by the fact that "the costs of activating a policy are short-term and visible, while the benefits are long-term and invisible".[588] While a closely-disciplined rule-based approach could help in this respect, the indicators available may not be apt for the purpose, and the system itself may innovate at a pace greater than the capacity to adjust to it. Secondly, the model of 'guided discretion' developed for the purpose of the countercyclical capital buffer (described as the

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[583] F. MERUSI, *Ragionevolezza e discrezionalità amministrativa*, Naples, Editoriale Scientifica, 2011, 8.

[584] The implementation of macro-prudential policy would go through four main stages, namely "the risk identification stage, where relevant indicators help detect and assess vulnerabilities"; "the instrument selection and calibration stage"; "the implementation and communication stage, where instruments are activated"; and "the evaluation phase, where the impact of instruments is assessed in view of possible adjustment/de-activation"; EUROPEAN SYSTEMIC RISK BOARD, *Flagship Report on Macro-prudential Policy in the Banking Sector*, 8 ff.

[585] B. BERNANKE, F. MISHKIN, 'Inflation Targeting: A New Framework for Monetary Policy?', Journal of Economic Perspectives, no. 2/1997, 97 ff.

[586] A. ENRIA, in BANK OF ITALY, 'Legislazione bancaria, finanziaria e assicurativa', 64.

[587] G. NAPOLETANO, 'Legal aspect of macro-prudential policy in the United States and in the European Union', 145 ff.

[588] EUROPEAN SYSTEMIC RISK BOARD, *Flagship Report on Macro-prudential Policy in the Banking Sector*, 14; EUROPEAN SYSTEMIC RISK BOARD, *The ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector*, 173-175.

"combination of rules-based principles and discretion") is deemed broadly satisfactory and implicitly taken as an example.[589]

Refraining for now from evaluating the reach of this concept, suffice here to underline that some consensus seems to have emerged among scholars, supervisors and international standards setters altogether about the fact that "financial stability still remain an art of balance for financial authorities",[590] that macro-prudential policy "is not an exact science"[591] and "is largely judgmental, and will remain so for some time to come".[592]

Some directions from the literature actually point at the possibility to overcome uncertainty by means of appropriate rules of conduct, i.e. rules maintaining that, in presence of presumptive indicators, macro-prudential authorities would be compelled to act, or otherwise explain their inaction.[593] At a more institutional level, the ECoHR has also given a couple of directions on how to practically solve the issue of judges who are technically inapt to review decisions entailing a deep technical appreciation in the banking and financial fields. The solutions suggested include technical consultancies rendered at law courts, along with the inclusion of specialists in the panels of judges.[594] However reasonable such suggestions are, at a closer look reveal that they may prove relatively useless for the case of decisions taken on grounds of financial stability. Technical consultancies are likely to be highly controversial, and the chronological element that may be inherent to many macro-prudential policy decisions may complicate the issue of the evaluation of the probabilistic element.

Solutions proposed shall also properly account for the delicate issue of responsibility. Indeed, a drift probably exists for administrative authorities in the banking and financial sectors to be entrusted with more and more *responsibilities* (from a factual viewpoint), but at the same time not really bearing *responsibility* (from a legal viewpoint) for them.[595] However, supervisors normally enjoy quite a wide limitation of responsibility (with consequent legal protection). As effectively summarized by the ECB in its opinion on the conferral of supervisory tasks under the SSM, there is both a normative and a jurisdictional global trend towards limitation of supervisors' liability, that should be

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[589] EUROPEAN SYSTEMIC RISK BOARD, *Flagship Report on Macro-prudential Policy in the Banking Sector*, 14.

[590] D. SCHOENMAKER, *Governance of International Banking. The Financial Trilemma*, 24.

[591] So that "some fuzziness will probably be inevitable for the actual operation of policy"; BANK OF INTERNATIONAL SETTLEMENTS, *Macroprudential instruments and frameworks: a stocktaking of issues and experiences*, 7; an extensive literature review is also provided, *ibidem*, 16-22.

[592] F. PANETTA, 'On the special role of macroprudential policy in the euro area', 6.

[593] C.A.E. GOODHART, 'The macro-prudential authority: powers, scope and accountability', 19-20.

[594] ECoHR case no. 49429/99 of 24 November 2005, *Capital Bank AD* v *Bulgaria*.

[595] This drift is witnessed by a number of elements, such as the diffuse employment of stress tests, as a mean to share with the market a number of sensitive information. The same may be said for the information required to some or all market participants; if public authorities and market participants are put on the same footing from an information perspective, then the former will likely bear a somehow more tenuous responsibility vis-à-vis the latter. This point is made by D. MASCIANDARO, 'Sono giudizi parziali che rischiano di favorire la speculazione', La Repubblica, 25th October 2014.

incurred only in cases of intentional misconduct or gross negligence. Such limitation is justified on a number of agreeable grounds, that mainly point at

> "the complexity of supervisory tasks. Supervisory authorities are under an obligation to protect the plurality of interests in a well-functioning banking system and the financial system as a whole. Furthermore, supervisory authorities need to operate, in particular in crisis times, under tight time constraints"[596]

Other grounds adduced as evidence quite tautologically point at the global consensus reached on this issue at the level of national banking supervisory legislation; of the ECJ case-law; and of the Basel Core Principles.[597] In any case, however agreeable these principles are, they have been formulated with micro-prudential policy actions in mind; the extent to which they should be maintained for the case of macro-prudential policy is disputable.

Overall, the debate seems to be squeezed between the Scylla of the need for a proper involvement of politically responsible subjects, since "expert officials can help (and have helped) to frame public debate on how much resilience is warranted, but the degree of protection society wants is not for unelected officials to determine on their own";[598] and the Charybdis that these very subjects may be strongly biased, since "taking away the punch-bowl just when the party is getting going' is never going to make one beloved".[599]

From a pure legal perspective, what can be said is that while the key issues about judicial review of public authorities in charge of tasks in the banking and financial field have not substantially changed in time,[600] what is new (as it has been shown by the discussion above) is a tendency under which the more area of indeterminacy is opened up, the more it stretches to contain former public interests, and the more will be the space subtracted for public debate and deliberation.

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[596] EUROPEAN CENTRAL BANK, 'Opinion of the European Central Bank of 27 November 2012 on a proposal for a Council regulation conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions', (CON/2012/96), Paragraph 1.4.

[597] According to the latter, "supervisory laws must protect the supervisor and its staff against lawsuits for actions taken and/or omissions made while discharging their duties in good faith and for the costs of defending such actions and/or omissions, so as to further enhance the position of the supervisory authority vis-à-vis the supervised entities"; EUROPEAN CENTRAL BANK, 'Opinion of the European Central Bank of 27 November 2012 on a proposal for a Council regulation conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions', (CON/2012/96), Paragraph 1.4.

[598] P. TUCKER, 'The political economy of macroprudential regimes', in D. SCHOENMAKER (ed.), *Macroprudentialism*, 70.

[599] C.A.E. GOODHART, 'The macro-prudential authority: powers, scope and accountability', OECD Journal, Financial Market Trends, no. 2/2011, 17.

[600] E. GALANTI, 'Discrezionalità delle autorità indipendenti e controllo giudiziale', Bank of Italy, Quaderni di Ricerca Giuridica della Consulenza Legale, no. 64/2009, 75.

3. The public foundations of transnational banking regulation

"To paraphrase John Donne, financial industry
is not an industry entire of itself; it is a piece
of the continent, a part of the main"

UK Parliament, *Archived Commons Hansard*, 11 March 2013

3.1 The complex search for public interest

As it has been clearly put by institutional economic theory, a legal order should be primarily geared at the establishment of institutional arrangements capable of channelling individual economic efforts towards activities generating as much economic growth as possible.[601]

A developed banking system helps fostering economic growth in different ways.[602] However, after the global financial crisis economic literature has effectively underlined the existence of limits to this. There is now consensus about the fact that the positive effect on Gross Domestic Product (GDP) growth holds only up until a given level of financial development.[603] Financial development would exert a positive influence on the economy only up to when credit to the private sector reaches 100% GDP, after which it turns out to have opposite effects.[604]

As for the reasons why this happens – that also explain why one should be worried by such excessive growth – three main ones have been identified. In particular, that "over-expansion of banking leads to misallocation of financial and human capital", therefore harming economic growth since capital is not allocated any more following to

[601] D. NORTH, R. THOMAS, *The Rise of the Western World: A New Economic History*, Cambridge, Cambridge University Press, 1973, 1. The work has been subsequently both expanded and summarized in D. NORTH, *Institutions, Institutional Change and Economic Performance*, Cambridge, Cambridge University Press, 1990.

[602] Among others, R. LEVINE, 'Finance and Growth: Theory and Evidence' in P. AGHION, S. DURLAUF (eds.), *Handbook of Economic Growth*, Amsterdam, Elsevier, 2005, 836 ff. Also, "when finance functions well, it fuels economic growth. Growth resulting from a broad, deep and liquid financial system provides goods, services and jobs benefitting all member of society"; D.W. ARNER, *Financial Stability, Economic Growth, and the Role of Law*, 35.

[603] For a comprehensive review of the literature on implications for economic growth of financial development, EUROPEAN SYSTEMIC RISK BOARD, *Is Europe Overbanked?*, 11-14.

[604] J.L. ARCAND, E. BERKES, U. PANIZZA, 'Too Much Finance?', IMF Working Paper no. 161/2012.

its highest marginal product; that "large banking systems may be associated with excessive risk taking by banks"; and that they "also tend to experience more severe financial crises, which in turn are associated with deeper recessions".[605] Finally, such growth has the potential to lead to "an acute problem for society due to escalating expectations of state support for the banking system".[606] Also leaving aside controversies associated to the calculation of the impact of banking crises,[607] an element to bear in mind is that the impact of systemic events in the banking system has been estimated (1970 to 2011) on average around an output loss of 23% GDP, an increase in debt of 12% GDP, and fiscal costs of 7% GDP.[608] For instance, within the European Union banks' balance sheets have experienced a rapid growth since the 1990s, even in spite of a sensible decrease from 2008 onwards.[609] The total assets of domestic banking groups and foreign-controlled subsidiaries and branches, relatively to GDP, in euro-area countries are on average around 270% GDP.[610]

Anyway, the fair acknowledgment that the banking system would have grown too much in Europe exhibits peculiar difficulties as for the words 'too much', "which require a normative answer"; indeed, a stance on how much is 'too much' would require an assessment of "the needs of the real economy in Europe".[611] As openly admitted, to many extents this would entail a political judgment. The reason for this becomes apparent when turning to the ways in which such crises transmit to the real economy, thus entering the world of rights. Some recent critiques to an alleged 'retaliation' against the banking industry that would be taking place in Western countries in the aftermath of the financial crisis may be easily dismissed; however, their merit is to remind that regulatory choices

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[605] EUROPEAN SYSTEMIC RISK BOARD, *Is Europe Overbanked?*, 10-14.

[606] A.G. HALDANE, *On Being the Right Size*, 2. The author also adds that "even small notches of support can translate into big implicit subsidies if balance sheets are large ... as the crisis struck, this implicit promise became explicit. Financial support was extended to the banking system in the form of capital injections, guarantees and liquidity insurance"; *ibidem*, 3.

[607] A first approach would have a narrow focus "on the revealed capital deficiency of the banks and specifically on the fiscal and quasi-fiscal costs incurred by efforts to indemnify depositors of failing institutions", while a concurrent approach would seek "to calculate system-wide economic costs of the failure, as in efforts to add up the cumulative loss of output"; however, neither of them would be really convincing, especially because "distortions created by poor banking practice" would result "in losses and missed opportunities that are not captured in the fiscal costs"; G. CAPRIO JR., P. HONOHAN, 'Banking Crises. Those Hardy Perennials', in A.N. BERGER, P. MOLYNEUX, J.O.S. WILSON (eds.), *The Oxford Handbook of Banking*, 709-710.

[608] L. LAEVEN, F. VALENCIA, 'Systemic Banking Crises Database: an Update', IMF Working Paper no. 163/2012, 17. The support packages from the State (comprising both central bank support in the form of money creation and collateral swaps, and government support in the form of guarantees, insurance and capital) have been calculated in the range of 74% GDP (United Kingdom), 73% GDP (United States), and 18% GDP (euro-area); P. ALESSANDRI, A.G: HALDANE, 'Banking on the State', Bank of England, November 2009.

[609] EUROPEAN SYSTEMIC RISK BOARD, *Is Europe Overbanked?*, 4.

[610] EUROPEAN CENTRAL BANK, *Banking Structures Report*, October 2014, 9.

[611] EUROPEAN SYSTEMIC RISK BOARD, *Is Europe Overbanked?*, 2.

translate into costs also for actors different than the banks themselves.[612] Indeed, an important point to make is that not only crises, but also *steady states* of the banking system postulate regulatory choices about alternatives that are likely to exert significant impact on the enjoyment of rights, as it is made fully apparent by the extensive reach of macro-prudential regulation.

Awareness of this seems to have started emerging only recently, at least in clear terms such as that "our thinking and our efforts ... should be always directed to the wellbeing of the people, not to parameters or abstract formulas".[613] Primarily, what is at stake are social rights, with special reference to the rights to employment, house, access to capital, health assistance, education and social services, that are likely to be those more strongly affected by reductions in the remits of the welfare State.[614] In presence of a shortage of resources, social rights are likely to assume a sort of 'provisional' character, as they are conditional not only upon realization on the side of the executive, but also upon balancing judgment by courts of law.[615] From a more theoretical viewpoint, what follows is that social rights are increasingly considered not as directly pertaining to citizenship, but rather as a matter of factors of production and financial imbalances.[616] However, in spite of the inherently economic character of social rights, one should always bear in mind that one thing is the economic value of the service rendered, and a different one is the value of the public interest that is protected. The tendency to collapse the latter in the former is widespread and dangerous. Moreover, rights exert a natural reciprocal influence upon each other; social rights are the precondition for the exercise of other rights of liberal nature.

The issue of the dimension of the banking system, along with the possible consequent effects upon the enjoyment of social rights, are a precondition for a discussion of the public foundations of banking regulation at the transnational level. Central elements to the discussion are the forms taken by public interest in this context, along with the functions that are acknowledged as pertaining to the banking system and the objectives that regulators pursue in designing the remits of public powers in relation to it.

Getting at grips with the notion of public interest is not particularly easy. Indeed, the concept itself is fraught with many difficulties, and to no surprise it lacks a univocal

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[612] "By acting out of anger and retaliating against the banking industry, we are harming ourselves"; L. COOPER, *The red tape that is hampering banks and the economic revival*, The Times, 9 December 2014.

[613] I. VISCO, *Speech held at the ECB Governing Council meeting in Naples*, 1 October 2014, 3.

[614] To borrow from Taleb (*Antifragile*), contemporary welfare systems are *fragile*, meaning that their resilience is low and that they do not build upon shocks.

[615] A. D'ATENA, *Costituzionalismo e tutela dei diritti fondamentali*, in *Lezioni di diritto costituzionale*, Turin, Giappichelli, 2012. The power that should be able to perform such evaluations relatively to the balancing of rights against each other, and with the economic capacity is the legislator. To the extent to which this is actually possible, see later in the paragraph.

[616] F. BILANCIA, 'Crisi economica e asimmetrie territoriali nella garanzia dei diritti sociali tra mercato unico e unione monetaria', Rivista Associazione Italiana Costituzionalisti, no. 2/2014, 9.

definition.[617] This notion has been long given a pivotal role in continental European public law studies, where it was framed purely in terms of positive law, i.e. identifying public interest with what the law recognizes as such, and in coherence to which relevant public authorities enjoy the power to act authoritatively.[618] Public interests normally have a *relative*, rather than an *absolute* dimension, in that they serve to accommodate for the whole "range of different individual and group interests".[619] In the specific case of financial regulation, conflicts of interest have been mainly found to arise and revolve around four dimensions, namely asymmetry in the systemic relevance of a given intermediary; asymmetry in resources between supervisory authorities (as for financial resources, and skills available); asymmetry "in the accounting, legal and institutional infrastructures"; differences in national resolution regimes.[620]

The political dimension inherent to the concept of public interest may be perhaps felt as foreign to the highly technical character of banking regulation. However, it is necessary to keep in mind how banking crises have been also "triggered by losses due to poor investments engendered by government efforts to channel banks credit disproportionally to politically influential sectors and firms"; more specifically, "in their eagerness for votes and campaign contributions, it is not unusual for politicians to promote the goal of homeownership for all citizens".[621] The global financial crisis, that was triggered in the United States exactly by reasons of political nature, witnessed once more that how faul lines may be of political nature.[622]

Valuable enquires into the relationship between banks and States has often been framed in terms of banks bearing (and also defaulting because of) sovereign risk, and, in more recent times, States acting as lender-of-last-resort for ailing banks.[623] However, there is much more than this. Public authorities play a far more active and continuous role. This can be better explained in relation to specific areas of intervention.[624]

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[617] B.M. MITNICK, 'A Typology of Conceptions of the Public Interest', Administration & Society, no. 8/1976, 5. This is probably the reason why Mike Feintuck proposes to adopt for public interest the definition of "convenient cover for ignorance" given by Frederic W. Maitland to the British idea of 'the Crown', useful to escape difficult questions; M. FEINTUCK, *The Public Interest in Regulation*, Oxford, Oxford University Press, 2004, 3.

[618] E. CASETTA, *Manuale di diritto amministrativo*, Milan, Giuffrè, 2010, 73.

[619] M. FEINTUCK, *The Public Interest in Regulation*, 41.

[620] D. SCHOENMAKER, *Governance of International Banking. The Financial Trilemma*, 69 ff., also referring to R. HERRING, 'Conflicts between Home and Host Country Prudential Supervisors', in D. EVANOFF, J. RAYMOND LA BROSSE, G. KAUFMAN (eds.), *International Financial Instability. Global Banking and National Regulation*, Singapore, World Scientific, 201 ff.

[621] E.J. KANE, 'Regulation and Supervision. An Ethical Perspective', 505.

[622] R.G. RAJAN, *Fault Lines. How Hidden Fractures Still Threaten the World Economy*, Princeton, Princeton University Press, 2010, 5.

[623] P. ALESSANDRI, A.G. HALDANE, 'Banking on the State', Bank of England, November 2009.

[624] "Any policy intervention in financial markets is in principle a general-interest policy. Every citizen is a potential portfolio owner"; D. MASCIANDARO, F. PASSARELLI, 'Financial systemic risk: taxation or regulation?', 596.

One area that will prove extremely delicate in the future is that of banking resolution, previously discussed as one aiming at *protecting* the banking system form systemic risk. On paper, the role of public interest is likely to be a plain one; under Art. 24(4) SSMR 'the members of the Administrative Board of Review shall act independently *and in the public interest*'. An attempt to imbue with meaning this statement, and to foot it on a more solid ground leaves open many pivotal questions, such as what is entailed by public interest, and who is legitimated to its determination. When the issue is complicated – as it is within the European Union – by concurrent legal orders,[625] the search for clarity about public interest is likely to be frustrated. Essentially ignored in scholarly writings, these issues have been more clearly spelled out in the press:

> "To date, very few policy makers anywhere in the world have shown the discipline to stay the course during times of crisis and force banks' creditors to accept losses. The SRM exacerbates this problem by offering regulator the option of not forcing the resolution of a failing institution if doing so might cause significant adverse consequences, including broader instability … The concern is that this exemption might be used even when there is no clear systemic threat. Strong pressure groups facing losses may lean heavily on politicians and authorities, who must act under time pressure. Furthermore, whether a threat should be considered systemic is itself often subject to debate, providing the SRM with a built-in challenge to its credibility … Ultimately, the new SRM doesn't guarantee that regulator won't improvise various forms of bailouts if forced to cope quickly with a struggling or failing financial institution'.[626]

There are at least two reasons why this is especially important. Firstly, this shows once again how the qualification as 'systemic' is heavily imbued with political meaning. Second, it suggests that when losses are apparent, as opposed to other cases in which they are more hidden, their political practicability decreases. Put differently, technical arrangements devised in banking regulation tend to work when political choices are hidden under the convenient covers of labels such as 'financial stability'.

The same holds true for macro-prudential policy. This policy area shares with monetary policy the characteristic of having distributive effects, but while the cost of the latter (inflation) is both diffused and uncontested, the costs associated with the implementation of macro-prudential tools would be concentrated on selected subjects and sectors, and also far more contentious in their determination.[627] Additionally, the

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[625] On the possible role of national interests in resolution, P.L. DAVIES, 'Resolution of Cross-Border Banking Groups', in M. HAENTJENS, B. WESSELS (eds.), *Research Handbook on Crisis Management in the Banking Sector*, Cheltenham, Edward Elgar Publishing, 2015 (forthcoming).

[626] H. BENINK, C. WIHLBORG, *Resolving Europe's Bank-Resolution Problems*, The Wall Street Journal, 20 November 2014.

[627] As it has been convincingly argued, "concerns about the systemic risk posed by TBTF firms are ultimately distributional anxieties. It is the fear of the broadest macroeconomic impact – that everyone will be affected – that animates discussions of systemic risk. While macroeconomic impacts are broadly felt by everyone, they are not felt equally. Some are harmed more than others, and some might even benefit"; the extremely valuable contribution comes from A.J. LEVITIN, 'In Defense of Bailouts', The Georgetown Law Journal, no. 99/2011, 452.

danger has been already recognized that, once gifted with a vast array of tools, macro-prudential policy makers "may soon find themselves extending the range of measures and inadvertently drift into credit allocation".[628]

One additional difficulty that arises when trying to spell out more clearly public interests – and hence objectives – in banking regulation is that this would require preliminary clarity about the functions that *are* or *should* be performed by the banking system itself. Failure to identify these generates the lack of a necessary term of reference in the evaluation of its potential malfunctioning.[629] The functions performed by the banking system today include the mobilization of savings; the allocation of capital; the monitoring of the use of financial resources; the transformation and redistribution of the risk to those most interested and able to bear it;[630] as well as "information production; liquidity transformation; consumption smoothing",[631] along with the protection of the 'weakest links', i.e. non-professional investors and minority shareholders.[632]

However, functions should not be misunderstood for objectives. The latter should be more correctly intended as the *direction* following to which the former should be performed. Public bodies in charge of technical tasks such as banking regulation and supervision are normally attributed only 'general competences'; this is allegedly due to the 'indeterminacy' of the values that need to be protected (with financial stability explicitly mentioned among them).[633] One first thing that is interesting to note is that no relative order seem to be given to regulatory objectives anymore, with scholars generally referring to "the preservation of financial stability", "the preservation of public and market confidence in the banking system", "the protection of depositors", "the continuity of essential banking services", the preservation of market discipline.[634] This is in sharp

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[628] C. BORIO, 'Macroprudential frameworks: (Too) great expectations?', 35.

[629] It is interesting to recall here the discussion about whether the former discipline of Italian investment contracts actually implied in the very structure of the contract the emergence of a public interest in the integrity of the market; R. COSTI in BANK OF ITALY, 'Legislazione bancaria, finanziaria e assicurativa', 39-40. Uncertainty was indeed present at the highest levels about the extent to which investor protection, competitiveness and the well functioning of the markets ought to be considered in financial regulation as true objectives or criterion to pursue micro-prudential objectives.

[630] P. HONOAN, 'Financial Development, Growth and Poverty: How close Are the Links?', World Bank Policy Research Working Paper, no. 3203/2004, 9.

[631] A.N. BERGER, P. MOLYNEUX, J.O.S. WILSON, 'Banking in a post-crisis world', in A.N. BERGER, P. MOLYNEUX, J.O.S. WILSON (eds.), *The Oxford Handbook of Banking*, 1-23.

[632] J. MÉADEL, *Les marchés financiers et l'ordre public*, Paris, LGDJ, 2007, where is also explored in this regard the notion of 'public order'.

[633] G. MORBIDELLI, *Il diritto amministrativo tra particolarismo e universalismo*, Naples, Editoriale Scientifica, 2012, 54-55.

[634] G. BOCCUZZI, 'Towards a new framework for banking crisis management. The international debate and the Italian model', 119-120. Additionally – as far as the Italian legal order is concerned – no peculiar importance seems to be attached to the fact that the protection of depositors, unlike other objectives (including financial stability), does enjoy a constitutional stranding.

contrast with the fact that in the decisions taken by regulators all these objectives are likely in need to be both equally present and relevant, and weighed against one another.

Traditionally, the action of public authorities in charge of banking regulation has been in tune with the overarching – albeit itself vague – objective of the *safety and soundness* of banking institutions, that under different names has been common to many jurisdictions in the past decades. Indeed, it was both incorporated in legal texts and offered as guidance for action of the relevant public authorities. For instance, in the case of the United Kingdom, the Prudential Regulation Authority (PRA) has openly stated that "the PRA has a primary objective to promote the safety and soundness of firms. It is required to pursue this primarily by seeking to avoid adverse effects on financial stability, and in particular seeking to minimise adverse effects resulting from disruption to the continuity of financial services".[635] In the wording adopted by the PRA it is rather unclear if the 'safety and soundness' of institutions should be considered as prevalent, or on an equal footing, or even subordinated to the other two objectives named, i.e. financial stability and the minimisation of adverse effects caused by a disruption to the continuity of financial services. The only message that is certainly conveyed is that the pursue of the 'safety and soundness' of institutions should not take place disregarding the other two main objectives. In the case of Italy, powers have to be exercised by the Bank of Italy having regard to the safety and soundness of institutions (that is named first among its objectives), to the overall stability, efficiency and competitiveness of the financial system.[636]

What is clearly apparent is that the 'safety and soundness' of credit institutions, as an overarching objective, may not be easily defined, but will rather need to be sketched by some proxies, such as the policies that are adopted in order to enhance it. For sure, legislators (and regulators) have found this objective not to be exhaustive of the mandate of public authorities *vis-à-vis* the banking system.[637] This is probably why it has been accompanied in time by many other objectives, either explicitly referred to as secondary ones, or put on an equal footing. Again in the case of UK, the PRA has openly states to have "a secondary objective to facilitate effective competition".[638] In the Italian case,

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[635] PRUDENTIAL REGULATION AUTHORITY, *The Prudential Regulation Authority's approach to banking supervision*, June 2014, 5, 8 ff.

[636] Art. 5 Italian Consolidated Banking Law. On the general question of the extent to which regulators' mandate is apt at capturing the public interest in systemic stability, P. TUCKER, The political economy of macroprudential regimes, in D. SCHOENMAKER (ed.), *Macroprudentialism*, 68.

[637] A certain degree of skepticism towards the 'safety and soundness' objective, especially after the global financial crisis, may be also witnessed in academic writings: "traditional 'safety and soundness' regulation will predictably fail at some point"; J.C. Jr. COFFEE, 'Systemic Risk after Dodd-Frank: Contingent Capital and the Need for Regulatory Strategies Beyond Oversight', 808.

[638] PRUDENTIAL REGULATION AUTHORITY, *The Prudential Regulation Authority's approach to banking supervision*, 5. The PRA has also made some effort in writing down the style of its action: "the PRA's approach is forward looking; it assesses firms not just against current risks, but also against those that could plausibly arise in the future"; "the PRA's regulatory decision-making is rigorous and well documented, consistent with public law"; *ibidem*, 6, and 30 ff.

additional objectives are those of transparency, fairness and protection of clients in banking and payments services.[639]

This sketch about objectives guiding the action of public authorities within the banking system is useful to draw one preliminary conclusion. When comparing financial stability with other objectives, what is immediately apparent is that the former presents an inherent transnational character, that marks its difference *vis-à-vis* other objectives. So one main consequence – to put it shortly and somehow roughly – the more the remit of public authorities becomes framed in terms of financial stability, the less they will be actually able to keep a strong grip over their mandate. Indeed, this impinges on the ability of authorities to make proper evaluations about the objective itself (whether a behavior, or a circumstance actually endangers financial stability), and therefore to pursue this very objective.

A side remark has to be done about the European Union. Here, the peculiar institutional framework has influenced the taxonomy of objectives pursued by relevant public authorities. Indeed, the establishment of the ESAs and the ESRB has been grounded on Art. 114 TFEU, which means that their remits have been nuanced with the pursue of the overarching objective of the functioning of the internal market.[640] Along with this, the identification of objectives mainly follows individual regulatory interventions, rather than the authorities' mandate (as it happens at the national level). Consider for instance the objectives and conditions for resolution identified by Art. 31 and Art. 32 BRRD, which explicitly try to set out the grounds on which resolution actions may be adopted and the cases in which they shall be considered in the public interest.[641] The SSM Regulation indicates in its recitals what are the goals of prudential supervision (safety and soundness of institutions, financial stability, maintenance and deepening of the

[639] Art. 127(1), and Art. 146 Italian Consolidated Banking Law.

[640] Under Art. 114(1), "The European Parliament and the Council shall, acting in accordance with the ordinary legislative procedure and after consulting the Economic and Social Committee, adopt the measures for the approximation of the provisions laid down by law, regulation or administrative action in Member States which have as their object the establishment and functioning of the internal market"; the involvement of this Article entails shared competence between the Union and member States. Indeed, "financial stability contributes to the smooth functioning of the internal market, which is a cornerstone of the sustainable development of Europe … policy intervention is also justified by market failures and unintended consequences arising from other policy fields"; EUROPEAN SYSTEMIC RISK BOARD, *Flagship Report on Macro-prudential Policy in the Banking Sector*, 7.

[641] Under Art. 31(2) the resolution objectives are to ensure the continuity of critical functions; to avoid a significant adverse effects on the financial system (prevention of contagion, also to market infrastructures, and maintenance of market discipline; protection of public funds; protection of covered deposits; protection of clients funds and assets. Under Art. 32(5) a resolution action is deemed to be in the public interest 'if it is necessary for the achievement of and is proportionate to one or more of the resolution objectives referred to in Article 31 and winding up of the institution under normal insolvency proceedings would not meet those resolution objectives to the same extent'.

internal market for banking services).[642] As for macro-prudential policy, the identification of objectives mainly rest on the work of the ESRB (see chapter 2).

In order to correctly frame the issue of the identification of public interests underpinning the action of public authorities in the banking system, the discussion shall be performed against the backdrop of the broad changes occurring within nation States and at the international level from the second half of the XXth century.[643] The ultimate aim of this discussion is to show how systemic risk and financial stability, as the new public foundations of transnational banking regulation, both stretch to their limits some processes already in place, and bring about new challenges for public powers.

Preliminarily, it should be noted how the economic literature generally postulates an *instrumental* character of law. Accordingly, regulation is increasingly seen as an instrument, as it is implied by statements such as that "all well-functioning market economies are based on a consistent accord of rules, instruments and institutions".[644] As a further consequence, the contemporary government usually "employs 'tactics' rather than 'laws', and thus has a tendency to use law tactically or as 'instruments of managerial policy'".[645] However foreign this may sound to a discussion about the foundations of banking regulation, this is instead one its more delicate starting points. Indeed, the concept of the 'authority of the governing power', lies at the very basis of public law. The issue that has been now touched upon about the increased instrumentality of law is the symptom of a challenge to this very basis. Indeed, instead of being seen as "the outcome of an exercise of will, law comes to be treated as an elaboration of reason";[646] this is all the more true

[642] In this regard, it is worth noting that it is not entirely correct to state that in European Union legal acts recitals have the same legal value of articles, as argued by M. CLARICH, *I poteri di vigilanza della Banca centrale europea*, Speech held at the conference 'L'ordinamento italiano del mercato finanziario tra continuità e innovazioni', Modena, 26 October 2012, 12, note 37. Indeed, ECJ case-law has clarified how if articles are not sufficiently precise or clear the interpreter may refer to recitals (C-346/88, *Schweizerische Lactina Panchaud AG*, 14 December 1989); however, generally speaking they give way to articles in case contrasts arise (C-412/93, *Société d'importation Edouard Leclerc-Siplec* v. *TF1 Publicité SA et M6 Publicité SA*, 9 febbraio 1995).

[643] The extent to which such changes actually modify the way in which we approach to the public sphere should not be underestimated; both the vocabulary and the grammar of public law have been shaped by the emergence of the modern nation State; M. LOUGHLIN, *Foundations of Public Law*, 18.

[644] Y. MERSCH, 'Law, money and market – the legal dimension of monetary policy', 3. The same may be said for statements like "law, legal institutions and regulatory systems ('legal infrastructure') are fundamental to financial stability and financial sector development"; D.W. ARNER, *Financial Stability, Economic Growth, and the Role of Law*, 13. The point in analytically elaborated in the literature; for instance, see A. DEMIRGÜÇ-KUNT, R. LEVINE (eds.), *Financial Structure and Economic Growth: A Cross-Country Comparison of Banks*, Markets, and Development, Cambridge, MIT Press, 2001.

[645] M. LOUGHLIN, *The Idea of Public Law*, 27. The author openly borrows here from both M. Foucault (*Governmentality*) and M. Oakeshott (*On the Character of a Modern European State*).

[646] M. LOUGHLIN, *Foundations of Public Law*, 369.

with *banking* regulation, where *economic* reason is at stake, and has extremely far-reaching consequences.[647]

Indeed, the subtle substitution of the authority by an economic bounded rationality is a major step within the slow and inexorable process of rationalization of political power.[648] What is especially interesting is that the long-standing ideal of a public realm as totally autonomous has proved illusory, and *economic rationality* is now solidly at the basis of the regulation of economic activities. The first consequence of this 'new objectivity' is the twofold erosion of some founding boundaries, namely the public-private one, and the national-international one.[649] The second consequence is that governing is increasingly intended as "an exercise of solving collective action problems through processes that require the bringing of reason and evidence to bear on the issue".[650] What is witnessed by systemic risk and financial stability is that neither the knowledge and evidence required for the issue at stake, nor the possibility to perform a value judgment are readily available to public decision-making.

At the institutional level, this process has naturally resulted in an extended reach of governmental authority, that has compelled academic reflections about the rise of the *ephorate*, "a new branch of government comprising office-holders who possess the type of

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[647] Some valuable insights may be also gained from systems theory (scholars belonging to this scientific area have shown on average more comfort in dealing with complex economic phenomena, maybe due to the lack of a cumbersome doctrinal legacy as in the case of public lawyers). One main idea elaborated has been that "the economic system has advanced 'further' than other functional systems"; P. KJAER, *Introduction*, in P. KJAER, G. TEUBNER, A. FEBBRAJO (eds.), *The Financial Crisis in Constitutional Perspective*, xv. This rests on the key idea of 'functional differentiation', entailing the existence in the contemporary world of "a horizontal order of function systems", so that "there is no such thing as a structural primacy of one function system towards all the other function systems in world society"; R. STICHWEH, *Towards a General Theory of Function System Crises*, in P. KJAER, G. TEUBNER, A. FEBBRAJO (eds.), *The Financial Crisis in Constitutional Perspective*, 43. Functional differentiation was considered by Luhmann as an 'original sin' of modern societies, an idea shared with other scholars "as diverse as Hegel, Marx, Durkheim and Weber, who all describe – albeit in different terms – a 'dis-embedding' of the economic 'system of needs' from its social preconditions"; M. RENNER, *Death by Complexity – the Financial Crisis and the Crisis of Law in World Society*, 94. Systems such as politics, economy and law would be characterized by a distinctive "communicative domain" and would claim "a primacy in its own domain"; R. STICHWEH, *Towards a General Theory of Function System Crises*, 43.

[648] The emergence of the concept of public law itself are the consequences of a process of "secularization, rationalization, and positivization of fundamental law"; M. LOUGHLIN, *Foundations of Public Law*, 2. This also entailed that the public realm could not be anchored any more "either in divine law or natural law"; *ibidem*, 158.

[649] "Objective law seeks to eclipse the public in the name of the social. Once objective law is set in place, the chain of authorization of subjects (people – sovereign – officials – citizens) is broken and the distinction between matters constitutional ... and matters administrative (is made) redundant ... The extent of this challenge is highlighted once it is recognized that the blurring of the public/private distinction has been accompanied by the erosion of another formative boundary. That between national and international"; M. LOUGHLIN, *Foundations of Public Law*, 461-462.

[650] M. LOUGHLIN, *Foundations of Public Law*, 450-451.

expertise and specialised knowledge that has become the basis of effective governmental decision-making".[651] This new phase of the development of governmental functions would mark a further step in the broader process, in Michel Foucault's words, of the "governmentalization of the State".[652]

Within the area of banking, this process has been both the cause and the consequence of an increasingly technical character of banking regulation. Taking as example the European Union regulatory framework, early banking coordination directives mainly restrained to definitions, the allocation of powers, the identification of reserved activities, and administrative proceedings. By contrast, contemporary comparable legal texts (such as the CRD4-CRR package) are characterized by extremely technical contents.[653] The overall result is one close to a concept of technocracy, where banking regulation interacts and overlaps too – because of its purported intrinsic nature – with the banks' risk management.[654]

The ultimate consequence of this has been usefully summarized in the provocative question (referring to the United States context, but equally applicable to other legal orders) "do federal bank regulators want to eliminate risks in the financial system – or merely own them?", insinuating the idea that they may have "less interest in solving problems than in asserting their jurisdiction over them".[655] The statement is for sure overly provocative, but still it carries seeds of truth. The state-of-the-art of banking regulation entrust public bodies in charge of administrative tasks with almost boundless powers with regard to both the objectives to be pursued, and the way in which such objectives are to be reached. The progressive shift of public concerns into terms of banking regulation (systemic risk and financial stability) naturally marks a shift of the *ownership* of the responsibility to handle such issues.

To take the positive side of this development, it has been noted how

> "although these developments are open to the criticism that they entail a narrowing of political decision-making by channelling the exercise of political judgement into some technocratic problem-solving exercise, they simultaneously possess the benefit of helping to clarify the responsibility of representative institutions to articulate the values and principles that determine policy decisions".[656]

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[651] M. LOUGHLIN, *Foundations of Public Law*, 2010, 450.

[652] M. FOUCAULT, 'Governmentality', in G. BURCHELL, C. GORDON, P. MILLER (eds.), *The Foucault Effect: Studies on Governmentality*, London, Harvester Wheatsheaf, 1991, 101.

[653] A. ENRIA, in BANK OF ITALY, 'Legislazione bancaria, finanziaria e assicurativa', 63 ff.

[654] S. CASELLI, *Per amore o per forza. I destini incrociati di banche e imprese*, Unviersità Bocconi Editore, Milan, 2014, 61. Obviously, this is an interpretation that falls short of everything that is not encompassed by bank risk management.

[655] *The Financial Instability Business*, The Wall Street Journal Europe, 22 December 2014. The comment refers to the recent decision (17 December 2014) of the FSOC to designate the US-based life insurer MetLife as 'systemically important', following to an allegedly controversial analysis, an opaque proceeding, and an extremely heavy burden of proof.

[656] M. LOUGHLIN, *Foundations of Public Law*, 451.

Unfortunately, with the case of financial stability this is not entirely true. Indeed, as also shown by the discussion held in Chapter 2, responsibility itself tend to vanish when 'indefinite legal terms' come into the picture, and play a leading role. Additionally, public scrutiny over such decisions is likely to be significantly impaired by the fact of being confronted with problems that exceed "the expertise and comprehension of average people, for instance of the median voter", so that they "remain arcane topics for most people and thus become domains for specialists".[657] The main consequence is that much room is then left "for specialists and organized interest groups, thus abrogating the ideal of open democratic discourse and deliberation".[658] Put differently, the consequence is substituting the confidence of the *Statsvolk* with that of the *Markvolkt*.[659]

However generally neglected, the absence of talk of democracy from finance is "one of the most important issue areas of our contemporary world".[660] The wide reach of macro-prudential policy has actually compelled some reflection on the issue, with some timid attempt to call for broader accountability of macro-prudential authorities, motivated by the fact that "macroprudential decisions, such as lowering the loan-to-value ratio, can have a major impact on citizens".[661] More generally, it has been seldom acknowledged that politicians should both "decide on, and be held accountable via the ballot box for, the degree of resilience required of the financial system".[662] Analyzing the issue at the international level, what may be noted is that international coordination and scrutiny may actually help in taming the major shortcoming normally associated with greater involvement of political powers, namely the risk that decisions in this area may be influenced by short-term opportunistic strategies motivated by the logic of periodic elections.[663] However, the political dimension should never be underestimated. As it has been put in a quite mordacious way, at least in the European context issues of democracy and accountability are removed by the debate under the attempt "to overcome the weaknesses of democratic legitimacy within the EU by positing an EU consensus that can be arrived at by a 'non-political' democratic procedure".[664]

What's more, even when removed from the picture, the political character inherent to banking regulation may enter back in quite surprising forms, as the issue of essential banking services shows.

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[657] H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 13, 105.

[658] H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 14.

[659] W. STREECK, *Buying Time: The Delayed Crisis of Democratic Capitalism*, New York, Verso Books, 2014, 152.

[660] T. PORTER, 'The Democratic Deficit in the Institutional Arrangements for Regulating Global Finance', Global Governance, no. 7/2001, 427.

[661] D. SCHOENMAKER, *Introduction*, in D. SCHOENMAKER (ed.), *Macroprudentialism*, 8.

[662] P. TUCKER, The political economy of macroprudential regimes, in D. SCHOENMAKER (ed.), *Macroprudentialism*, 70.

[663] H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 103-104.

[664] R. BELLAMY, 'Still in Deficit: Rights, Regulation, and Democracy in the EU', European Law Journal, no. 6/2006, 742; the author rightly argues against the legitimacy of this attempt.

3.1.1. Essential banking services

Undoubtedly, banks have undergone many transformations in the last decades. During the XXth century the 'universal bank' model (i.e. that of a bank providing all the range of credit operations, along with stock market ones, in an integrated fashion) has gradually become established across countries. Still today, while many banks display increasing degrees of specialization, the universal bank model is one of prominence.

However, following to the global financial crisis the idea has been repeatedly advanced that there are grounds for shielding commercial banks, which are responsible for providing liquidity along with basic lending services, from the risks to which they are exposed, and that are inherent to other banking activities.[665] At the theoretical level, the regulatory discourse has focused on the issue of 'modularity',[666] the property enjoyed by systems where contagion among different parts is prevented by mean of decoupling different individual areas. In this way, regulators may in principle enhance the resilience of the entire banking system.[667]

The issue naturally impinges upon the broader phenomenon of universal banking,[668] along with its merits and faults. As "institutions that combine the lending and payment services of commercial banks with a wider range of financial services",[669] universal banks were quite common in continental Europe when financial markets in their modern meaning started to develop, while were not correspondingly known in the Anglo-Saxon world. In the United States the model of universal banks was actually prohibited under the 1933 Banking Act (Glass-Steagall Act). The prohibition was partially repealed in 1987 and definitively repealed with the Gramm-Leach-Biley Act. The universal bank model has been the one actually taken as reference in the European Union context; the 1989 second Banking Coordination Directive established a regime under which banks were required to hold a single European banking license (the so-called 'pass-porting regime') and restrictions to activities could be imposed only where (and insofar as) it was so decided by the home-country regulator. The sort of uprising against the universal bank model following to the global financial crisis has essentially focused upon the existence of 'social costs' attached to universal banking, due to the cross-subsidization inherent to the access to financial market activity by exploiting deposit and creditor guarantees, along with privileged central bank funding.[670] Therefore, universal banks have been maintained to

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[665] P. MOTTURA, *La banca di credito e di deposito*, 9 ff.

[666] A.G. HALDANE, R.M. MAY, 'Systemic Risk in Banking Ecosystems', 355. Concern has been also expresses by many in relation to the increasing homogeneity among credit institutions; the complexity of activities, the density of interactions, and the homogeneity of the characteristics of market participants, may produce perverse overall effects.

[667] S.L. SCHWARCZ, Regulating Complexity in Financial Markets, Oxford University Leverhulme Lecture, November 2010, 11; A.G. HALDANE, R.M. MAY, 'Systemic Risk in Banking Ecosystems', 355.

[668] A.D. MORRISON, 'Universal Banking', in A.N. BERGER, P. MOLYNEUX, J.O.S. WILSON (eds.), *The Oxford Handbook of Banking*, 113 ff.

[669] A.D. MORRISON, 'Universal Banking', 113.

[670] EUROPEAN SYSTEMIC RISK BOARD, *Is Europe Overbanked?*, 30-34.

allow for "privately optimal, but socially sub-optimal cross-subsidisation", under the allegation that "basic banking services in universal banks were often subject to sever disruption from trading book losses".[671]

Along with calling into question the universal bank model, what has emerged from the literature is a tendency to refer to those provided by commercial banks as 'essential banking services', although never really elaborating on the topic.[672] The extent to which one could effectively talk about essential services is in principle quite unclear. Moreover, it seems to depend on the extent to which historically legal systems have been characterized by a history marking clearly the public role that banks had as sort of 'servicer' to society.[673]

From a regulatory perspective, the change is likely to be marked by mean of a handful of ambitious regulatory reforms that, in the words of the FSB, "are designed to reduce risks to banking groups stemming from trading activities, limit the range of activities covered by the public safety net, and more generally to simplify legal and operational structures of complex banking groups, in order to enhance their supervisability and resolvability with a view to reducing systemic risk, enhancing depositor protection and limiting fiscal exposures".[674] The approach taken has been quite diverse so far, and each regulatory approach requires individual consideration.[675]

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[671] A.G. HALDANE, *On Being the Right Size*, 7. Shortcomings of the universal bank model are analysed in S. MASCIANTONIO, A. TISENO, 'The rise and the fall of universal banking: ups and down of a sample of large and complex financial institutions since the late '90s', Bank of Italy, Occasional Paper, no. 164/2013.

[672] G. BOCCUZZI, 'Towards a new framework for banking crisis management. The international debate and the Italian model', Bank of Italy, Quaderni di Ricerca Giuridica della Consulenza Legale, no. 71/2011, 120.

[673] This is for instance the case of the Italian banking system, where the idea of the bank as a corporation was fully introduced only in the Nineties. This 'servicing' role has been especially marked in those cases where public banking foundations remained as important shareholder of the bank, thus framing this service in terms of growth of the 'social capital' of the territory. Generally speaking, even high-level work on Italian banking foundations tended to focus on (questionable) links between their presence and the economic performance of the banks, rather than discussing their deep function of link between the bank and its territory; N. JASSAUD, 'Reforming the Corporate Governance of Italian Banks', International Monetary Fund, IMF Working Paper no. 181/2014.

[674] FINANCIAL STABILITY BOARD, *Structural Banking Reforms Cross-border consistencies and global financial stability implications*, Report to G20 Leaders for the November 2014 Summit, 27 October 2014, 1.

[675] An effective synthesis of the US, UK, and EU proposals may be found in L. GAMBACORTA, A. VAN RIXTEL, 'Structural bank regulation initiatives: approaches and implications', Bank for International Settlements, BIS Working Papers no. 412/2013, 1-3. The analysis will not consider directly the similar legislative initiatives that have been taken for instance also in Germany and France. As for Germany, a law on the separation of banks and the recovery and resolution planning for credit institutions was introduced as a draft by the Government on 6 February 2013, and then passed by the Bundestag and the Bundesrat, therefore being enacted into law. Deposit-taking institutions are thus forced to transfer certain activities that are considered high-risk or speculative to a separate financial trading entity; most of the

In the US context, the relevant regulatory framework is that of the 'Volcker rule' (Section 619, Title VI of Dodd-Frank Act), under which banking institutions are forbidden to engage in proprietary trading and to acquire ore retain equity, partnership or other interests in hedge funds or private equity funds.[676] The ultimate aim has been that of 'quarantining' these activities "from other areas of banking business".[677] This regulatory move has been undoubtedly a crisis-led one, as it is made fully apparent by reading the grounds on which the 1933 Glass-Steagall Act was repealed in 1999 by the Financial Services modernization Act (Gramm-Leach-Biley Act).[678] For what is of interest here, the 'essential services approach' within the DFA takes the form of the label 'financial market utility', employed to indicate "any person that manages or operates a multilateral system for the purpose of transferring, clearing, or settling payments, securities or other financial transactions among financial institutions or between financial institutions and the person" (Section 803).[679] The designation as 'systemic financial market utility' is performed by the FSOC and implemented by the Federal Reserve, and implies the possibility of being required to comply with specific risk management standards or strengthened prudential requirements (Section 805).[680] Overall, regulatory

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prohibitions related to this rule will apply from 1 July 2015 onwards. Much the same content is shared by French law no. 2013-672 on the separation and regulation of banking activities, approved on 27 July 2013; the actual implementation is subordinated to the enactment of secondary legislation. The overall content of such initiatives are close to the European proposal.

[676] This Section (referred to as Volcker Rule due to the contribution of former Chairman of the Federal Reserve Paul Volcker, which has been a fierce advocate of this reform) modified Section 13 of the 1956 Bank Holding Company Act. In short, the reform aims at forbidding bank holding companies from engaging in risky and speculative activities, with the objective of impeding the use of bank deposits for this purpose, therefore preventing the use of financial support reserved to the latter. As a secondary effect, banks should become more retail-oriented and less complex, therefore also easier to supervise. The regulatory technique chosen by the DFA is an 'activity based' one, i.e. it identifies forbidden activities along with permitted ones.

[677] A.G. HALDANE, R.M. MAY, 'Systemic Risk in Banking Ecosystems', 355.

[678] In the words of Senator Gramm, "we are here today to repeal the Glass-Steagall because we have learned that government is not the answer. We have learned that freedom and competition are the answers. We have learned that we promote economic growth and we promote stability by having competition and freedom"; US SENATE BANKING COMMITTEE, *Senator Gramm's Statement at signing Ceremony for Gramm-Leach-Bliley Act*, US Senate Banking Committee, 12 November 1999. The Gramm-Leach-Bliley Act repealed the Glass-Steagall Act enacted in x

[679] They are recognized systemic importance in those cases where 'the failure of or a disruption to the functioning of a financial market utility or the conduct of a payment, clearing or settlement activity could create, or increase, the risk of a significant liquidity or credit problems spreading among financial institutions or markets and thereby threaten the stability of the financial system of the United States' (Section 803).

[680] These standards actually imply the possibility of employing quite a broad set of tools. Indeed, the standards relate to the adoption of a robust risk management, an increase in the safety and soundness of the institution, a reduction of systemic risk and to a fostered stability of the financial system. As a consequence, tools range from collateral requirements, to policies, procedures and general financial resources (Section 805).

objectives have been held tight in spite of the many implementing difficulties that have characterized the regulatory process so far.[681] However, in December 2014 the Federal Reserve has moved the deadline to comply with the Volcker rule from 2015 to 2017, with regard to the sale of private equity stakes, hedge funds and venture capital prohibited under the rule contained in the DFA.[682] After almost five years from the moment when the Act was passed, dark clouds may now gather above timely and effective implementation of the Volcker rule.

A partially different approach has been the one taken in the United Kingdom. Here "the case for encouraging modularity and diversity in banking ecosystems"[683] has enjoyed attention at the highest institutional levels, under the assumption that 'ring fencing' core banking activities might be a way to avoid excessive risk-taking, also in spite of its possible shortcomings.[684] As a direct reaction to the recommendations formulated by the Independent Commission on Banking,[685] the response of the Government has been enthusiast about the introduction of a structural separation between commercial and investment banking, and welcomed the suggestion to design a given set of financial services as utilities.[686] Based on extensive and in-depth parliamentary discussion and reflection on the topic,[687] the suggestion has been actually incorporated in the Banking Reform Bill. Therefore, the UK banking system will take the shape of a two-tier system, with deposit-taking institutions entitled to collect deposits and perform basic lending

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[681] Indeed, the implementing process of the Volcker rule took almost four years and started seeing the light only in 2014. This was partially due to the large number of institutional players involved (besides the Federal Reserve, the process coordinated by the FSOC involved the Securities and Exchange Commission, the Federal Deposit Insurance Corporation, the Commodity Futures Trading Commission, the Office of the Controller of the Currency and the Treasury). This was also due to technical difficulties related to the regulatory technique employed, that required a clear identification of activities; in particular, it has proved particularly difficult to draw a line between proprietary trading and market making.

[682] Other prohibitions on investments still have to comply with the 2015 or shorter deadlines (proprietary trading, 'legacy covered funds'), and the delay only covers funds owned by banks prior to December 2013.

[683] A.G. HALDANE, R.M. MAY, 'Systemic Risk in Banking Ecosystems', 355.

[684] FINANCIAL SERVICES AUTHORITY, *The Turner Review. A Regulatory Response to the Global Banking Crisis*, 93. Counterarguments to the proposal are normally associated with the potential loss of economies of scale and scope, risk diversification, depth and functionality of the markets; R. MAINO, *Tackling the "Too Big To Fail" Conundrum: Integrating Market and Regulation*, LSE Financial Markets Group Paper Series, Special Paper no. 207, April 2012, 8; E. AVGOULEAS, 'The Global Financial Crisis, Behavioral Finance and Financial Regulation: in Search of a New Orthodoxy', 55.

[685] The so called Vickers Report, INDEPENDENT COMMISSION ON BANKING, *Final Report Recommendations*, (also known as Vickers Report), September 2011.

[686] UK HM TREASURY, *The Government Response to the Independent Commission on Banking*, December 2011, 21-35.

[687] UK PARLIAMENT, PARLIAMENTARY COMMISSION ON BANKING STANDARDS, *Proprietary trading*, Third Report of Session 2012-13, Volume I and Volume II. The attention dedicated to the topic may be also witnessed by mean of parliamentary minutes on the Financial Services (Banking Reform) Bill.

activity, shielded from trading institutions entitled to perform the whole range of remaining banking services.[688] The reform is still in need of significant implementation efforts, requiring extensive work to be completed by the PRA.[689] However, the British one is an especially meaningful example of the whole issue of essential banking services, due to the approach taken, i.e. that of shielding basic banking services by ring-fencing them *vis-à-vis* other services (rather than the other way round, as under the European Union proposal). Moreover, the reform has been prompted by strong political commitment, that also resulted in meaningful parliamentary debate on the topic (such debate is also the source of the epigraph to this Chapter). In turn, this has exerted some influence on a number of related topics. For instance, the idea of 'continuity of access' (that is a key concept of the vocabulary of 'essential services') to bank accounts has been mentioned in regulatory work on deposit guarantee schemes.[690] Here, two distinct concepts have been employed, namely the concept of 'operational continuity', focusing on the arrangements needed to ensure the continuity of critical shared services; and the concept of 'continuity of access', taking the viewpoint of customers (and in particular depositors), on the assumption that deposit-taking is one of the functions that are critical to the economy.

The European Union has also come up with a proposal on this topic. Following to advice from the High-level Expert Group chaired by Erkki Liikanen,[691] the European Commission presented in January 2014 a proposal for a Regulation of the European Parliament and of the council on structural measures improving the resilience of EU credit institutions. Under the proposed Regulation, sponsoring, investing or detaining exposures towards hedge funds or holding shares or units in entities that engage in proprietary trading or sponsoring hedge funds. Additionally, mandatory separation in a separate legal entity of activities different from retail banking could be require by the competent authority, when deemed necessary for either reasons of financial stability or of

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[688] The legislative reference is the Financial Services and Markets Act 2000, as amended by the Financial Services Act 2013 (also referred to as Banking Reform Act).

[689] PRUDENTIAL REGULATION AUTHORITY, *The implementation of ring-fencing: consultation on legal structure, governance and the continuity of services and facilities*, Consultation Paper CP19/14, October 2014.

[690] PRUDENTIAL REGULATION AUTHORITY, *Depositor protection*, Consultation Paper no. 20/2014. The consultation served the purpose of consulting all stakeholders prior to modification to be introduced on the PRA Handbook. More in detail, the proposed rules are intended to facilitate continued access for depositors to deposits covered by the FSCS (UK deposit guarantee scheme), also by mean of a facilitation of their transfer to other financial institutions. The rule is motivated by the fact that, while depositors of an ailing bank are normally paid out within seven calendar days, in some cases it might be more convenient to keep having continued access to deposit accounts.

[691] E. LIIKANEN, High-level Expert Group on reforming the structure of the EU banking sector, *Final Report*, 2 October 2012; the report recommended the implementation of a structural reform within the European Union banking system, exploring the alternatives related to different approaches as for the scope of application; the activities to be separated; and the intensity of such separation.

the stability of the group.[692] The proposal has found quite a broad political support, but an aloof reaction has come by the industry, due to its alleged heavy impact on the real economy.[693] Unless strong political support emerges in the future, the proposal seems quite likely to be either watered down or dismissed.

Expressing a general opinion on the proposals seems quite difficult. On the side of advantages, what has been underlined is that banks' liabilities are considered as money, since banks themselves are key actors of the payment system; in spite of this, banks are allowed, on the asset side of the balance sheet, to employ such liabilities in activities regardless of their inherent riskiness, with the only safe barrier represented by higher capital requirements.[694] However, there is also significant uncertainty about the actual contribution of economies of scale and scope in banking, that would be lost in case a structural separation is introduced.[695] Economic literature has indulged in extensive analyses about the absence of a business model that actually fared better than the others during the financial crisis;[696] the possible significant implementation challenges of such reforms;[697] the potential for riskier activities to migrate to less transparent and regulated areas of the financial system with contradictory overall outcomes in terms of financial stability;[698] and the potential negative cross-border implications in terms of bank activity and bank resolvability.[699] Other analyses have been overall more cautious (where not openly negative) as regards the theoretical underpinnings of such regulatory projects.

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[692] Additional rules would also be set on the issues such as the corporate structure of banking groups, intra-group exposures, corporate governance, and board membership; all these rules would be aimed at effectively shielding the core credit institution from the trading entity, in a legal, economic, and operational meaning.

[693] EUROPEAN BANKING FEDERATION, *The European Commission's proposal for a regultin on structural measures improving the resilience of EU credit institutions: A critical assessment of the EBF Banking Structural Reform Expert Group*, 13 November 2014.

[694] D. MASCIANDARO, 'Il modello sbagliato della banca universale 2.0', Il sole 24 Ore, 1 November 2014. The author maintains that this would be the alleged reason why the whole financial system has become bigger, more complex and more interconnected.

[695] While economies of scale entail a potential reduction in cost units that may be achieved by banks of significant size through sharing fixed costs (for instance, those related to the payment system and to the technology infrastructure), economies of scope entail efficiency gains that may be achieved by mean of synergies in the product and geographic scope of the activities carried out. While some argue that these would not exist, or that they would not be material, other find quite strong evidence of their existence (just to name one, R.W. ANDERSON, K. JÕEVEER, 'Bankers and bank investors: Reconsidering the economies of scale in banking', London School of Economics and Political Science, Financial Markets Group Discussion Paper, no. 712/2012).

[696] J. VIÑALS, C. PAZARBASIOGLU, J. SURTI, A. NARAIN, M. ERBENOVA, J. CHOW, 'Creating a Safer Financial System: Will the Volcker, Vickers, and Liikanen Structural Measures Help?', 11.

[697] R.R. CHATTERJEE, 'Dictionaries Fail: The Volcker Rule's Reliance on Definitions Renders it Ineffective And a New Solution is Needed to Adequately Regulate Proprietary Trading', International Law & Management Review, no. 8/2011, 33 ff.

[698] J.T.S. CHOW, J. SURTI, 'Making Banks Safer: Can Volcker and Vickers Do It?', International Monetary Fund, IMF Working Paper no. 236/2011.

[699] This is acknowledged by the FSB itself, FINANCIAL STABILITY BOARD, *Structural Banking Reforms Cross-border consistencies and global financial stability implications*, 1-2, and 12 ff.

Some have underlined the need for a careful assessment of the drawbacks, also in terms of costs imposed on interested banks and their stakeholders.[700] Others have been more radical in considering the costs that will be imposed on banks and on an array of subjects (for instance in terms of increased cost of debt finance; reduction of returns; higher administrative costs; reduced liquidity; increased market concentration).[701] Overall, regulators seem to have ventured into a regulatory adventure of uncertain character and more than uncertain outcomes.[702]

Leaving aside more specific evaluations, what matters here is trying to give an answer to the following question: is it possible to think to banking services as 'essential services'?[703] Given the strongly administrative nature of the question, a legal order has been taken as specific backdrop to the question, namely the one of the European Union. The ultimate aim of the discussion is to compare and confront 'traditional' essential services with banking ones, in order to assess whether these may act as valid foundations for banking regulation.

In the context of the European Union, there is no commonly acknowledged notion of 'public interest service', but rather of 'services of general economic interest' (SGEI).[704] SGEI are indeed a key element for what has been so far the European model of welfare

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[700] L. GAMBACORTA, A. VAN RIXTEL, 'Structural bank regulation initiatives: approaches and implications'; J. VIÑALS, C. PAZARBASIOGLU, J. SURTI, A. NARAIN, M. ERBENOVA, J. CHOW, 'Creating a Safer Financial System: Will the Volcker, Vickers, and Liikanen Structural Measures Help?', International Monetary Fund, IMF Discussion Note, no. 4/2013.

[701] PRICEWATERHOUSECOOPERS, *Impact of bank structural reforms in Europe. Report for AFME*, November 2014.

[702] "A larger question mark still hangs over whether these proposals will lead to a sea-change in the allocation of resource to retail and investment banking. The cultures of investment and retail banking are quite distinct. Retail banking relies on forming long-term relationships, while investment banking is inherently shorter-term and transactional. Housing these subcultures under one roof makes achieving the necessary separation of cultures and capital a significant operational headache"; A.G. HALDANE, *On Being the Right Size*, 7.

[703] A long dated and original attempt to interpret credit services as public services may be found in the Italian legal literature under the milestone contribution of M.S. GIANNINI, *Osservazioni sulla disciplina della funzione creditizia*, 1939; the approach was ultimately abandoned by the author himself due to the changing nature attached to banking industry under its XXth century transformations.

[704] Services of General Interest (SGI), by contrast, are the ones that are not accompanied by a compensation for the service rendered; they are usually those more closely associated with the social security, or Welfare State assistance. As it has been underlined, clarification is key in a field where "terminological differences, semantic confusion and different traditions in the Member States have led to many misunderstandings in the discussion at European level"; EUROPEAN COMMISSION, *Green Paper on Services of General Interest*, COM(2003)270, May 2003, 6. SGEI may be considered as a sub-set of the more general category of SGI, with a distinction relying on the economic/non-economic nature of the service. The provision of SGI has to comply with rules such as the principle of non-discrimination, the principle of free movement of persons, and public procurement rules. On essential services and the influence of European law upon national legal orders, L. CUOCOLO, 'I servizi pubblici nell'ordinamento giuridico italiano ed europeo, Diritto pubblico comparato ed europeo', no.2/2007, 347 ff.

State and society. As for its notion, "there is no clear and precise regulatory definition of the concept of an SGEI mission and no established legal concept definitely fixing the conditions that must be satisfied before a Member State can properly invoke the existence and protection of an SGEI mission".[705] More precisely, SGEI are actually mentioned in the Treaties,[706] but not for a proper definition, but rather for their indirect regulation.[707] Much attention has been dedicated to the topic by the European Commission, that in 2003 published a Green Paper on SGEI where they were indicated as "an essential element of the European model of society".[708] SGEI may be found in several areas, such as trasports, postal services, energy, and communications (where an almost *complete* EU harmonization has already taken place); and waste management, water management, radio and broadcasting (where only a *partial* EU harmonization may be witnessed so far). Despite early legislative proposals and some calls from the academia, the idea of a comprehensive legal framework on SGEI has remained so far on paper.[709] What is key for the discussion at stake here is the range of obligations that are attached to the services and contribute to their qualification as SGEI. In particular, the common set of obligations comprise universal service ("ensuring that certain services are made available at a specified quality to all consumers and users throughout the territory of a Member State, independently of geographical location, and, in the light of specific national conditions, at

[705] Case T-289/2003 *British United Provident Association (BUPA) Ltd. and others vs Commission*.

[706] In particular, attention has been given to the topic with the entry into force of the Treaty of Lisbon, under Art. 14 TFEU, together with a Protocol on SGI added by the Treaty of Lisbon itself (Protocol no. 26), where their importance was further restated. Under At. 1 of the Protocol, 'The shared values of the Union in respect of services of general economic interest ... include in particular: the essential role and the wide discretion of national, regional and local authorities in providing, commissioning and organising services of general economic interest as closely as possible to the needs of the users; the diversity between various services of general economic interest and the differences in the needs and preferences of users that may result from different geographical, social or cultural situations; a high level of quality, safety and affordability, equal treatment and the promotion of universal access and of user rights'.

[707] Indeed, Art. 106 TFEU exempts state aid provided for SGEI from ordinary state aid rules. The regulatory and case-law framework in this regard is extremely vast. For what is at stake here, suffice it to mention the Altmark case-law, setting rules for the actual exemption of SGEI to state aid rules (ECJ, C-280/00, *Altmark Trans GmbH and Regierungspräsidium Magdeburg v Nahverkehrsgesellschaft Altmark GmbH*, 24 July 2003).

[708] EUROPEAN COMMISSION, *Green Paper on Services of General Interest*, 3; "the guarantee of efficient and high-quality services of general interest … are essential to facilitate integration, to increase citizens' well-being and to help individuals to make effective use of their fundamental rights"; *ibidem*, 3. The Paper was preceded by horizontal communications on the same topic in 1996 and 2001 (*Services of general interest in Europe*, C281 of 26 September 1996; C17 of 19 January 2001).

[709] M. KRAJEWSKI, 'Providing Legal Clarity and Securing Policy Space for Public Services through a Legal Framework for Services of General Economic Interest: Squaring the Circle?', European Public Law, no. 3/2008, 377 ff.

an affordable price");[710] continuity ("the provider of the service is obliged to ensure that the service is provided without interruption");[711] quality of service (according to national and/or European standards); affordability (that the service is "offered at an affordable price in order to be accessible for everybody");[712] user and consumer protection (through the acknowledgment of specific rights); safety and security; security of supply; network access and interconnectivity.[713] In addition to this, very sensitive elements are the subsidiary character of their allocation; a special regime as for their financing (State aid rules); and the competitive bidding process (see framework Directive 18/2004/EC). Alongside with this framework, specific rules also apply where the service shall be rendered through the employment of a network/grid.[714] The framework of public services is naturally in evolution. On the one hand, private business is increasingly taken as a term of reference by public authorities for the provision of services.[715] On the other hand, the fiscal crisis that affects essentially every Western country compels the search for different ways in which such services may be provided.[716]

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[710] "The concept establishes the right for every citizen to access certain services considered as essential and imposes obligations on industries to provide a defined service at specified conditions, including complete territorial coverage"; EUROPEAN COMMISSION, *Green Paper on Services of General Interest*, 16. See also EUROPEAN COMMISSION, Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *White Paper on services of general interest*, COM(2004)374, 12 May 2004; EUROPEAN COMMISSION, Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions, Accompanying the Communication on 'A single market for 21st century Europe' *Services of general interest, including social services of general interest: a new European commitment*, COM(2007)725, 20 November 2007.

[711] EUROPEAN COMMISSION, *Green Paper on Services of General Interest*, 17.

[712] EUROPEAN COMMISSION, *Green Paper on Services of General Interest*, 18.

[713] EUROPEAN COMMISSION, *Green Paper on Services of General Interest*, 16 ff.

[714] Stemming from the frequent need for separation between the grid and the service that has to be provided through the grid, the doctrine labeled 'essential facilities doctrine' was elaborated. After the liberalization of network services, fundamental structures were liberalized to which the label of 'essential facilities' was then assigned. The doctrine aims at granting access to competitors as for both natural and 'artificial' monopolies that are key for the provision of the service that would be overly difficult to provide otherwise. The infrastructure has to be essential for the provision of the service, and has to be both amenable for sharing and non-replicable, in the absence of objective justifications acting as grounds for refusal. As for the relevant ECJ case-law (that apply to sectors as diverse as airports, ports, railway infrastructures, and intellectual property rights), case C-7/97 *Oscar Bronner GmbH & Co. KG* v. *Mediaprint Zeitungs-und Zeitschriftenverlag GmbH & Co. KG and others*, 28 May 1998; see also the Commission Decision 94/ 1 9/EC, *Sea Containers* v. *Stena Sealink*, of 21 December 1993. The expression itself of 'essential facilities doctrine' is derived from the North-American legal order; in particular, in the US context there is an extensive case-law on the topic, that started with the judgment of the Supreme Court *United States* v. *Terminal Railroad Association*, 22 April 1912.

[715] Public powers perceived as services, the State is not there to exercise an authoritative function, but rather to provide services to citizens.

[716] At the theoretical level, a meaningful shift has been the one from a 'subjective' notion to an 'objective' one, i.e. from an understanding of public service as the service provided by a public

The inherent ambivalence characterizing public services in the context of the European Union, regarded as a constitutional value shared by countries parts of the Union, but treated as a derogation from competition law,[717] is inevitably reflected in the analysis of their relationship with services within the banking system. Credit has always had quite a complicated relationship with the legislation on public services.[718] The closest reference in the European legal framework to an inclusion of services related to the banking field in the broader SGEI framework comes from the acknowledgment that access to 'basic banking services', such as 'basic payment services' "under fair conditions is important for financial and social inclusion and to allow consumers to benefit fully from the single market".[719] It is on these grounds that the European Commission adopted in 2011 a Recommendation under which 'Member States should ensure that any consumer legally resident in the Union has the right to open and use a basic payment account with a payment service provider operating in their territory', that 'such a right should apply irrespective of the consumer's financial circumstances', and that 'member States should ensure that at least one payment service provider is in charge of offering basic payment accounts in their jurisdiction'.[720] Also following to the patchy outcomes of the Recommendation across member States,[721] a Directive has been adopted in 2014 regulating the topic, and laying down 'rules concerning the transparency and comparability of fees charged to consumers on their payment accounts held within the Union, rules concerning the switching of payment accounts within a Member State and rules to facilitate cross-border payment account-opening for consumers' (Art. 1).[722]

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institutions, to an understanding of a service that is public in that it responds to a public interest with some given characteristics.

[717] The contraposition is borrowed from M. KRAJEWSKI, 'Providing Legal Clarity and Securing Policy Space for Public Services through a Legal Framework for Services of General Economic Interest: Squaring the Circle?', European Public Law, no. 3/2008, 379.

[718] For instance, with reference to the Italian system, banking activity does not constitute a public service (C.Stato sez. VI 02.03.2001 n. 1206), whereas banking supervision does (Corte cost. 300/2003), although 'public services related to credit supervision' were mentioned in legislative decree no. 80/1998, law no. 205/2000).

[719] EUROPEAN COMMISSION, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *A Quality Framework for Services of General Interest in Europe*, 20 December 2011, 10.

[720] European Commission, Recommendation on access to a basic payment account, 2011/442/EU of 18 July 2011, Section II. Section III and Section IV of the Recommendation relate respectively to the characteristics of a basic payment account and the associated charges. As a background, see the Impact Assessment accompanying the Recommendation, and EUROPEAN COMMISSION, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *A Quality Framework for Services of General Interest in Europe*, 20 December 2011, 10.

[721] EUROPEAN COMMISSION, *National measures and practices as regards access to basic payment accounts. Follow-up to the Recommendation of 18 July 2011 on access to a basic payment account*, Commission Staff Working Document, SWD(2012)249 of 22 August 2012.

[722] Directive 2014/92/EU of the European Parliament and of the Council of 23 July 2014 on the comparability of fees related to payment accounts, payment account switching and access to payment accounts with basic features.

However close to the issue discussed here, these rules do not really seem to have embraced a genuine 'SGEI approach' in the banking field.

Additionally, many 'utility banking' proposals advanced in the last decade have remained mostly on paper so far.[723] At first sight, banking and financial services share with other services the process of liberalization that they have undergone. However, the extent to which they were provided by public agents was normally lower (apart from some countries where the presence of public subjects in the market was more marked, as for instance Italy) compared to other types of services. This is probably the reason why banking and financial services have developed through their own path. Moreover, they have gone through different stages and have reached now a steady state of broad and deep legal harmonization across Europe. Overall, the attempts to build a 'public interest service' approach into the banking regulatory framework have either failed straight away, or are finding difficulties, or are likely to deliver a weak and fragmented answer to the questions open. To make these attempts succeed a far more radical project should have been in place. Put differently (and without implicating support to it) it would have been necessary to give a much stronger nuance of publicity to a business that is today still inherently *private*. To many extents such approach would amount to a step back, compared to the road that has been travelled so far. SGEI may be normally found in those areas where liberalization has occurred only recently, or with much more resistance if compared to the banking system. Moreover, the latter are now subject to an extensive regulatory framework, that is not comparable to the degree of harmonization that characterizes other areas.[724]

An approach parallel to the one of SGEI is that related to the identification of critical functions and shared services,[725] even though it seems more geared at the survival of the firm, rater than at an appreciation of public nature of the services that have to be provided. Much work has been carried out by the Financial Stability Board, that has published extensive reports about the identification of 'critical functions' for recovery and resolution purposes, where the criticality is evaluated against the functions that are performed to the real economy and financial markets.[726] What is interesting is that even when talking about critical functions or shared services what is acknowledged is that "criticality is not a binary concept. There is a spectrum of criticality", according to "the materiality and the potential impact that the failure to provide a certain function could

[723] An effective synthesis of such proposals, along with an analysis of the most important implementation challenges associated to it, may be found in J.T.S. CHOW, J. SURTI, 'Making Banks Safer: Can Volcker and Vickers Do It?', 5-11.

[724] "With the sole exception of transport (which is the object of a specific Community policy), public utilities are ignored as such by the constitutive treaties and long neglected by secondary legislation as well", with the picture eventually changing only in the last decade of the XXIth century; G. NAPOLITANO, 'Towards a European Legal Order for Services of General Economic Interests', European Public Law, no. 4/2005, 565-566.

[725] FINANCIAL STABILITY BOARD, *Recovery and Resolution Planning for Systemically Important Financial Institutions: Guidance on Identification of Critical Functions and Critical Shared Services*, 16 July 2013.

[726] FINANCIAL STABILITY BOARD, *Recovery and Resolution Planning for Systemically Important Financial Institutions: Guidance on Identification of Critical Functions and Critical Shared Services*, 5.

have on the financial system and the broader economy".[727] Indeed, *criticality* looks rather as an *empty* concept, as the report itself provides in its Annex a list of functions that could exhibit some degree of criticality, but without being any exhaustive. Moreover, what is critical to the economy will be determined by the resolution authority, therefore to a great extent subtracted by public scrutiny. Hence, the FSB work seems rather a set of procedural suggestions, more than policy evaluations. Interestingly enough, the definitions adopted of critical functions[728] and critical shared services.[729]

3.2 Public institutions and the financial instability business[730]

The starting point of the enquiry on the institutional aspects of dealing with financial instability internationally is the disregard usually shown by nation States in banking and financial matters "for using traditional public international law to govern state practice and the operations of global financial markets".[731] Paramount evidence for this is the World Trade Organization 'prudential carve-out'. Due to the special significance of prudential regulation of the whole financial sector, a carve-out measure

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[727] FINANCIAL STABILITY BOARD, *Recovery and Resolution Planning for Systemically Important Financial Institutions: Guidance on Identification of Critical Functions and Critical Shared Services*, 6.

[728] These are "payments, custody, certain lending and deposit-taking activities in the commercial or retail sector, clearing and settling, limited segments of wholesale markets, market-making in certain securities and highly concentrated specialist lending sectors". More in general, they are "activities performed for third parties where failure would lead to the disruption of services that are vital for the functioning of the real economy and for financial stability due to the banking group's size or market share, external and internal interconnectedness, complexity and cross-border activities"; FINANCIAL STABILITY BOARD, *Recovery and Resolution Planning for Systemically Important Financial Institutions: Guidance on Identification of Critical Functions and Critical Shared Services*, 7. In order to be a critical function, it has to be provided by a G-SIFI to third parties and the sudden failure to provide it has to be likely to exert material impact on the third parties.

[729] These are, for instance, "the provision of information technology given the dependency of core banking processes on IT and other services such as facility management and administrative services". More in general, critical shared services are "activities performed within the firm or outsourced to third parties where failure would lead to the inability to perform critical functions and, therefore, to the disruption of functions vital for the functioning of the real economy or for financial stability"; FINANCIAL STABILITY BOARD, *Recovery and Resolution Planning for Systemically Important Financial Institutions: Guidance on Identification of Critical Functions and Critical Shared Services*, 7. The identification of the two categories would differ from a procedural viewpoint; for critical functions, a three-step process that comprises the impact assessment of such discontinuance of a critical function; a supply side analysis of the market for that function; a firm-specific test as assessment of the impact of a specific G-SIFI's failure; *ibidem*, 8. A simplified test should instead assist the determination of critical shared services; *ibidem*, 12-13.

[730] The title finds its inspiration in an Opinion published in The Wall Street Journal Europe on 22 December 2014, that carried the title *The Financial Instability Business*; on the Opinion, see later in the chapter.

[731] E. FERRAN, K. ALEXANDER, 'Can Soft Law Bodies be Effective? Soft Systemic Risk Oversight Bodies and the Special Case of the European Systemic Risk Board', 14.

was added to the Annex on Financial Services, stating that "notwithstanding any other provision of the Agreement, a Member shall not be prevented from taking measures for prudential reasons, including for the protection of investors, depositors, policy holders or persons to whom a fiduciary duty is owed by a financial service supplier, or to ensure the integrity and stability of the financial system".[732] This caution is also confirmed by resistance shown by the United States about financial services in the context of the current negotiation of the Transatlantic Trade and Investment Partnership (TTIP), which aims at establishing a long awaited free trade area with the European Union.[733] However, this does not diminish in any way the inherent international dimension of banking regulation. This is all the more true with financial stability (on its global character, see Chapter 2.2), where "the dispersion of the necessary knowledge, information and tools among diverse authorities militates in favour (of) the establishment of councils for proper coordination of macro-prudential policy".[734]

As a matter of fact, agreements reached at the international level do not constitute binding international law in its traditional meaning, and therefore they "do not create obligations for governments in the way a peace accord or an international humanitarian accord might",[735] with the further consequence of a lack of any formal ratification process, and a robust employment of administrative implementing tools of the standards agreed. The key issue, of course, is why this happens, and whether this may be challenged in any way by the rising role of macro-prudential policy. Why does international law in this area does not move along the lines more commonly know of international cooperation?[736] The reasons for this may be essentially found in the characteristics displayed by international soft law *vis-à-vis* hard law, with the former being much more suitable for coordination in the banking and financial fields. More specifically,

> "treaty-making often entails months, if not years, of negotiation between heads of state of their representatives, and local representatives. And once it is created they are hard to change, increasing the risk that rules generated through treaties fall out

[732] Paragraph 2(a) of the Annex on Financial Services. For a discussion on the topic, M. YOKOI-ARAI, 'GATS' Prudential Carve Out in Financial Services and Its Relation with Prudential Regulation', International and Comparative Law Quarterly, no. 57/2008, 613-648. On the relationship between the GATS and early liberalization measures in financial services, P. SORSA, 'The GATS Agreement in Financial Services – A Modest Start to Multilateral Liberalization', International Monetary Fund, IMF Working Paper no. 55/1997.

[733] I. BARBEE, S. LESTER, 'Financial Services in the TTIP: making the prudential exception work', Georgetown Journal of International Law, no. 45/2014, 953-970.

[734] G. NAPOLETANO, 'Legal aspect of macro-prudential policy in the United States and in the European Union', 26.

[735] J.R. BARTH, C. BRUMMER, T. LI, D.E. NOLLE, 'Systemically Important Banks (SIBS) in the Post-Crisis Era. The Global Response, and Responses Around the Globe for 135 Countries', 660.

[736] Occasionally, there have been opinions in favour of a role for international treaties as for bank resolution, in order to set on more secure footings what may be departed from in case a serious crisis manifests; LEX COLUMN, 'Bank resolution: marriage before divorce', financial Times, 2 January 2015.

> of step with practice. Soft law, by contrast, provides a decisively cheaper means of agreement-making. It carries what can be thought of as low bargaining costs due to its informal status. Perhaps most important, it does not require extensive participation by heads of state or lengthy ratification procedures. Instead, agreements can be enters into between administrative agencies and technocrats, with relatively little interference by outsiders. As a result, fewer interests need be accounted for and the universe of interests become more finite, easing negotiation. Parties can also amend accord relatively easily, because of the flexibility afforded by soft law, so long as a basic agreement among parties exist"[737]

This is how international regulation in the banking and financial fields grew up as mainly as a system of soft law, which in spite of its non-binding character has been "nevertheless capable of exerting powerful influence over the behaviour of countries, public entities and private parties".[738] For sure, in spite of all its advantages, international soft law is not without serious flaws and shortcoming. Potentially critical aspects pertain to its amenability for capture from interests groups; the inherent lack of transparency and accountability of discussions taking place; the fact that decisions are taken outside the constitutional decisional patterns, therefore possibly short of basic democratic prerogatives. Moreover, it tends to show problems of compliance monitoring.[739] Physiologically, soft law needs to be engraved in black letters in order to make it legally binding; however, also prior to this, in the banking and financial fields soft law normally displays characteristics of political enforceability, given the high degree of compliance that can be witnessed across countries. The heightened regulatory cycle, with the consequent higher degree of 'hardness' in banking regulation, should not lead to underestimate the role of soft-law, that is apparent taking into account the extent to which all recent hard law developments have actually been conceived by international soft law bodies.

The international institutional architecture is largely a product of the Bretton Woods agreement, that from its outset in mid-XXth century has been quite successful in its main purpose of reducing the occurrence of financial crises.[740] After the demise of the fixed exchange rate system in 1973, the substantial growth of international financial markets

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[737] J.R. BARTH, C. BRUMMER, T. LI, D.E. NOLLE, 'Systemically Important Banks (SIBS) in the Post-Crisis Era. The Global Response, and Responses Around the Globe for 135 Countries', 660-661.

[738] E. FERRAN, K. ALEXANDER, 'Can Soft Law Bodies be Effective? Soft Systemic Risk Oversight Bodies and the Special Case of the European Systemic Risk Board', 4. As for the qualities and potential of soft law, it can also be open-textured; it can facilitate consensus; it can exhibit quite high degree of technical detail; and it can be flexible and quickly adjusting to circumstances; *ibidem*, 6 ff.

[739] J.R. BARTH, C. BRUMMER, T. LI, D.E. NOLLE, 'Systemically Important Banks (SIBS) in the Post-Crisis Era. The Global Response, and Responses Around the Globe for 135 Countries', 660-661.

[740] D.W. ARNER, *Financial Stability, Economic Growth, and the Role of Law*, 4. See also M. GIOVANOLI, 'A New Architecture for the Global Financial Market: Legal Aspects of International Financial Standard Setting', in M. GIOVANOLI (ed.), *International Monetary Law Issues for the New Millennium*, Oxford, Oxford University Press, 2009, 3-59.

"called for the extension from the national to the international sphere of the traditional policy functions of banking supervision".[741] Thus at the onset of the global financial crisis the international institutional system presented as "a system of international financial standards under which political decisions are taken by the G7; standards are formulated by international financial organizations; coordinated by the new Financial Stability Forum; and international financial institutions develop mechanism of implementation, monitoring and response to crises, with the result being translation of international standards into domestic legal systems".[742] After the financial crisis, the landscape may not be said to have changed much.[743] To an extent, this is fully in line with the core characteristics of international banking; besides being a stimulus for competition among players, internationalisation also introduces regulatory competition, thus requiring enhanced cooperation for the performance of policy functions.[744]

However, what has changed after the crisis is for sure a stronger accent being posed on the element of financial stability. Its most important guardian at the international level is probably the Financial Stability Board (FSB), established in the aftermath of the G20 April 2009 summit with a broader mandate than its predecessor, the Financial Stability Forum. Indeed, this includes nowadays coordination of international work on the reform of the financial system, along with an oversight function necessary to such reform action. The result is that "the FSB exercises, on behalf of the G20, an implicit leadership role in cooperative work on selected issues with independent international organizations".[745] The FSB (whose Charter explicitly refers to action 'in the interest of global financial stability') actually shifted its role "from one of a loose coordinator to putative regime manager and regulator".[746] It is true that, if compared with

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[741] T. PADOA-SCHIOPPA, *Regulating Finance*, 4. On the international institutional framework, see H. EVANS, 'Plumbers and Architects. A supervisory perspective on international financial architecture', Financial Services Authority, Occasional Paper Series, no. 4/2000.

[742] D.W. ARNER, *Financial Stability, Economic Growth, and the Role of Law*, 5. For a constitutional perspective on non-State regulators, L. CUOCOLO, 'Constitutional Law faced with Globalization's Regulators', Journal of Regulation, no. I.28/2011, 486-493.

[743] However, it is true that "the cycle of international cooperation is related to movements in the business cycle. In boom times, politicians and, importantly, their electorate are more prepared to take steps on the international front to expand business"; D. SCHOENMAKER, *Governance of International Banking. The Financial Trilemma*, 130.

[744] T. PADOA-SCHIOPPA, *Regulating Finance*, 36-37. The whole system has not gone short of respectable critiques, such as that "the creation of global financial markets was a political strategy pursued by a state-market alliance of interests which became transnational in nature. Private preferences were converted, through state policy in the G-10 economies, into the evolving structure of the global market; G. UNDERHILL, *Theorizing Governance in a Global Financial System*, 23.

[745] J.R. BARTH, C. BRUMMER, T. LI, D.E. NOLLE, 'Systemically Important Banks (SIBS) in the Post-Crisis Era. The Global Response, and Responses Around the Globe for 135 Countries', 621. On the substantial role played by the FSB, G. NAPOLETANO, 'Legal aspect of macro-prudential policy in the United States and in the European Union', 36 ff.

[746] J. BLACK, 'Restructuring Global and EU Financial Regulation: Capacities, Coordination and Learning', 19.

the IMF and the BIS/BCBS, the FSB is characterized by a lack of legal personality.[747] However, this does not seem to impair its role, given that it is likely to exert its influence mainly by mean of principles and standards for regulatory action (on examples of FSB standards relatively to systemic risk and financial stability, see Chapter 1).

The main competitor of FSB in the international arena for a role of 'global systemic risk board' is the International Monetary Fund (IMF),[748] in relation to which it has been maintained that "it is moving to play a greater role as an enforcer".[749] With the unfolding of the financial crisis the IMF has strenghtened financial sector activities part of Article IV surveillance. Issues of financial stability were also already addressed by the IMF within the FSAP Financial Sector Assessment Plan.[750] However, IMF surveillance had shown some shortcomings, mainly because it tended to focus on individual economies; "efforts to improve IMF surveillance are now underway to enhance its ability to identify common shocks and risk correlations across countries and the systemic implications of large cross-border financial institutions".[751] Limitations to the future role of the IMF could derive from its structure of bilateral relationships; the limitations to access to relevant data; and he lack of legal powers for effective action.[752] Additionally, the IMF has been identified as the best example of tendency "to reinforce the homogenizing process"[753] at the regulatory level, something which may prove ultimately dangerous for financial stability.

Coordinated action at the international level often takes the form of an interplay between the FSB and the Basel Committee on Banking Supervision (BCBS), with the former prompting reform at the international level and the latter entrusted with the task of drafting technical standards. The prevailing institutional pattern has therefore being that of 'multilateral cooperation'. The global financial crisis has undoubtedly confirmed the ever increasing importance of the role of the BCBS,[754] producing technical work on essentially every single issue relevant for financial stability purposes. This extensive technical role has not shielded it from critique, mainly related to the extent to which its design "as the international forum for the promotion of a safe and fair supervisory environment in which minimal prudential standards would be respected by all"[755] actually entailed a drift towards market-friendly approaches to regulation, favoured by the very

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[747] E. FERRAN, K. ALEXANDER, 'Can Soft Law Bodies be Effective? Soft Systemic Risk Oversight Bodies and the Special Case of the European Systemic Risk Board', 9. The FSB is structured as a system of peer review among members, that is likely to be effective only to the extent that peer-pressure is actually exercised.

[748] On the IMF and the development of the international financial system, .W. ARNER, *Financial Stability, Economic Growth, and the Role of Law*, 52 ff.; 66.

[749] J. BLACK, 'Restructuring Global and EU Financial Regulation: Capacities, Coordination and Learning', 26.

[750] R.M. LASTRA, *Legal Foundations of International Monetary Stability*, 404.

[751] E. FERRAN, K. ALEXANDER, 'Can Soft Law Bodies be Effective? Soft Systemic Risk Oversight Bodies and the Special Case of the European Systemic Risk Board', 12.

[752] J. BLACK, 'Restructuring Global and EU Financial Regulation: Capacities, Coordination and Learning', 28.

[753] J. EATWELL, M. MILGATE, *The Fall and Rise of Keynesian Economics*, 27.

[754] D.W. ARNER, *Financial Stability, Economic Growth, and the Role of Law*, 36.

[755] T. PADOA-SCHIOPPA, *Regulating Finance*, 4-5.

way in which the Committee is constructed. While this may be partially true, it is necessary not to overly put the blame on the institution. As it has been correctly argued, it is international cooperation in the banking field that tends in itself to be market-friendly, as "the need to reconcile different approaches, financial structures, and regulatory and legal traditions, together with the absence of strong legal powers of enforcement, have obliged the international bodies responsible for banking supervision to be much more flexible and market-minded than several national agencies".[756]

Of course, this should not lead to reject international cooperation altogether, that is all the more fundamental where the macro-prudential regulatory angle is taken. However, what it *does* entail is that, more than ever, the interplay between the national dimension and the supra-national one is absolutely essential. As it has been underscored with some discouragement, "global risks would meet with global responses in an ideal world, but the reality is that countries and their communities are on the frontline when it comes to systemic shocks and catastrophic events".[757] The consequent tendency for national public authorities in the banking field to take only national interests to account has been amusingly explained with the Scottish saying 'he who pays the piper calls the tune'. In other words, "the fiscal principal, as paymaster, will determine the intensity of supervision to prevent crises and the design of resolution arrangements to deal with crises";[758] the very same may be said for macro-prudential policies, that are closely intertwined with the extent to which authorities accept the risk of the occurrence of a crisis.

The emergence of topics of systemic risk and financial stability as autonomous policy grounds therefore prompted substantial change at the institutional level also domestically. Anglo-Saxon countries have been especially prompt in re-organizing the distribution of powers in renewed institutional forms.[759]

A paramount example of institutional change are actually the United States, where the Dodd-Frank Act (DFA) designed a system under which the Federal Reserve is in charge of supervising systemically significant banks and financial institutions (enjoying a mandate for macro-prudential supervision), while the Financial Stability Oversight Council (FSOC),[760] in cooperation with the Office of Financial Research (OFR),[761] is in

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[756] T. PADOA-SCHIOPPA, *Regulating Finance*, 13.

[757] WORLD ECONOMIC FORUM, *Global Risks 2013*, Insight Report, Eighth Edition.

[758] D. SCHOENMAKER, 'On the need for a fiscal backstop to the banking system', 4. See also C. GOODHART, D. SCHOENMAKER, 'Fiscal Burden Sharing in Cross-Border Banking Crises', International Journal of Central Banking, 5, 141-165.

[759] A meaningful example of marked institutional change is that of the United Kingdom, where the 2009 Financial Services Bill put the maintenance of financial stability on an institutionally more secure footing. Indeed, it entrusted the FSA with responsibilities for the protection of financial stability, also enhancing the overall efficiency of the institution by mean of a split between a Prudential Regulation Authority and a Financial Conduct Authority. The Banking Act coupled with this institutional move with the creation within the Bank of England of an independent Financial Stability Committee, that should act as a monitoring body in charge of detecting threats to financial stability and coordinating the appropriate responses.

[760] The FSOC acts as a body where a connection between technical expertise and political stance may take place. Indeed, 8 out of the 10 voting members are financial regulators (an additional one is the Chairperson of the Federal Reserve) and the body is chaired by the Secretary

charge of macro-prudential oversight. Indeed, the FSOC is entrusted the task of identifying threats to financial stability, while at the same time promoting market discipline and prompting responses to emerging imbalances. Generally speaking, while the FSOC is entrusted a role in the identification of risks and therefore in the identification of intermediaries the Federal Reserve has in this regard a more operational and implementing role.[762] The FSOC accountability to the Congress substantiates in the duty to report and testify on an annual basis; the DFA provides in principle for a true discussion taking place before the legislator, with objectives and activities to be discussed along with operational aspects.[763]

Assuming an international perspective relatively to such institutional overhaul, what is especially interesting is the whole range of *extra-territoriality* issues that arise as the theoretical by-product of the notion of financial stability. Under Section 133 and Section 121 DFA non-US financial companies may be regulated, and wide-ranging restrictions may be imposed to them affecting activities and products, where such institutions are found to threat financial stability in the United States. The result is a set of powers that may be well labelled as extra-territorial ones, and that, even though somehow mitigated,[764]

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of the Treasury (Section 111). In fulfilling its oversight tasks the FSOC enjoys extensive powers as for information gathering; it can issue recommendations, in particular it can recommend the adoption of heightened prudential standards relatively to a large number of these (e.g. capital, liquidity, leverage) (Section 112). Perhaps the most intrusive power lie in the possibility of 'designating' a financial company as in need of being supervised by the Federal Reserve, when concerns arise about the systemic risk it may pose (Section 113). The same holds true for financial market 'utilities' or 'activities' which may be deemed of systemic importance and therefore deemed in need of Federal Reserve supervision (Section 804).

[761] The OFR was established by the DFA as a body operating within the Treasury whose main task is to carry out the analytical work that lies behind FSOC decisions. It is intended to be a permanent structure gifted with budgetary as well as organizational autonomy. As for its political ties, the OFR Director is appointed by the President with the agreement of the Senate (Section 152). As for the accountability side, this has a dedicated line for the OFR separated from that of the FSOC, taking place before both the Senate and the House of Representatives.

[762] However, the latter should not be read as a secondary one; no explanation is indeed due form it side in case of inertia upon FSOC recommendation. On the whole topic, G. NAPOLETANO, 'Legal aspect of macro-prudential policy in the United States and in the European Union', 55. Another taxonomy of powers entrusted to the FSCO which has also been summarized is the one distinguishing 'coordination powers', 'advisory powers', and 'systemic powers'; D. SCHOENMAKER, *Governance of International Banking. The Financial Trilemma*, 127.

[763] Concerns may rise about whether this discussion may be a real one, and whether the legislator would have the chance to get a full understanding of issues at stake. Accountability is in principle facilitated also by the transparency approach that is taken relatively to FSOC meetings; under the FSCO Rules of Organization, minutes are made public unless specific confidentiality issues arise, and meetings are accessible to the public too.

[764] The exercise of such power should take into account 'the principle of national treatment and equality of competitive opportunity' and standards applied should be 'comparable to those applied to financial companies in the United States' (Section 121).

confer substantial power on US authorities.[765] Of course, this approach introduces potential imbalances between jurisdictions where activities are carried out, and jurisdictions whose public interests have to be answered. Critics have maintained that such powers could also entail a decrease in efficiency, and harm "effective international coordination and global policy setting".[766] However reasonable they may sound, these opinion may not dismiss that, as a matter of fact, "cross-border financial activity can undermine the effectiveness of national macroprudential policy".[767]

What is undoubtedly left open by changes in the US institutional setting is the broader concern of how to reconcile within the central bank the new macro-prudential tasks with those traditionally performed, among all monetary policy. Indeed, concern has been expressed that the new macro-prudential tasks "could politicize the Fed's activities, (and) may also erode the institutional independence that has been held central to a credible low-inflation policy".[768] These possible tensions couple with an overall enhanced role of the central bank, so that the Federal Reserve has been referred to as the "fourth branch of government".[769]

This tendency is not unique to the United States.[770] As a secondary effect, this has renewed the interest in the debate about the optimal mandate of the central bank. For instance, it has been argued that contemporary trends "have reduced the strength of the arguments brought against central bank involvement in macro supervision, and at the same time have reinforced the case for avoiding any delegation of micro supervision to the central bank".[771] Quite at the opposite, it has been also argued that a dual-mandate for the central bank (both monetary and financial stability) would be sub-optimal due to a time inconsistency problem, so that "while it is ex-ante optimal for the dual-mandate central bank to deliver the socially optimal level of inflation, it is not so ex-post. This central bank has the ex-post incentive to reduce the real burden of private debt through inflation".[772]

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[765] This holds true also in spite of difficulties arising from international cooperation, such as data-gathering and the role of domestic considerations; M.I. OVERMYER, 'The 'Foreign Private Adviser' Exemption: a Potential Gap in the New Systemic Risk Regulatory Architecture', 2217.

[766] I. GOLDIN, T. VOGEL, Global Governance and Systemic Risk in the 21st Century: Lessons From the Financial Crisis, 10.

[767] BANK OF INTERNATIONAL SETTLEMENTS, *Macroprudential instruments and frameworks: a stocktaking of issues and experiences*, 7.

[768] L. GOODHART. 'Brave New World? Macro-prudential Policy and the New Political Economy of the Federal Reserve, London School of Economics and Political Science', 25.

[769] This has actually happened even in spite of the little technical mastery that it could claim relatively to its new tasks, compared to monetary policy ones L. GOODHART. 'Brave New World? Macro-prudential Policy and the New Political Economy of the Federal Reserve, London School of Economics and Political Science', 35.

[770] Even if there may be more surprising due to the fact that the sentiment about the supervisor after the financial crisis was not really appositive one.

[771] D. MASCIANDARO, 'Monetary policy and banking supervision: still at arm's length? A comparative analysis', The European Journal of Comparative Economics, no. 3/2012, 360.

[772] K. UEDA, F. VALENCIA, 'Central Bank Independence and Macroprudential Regulation', International Monetary Fund, Working Paper no. 101/2012.

Even these two academic positions only may be sufficient to indicate a promising path for scientific debate. The coupling of a 'silo-based' model (public authorities in charge of regulation of single areas) with a 'peak model' (that distinguishes a 'micro' and a 'macro' dimension of the market) produces an overall effect of increased complexity. When this further couples with overlapping legal orders, complexity is likely to reach a level at which technical and political elements may not be disentangled any more, as the case of the European Union illustrates.

3.2.1 The European Union: a tale of cogs and fears

The European Union is a prominent example of the attempt to solve the so-called 'financial trilemma' – modelled after the monetary trilemma[773] – which maintains that it would not be possible to maintain at the same time a stable financial system, international banking, and national supervision and resolution policies.[774]

At the level of the European Union, such attempt needs to be framed within the legal competences enshrined by the Treaties. Specifically, banking regulation (both in its micro- and macro-prudential meaning) legally pertain to the 'internal market' competence enjoyed under Art. 114 TFEU, on which harmonization is grounded. As a further consequence, the competence is a shared one between the European Union and member States. However, the uncertainty around the meaning of basic terms related to macro-prudential policy may complicate the task; the controversy has been solved by underscoring that "'since stability and soundness are essential pre-requisites for the smooth operation of any financial market, macro-prudential oversight and containment of systemic risk can be regarded as fundamental parts of the general subject-matter to which the body of EU law on the harmonisation of financial market regulation relates".[775]

While considering the exercise and the coordination of macro-prudential powers within the European Union, two dimensions that have to be taken into account, the first being a Union-wide one, and the second being instead specific to the euro area.

At the European institutional level the developments driven by the post-crisis thrust[776] have led to the establishment of the European system of Financial Supervision

[773] The monetary trilemma was formulated by Mundell and Fleming in the early Sixities, and states that it would not be possible to maintain at the same time a fixed exchange rate, international capital mobility, along with national independence in monetary policy.

[774] D. SCHOENMAKER, *Governance of International Banking. The Financial Trilemma*, 6 ff. See also D. SCHOENMAKER, 'The Financial Trilemma', DSF Policy Paper Series, no. 7/2011. In the field of international studies, also an 'international trilemma' has been proposed, postulating the impossibility of maintaining at the same time mass politics, integrated economies and nation States; D. RODRIK, 'How Far Will International Economic Integration Go?', Journal of Economic Perspectives, no. 14/2000, 177 ff.

[775] E. FERRAN, K. ALEXANDER, 'Can Soft Law Bodies be Effective? Soft Systemic Risk Oversight Bodies and the Special Case of the European Systemic Risk Board', 26.

[776] J. DE LAROSIÈRE The High level Group on Financial Supervision in the EU, *Report*, 50.

(EFSF).[777] Although vested with powers mainly related to quasi-rule-making and supervision, the European Banking Authority also enjoys some financial stability remits. These lie in the duty to 'pay particular attention to any systemic risk posed by financial institutions, the failure of which may impair the operation of the financial system or the real economy' (Art. 1 EBA Regulation).[778] Moreover, it has the duty to collaborate with the ESRB for the identification and measurement of systemic risk and for 'the development of a stress-testing regime which includes an evaluation for the potential for systemic risk ... to increase in situations of stress' (Art. 23), along with the calibration of the responses to it (Art. 24).

The most remarkable institutional development has been represented by the establishment by Regulation no. 1092/2010/ EU of the European Systemic Risk Board (ESRB), charged with the task of macro-prudential oversight. The establishment itself of this new body has marked in Europe a new attention paid to issues of financial stability.[779]

The ESRB profile slightly differs from the one originally envisaged by the de Larosière Report.[780] Today the ESRB is an independent body of the European Union, which is essentially entrusted with soft-law powers in the form of warning and recommendations.[781] From its internal organizational viewpoint, the ESRB is able to

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[777] For what is at stake here, the establishment of the European Banking Authority (EBA) by Regulation no. 1093/2010/EU and the European Securities and Markets Authority (ESMA) by Regulation no. 1095/2010/EU.

[778] Indeed, they are gifted with emergency powers (though with necessary intervention of the Council and the Commission) in case of events liable to jeopardize the functioning of the markets (Art. 18). This has been defined as "the most definite 'hard' power that ESAs dispose of to counter systemic risk", although "this power does not seem fit to counter propagation of systemic risk"; G. NAPOLETANO, 'Legal aspect of macro-prudential policy in the United States and in the European Union', 96.

[779] "Although the ESAs are conferred with supervisory powers with respect to systemic risk, the ESRB is the primary EU location for macroprudential oversight of the EU financial system, albeit in co-operation with the ESAs and NCAs"; N. MOLONEY, *EU Securities and Financial Markets Regulation*, 1009.

[780] Indeed, apart from the name (European Systemic Risk Council) it would have considered not just the financial sector, but more widely the economy as a whole, including fiscal issues; it would have had a wider set of tools to employ? And would have been integral part of the ECB; "the detachment of the macro-prudential function from the ECB was parallel to the integration of the ESRB into the ESFS, while the ECB stayed outside the ESFS"; G. NAPOLETANO, 'Legal aspect of macro-prudential policy in the United States and in the European Union', 90.

[781] Under the ESRB Regulation, the body lacks legal personality (Recital no. 15) and support functions at its advantage are performed by the ECB (Art.), from which it depends for organizational and financial matters. On the latter, Regulation no. 1096/2010/EU has been enacted 'conferring specific tasks upon the European Central Bank concerning the functioning of the European Systemic Risk Board'. Warnings and recommendations can take or not a public form with the publication on the Official Journal (Art. 16 and Art. 18). Also in compliance with the Treaty, these instruments are not gifted with binding force (Art. 288 TFEU). On the many roles it can play even being a soft-law body, E. FERRAN, K. ALEXANDER, 'Can Soft Law Bodies be Effective? Soft Systemic Risk Oversight Bodies and the Special Case of the European

ensure a broad representativeness. Its General Board is an extremely large body with a composite membership and the appointment of the ECB President as Chair ensure a tight coordination between the two.[782] The members of the General Council are mandated 'to consider only the financial stability of the Union as a whole' and to act 'solely in the interest of the Union as a whole'.[783] Overall, "there is much about the ESRB structure that is unique to it and the European Union constitutional and legal framework within which it sits, and in respect of which lessons drawn from international level experience do not pertain".[784] Concretely, its main tasks range from the collection and analysis of information and statistical data aimed at the definition of indicators able to capture systemic risk and consequently. All this work leads to warnings and recommendations, which although lacking legal binding force, are assisted by an 'act-or-explain' mechanism and, most importantly, prompt action by other authorities. All this work goes in the direction of the creation of a 'constrained discretion' similar to that discussed in Chapter 2. Thus far, the ESRB has issued several recommendations and decisions, dealing with quite a range of different topics.[785] Especially meaningful from an institutional viewpoint has been the ESRB Recommendation on the macro-prudential mandate of national authorities,[786] issued on the assumption that authorities at the national level are at the forefront in regulatory action needed for the safeguard of financial stability (Recital no. 2).

Systemic Risk Board'; C.A.E. GOODHART, *The Macro-Prudential Authority: Powers, Scope and Accountability*, 36.

[782] The decision-making body is the General Board, which is made up of central bankers, financial regulators, high-level representatives, along with a member form the European Commission. The Steering Committee is restricted as for its size (it is composed by representatives of EU-level authorities), and entrusted with high-level operational tasks. To this purpose, it is supported by two committees, the Advisory Technical Committee (ATC) and the Advisory Scientific Committee (ASC), respectively composed of senior national officers and technical experts. The organization patterns have been rightly found to be similar to some extent to those of the Basel Committee and the Financial Stability Board; G. NAPOLETANO, 'Legal aspect of macro-prudential policy in the United States and in the European Union', 101. For a detailed discussion of many organizational aspects, EUROPEAN COMMISSION, *Report from the Commission to the European Parliament and the Council on the mission and organisation of the European Systemic Risk Board*, August 2014, 5-6.

[783] Respectively Recital no. 26 and Art. 7 ESRB Regulation.

[784] E. FERRAN, K. ALEXANDER, 'Can Soft Law Bodies be Effective? Soft Systemic Risk Oversight Bodies and the Special Case of the European Systemic Risk Board', 4.

[785] On the technical tools for macro-prudential policy, see Chapter 2. The most relevant among them are the Decision on a coordination framework regarding the notification of national macro-prudential policy measures by competent or designated authorities and the provision of opinions and the issuing of recommendations (ESRB/2014/2); Recommendation on guidance for setting countercyclical buffer rates (ESRB/2014/1); Recommendation on intermediate objectives and instruments of macro-prudential policy (ESRB/2013/1); Recommendation on funding of credit institutions (ESRB/2012/2); Recommendation on money market funds (ESRB/2012/1); Recommendation on the macro-prudential mandate of national authorities (ESRB/2011/3).

[786] EUROPEAN SYSTEMIC RISK BOARD, *Recommendation on the macro-prudential mandate of national authorities*, 22 December 2011, ESRB/2011/3.

The Recommendation is further articulated in five recommendations, relating to objectives, institutional arrangements, tasks and powers, transparency, and independence.[787] In June 2014 the ESRB also published a Follow-up Report on the assessment of the compliance with this Recommendation.[788]

The entry into force of the regulatory package CRD4-CRR acts as a substantial turning point in the activity of the ESRB, due to the consequent need of "developing an analytical and organisational framework in order to be able to take up the new tasks conferred on it by the legislation".[789] Since then, two particularly remarkable documents have been published by the ESRB, namely the *Flagship Report*, providing a overview of the new macro-prudential framework in the EU,[790] and a detailed *Handbook*, aimed at giving guidance to national authorities for the use of the new instruments.[791] Overall, quite an extensive role is now entrusted to the ESRB, mainly in terms of guidance on the countercyclical buffer; recommendations on some systemic risk buffers; opinions on systemic risk buffer and flexibility measures; and participation to consultations on CRD4-CRR review.[792]

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[787] As for the objective, macro-prudential authorities should contribute to the safeguard of financial stability, with the ultimate aim of ensuring the sustainable contribution of the financial system to economic growth, acting both on their initiative or upon ESRB invitation; the clarity about objective is meant to help overcoming a possible inaction bias (Recital no. 5). As for the institutional arrangements, an authority should be designed at the national level, along with its decision-making process and the mechanisms designed for cooperation; in the institutional design the central bank is expressly required to play a leading role. As for its tasks and powers, the identification, monitoring and assessment of risks, together with the implementation of policies, bases on the possibility to obtain timely all relevant data and information. As for transparency, the timely publication of decisions (unless financial stability concerns arise), and ultimate accountability to national parliaments; transparency is openly meant to improve the understanding of macro-prudential policy by both the financial sector and the public, besides constituting a precondition for accountability *vis-à-vis* the legislature (Recital no. 11). As for independence, at least in its operational meaning, with special reference to political bodies and the financial industry.

[788] The results have been that at the time of the Report, out the 29 countries evaluated, 7 had fully implemented the Recommendation, 17 showed a high degree of compliance, while 5 were only partially compliant; however, partial compliance was due to the time needed for the legislation process to complete. Overall, the Report witnessed a high degree of compliance, albeit some discrepancies from the framework; EUROPEAN SYSTEMIC RISK BOARD, *Recommendation on the macro-prudential mandate of national authorities (ESRB/2011/3), Follow-up Report – Overall assessment*, June 2014.

[789] EUROPEAN COMMISSION, *Report from the Commission to the European Parliament and the Council on the mission and organisation of the European Systemic Risk Board*, August 2014, 4.

[790] EUROPEAN SYSTEMIC RISK BOARD, *Flagship Report on Macro-prudential Policy in the Banking Sector*, March 2014.

[791] EUROPEAN SYSTEMIC RISK BOARD, The ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector, March 2014.

[792] EUROPEAN SYSTEMIC RISK BOARD, *Flagship Report on Macro-prudential Policy in the Banking Sector*, 23.

In spite of elements that are explicitly devised at 'hardening' the impact of its warnings and recommendations,[793] the activity of the ESRB may only take the forms of soft law. What has served as a justification for not entrusting the ESRB with binding powers ("the political sensitivities associated with the management of systemic risk, particularly given the fiscal and economic consequences ... militated against the ESRB having separate legal personality and binding powers")[794] has not lead to a parallel acknowledgment of the political weight of macro-prudential issues yet. However, the absence of binding powers should be read as both a cause and a consequence of the geographical reach of ESRB activities, which is potentially wider than the European Union, due to the recognized characteristic of systemic risk, also outside European Union borders.[795]

The ESRB has recently undergone review.[796] A broad satisfaction has emerged relatively to the major strengths displayed by this institution; however, major areas for improvement have been also identified, namely organisational identity, internal governance, and the set of tools available.[797]

In any case, key to the survival and the health of the institution will be the way in which it will behave in the next decade, when substantial evolutions about macro-prudential supervision, the euro-area, and the European Union in general are likely to take

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[793] N. MOLONEY, *EU Securities and Financial Markets Regulation*, 1014.

[794] N. MOLONEY, *EU Securities and Financial Markets Regulation*, 1015.

[795] Thus to some extent one characteristic of the ESRB is that of 'indeterminacy' in both the geographical scope and the number and type of subjects on which its work may focus. Additionally, the international dimension vested in its activity is enshrined in the need for the ESRB to coordinate its actions with 'international financial organizations, particularly the IMF and FSB, as well as the relevant bodies in third countries, on matters related to macro-prudential oversight' (Article 3), and to contribute to their work in active way (Recital 8).

[796] The review is also required by Art. 20 of the Regulation establishing the ESRB (Regulation (EU) no. 1092/2010/EU 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). The review has been openly recognized to be a difficult task because of two sets of reasons, namely having the ESRB been established at the height of the financial crisis (therefore lacking an assessment on proper crisis prevention) and in the light of recent institutional and substantial reforms (the establishment of the SSM and the set of macro-prudential tools provided by the CRD4-CRR package); EUROPEAN COMMISSION, *Report from the Commission to the European Parliament and the Council on the mission and organisation of the European Systemic Risk Board*, August 2014, 3.

[797] EUROPEAN COMMISSION, *Report from the Commission to the European Parliament and the Council on the mission and organisation of the European Systemic Risk Board*, August 2014, 6-7. The satisfaction mostly expressed in relation to a sufficiently wide mandate; its role as a forum for discussion; the introduction of a macro-prudential dimension in policy and regulation; a role played in the establishment of a macro-prudential within the EU; the analytical work carried out on a number of cross-cutting macro-prudential issues. As for areas for improvement, the need for a credible person as Chair of the ESRB after the current term (provisionally entrusted to the President of the ECB) will be expired; the need for a stronger identity, albeit always relying to ECB expertise and support.

place. This challenge will essentially revolve around the extent to which the ESRB will depart from its ambitious original design towards that of "a narrow technocractic organisation for the gathering and processing of information", thus giving up to the potentially very strong impact of its advice.[798] In turn, this will depend on how important cross-border macro-prudential issues will be; in the words of the ESRB discussing the way in which it is going to express its opinion on national measures, the methodology proposed entails for the ESRB

> "to consider the domestic and crossborder effects of a measure from a financial stability perspective, i.e. carrying out a unified as opposed to 'cross-border only' assessment. This methodology satisfies the need to duly consider macro-prudential policy's effects on financial stability ... macro-prudential policy can have material positive spillovers to other countries by reducing the build-up of systemic risk and the probability and impact of systemic crises. Such positive effects on financial stability are difficult to assess along the cross-border dimension alone. Nevertheless, the assessment of such cross-border effects should not be avoided simply because they are difficult to observe and quantify"[799]

In other words, the more in the next decade national interests will be required to 'sublimate' to higher geographical and political levels, the more important is likely to be the role of the ESRB.

All in all, the role played by the ESRB also needs to be evaluated against the backdrop of the more general power arrangements in the European Union. In particular, after the financial crisis the Council has shown an overall increased engagement; the same may be said for the Parliament, whose increased role has being pointed as "the most striking feature of the crisis-era legislative process".[800]

However, the most remarkable institutional dialogue of the ESRB is that with the ECB, for a number of reasons. Indeed, the ECB "was reportedly hostile to the establishment of a separate legal entity whose powers would overlap with its financial stability functions".[801] However, until recently the ECB mandate in relation to financial stability was not free from discussions. Some argued that the Maastricht Treaty would have made it "clear that the responsibility for financial stability in the EU does not lie with the ESCB", rather placing on it only an obligation to cooperate with responsible authorities.[802] The ECB has actually always performed analyses on financial stability issues, under the mandate of Art. 127(5) TFEU relating to 'the stability of the financial system'. However, this mandate was found to be broadly insufficient in the findings of

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[798] E. FERRAN, K. ALEXANDER, 'Can Soft Law Bodies be Effective? Soft Systemic Risk Oversight Bodies and the Special Case of the European Systemic Risk Board', 23.

[799] EUROPEAN SYSTEMIC RISK BOARD, *The ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector*, 190.

[800] N. MOLONEY, *EU Securities and Financial Markets Regulation*, 892-893.

[801] N. MOLONEY, *EU Securities and Financial Markets Regulation*, 1015.

[802] H. DAVIES, D. GREEN, *Banking on the Future: the Fall and Rise of Central Banking*, 59.

the de Larosière Report, with reference to a limited effectiveness of macro-prudential oversight, along with lacking legal procedures and tools.[803]

The whole framework has changed since 2014, when the Single Supervisory Mechanism (SSM) was established, as part of a broader project for a Banking Union within the euro-area. This is an event that is having to many extents "seismic implications" for the governance of the banking sector.[804] Legally, the SSM amounts to an application of the possibility to confer specific tasks upon the ECB concerning policies related to the prudential supervision of credit institutions under Art. 127(6) TFEU. However, this framework primarily designed for micro-prudential supervision will exert substantial effects on macro-prudential supervision as well.[805] In the light of what has been discussed, the endowment of responsibility for the application of micro-prudential tools (the ECB now has the power to employ both Pillar I and apply Pillar II instruments) already allows for an employment of them in macro-prudential fashion. Additionally, rules have been introduced on the employment of macro-prudential tools as well. In a nutshell, relevant national authorities remain untouched in their powers, that are explicitly safeguarded by SSMR also with regard to macro-prudential tools that are not regulated at the European level. However, the institutional design envisaged by the SSMR as far as macro-prudential tasks and tools are concerned is quite articulated. Indeed, under Art. 5(1) whenever appropriate or required NCAs or NDAs may apply requirements for additional capital buffers (including countercyclical buffer rates), along with any other measures aimed at addressing systemic risk, subject to the procedures set out in CRD4-CRR. However, a duty of coordination is imposed, as ten working days prior to taking the relevant decision, authorities shall notify the ECB. In case the ECB objects, it shall state its reasons, and authorities are bound to duly consider such reasons prior to proceeding with the decision. The ECB also has a role in tackling the possible inertia of national authorities acting 'if deemed necessary' (Art. 5(2) SSMR).[806] In sum, under Art. 5(2) SSMR decisions are taken by national authorities, but the ECB may act 'instead of them'. This framework has been defined as one of "parallel competences", whose exercise at the SSM level would be well represented by the case of macro-prudential policy; indeed, this has been portrayed as an area where a coexistence may be found of "both a European and

[803] J. DE LAROSIÈRE, The High level Group on Financial Supervision in the EU, *Report*, point no. 154.

[804] N. MOLONEY, *EU Securities and Financial Markets Regulation*, 1019.

[805] Recitals to the SSMR underline the reasons why the ECB is well-placed for the performance of tasks aiming at the protection of financial stability, mainly thank to its 'extensive expertise in macroeconomic and financial stability issues' (Recital no. 13).

[806] Such power is complemented by the possibility for national authorities to propose the ECB to act under Art. 5(2) 'in order to address the specific situation of the financial system and the economy in its member State', under Art. 5(3). Relatively to the way in which powers will be exercised, it seems that adequate safeguards have been designed for national authorities when the ECB decides to act. Indeed, ten working days prior to the decision the ECB shall notify the authorities of the member States concerned, that are given in turn five working days to state their reasons, that the ECB shall duly consider before acting, under Art. 5(4) SSMR.

national dimension in the development of the financial system and the economy".[807] One interesting question is, how should these powers be exercised? Under Art. 5(5) 'the ECB shall take into account the specific situation of the financial system, economic situation and the economic cycle in individual member States or parts thereof'. The formulation is voluntarily vague, in that it rather points at the elements that shall be considered relevant, but does not give any real clue about the way in which this evaluation shall be performed (on the implication for this, see below in the paragraph).

The rules laid down in the SSMR have been further specified within the SSMFR, with special reference to coordination procedures (Recital no. 4 SSMFR). Art. 101 SSMFR lays down a taxonomy of macro-prudential instruments, although it has to be considered as an open clause.[808] The application of macro-prudential instruments by the side of either the ECB of NCAs or NDAs givers rise to reciprocal obligations. Indeed, quite in a reciprocal way, when a NCA or NDA 'intends to make use of a macro-prudential tool, it shall inform the ECB as early as possible of its identification of a macro-prudential or systemic risk for the financial system and, where possible, of the details of the intended tool'; the same applies for the ECB *vis-à-vis* national authorities (Art. 104, Art. 105 SSMFR).[809]

Operationally, synergies are obviously likely to arise between the ECB as the centre of the SSM, and the ECB as the euro-area central bank. For macro-prudential purposes the information data sets available are already likely to play a role; however, a substantial contribution is likely to build up in time from the reporting system established at the euro-area level and designed to feed in the ECB supervisory tasks. Additionally, the ECB President is serving as Chair of the ESRB; it is sensible to imagine that the relationship and the way institutions work may slightly change in the future, and the majority of scholars to date bet in favour of the position of the ESRB to be likely weakened.[810]

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[807] P.G. TEXEIRA, 'The Single Supervisory Mechanism: Legal and Institutional Foundations', in BANK OF ITALY, *Dal Testo Unico Bancario all'Unione bancaria: tecniche normative e allocazione dei poteri*, Quaderni di Ricerca Giuridica della Consulenza legale, no. 75/2014, 85.

[808] These are mainly all the capital buffers within the meaning of Art. 130-142 CRD4, but also the measures for domestically authorised credit institutions, or a subset of them pursuant to Art. 458 CRR. However, macro-prudential tools also comprises 'any other measures to be adopted by NDAs or NCAs aimed at addressing systemic or macro-prudential risks provided for, and subject to the procedures' set out in CRD4-CRR.

[809] In case of opposition of either of the two, such opposition shall be expressed and motivated in written within five working days; the addressee has the duty to take it into proper consideration (Art. 104.3 and 105.2).

[810] The institutional position of the ESRB on its role after the implementation of the SSM may be found in EUROPEAN SYSTEMIC RISK BOARD, *The consequences of the single supervisory mechanism for Europe's macro-prudential policy framework*, Report of the Advisory Scientific Committee, no. 3/2013. On the likelihood for the ESRB to be superseded, at least in practice, by the ECB, given the relative proportion of the banking system relatively to the whole financial system, N. MOLONEY, *EU Securities and Financial Markets Regulation*, 1019; G. NAPOLETANO, 'Legal aspect of macro-prudential policy in the United States and in the European Union', 194. On this point, arguing about the risk that the ESRB effectiveness might be curtailed, E. FERRAN, V.S. BABIS, 'The European Single Supervisory Mechanism', University of Cambridge Faculty of Law

However, considerations of political and operational nature are also likely to be restrained by the requirement set under Art. 25 SSMR, which unequivocally requires a separation between banking supervision and monetary policy functions, along with the practical institutional devices devoted to these functions (on the broader topic of synergies, again see below in the paragraph).

As far as international relations are concerned, Art. 8 SSMR poses an interesting and potentially extremely relevant rule, under which, without prejudice to respective competences, 'in relation to the tasks conferred on the ECB by this Regulation, the ECB may develop contacts and enter into administrative arrangements with supervisory authorities, international organisations and the administrations of third countries, subject to appropriate coordination with EBA'. Even though it is expressly stated that such arrangements shall not create legal obligations upon both member States and the European Union, this rule seems potentially extremely far-reaching. Only practice will tell how much this will actually unfold and fuel the international capacity of the ECB.

As for accountability arrangements within the SSM, two parallel obligations have been set, which reflect the double dimension of this political constituency. Under Art. 20(2) SSMR the ECB is required to submit annually to the European Parliament, the Council, the Commission, and the euro Group a report on its tasks, whereas under Art. 21(1) SSMR it is required to forward it to the national parliaments of participating Member States.[811] This makes immediately apparent how the performance of prudential supervision tasks – especially those of macro-prudential nature – is likely to be endowed with heavy political consideration. This is important also in the light of the controversy about the fairness associated with the performance of bank supervision tasks by the ECB wich has risen from the very outset of its endowment with such tasks.[812] It has already

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Research Paper, no. 10/2013, 28-29. On this point, see also A. SAPIR, 'Europe's macroprudential policy framework in light of the banking union', in D. SCHOENMAKER (ed.), *Macroprudentialism*, 167-168. It is doubtful whether the situation may ever arise of the ESRB making recommendations to the ECB, not as a central bank, but in the vest of supervisor within the SSM.

[811] The obligation is complemented by some rights vested with the European Parliament and national parliaments as well, such as to ask the ECB to reply orally or in writing to questions (Art. 20.6 and Art. 21.2), and to participate in a hearing (Art. 20.5) or in an exchange of views (Art. 21.3).

[812] On the way in which the Comprehensive Assessment of significant credit institutions has been carried out, see among others E. BARUCCI, R. BAVIERA, C. MILANI, *Is the Comprehensive Assessment really comprehensive?*, December 2014, available at Social Science Research Network (SSRN) (showing the existence of 'double standards' for institutions belonging to peripheral, as opposed to non-peripheral EU countries); B. STEIL, D. WALKER, *Europe's Dodgy Bank Stress Test*, The Wall Street Journal, 10 December 2014; see also V.V. ACHARYA, S. STEFFEN, *Making sense of the comprehensive assessment*, Centre for Economic Policy Research (VoxEU), 29 October 2014; "regulatory stress test outcomes are potentially heavily affected by the discretion of national regulators in measuring what is 'capital', and especially by the use of risk-weighted assets in calculating the prudential capital requirement".

been maintained how euro-zone members would have adopted in the very building of the Banking Union each "a self-interested policy 'discourse'" geared at their preferences.[813]

The issue deserves further enquiry, also in the light of the many political layers that are likely to interact in the performance of macro-prudential tasks, and of the underestimated issue of how this coordination actually is to take place.

Well before the global financial crisis the presage had been expressed that

> "the Eurosystem is facing the complex challenge of reconciling a notion of public interest in monetary policy, which refers to the euro-area, with a different notion of public interest in banking supervision, which, in some cases, is assigned to the same components of the system which share responsibility for the monetary policy function"[814]

The need to analyse the framework sketched by T. Padoa-Schioppa is even more compelling when macro-prudential supervision comes into play. The mushrooming at the European level of mandates to deal with financial stability does not necessary translate into enhanced efficiency, but rather adds complexity to the interplay of different political levels, to which different public interests may be associated. As it has been correctly underlined, "the risk of an overcrowded arena" in the macro-prudential field is material.[815]

Many relevant elements thus overlap, namely the relative position of authorities belonging to different public functions within national jurisdictions; the vast array of public interests belonging to national jurisdictions, the euro-area, the European Union as a whole, and the international sphere; the extent to which the economic, financial and inflation cycles interact with one another at all the levels mentioned above; and the coordination between monetary, macro-prudential and micro-prudential policies.

As for the first of the elements mentioned, the state-of-the-art may be summarized underlining how the position of national competent authorities has got stronger *vis-à-vis* that of the corresponding governments and legislators; at the same time it has become weaker when compared to the European and international correspondents, as the former are increasingly taking an *implementing* role.[816] Moreover, claims for a marked independence of macro-prudential authorities[817] bring into the picture all the problems

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[813] G.R.D. UNDERHILL, 'The political economy of (eventual) banking union, in T. Beck (ed.), *Banking Union for Europe. Risks and Challenges*, Centre for Economic Policy Research (CEPR), 2012, 139.

[814] T. PADOA-SCHIOPPA, *Regulating Finance*, 38.

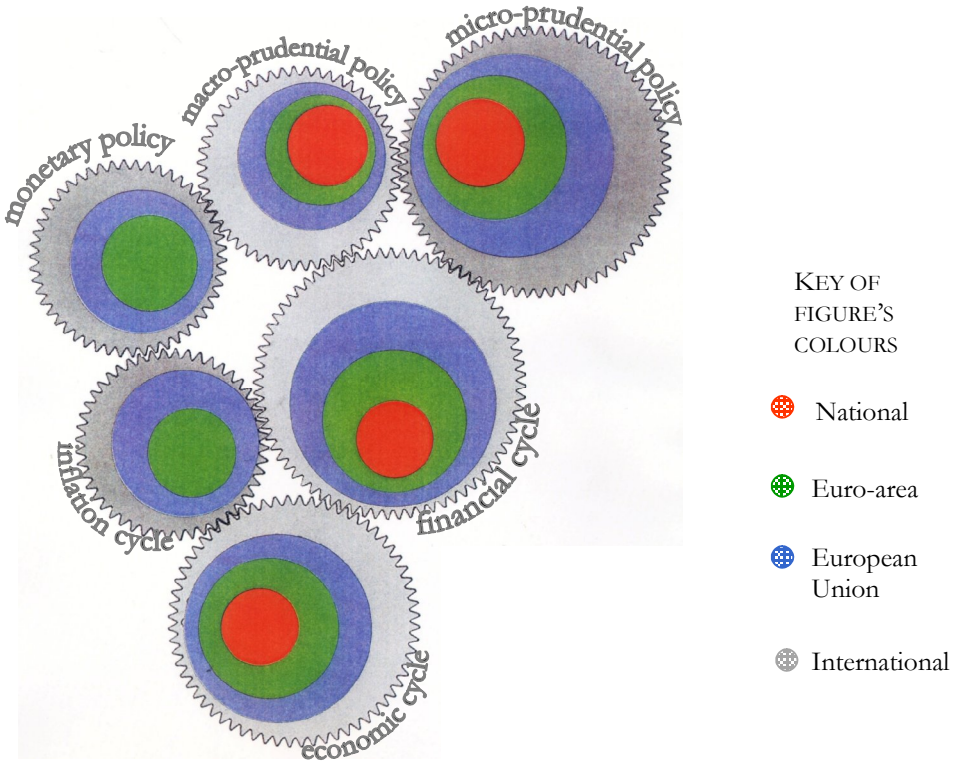
[815] F. PANETTA, 'Macroprudential tools – where do we stand?', 9.

[816] S. CASSESE, in BANK OF ITALY, 'Legislazione bancaria, finanziaria e assicurativa', 81.

[817] "Independence of the macro-prudential overseer is necessary both to overcome the inaction bias that can derive from pressures or resistance from political bodies and market players, and to ensure the impartiality of the technical authority as a precondition for a level-playing field into the EU financial markets"; G. NAPOLETANO, 'Legal aspect of macro-prudential policy in the United States and in the European Union', 106. On institutional models for macro-prudential supervision elaborated at the international level, E.W. NIER, J. OSIŃSKI, L.I. JÁCOME, P. MADRID, 'Institutional Models for Macroprudential Policy', International Monetary Fund, IMF Discussion Note, no. 18/2011.

already examined about the attempt of reconciling technical expertise with the necessary political grip over sensible decisions (see Chapter 2).

In order to explore all the other elements now mentioned, is seems useful to employ the suggestive image introduced by Y. Mersch, following to which "governance of the euro area can be imagined like a set of interlocking cogs wheels: they do not all need to be of similar size – that is, we do not necessarily need the same degree of centralization in each area – but they need to all move in the same direction. If one cog moves in the other direction, the whole machine grids to a halt".[818] Indeed, such image is useful in that it clearly shows how a *policy* dimension is interrelated with both *geographic* and *political* dimensions too. The figure below is a personal elaboration of this image, and has the main aim of making graphically evident – through the different cogs – all the delicate implications of the functioning of this mechanism. It also makes equally apparent how in case of lack of coordination the whole mechanism may come to a halt.



Some remarks are needed before going on with a closer examination of the figure. Preliminarily, it should be underlined that it obviously amounts to a simplification of real-world relationships; just to name some, both fiscal policy and resolution and crisis management policy remain out of the picture. This also apply to the 'political cycle', which, despite not being a cycle in the essentially economic meaning here employed, may exert influence on the policies analysed also *in addition* to the inherently political nature of many of the decisions taken. The extent to which the influence of the political cycle may prove dangerous for macro-prudential policy has been underlined and substantiated also

[818] Y. MERSCH, 'Law, money and market – the legal dimension of monetary policy', 3.

in comparison with monetary policy, for which a long-dated literature exists. What is new with financial stability is that "the lag between measures and outcomes is longer", constituencies may not be willing to support fight against overly expansion of the financial cycle, and "some of the policy instruments have more obvious distributional consequences, which strengthens political resistance to their activation".[819] Additionally, the figure in itself does not say anything about the external boundaries of the single policy areas, i.e. about their relative position *vis-à-vis* other germane policy areas; as for macro-prudential policy is concerned, there is still much room for contention between those underlining the exclusivity of financial stability remits,[820] and those presenting arguments in favour of a macro-prudential authority as strong as possible.[821] Considerations related to these complex policy interactions have already been considered at the organizational level, for instance, in the design of the institutional remits of the ECB in relation to its new tasks. The choice to entrust the recently-established Supervisory Board with exclusive macro-prudential responsibility would have probably entailed a closer relationship of them with micro-prudential supervisory issues, with the potential consequence of letting the former be driven by the latter. The alternative option would have been to entrust them to the Governing Council only, that normally deals with macroeconomic considerations and may therefore be more sensible to financial stability issues.[822] However, the drawback of possible undue interactions with monetary policy. The solution has then been adopted to entrust the Governing Council with ultimate decisions, albeit with a key role played by the Supervisory Board. It is worth noting, as it will be an element for consideration in commenting the figure, that despite being *national* members of the Supervisory Board, under Art. 19(1) SSMR its components 'shall act independently and objectively *in the interest of the Union as a whole*' (emphasis added). Consequently, national interests should not find any place *per se* in this body, but only to the extent that they contribute to a broader interest of the euro-zone.

As it will be illustrated from now on, the figure shows a number of 'overlapping dimensions' of financial stability, namely a national dimension which is relevant *per se*, and a national dimension which is relevant *per the Union*. The same may be also said for each of the following institutional levels relatively to the one that lays above it. What is interesting is that all the different dimensions do not *eliminate* others, but rather *lay upon*

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[819] C. BORIO, 'Macroprudential frameworks: (Too) great expectations?', 37-38.

[820] A macro-prudential regime should be limited to the safeguard of financial stability "with a remit and powers *only* to safeguard stability. That is not about fine-tuning the credit cycle. And it does not extend to intervening (*qua* macroprudential authority) in those market malfunctions, including some asset-price booms that impair the efficient allocation of resources in the economy but do not materially threaten stability itself"; P. TUCKER, The political economy of macroprudential regimes, in D. SCHOENMAKER (ed.), *Macroprudentialism*, 70-71.

[821] This would come first, also in the face of arguments about the 'quasi-fiscal' character of actions altering central bank's assets, of the delicacy of actions directly influencing financial intermediation, along with the need to interact with the legislature for fiscal and structural adjustments that affect financial intermediaries; C.A.E. GOODHART, 'The macro-prudential authority: powers, scope and accountability'.

[822] A. SAPIR, 'Europe's macroprudential policy framework in light of the banking union', in D. SCHOENMAKER (ed.), *Macroprudentialism*, 166.

them. So from the viewpoint of the exercise of powers, this is not a tale of a *deprivation* of powers, but rather of their transformation, in the meaning of being conditional upon, and related to, the verification of the public interest of *more* and *different* constituencies than before.

At the very basis of the policies considered lie structural conditions of the economy, but also cycles that pertain to the economic, financial and inflation spheres. Albeit obviously interrelated with one another, the economic literature on the point is in the process of developing more secure theoretical accounts, prompted by the need for a deeper understanding of financial cycles required for the application of macro-prudential tools (see chapter 2). Save for the inflation cycle, which due to unified monetary policy is essentially homogeneous within the Euro-area, all cycles do present national, Euro-area, European Union, and international dimensions.[823] One key element to bear in mind is that cycles influence policies, and policies influence cycles; therefore, the movement of the ideal cogs is naturally a two-way one.

Coming closer to the interplay between policies,[824] the first delicate issue is the relationship between macro-prudential policy and monetary policy.[825]

A first element of such relationship is the extent to which financial stability is actually influenced by a monetary policy fight against inflation; "monetary policy is a major influence on the environment in which financial institutions operate. If monetary policy successfully targets inflation, protracted macroeconomic stability may induce *financial instability* … stability leads to fragility".[826] Under less extreme views too, the interplay between the two policies is reported to change depending on the type of shock occurred, and on the point of the cycle.[827] For sure, the two policies are comparable for not allowing any short-cut measure.[828]

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[823] "Financial cycles vary significantly between countries. To mitigate their differences, macro-prudential action should be differentiated across countries. Membership of a currency union does not reduce – and may even increase – the need for macro-prudential flexibility at national or regional level, since countries do not have separate monetary instruments to offset cyclical differences"; G. NAPOLETANO, 'Legal aspect of macro-prudential policy in the United States and in the European Union', 187.

[824] It is interesting to note that the possibility for macro-prudential policies to come in tension with both monetary policy and bank supervision was already underlined in T. PADOA-SCHIOPPA, *Regulating Finance*, 112 ff. In general on the topic, INTERNATIONAL MONETARY FUND, *Key Aspects of Macroprudential Policy*, 10 June 2013, 9-15; P. ANGELINI, S. NICOLETTI-ALTIMARI, I. VISCO, 'Macroprudential, microprudential and monetary policies: conflicts, complementarities and trade-offs', Bank of Italy, Occasional Papers, no. 140/2012, 14 ff.

[825] Even valuable contributions have tended to be slightly simplistic on this topic; see for instance EUROPEAN SYSTEMIC RISK BOARD, *Flagship Report on Macro-prudential Policy in the Banking Sector*, 17.

[826] R. PORTES, 'Macroprudential policy and monetary policy', in D. SCHOENMAKER (ed.), *Macroprudentialism*, 48.

[827] P. ANGELINI, S. NERI, F. PANETTA, 'Monetary and macroprudential policies, Bank of Italy Working Papers', no. 801/2011, finding that in 'normal times' macro-prudential policy benefits modestly macroeconomic stability (also harming it in case of lack of cooperation with the central bank), whereas it significantly enhances stability when financial shocks have

The main point from an institutional perspective is the extent to which the synergies and potential clashes between these two policies actually call for entrusting them to a single institution – as to some extent is now the case within the European Union. Actually, "the most interesting innovation to have taken place in the two decades preceding the 2008 Crisis was the progressive split between responsibility for monetary policy and responsibility for banking supervision".[829] It is not surprising, then, to find in the literature many positions in favour of such split. As it has been convincingly summarized, the main benefits of tasking a separate body of macro-prudential policy are "democratic concern about the award of excessive power to an unelected technocratic institution; fears that concern over financial stability may distort the pursuit of the more important price stability objective; concern that the objective of achieving financial stability may lead the central bank into areas of policy … that involve other political or quasi-fiscal considerations that should be *ultra vires* for a central bank".[830] The separation between the ECB supervisory tasks (therefore also macro-prudential ones) and the monetary policy tasks has been openly supported by the ECB itself, with the aim of preventing potential conflicts and ensure autonomous decision-making. Such objective would be mainly supported by mean of tailored governance structures.[831]

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manifested. On how macro-prudential policy instruments affect monetary conditions, see R. PORTES, 'Macroprudential policy and monetary policy', in D. SCHOENMAKER (ed.), *Macroprudentialism*, 50-51. On the point see also D. GREEN, 'The relationship between the objectives and tools of macroprudential and monetary policy', London School of Economics and Political Science, Financial Markets Group Special Paper Series, no. 200/2011; R. PORTES, 'Macroprudential policy and monetary policy', in D. SCHOENMAKER (ed.), *Macroprudentialism*, 49.

[828] In the face of the proposal to raise inflation targets with the aim of providing additional room for policy rate easing during crises (O. BLANCHARD, G. DELL'ARICCIA, P. MAURO, 'Rethinking Macroeconomic Policy', International Monetary Fund, IMF Staff Position Note, no. 3/2010), it has been found how an increase in inflation targets would generate increased welfare costs "even after the extra room to maneuver above the zero lower bound for nominal policy rates is taken into account"; E.B. YEHOUE, 'On Price Stability and Welfare', International Monetary Fund, IMF Working Paper no. 189/2012.

[829] D. MASCIANDARO, 'Monetary policy and banking supervision: still at arm's length? A comparative analysis', The European Journal of Comparative Economics, no. 3/2012, 349.

[830] C.A.E. GOODHART, 'The use of macroprudential instruments', in D. SCHOENMAKER (ed.), *Macroprudentialism*, 14.

[831] "In this respect, it should be ensured that, under the proposed SSM regulation and within the context of the Treaty framework, the new supervisory board will constitute the centre of gravity of the ECB's supervisory function. Besides the heads of supervision of the competent authorities in the participating Member States, the supervisory board should also include as observers representatives of national central banks that perform supervisory activities ancillary to those of the national competent authorities when foreseen by statutory provisions. Furthermore, the supervisory board should have to the largest extent possible the necessary tools and expertise to perform its tasks effectively, while respecting the ultimate statutory responsibilities of the ECB's decision-making bodies. In this context, the framework for the functioning of the supervisory board should ensure an equal treatment with regard to the participation of representatives of the national competent authorities of all the participating Member States, including the Member States which have established a close cooperation with the ECB. Lastly,

However, a number of objections may be raised in this regard. Firstly, less categorical accounts have been also offered in principle about the extent to which monetary policy should be kept isolated from concerns of financial stability.[832] The main point made lies exactly in the interest for the authority in charge of monetary policy in the conditions of the banking system, due to the role played by it in the transmission of monetary policy.[833] Secondly, the whole set of worries mentioned above may not necessarily be avoided with the performance of such functions in a fully separated way; just to name one, the involvement of 'political' or 'quasi-fiscal' considerations may take place anyway. As a further element, it should not be underestimated how literature findings normally takes as a model simple and 'close' national systems, while specificities of the European Union illustrated by the figure deserves an all specific consideration. For instance, macro-prudential policy actually has a role in gifting national authorities of the euro-area with some of flexibility of which they were deprived in the absence of national monetary policies. As it has been convincingly argued, "the value of introducing policy tools with a national focus is considerable" as country-specific macro-prudential regimes may be employed "to prevent financial and possibly areal imbalances stemming from the 'one size doesn't fit any' problem that may at times be associated with [monetary policy]".[834] This could actually influence the stance taken by national macro-prudential authorities towards such policy, and hence interact with monetary policy decisions taken at the level of the euro-area. At a more theoretical level, this also amount to the implicit acknowledgment of the existence of national interests that run in parallel to the ones of the euro-area. In spite of the numerous attempts to *sublimate* the national dimension to a higher level, the inner circles of the cogs in the figure persist. It is interesting to note how

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taking also account of the experience of the various national central banks already performing supervision, the ECB will establish appropriate internal rules and procedures to ensure adequate separation within the functions supporting these tasks"; EUROPEAN CENTRAL BANK, 'Opinion of the European Central Bank of 27 November 2012 on a proposal for a Council regulation conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions', Paragraph 1.8.

[832] As representative of the former, J. WEIDMANN, 'All for one and one for all? The roles of microprudential, macroprudential, and monetary policy in safeguarding financial stability', Speech held at the Bundesbank Symposium on Financial Stability and the Role of Central Banks, Frankfurt, 27 February 2014; as for the latter, M. DRAGHI, 'Stability and Prosperity in Monetary Union', Speech held at the University of Helsinki, 27 November 2014; J. YELLEN, 'Monetary policy and financial stability', Michel Camdessus Central Banking Lecture at the International Monetary Fund, 2 July 2014.

[833] G.J. SCHINASI, 'Responsibility of Central Banks for Stability in Financial Markets', 8. To recall how entrusting tasks related to the protection of financial stability to the central bank is something that actually goes back both to the XXIth and the XXth century, with examples taken respectively from Paul Volcker and Henry Thornton, see G.J. SCHINASI, 'Responsibility of Central Banks for Stability in Financial Markets', 5-7.

[834] F. PANETTA, 'On the special role of macroprudential policy in the euro area', 3.

this has been interpreted as a difficulty, in the persistent attempt to deny the political character inherent to macro-prudential policy.[835]

For sure, tensions will arise in case the two policies will be employed in opposite directions: "it is a bit like driving by pressing on the accelerator and the brake simultaneously".[836] However, leaving aside 'mechanical' explanations, what institutions will deal with are nothing else than trade-offs such as "the trade-off between the benefits of monetary accommodation in support of economic activity and balance sheet repair, and the downside risks associated with financial excesses that could, if they become systemic, pose risks to the real economy".[837] What is also likely to happen – unless an unprecedented leap in European integration takes place in the next years – is that answers to these trade-offs will not only depend on political preferences, but also to economic circumstances such as economic conditions, financial imbalances, and the structure of the financial system.[838] As a third element, they will depend on technical appreciations about the actual reach of macro-prudential policies, on which basic disagreement may still be witnessed; suffice it to mention the critiques that have been moved to a position of staff from the IMF,[839] on the grounds that it would have mistakenly assumed that macro-prudential policy is not geared at the management of aggregate demand; that capital flow management does not constitute a macro-prudential measure; and that macro-prudential policy should refrain from attempting to control asset prices.[840]

When compared to monetary policy, the complementarities between macro- and micro-prudential policies are for sure more intuitive; a two-way synergy entails that macro-prudential supervisors "should inform and help focus the activity of micro supervisors; at the same time, micro supervisors will have a key role to play in implementing most macro policy intervention, because they are largely based on the use of micro tools to pursue macro objectives".[841] Of course, things are more complicated than they may appear at first sight. Indeed, many scholars have made the case for an institutional separation between micro- and macro-prudential supervision, and for an

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[835] This tendency is clear in statements such as "the key difficulty is that macroprudential measures, unlike monetary policy, will almost certainly have to differentiate among countries – which makes them irredeemably political"; R. PORTES, 'Macroprudential policy and monetary policy', in D. SCHOENMAKER (ed.), *Macroprudentialism*, 55.

[836] C. BORIO, 'Macroprudential frameworks: (Too) great expectations?', 37-38. On the point, see also BANK OF INTERNATIONAL SETTLEMENTS, *Macroprudential instruments and frameworks: a stocktaking of issues and experiences*, 8.

[837] INTERNATIONAL MONETARY FUND, *Global Financial Stability Report*, October 2014, 43.

[838] INTERNATIONAL MONETARY FUND, *Global Financial Stability Report*, October 2014, 43.

[839] S. CLAESSENS, K. HABERMEIER, E. NIER, H. KANG, T. MANCINI-GRIFFOLI, F. VALENCIA, 'The interaction of monetary and macro-prudential policies', International Monetary Fund, IMF Paper, 29 January 2013.

[840] R. PORTES, 'Macroprudential policy and monetary policy', in D. SCHOENMAKER (ed.), *Macroprudentialism*, 51-52.

[841] F. PANETTA, 'On the special role of macroprudential policy in the euro area', 5. On the point, see also P. ANGELINI, S. NICOLETTI-ALTIMARI, I. VISCO, 'Macroprudential, microprudential and monetary policies: conflicts, complementarities and trade-offs', 19 ff.

involvement in the latter of central banks, which in many countries is actually the case.[842] For sure, drawing a line between the two is an activity difficult by itself, both at the theoretical level and for supervisory authorities.[843] The global financial crisis has prompted interesting reflections about the extent to which micro-prudential tools may be employed with a view to financial stability; this has been directly translated in the European legal order by mean of Art. 7 CRD4, requiring national authorities taking micro-prudential decisions to consider their effects on the stability of the entire system. This is the legislative translation of the idea that, under a meaningful metaphor, "microprudential supervision should work 'hands in glove' with macroprudential policy".[844] This is also the first reason why in the figure above the micro-prudential policy cog is actually represented as bigger than the others; the second reason being that the bulk of regulatory effort and day-to-day supervision will be actually concentrated on it. How conflicts will be materially handled between micro- and macro-prudential authorities, and between home and host authorities, it is something still open to discussion and practice will tell. For countries belonging to the euro-area,[845] a sensible forecast is that the move 'upwards' of micro-prudential supervision will likely to enhance the macro-prudential fashion in which micro- tools are employed. The stance recently taken by the ECB with regard to bank capital requirements seems to go in this direction.[846] In other words, as the institutional level taking decisions of micro-prudential nature is sensible to issues of financial stability, and does not bear political responsibility for the trade-offs that are naturally inherent to a decision to tighten bank capital requirements (in terms of chances offered to economic recovery and growth), the employment in a macro-prudential fashion of such tools will naturally follow.

This issue has been normally addressed in slightly different terms, namely with reference to the lack of interest, on the side of national authorities, "to 'take the punch bowl away'", so to be unwilling to adopt macro-prudential policies "in a way which, although rational from a domestic perspective, could have undesired consequences".[847] The fundamental problems with this (nice) expression is that it risks diverting the attention from the fact that what is at stake here is not punch, but ultimately rights. For

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[842] D. MASCIANDARO, R. VEGA PANSINI, M. QUINTYN, 'The Economic Crisis: Did Financial Supervision Matter?', International Monetary Fund, IMF Working Paper no. 261/2011, especially 18 ff.; E.W. NIER, J. OSIŃSKI, L.I. JÁCOME, P. MADRID, 'Institutional Models for Macroprudential Policy', International Monetary Fund, IMF Staff Discussion Note, no. 18/2011. On the potential clashes between macro- and micro-prudential supervision, D. NOUY, *Banking regulation and supervision in the next 10 years and their unintended consequences*, 13-14.

[843] C. BORIO, 'Macroprudential frameworks: (Too) great expectations?', 41.

[844] INTERNATIONAL MONETARY FUND, *Key Aspects of Macroprudential Policy*, 13.

[845] On the conferral of macro-prudential powers on the ECB, EUROPEAN CENTRAL BANK, 'Opinion of the European Central Bank of 27 November 2012 on a proposal for a Council regulation conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions, especially Paragraph 1.5. on the relationship between the two policies.

[846] C. GATTI, 'Le soglie BCE 'ad institutum' minano l'economia reale', Il Sole 24 Ore, 22 January 2015.

[847] F. PANETTA, 'On the special role of macroprudential policy in the euro area', 6.

the reasons already discussed (see Chapter 2 and above in this Chapter), decisions on whether or not to intervene in the financial cycle may be imbued with much political meaning. In the relationship between national and supranational authorities there is a further element deserving attention, namely the issue of 'reciprocity' relatively to the counter-cyclical buffer (CCB). The rule about the mandatory reciprocity (up to 2,5%) of the CCB entails that "banks with exposures in several countries will face the CCB as a weighted average of the CCBs in all countries where they have exposures". While crystal-clear from an economic viewpoint (this makes sure that applying the CCB in one jurisdiction does not end up distorting the level playing field between domestic and foreign bank lending in a given jurisdiction),[848] this still results in a deprivation of power for the macro-prudential authority concerned, and it has the potential for influencing the real economy of a country different from the one where the decision was taken. Moreover, as also the asymmetry in the distribution of macro-prudential powers between national competent authorities and the ECB – with the latter only empowered to tighten requirements – it may well lead in time to a drift towards more rigorous macro-prudential policies, given by concerns expressed at an institutional level where not all the consequences of those decisions are then borne.

To conclude, some true concern arises on the figure now illustrated and on the framework behind it. Much effort has been dedicated to establish an institutional design that presents nowadays a significant degree of complexity. It is an extremely refined framework, that is gifted on paper of the appropriate 'checks and balances' and of meaningful coordination tools. However, this has not prevented opinions to be expressed on the fact that financial stability measures would remains largely national within the European Union, due to two main reasons, namely "that the structural characteristics of economies and financial systems still differ greatly among EU countries in spite of EU financial integration, as the recent divergent growth experiences within Europe over the past decade illustrate", and because of "political influences that favour preserving national authority over the economy and financial sector resolution policy. Decisions to bailout banks or impose discipline on them have important national economic and political consequences".[849] However true, these interpretations fall short of an understanding of the actual transformation of the very notion of national interest. To an extent, in a field where the ultimate interest at stake (financial stability) has multiple dimensions, broadly

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[848] EUROPEAN SYSTEMIC RISK BOARD, *The ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector*, 46-47. In almost equal terms, BASEL COMMITTEE ON BANKING SUPERVISION, *Guidance for national authorities operating the countercyclical capital buffer*; "reciprocity is necessary to ensure that the application of the countercyclical buffer in a given jurisdiction does not distort the level playing field between domestic banks and foreign banks lending to counterparties in that jurisdiction"; *ibidem*, 5. This applies also the other way round, since "institutions established in a Member State different from the one setting the CCB rate have to apply the same CCB rate on exposures towards clients located in the country setting the CCB rate"; EUROPEAN SYSTEMIC RISK BOARD, *The ESRB Handbook on Operationalising Macro-prudential Policy in the Banking Sector*, 46. Under Art. 160 CRD4, reciprocity will become fully effective as of 1 January 2019.

[849] V.V. ACHARYA, C.W. CALOMIRIS, 'A macroprudential policy framework for the EU and its member states', in D. SCHOENMAKER (ed.), *Macroprudentialism*, 153-155.

corresponding to each and every institutional level aimed at dealing with it, there are at least two reasons why the national interest may assume a new character. First, that the conditions in which national authorities take their decisions to some extent *have formed* at the supranational level. Second, that the national interest partially overlaps with that expressed by the institutional level immediately above, and this in turns happens with each of them, so that they come to be entrenched with one another, without never coinciding. Given this state-of-the-art, a real step forward will be made once acknowledged that "global concerns must be transformed into relevant topics for national politics or they will remain invisible to the logic of national politics".[850]

In order to do that, however, a high degree of mutual institutional trust would be needed, one that does not really seem to animate institutions at the European level. For sure, all this framework is not likely to be able to work as a 'governance without government', "substituting politics for the routines of administration and the rule of European law, and ostensibly removing the political character of decision-making".[851] A very delicate has then been entrusted to the ECB, "the most powerful single institution in the polity",[852] and the question has been already posed of whether the European legislator has actually gone too far in entrusting a single, independent institution with so much power.

Unable or unwilling to go back, after the global financial crisis European member States have been forced to move onwards; but such move has suffered from various brakes, and has been essentially impaired by long-dated *fears* populating the polity. These fears have caused a cumbersome procedural framework to couple with disputable outcomes in terms of institutional mandates to the protection of financial stability.

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[850] H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 106.

[851] M.A. WILKINSON, 'Economic Messianism and Constitutional Power in a 'German Europe': All Courts are Equal, but Some Courts are More Equal than Others', London School of Economics and Political Science, LSE Law, Society and Economy Working Papers no. 26/2014, 30.

[852] R. PORTES, 'Macroprudential policy and monetary policy', in D. SCHOENMAKER (ed.), *Macroprudentialism*, 55.

Conclusion

"But I have written in vain if I require to say now
that the problem is delicate, that the solution
is varying and difficult, and that the
result is inestimable to us all"

W. Bagheot, *Lombard Street*, 1873

The sorrow expressed by Walter Bagheot in the conclusion of *Lombard Street* is shareable when it comes to the end of an intellectual journey that has travelled all the way from coming at grips with the characteristics of the banking system, and exploring the concepts of systemic risk and financial stability, to the attempt to a juridical account of risk-based regulation, global public goods, and the way public institutions at the international, European and national levels are to interpret their delicate and unstable roles.[853] In order to do this, it has been necessary to deal with many concepts and theories, and one reflection has often come to mind, namely that in every discipline theory plays a twofold role, being both a *lens* and a *blinder*, as it enables conditional statements for well-known phenomena, but at the same time narrows the field of vision. As a consequence, "questions that are meaningful in the world are often nonsense questions within a theory. If such nonsense questions are *often* posed by developments in the world, then the discipline is ripe for a revolution in theory. Such a revolution, however, requires the development of new instruments of thought. This is a difficult intellectual process".[854]

The frequency of these 'nonsense questions' – or rather difficulties in reconciling different approaches – has been relatively high throughout the thesis.[855] Researchers have resembled at times the drunk man of the old joke, looking unsuccessfully for his keys at

[853] Reputable studies too have found themselves locked in the alternative "to steer between the Scylla of excessive intervention and the Charybdis of a belief that the markets always will get it right"; R.G. RAJAN, 'Has Financial Development Made the World Riskier?', 359; see also J. EATWELL, M. MILGATE, *The Fall and Rise of Keynesian Economics*, 47.

[854] H.P. MINSKY, *Stabilizing an Unstable Economy*, 109.

[855] To some extents, the contrary happened to what Carl Schmitt maintained, namely that "naturally institutions, like people's ideas, change in the course of time"; C. SCHMITT, *On the Contradiction between Parlamentarism and Democracy*, Preface to the Second Edition, 1926. Institutions and their regulatory production have changed altogether in recent times, but concepts developed at the academic level did not change accordingly.

night under a street lamp. After being asked by a passer-by why he was searching there, even if he had dropped them in a dark corner, he would have answered "there's much more light here".[856]

The thesis illustrated to many extents how systemic risk and financial stability have been employed as a comfort label, with the ultimate aim of delivering a synthesis of a bundle of phenomena in the language of risk, the *scientific currency* in which issues in social sciences are now increasingly denominated. Additionally, the thesis has also tried to show the extent to which the notions of systemic risk and financial stability contributed to *silence* public interests inherent to the banking system, replacing them with theoretical labels whose robustness is still uncertain.

The preliminary purpose of Chapter 1 has been to show how theoretical questions are also a matter of vocabulary. Words like 'crash', 'spillover', 'TBTF' which largely populate the current regulatory debate have revealed a far too mechanical idea of the way in which the banking system actually works, and a lack of awareness of its special character as the only system where the failure of a participant does not benefit the others. Additionally, the adjective 'systemic' is mostly employed unaware of its theoretical underpinnings. This has also contributed to the build-up of an altogether simplistic approach, according to which systemic risk could be removed from the spectrum of risks, while it is now obvious that "it is endemic to globalization. It is a process to be managed, not a problem to be solved".[857] There seems to be merit in approaching it more as a new feature, than as a contingent problem. Dealing with manifestations of systemic risk will actually require 'an ounce of prevention' and 'a pound of cure',[858] besides increasing familiarity with the concepts of *resilience* and *elasticity*.[859] If the attention to the issue is now high because of the height of the broader regulatory cycle,[860] a risk-based approach to regulation has been shown to have many shortcomings, especially when it comes to

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[856] The phenomenon has actually been given a specific label in behavioural studies, namely that of 'streetlight effect'; such example may also be found in A. KAPLAN, *The Conduct of Inquiry: Methodology for Behavioural Science*, 1964, and C. TAYLOR, *The Diversity of Goods*, 1985. Interestingly enough, this is something echoed by L. Wittgenstein, "If someone is looking for something and perhaps roots around in a certain place, he shows that he believes that what he is looking for is there"; L. WITTGENSTEIN, *On Certainty*, 1949-1951, Proposition 285.

[857] I. GOLDIN, M. MARIATHASAN, *The Butterfly Defect*. xiii.

[858] G. CAPRIO JR., P. HONOHAN, 'Banking Crises. Those Hardy Perennials', in A.N. BERGER, P. MOLYNEUX, J.O.S. WILSON (eds.), *The Oxford Handbook of Banking*, 710-711.

[859] Reference to elasticity as a property needed in order to bring together different needs is in M. PERASSI, in BANK OF ITALY, 'Legislazione bancaria, finanziaria e assicurativa', 66; "the principal public policy objective must be to make the financial system more resilient to localized economic shocks so that a crisis at one financial firm cannot generate a cascading series of failures"; J.C. Jr. COFFEE, 'Systemic Risk after Dodd-Frank: Contingent Capital and the Need for Regulatory Strategies Beyond Oversight', 803.

[860] "The intensity of the regulatory supervision is likely to follow a sine curve: stricter regulation after a crash, followed by gradual relaxation thereafter ... this cycle has recurred many times, with its duration depending on the severity of each crash and the intensity of each boom"; J.C. Jr. COFFEE, 'Systemic Risk after Dodd-Frank: Contingent Capital and the Need for Regulatory Strategies Beyond Oversight', 821.

application to systemic risk. This has raised important questions about the interplay of power, technique, and responsibility, with special reference to the issue of risk estimations and the balance with benefits at stake.

Coming into detail with financial stability, Chapter 2 has discussed the recent developments of the macro-prudential framework, along with the main elements of its analytical toolkit, and the difficulties in circumscribing the phenomenon and drawing a line between what's admissible and what is not from a regulatory viewpoint. Much interest towards macro-prudential policy has been actually spurred by the misconception "that supervisors charged with ensuring the safety and soundness of banks are thought incapable of looking beyond the individual bank they supervise" in what is a clear "caricature of prudential supervisors".[861] One common understanding has been found to be that "for the political arena the major dividing line is the inescapable conflict between national interests and global public goods";[862] however, the thesis has also shown the need to go further than this, and explore the real extent to which the concept of 'global public good' may be actually employed in relation to financial stability. For sure, what it now clear is that macro-prudential policy is likely to be in the next future "more of an art than a science",[863] or "an adventure more than a job".[864] This helps explaining why, in spite of the enthusiasm which has coagulated around the increased attention of regulators to issues of financial stability (and unless the macro-prudential tools will be left useless) the time will come when enforcement issue will arise. This will raise a whole set of questions, dealing with the fact that too often the contribution to the legal domain of technical knowledge implies that will is mistaken for truth.[865] This has been also confirmed by the (spooky, because of the role assumed by the author) question that has been raised about whether "after the irrational exuberance that intoxicated economic agents before the financial crisis, has the pendulum not swung too far in the opposite direction leading to an excessive reliance on supervisors".[866] If one is to take financial stability seriously, this naturally entails dealing with the limits of public authorities themselves. Hence the need, "with the increasing *knowledge intensity and expertise dependency* of political problems" for politics "to use the distributed intelligence of a variety of actors and institutions in order to come up with viable solutions".[867] The message ultimately conveyed is that danger of concealing political choices behind managerial undertakings is material, and that a regulatory framework which is characterized by vague objectives and

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[861] L. ELLIS, 'Macroprudential Policy: A Suite of Tools or a State of Mind?'. As it has been discussed, some artificiality actually seems to exist in the distinction between micro- and macro-prudential supervision.

[862] H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 9103.

[863] D. SCHOENMAKER, *Introduction*, in D. SCHOENMAKER (ed.), *Macroprudentialism*, 7.

[864] F. PANETTA, 'On the special role of macroprudential policy in the euro area', 7.

[865] N. IRTI, *Diritto senza verità*, 7.

[866] D. NOUY, *Banking regulation and supervision in the next 10 years and their unintended consequences*, Autorité de Contrôle Prudentiel, Débats èconomiques et financieres, no. 5/2013, 3. The author is now Chair of the Supervisory Board of the SSM.

[867] H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 106.

unclear responsibilities is at best flawed, at worst dangerous. Overall, a sensible forecast on macro-prudential issues seems to be that many will analyse, less will take decisions, and even less will bear responsibility for these.[868]

Traditionally, banking regulation has dealt with the protection of private autonomy, in the forms of investor protection and enhancement of market quality. These rationales take as term of reference the individual market participant; conversely, public interest entails the presence of qualitatively different elements from the interests of participants. The argument generally agreed upon has been that this dimension should stay out of the picture, because of the danger that redistributive elements could end up in efficiency impairments. One of the objectives of Chapter 3 of the thesis has been to highlight how issues of redistribution are actually *entrenched* in the banking and financial systems, and are intertwined with efficiency ones. Indeed, the view that banking "regulation and supervision should aim at protecting the interests of society (by identifying, preventing and containing systemic risk as well as by guaranteeing the functioning and access to critical banking and financial functions), rather than the interests of individuals or institutions",[869] has been recently advanced. This prompts many questions on the side of public law, mainly about the need to escape a kind of constitutionalism that merely celebrates fundamental rights before courts, in favour of a *polemic constitutionalism* which measures itself with the political power.[870] Indeed, when coming to systemic risk and financial stability what is at stake is not 'setting something right', as under the 'fix-it' rhetoric, but rather making the right choices, which, stretched to its extreme, means choosing on whom losses may be imposed and to what extent, and to whom they may not; "the key insight is that safety nets and regulatory cultures generate and distribute politically determined regulatory burdens and subsidies across the citizenry in ways that rob Peter to pay Paul".[871] A provocative conclusion of this thesis may be that no such thing as a public interest in financial stability exists, but rather a *bundle* of interests that correspond to each of the trade-offs concealed by this comfort label. The thesis has also explored to attempt to frame the activities of the banking system in terms of essential banking services. In spite of the enthusiasm associated with a number of recent reforms seemingly going in this direction, the possibility that services of general economic interest could give a useful account of the public significance of the banking system is quite remote, and the attempt to use essential services as an Arabian phoenix from the old view of the banking system is quite remote.

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[868] On the extent to which the responsibility of supervisors may not and shall not be disentangled from the one of regulators; D. NOUY, *Banking regulation and supervision in the next 10 years and their unintended consequences*, 6.

[869] C.A.E. GOODHART, R.M. LASTRA, Border problems, Journal of International Economic Law, no. 13/2010, 718.

[870] M. LUCIANI, 'Costituzionalismo irenico e costituzionalismo polemico', Giurisprudenza costituzionale, no. 2/2006, 1668.

[871] E.J. KANE, 'Regulation and Supervision. An Ethical Perspective', 505. Moreover, an additional public aspect is related to the fact that "a weak domestic banking system damages the sovereign fiscal position"; D. SCHOENMAKER, 'On the need for a fiscal backstop to the banking system', 3.

Chapter 3 has also shown how much truth may be found today in the "traditional Prussian adage that 'freedom depends much more on administration than on constitution'",[872] in the broader meaning that rights are somehow granted by decisions of public administrations themselves. The examination of the public landscape internationally shows how the political relationship that shapes the interplay among all the different levels is *interdependence*, as a direct by-product of the factual interconnection of banking systems globally. The main problem associated with this is that both public law and international law are traditionally geared at other types of relationships, mainly the ones of 'hierarchy' and 'exclusivity' in the exercise of public powers. Indeed, "globalization is diffusing authority and accountability, thus demanding new ways of defining sovereignty and legitimacy of internationally interdependent political decision-making";[873] the tools devised by international law so far have been mainly those of soft law and inter-institutional collaboration. However, the framework has not fully developed yet, as the issue of extra-territorial powers enjoyed by some macro-prudential supervisors shows. At the European level, an harmonious functioning of the cogs described would require an extremely mature interpretation of national interests in the light of broader European ones. The twofold level at which macro-prudential policy may be developed – national and European – may be regarded "as a way to reconcile to logics: one of financial integration, which calls for a EU-wide framework; and one of economic and political conditions, with national financial cycles and national taxpayers, which call for national frameworks".[874] How good institutional mechanisms will work in the future will also depend much on the extent to which a European identity will affirm, and in general on the state of European integration. What has been shown for Europe, but also internationally, is the primary role that will be increasingly played by central banks. Unsurprisingly, they have been already portrayed as aristocracies, highly influential on the economy of a number of countries.[875] In the future, there will be little room for shielding them from political conflict about appropriate macro-prudential policies,[876] in the light of the "deceptive simplicity"[877] of the search for 'the good of the people').[878] What remain to

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[872] M. LOUGHLIN, *Foundations of Public Law*, 435.

[873] H. WILLKE, E. BECKER, C. ROSTÁSY, *Systemic Risk. The Myth of Rational Finance and the Crisis of Democracy*, 14.

[874] V.V. ACHARYA, C.W. CALOMIRIS, 'A macroprudential policy framework for the EU and its member states', in D. SCHOENMAKER (ed.), *Macroprudentialism*, 158.

[875] G. ROSSI, *Il teatro del mondo e gli ignoti sovrani*, Il Sole 24 Ore, 9th December 2013 (own translation). From quite a radical perspective, it has been underlined how "the main authority left for the governance of once democratic capitalism, now moving into its Hayekian phase, is the authority of the central bank presidents"; W. STREECK, *Buying Time: The Delayed Crisis of Democratic Capitalism*, 165. On the need to adequately take into account the inner dynamics of the functioning of central banks, A.G. HALDANE, *Central bank psychology*.

[876] L. GOODHART. 'Brave New World? Macro-prudential Policy and the New Political Economy of the Federal Reserve, London School of Economics and Political Science', 35.

[877] M. LOUGHLIN, *The Idea of Public Law*, 7. The author rightly recalls M. Oakeshott's taxonomy of the meaning of the noun 'salus' even in the ancient era; indeed, it ranged "from mere *safety* (relief from threatened extinction), through *health* (which is normal), and *abundance* (which is excessive), and *welfare* (which is comprehensive), and on *salvation* (which leaves nothing

be seen are the broader political consequences for this "transformation of the EU from a regulatory into a redistributive state, but in a technocratic way, *sotto voce*, behind the backs of the electorates".[879]

Generally speaking, one of the conclusions of the thesis is that the attempt to claim an economic rationality beyond concepts used for identifying public interest – systemic risk, financial stability – somehow ultimately amounts to a failure of politics, and to a material primacy of economics and finance over law.[880] One reason for this is probably also related to the pernicious tendency of contemporary legal scholars "to limit legal enquiries to the structure of positive law ... if public law is to retain its explanatory power, this cannot be a solution."[881] In turn, this also related to the broader health status of legal scholarship, which seems to experience some form of 'intellectual crisis', incapable to frame appropriate answers to the new questions made apparent after the global financial crisis. Seen in this perspective, in-depth discussions about systemic risk and financial stability such as the one that has been attempted here are not a matter of semantics; it is not about 'lecturing birds on flying',[882] but an attempt to clarify concepts that have actually entered the regulatory discourse without proper preliminary due diligence.

Of course, in Shakespeare's words, "if to do were as easy as to know what were good to do, chapels had been churches and poor men's cottages princes' palaces" (*The Merchant of Venice*, 1596). Regulatory action is fraught with much difficulty, and deals with inherently complex issues.[883] Three useful tenets for future banking regulation are robust

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to be desired)"; M. OAKESHOTT, *The Politics of Faith and the Politics of Scepticism*, New Haven, Yale University Press, 1996 (first edition 1952), 39.

[878] Under the Latin adage, *Ollis salus populi suprema lex esto* ('let the good of the people be the supreme law'; MARCUS TULLIUS CICERO, *De Legibus*, Book III, Part III, Sub. VIII.

[879] M.A. WILKINSON, 'Economic Messianism and Constitutional Power in a 'German Europe': All Courts are Equal, but Some Courts are More Equal than Others', London School of Economics and Political Science, LSE Law, Society and Economy Working Papers no. 26/2014, 31; the author also refers to D. CHALMERS, 'The European Redistributive State and a European Law of Struggle', European Law Journal, 2012, 667-693.

[880] Recall, for instance, the exploitation of the legal system described in Chapter 3 ("eroding the boundaries of those systems and leaving them open to crisis"; M. AMSTUTZ, *Eroding Boundaries: On Financial Crisis and an Evolutionary Concept of Regulatory Reform*, 257); a semantic takeover might equally amount to cross-fertilization, as well as to a conclusive sign of crisis,

[881] M. LOUGHLIN, *Foundations of Public Law*, 86.

[882] The expressions are used respectively in P. TRIANA, *Lecturing Birds on Flying. Can Mathematical Theories Destroy the Financial Markets?*, John Wiley&Sons, Hoboken, 2009. An erudite remark from Taleb, the metaphor may be already found in Erasmus about 'teaching fishes how to swim' (*piscem nature doces*); Adages, 2519, III, VI, 19; N.N. TALEB, *Antifragile*, London, Allen Lane, 2012, 464.

[883] I. GOLDIN, T. VOGEL, Global Governance and Systemic Risk in the 21st Century: Lessons From the Financial Crisis, Global Policy, no. 1/2010, 8. Little attention seems to have been actually devoted to the issue of complexity within regulatory theory by those openly advocating the need for public powers to act in a 'simpler' way; C.R. SUNSTEIN, *Simpler. The Future of Government*, New York, Simon & Schuster, 2013

analysis, better regulation, and international cooperation;[884] but this is just a part, albeit central, of the story. Further research is still needed on the potential role of shadow banking;[885] on the institutional functioning of the Banking Union; on the tools that will develop in practice; on the way in which an effective fiscal backstop will be put in place in the EU; and on the idea of sustainability as a potentially interesting narrative.

If it were to make a wish for the future of transnational baking regulation, what could be said is for sure the need for more power entrusted to (well-trained) supervisors rather than to regulators; for an enhanced use of Pillar II measures; for increased awareness of the 'political' role played by public authorities; and for a full acknowledgement of the existence of a European public interest. Additionally, remedy is needed for the absence of adequate attention on the issue of responsibility, something that could be labelled as the 'great absent' of contemporary regulation; this also makes further difficult to overcome the clash of languages between risks and rights. If one more conclusion is allowed from this thesis, this would be to refrain from considering a kind of 'technical naturalism' in what purported economic theories and models offer as apparently plain technical solutions, which conceal instead deep legal questions and political issues.

Overall, a regulatory "cognitive shift" is required,[886] as opposed to minor technical regulatory adjustments.[887] What is still to be seen is whether discussions such as the present one may be a rehearsal for rethinking legal concepts belonging to an all too old international legal order. However ambitious this attempt may be considered, invitations to silence to public and international lawyers in highly technical matters should be readily dismissed. Hence, "I tender no apologies for thus venturing far beyond the range where I claim to have mastered all the technical detail. If we are to regain a coherent conception of our aims, similar attempts should probably be made more often".[888]

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[884] A. DE VINCENZO, M.A. FRENI, A. GENERALE, S.N. ALTIMARI, M. QUAGLIARIELLO, 'Lessons learned from the financial crisis for financial stability and banking supervision', Bank of Italy, Occasional papers, no. 76/2010.

[885] "Financial cycles could become stronger in the future because of the increased importance of financial markets for financial and non-financial sectors of the economy";T. PADOA-SCHIOPPA, *Regulating Finance*, 128.

[886] J. BLACK, 'Restructuring Global and EU Financial Regulation: Capacities, Coordination and Learning', 3.

[887] At the same time, one message that is hopefully conveyed by this thesis is the need for jurists to actively participate to the process of the elaboration of new norms, something that shall take place with an eye to the quality of regulation, but also with awareness about legal tools employed, and deep knowledge of underlying economic phenomena. As maintained long time ago by the great jurist Angelo Sraffa, a depreciation in the role of jurists has always amounted in history to a decline in political liberties; much in the same way, when the legal method has been reduced to an unproductive collection of cases, and when the law has come to coincide with current rule, society was either about to exit a crisis, or to enter it; A.SRAFFA, *La riforma della legislazione commerciale e la funzione dei giuristi*, 1913, X.

[888] F.A. VON HAYEK, *The Constitution of Liberty*, 1960

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"At ardua per quae uocamur et confragosa sunt".
Quid enim? Plano aditur excelsum? Sed ne tam
abrupta quidem sunt quam quidam putant

"But the path by which we are called to go is steep and rugged".
What of it? Can the heights be reached by a level path?
But the way is not so sheer as some suppose

"Ma è ardua e aspra la via per la quale siamo chiamati".
E che? Si arriva il alto camminando in piano?
Tuttavia non è tanto difficile quanto taluni pensano

SENECA, *De Constantia Sapientis*

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