PhD THESIS DECLARATION

I, the undersigned

FAMILY NAME	**Vu**
NAME	**Kim Ngan**
Student ID no.	**1759950**

Thesis title:

Legal and Economic Foundations of Macro-prudential Policy

PhD in	**International Law and Economics**
Cycle	**XXIX**
Student's Advisor	**Prof. Donato Masciandaro**
Calendar year of thesis defence	**2018**

DECLARE

under my responsibility:

1) that, according to Italian Republic Presidential Decree no. 445, 28th December 2000, mendacious declarations, falsifying records and the use of false records are punishable

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

under the Italian penal code and related special laws. Should any of the above prove true, all benefits included in this declaration and those of the temporary "embargo" are automatically forfeited from the beginning;

2) that the University has the obligation, according to art. 6, par. 11, Ministerial Decree no. 224, 30th April 1999, to keep a copy of the thesis on deposit at the "Bilioteche Nazionali Centrali" (Italian National Libraries) in Rome and Florence, where consultation will be permitted, unless there is a temporary "embargo" protecting the rights of external bodies and the industrial/commercial exploitation of the thesis;

3) that the Bocconi Library will file the thesis in its "Archivio Istituzionale ad Accesso Aperto" (Institutional Registry) which permits online consultation of the complete text (except in cases of temporary "embargo");

4) that, in order to file the thesis at the Bocconi Library, the University requires that the thesis be submitted online by the student in unalterable format to Società NORMADEC (acting on behalf of the University), and that NORMADEC will indicate in each footnote the following information:

- PhD thesis: **Legal and Economic Foundations of Macro-prudential Policy**
- by **Vu Kim Ngan**;
- defended at Università Commerciale "Luigi Bocconi" – Milano in the year **2018**;
- the thesis is protected by the regulations governing copyright (Italian law no. 633, 22nd April 1941 and subsequent modifications). The exception is the right of Università Commerciale "Luigi Bocconi" to reproduce the same, quoting the source, for research and teaching purposes;

5) that the copy of the thesis submitted online to Normadec is identical to the copies handed in/sent to the members of the Thesis Board and to any other paper or digital copy deposited at the University offices, and, as a consequence, the University is absolved from any responsibility regarding errors, inaccuracy or omissions in the contents of the thesis;

6) that the contents and organization of the thesis is an original work carried out by the undersigned and does not in any way compromise the rights of third parties (Italian law, no. 633, 22nd April 1941 and subsequent integrations and modifications), including those regarding security of personal details; therefore the University is in any case absolved from any responsibility whatsoever, civil, administrative or penal, and shall be exempt from any requests or claims from third parties;

7a) that the thesis is not subject to "embargo", i.e. that it is not the result of work included in the regulations governing industrial property; it was not written as part of a project financed by public or private bodies with restrictions on the diffusion of the results; is not subject to patent or protection registrations.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Date **21st November 2017**

FAMILY NAME	**Vu**
NAME	**Kim Ngan**

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

ACRONYMS AND ABBREVIATIONS

BCBS	Basel Committee on Banking Supervision
BIS	Bank of International Settlements
CCB	Counter-Cyclical Buffer
CET	Common Equity Tier
CG	Credit Growth
CRD IV	Capital Requirements Directive IV (Directive No. 2013/36/EU)
CRR	Capital Requirements Regulation (Regulation No. 575/2013/EU)
DSTI	Debt Service-To-Income ratio
EBA	European Banking Authority (European System of Financial Supervision)
EC	European Commission
ECB	European Central Bank
ESAs	European Supervisory Authorities
ESCB	European System of Central Banks
ESFS	European System of Financial Supervision
ESRB	European Systemic Risk Board
EZ	Eurozone area
DP	Dynamic Provisioning
DTI	Debt-To-Income
IAIS	International Association of Insurance Supervisors
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
FED	Federal Reserve (United States)
FPC	Financial Policy Committee (United Kingdom)
FSB	Financial Stability Board
FSC	Financial Stability Committee (European Union)
FSF	Financial Stability Forum
FSOC	Financial Stability Oversight Council (United States)
GHOS	Group of Governors and Heads of Supervision (Basel Committee)
G-SIB	Global Systemically-Important-Bank

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

G-SII	Global Systemically-Important-Institution
LGD	Loss-Given Default
LTD	Loan-To-Deposit ratio
LTI	Loan-To-Income ratio
LTV	Loan-To-Value ratio
NCAs	National Competent Authorities
NCBs	National Central Banks
NDAs	National Designated Authorities
OECD	Organization for Economic Cooperation and Development
OMT	Outright Monetary Transactions Program
PD	Probability of Default
PTA	Preferential Trade Agreement
RR	Reserve Requirement
SIFI	Systemically Important Financial Institution
SRM	Single Resolution Mechanism Regulation (Regulation (EU) No. 806/2014)
SSM	Single Supervisory Mechanism
TEU	Treaty on the European Union
TFEU	Treaty on the Functioning of the European Union
WTO	World Trade Organization

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Abstract

The thesis aims at exploring the legal and economic foundations of macro-prudential policy. At the outset, it analyzes the characteristics of macro-prudential policy and then focuses on legal implications of the changes in contemporary theory of finance which led to the revival of macro-prudential policy. From an economic perspective, despite the fact that the term 'macro-prudential' has gained extraordinary momentum in the aftermath of the global crisis of 2008, the research points out that, there is virtually no agreed upon definition of what macro-prudential policy means or how best it should be implemented. Analysis on the goals, tools and actors of macro-prudential policy further indicates that research on this policy still remains in its infancy and as a matter of fact, there are significant differences across jurisdictions in how to calibrate specific goals or sub-objectives, appropriate instruments or build up a macro-prudential policy framework. On the other hand, legal and institutional analysis shows that, at international level, macro-prudential regulation remains soft law while being promulgated by a soft institution. Despite the fact that it took a global crisis to focus political attention on financial regulation, the role of law in governing global finance remains limited since there has not been much changes as to the institutional structure at international level. Even though compliance to the soft Basel III currently remains high, the research points at weaknesses of the soft system governing global finance as well as recent signs as to the pro-cyclicality of macro-prudential regulation. At supranational level, a special focus is dedicated to the macro-prudential policy framework of the European Union in which it was argued that the European Central Bank is actually the key player in the whole EU macro-prudential settings. Even though empowering central banks with macro-prudential mandates brings about advantages, the research warns, it may ultimately undermine central bank independence which potentially generates consequences as to the existing architecture governing global finance.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

To Father and Mother

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

TABLE OF CONTENTS

ABSTRACT	**6**
INTRODUCTION	**10**
1. Macro-prudential policy within economic theories: A conceptual approach	**18**
1.1. Objectives	**21**
1.1.1 Financial stability: general system objective	**22**
1.1.2 Systemic risk containment: same goal in different languages	**31**
1.2. Instruments	**50**
Time dimension and Structural dimension	
1.3. Actors and Governance	**81**
Institutional structure	**83**
The role of central bank in macro-prudential policy framework	**89**
Mandates and Powers	**95**
Independence, Accountability and Transparency	**98**
Interactions, coordination across policy areas toward financial stability	**107**
2. Legal and institutional foundations of macro-prudential policy	**113**
2.1. Legal foundation of macro-prudential policy	**117**
2.1.1 Why regulating finance?	**122**
Financial regulation	**122**
Pro-cyclicality of financial regulation: A tale of a regulating cycle	**137**
2.1.2 The rationale for macro-prudential regulation	**149**
2.2. Sources and institutional structure of macro-prudential regulation and supervision	**158**
2.2.1 International arena	**161**
International financial regulation	**161**
The international architecture regulating finance: An Overview	**162**
Understanding the legal nature of international financial regulation: A theoretical discussion	**179**
Global financial crisis: How much of a change-maker has it been?	**201**
International macro-prudential policy framework: The softness of the law and bodies	**206**
Basel Committee on Banking Supervision: General remarks	**207**
BCBS softness: A quick look at issues of independence, accountability and legitimacy	**216**
The making of Basel III: history, principles and challenges	**233**
Implementation of macro-prudential regulation: Responses from both sides of the Atlantic ocean and more	**249**
On a side note: What could be learnt from the trade model?	**263**

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

2.2.2 Supranational and national levels: The case of the European Union	**270**
Legal basis for macro-prudential policy arrangements within the European Union: A combination of both hard law and soft law, Union law and national law instruments	**275**
ESRB and ECB: Making sense of the system	**297**
CONCLUSION	**326**
LIST OF REFERENCES	**331**
ACKNOWLEDGEMENTS	**351**

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

INTRODUCTION

The origin of the term 'macro-prudential' can be traced back to the late 1970s in the midst of the oil crisis. The increasing oil prices and its implications on international bank lending sparked concerns for macroeconomic problems and its link with financial stability, in the sense where "*micro-economic problems […] began to merge into macro-economic problems […] at the point where micro-prudential problems could be called macro-prudential ones"*.[1] Despite how well-defined the macro-prudential approach was, it remained in some unpublished documents—minutes of the meeting of the Cooke Committee and a document prepared by the Bank of England in the late 1970s. Not until the 1997 Asian crises did the term 'macro-prudential' gain its recognition outside the central banking circles and the crises also triggered the Bank for International Settlement (BIS) and the International Monetary Fund (IMF) to work on '*formalizing the macro-prudential approach to regulation and supervision'*.[2] Defined as

---

[1] PIER CLEMENT, *The term macro-prudential: origins and evolution,* BIS Quarterly Review, March 2010, 60-65. Pier Clement addressed the origin of the term 'macro-prudential' through mentioning its appearance in various BIS documents. Although the term 'macro-prudential' was new when it was first introduced, the underlying macroeconomic concerns and its link with prudential regulation were not. As noted in the speech by Andrew Crockett: "*The distinction between the micro- and macro-prudential dimensions of financial stability is best drawn in terms of the objective of the tasks and the conception of the mechanisms influencing economic outcomes. It has less to do with the instruments used in the pursuit of those objectives".*

[2] GABRIELE GALATI & RICHHILD MOESSNER, *Macro-prudential policy: A literature review,* BIS Working Paper No. 337, 2-4. The Bank of England paper strongly called for a wider perspective of banking supervision in the sense that micro-prudential viewpoint might fail to take full account of the macro-prudential picture, specifically with regard to three examples of macro-prudential problems: the growth of the market, the perception of risk and the perception of liquidity; *See also:* IVO MAES, *On the origin of the BIS macro-prudential approach to financial stability: Alexandre Lamfalussy and financial fragility,* National Bank of Belgium Working Paper No. 176, October 2009, 14-16. Macro-prudential policy was also the first topic of the 1986 BIS report on '*Recent innovations in international banking*' which addressed concerns that innovation may contribute and heighten

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

supporting 'the safety and soundness of the broad financial system and payments mechanism',[3] it comes as no surprise that the macro-prudentialapproach, despite being little used, has experienced its increasing popularity after each and every financial crisis since the late 1970s.[4] Yet, even though the notion and broad theory of macro-prudential policy is certainly not new and the BIS has been strongly advocating for this approach for many years; it took decades until only after the global financial crisis of 2008 that policymakers came to acknowledge and "fully appreciate the likelihood and cost of a systemic disruption in modern financial markets and the need to keep systemic risks in check".[5]

As it turned out, the underlying idea that 'keeping *individual* banks safe ensures the safety of the *system* as a whole' of micro-prudential regulation was proved to be insufficient to guarantee the health of the overall financial system.[6] The crisis then reminded us that 'the financial system is, indeed, a system and thus it needs to be regulated as a system, not as a series of notionally independent parts'.[7] In such a manner, the global crisis indeed paved the way for

---

systemic vulnerabilities of the financial system as a whole. But even with this first public reference to macro-prudential policy, the term remained within the BIS and central banking circles.

[3] Bank for International Settlements, *Recent innovations in international banking*, Cross Report prepared by a study group established by the central banks of the G10 countries, Basel, April 1986, 2-6.

[4] For instance, despite the fact that macro-prudential policy was not used comprehensively but only on an ad hoc basis, Asian central banks took the lead in implementing macro-prudential policy before and following the experience of the 1997 Asian financial crisis. *See further* at: JAIME CARUANA, *Macro-prudential policy: working towards a new consensus,* Speech at the high-level meeting on "The Emerging Framework for Financial Regulation and Monetary Policy" jointly organized by the BIS's Financial Stability Institute and the IMF Institute, Washington DC, 23 April 2010, 3.

[5] LUIS I. JACOME and ERLEND W. NIER, *Macro-prudential policy: Protecting the whole,* Finance and Development, International Monetary Fund, *see link available:* http://www.imf.org/external/pubs/ft/fandd/basics/macropru.htm

[6] CHARLES A.E. GOODHART, *The role of macro-prudential supervision,* in CHARLES A.E. GOODHART, DIMITRIOS P. TSOMOCOS (eds.), *Financial Stability in Practice: Towards an Uncertain Future,* Edward Elgar, UK, 2012, 65-68.

[7] PAUL TUCKER, *The political economy of macro-prudential regimes,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 62-63.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

macro-prudential policy, which centers on preserving the stability of the financial system as a whole, to receive record supporting from almost every central banker in the world. Furthermore, this most devastating crisis since the US Great Depression clearly marked the rise to extraordinary prominence of macro-prudential policy and the term 'macro-prudential' has become much more common among both academics and policymakers.[8]

Against this background, the main themes to be tackled in this research focus on analyzing the characteristics of the newly revived macro-prudential policy and legal implications of the fundamental changes as to the modern theory of finance which led to the revival of macro-prudential policy with unprecedented momentum. For the sake of clarity, the thesis aims at finding answers to the following questions: *first*, how has macro-prudential policy been defined or characterized in terms of its goals, tools and actors?; *second*, how has the fundamental changes with regard to the conventional theory of finance influenced the making, character and content as well as supervision of financial regulation for prudential purpose?; and *third*, at supranational level and with respect to the EU macro-prudential framework, should both monetary policy and the macro-prudential mandate be discharged by the ECB in the Eurozone?

In order to find answers for these above questions, the thesis then takes a step backward to start from analyzing the issues which form the foundations of macro-prudential policy, while adopting a law and economic approach. The reason for employing both legal and economic

[8] GABRIELE GALATI & RICHHILD MOESSNER, *Macro-prudential policy: A literature review,* 4. 'At the G20 meeting in Seoul in November 2010, G20 Leaders concluded that further work on macro-prudential frameworks was a priority'; FSB, IMF & BIS, *Macro-prudential tools and frameworks: Update to G20 Finance Ministers and Central Bank Governors,* February 2011. "Following the Crisis, the term 'macro-prudential' went from virtual obscurity – the idiom of a few cognoscenti – to rock-star status almost overnight, with the international community's full endorsement". CLAUDIO BORIO, *Macro-prudential frameworks: (Too) great expectations?,* in DIRK SCHOENMAKER (ed.), *Macro-prudentialism,* A VoxEU.org Book, CEPR Press & Duisenberg School of Finance, December 2014, 29.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

analysis stems from the need to understand the economic rationale which underlies the making of financial regulation. Essentially, the discussion departs from an economic problem of the global financial crisis 2008 which paved the way for the revival of macro-prudential policy, to legal implications of such changes at global and supranational levels.Through providing a systemic understanding of these matters, the research does not limit itself on describing existing rules or institutions concerning (macro-)prudential policy but intends to go deeper and starts from the root of the issue at hand. On such a basis, the thesis is designed into two main parts in which the first section focuses on economic analysis and the second part provides in-depth studies about legal and institutional framework of macro-prudential policy. Structured as such, the thesis wishes to contribute to the part of literature on legal analysis of macro-prudential policy which is still largely missing.

At the outset, the economic analysis is consistently and systematically organized along the three dimensions of actors, goals and tools of macro-prudential policy across jurisdictions. Regarding its goals, while common understanding has it that overall financial stability and containing systemic risks are objectives of macro-prudential policy, there has not been a clear and consensus definition of these concepts either in academic research or legislation. In fact, national policymakers generally use the term 'macro-prudential' to refer to a large variety of goals and instruments and it seems that a 'broad concern or interrelationships is inherent in the term macro-prudential itself'.[9] Such policies includes, but not limited to, micro-prudential, fiscal and

[9] International Monetary Fund, *Macro-prudential policy: An organizing framework*, Appendix II, March 2011, 51.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

structural, competition, supervisory, crisis management, resolution, etc.[10] In such a way, the current terminology is mostly used in an unclear manner in many countries due to the undefined range of macro-prudential policy instruments. Even though macro-prudential policy has been defined as a policy that uses *primarily* prudential tools to limit systemic or system-wide financial risk; admittedly, many policies could have an effect on systemic risk management and financial stability but not all of those could be considered macro-prudential policy, while some non-prudential instruments could actually fall within the scope of the macro-prudential policy toolkit if it targets explicitly and specifically at systemic risks.[11]

For a general remark, Paul Tucker points out, "macro-prudential regime has been assembled in a great hurry in the wake of the Global Financial Crisis" and the result has been that the "macro-prudential structures vary enormously across countries in almost every conceivable dimension".[12] Against this background, the understanding on economic foundation of macro-prudential policy help shed the light on the establishment of a legal framework and an effective institutional arrangement to design and implement these policy instruments.

Turning into the second part of legal and institutional analysis, one of the mainstream analysis which has been argued convincingly is that the recent global financial crisis—the most

---

[10] DANIEL HEALTH, *International coordination of macro-prudential and monetary policy,* Georgetown Journal of International law, 2014, 1095.

[11] Financial Stability Board, Bank for Intentional Settlements & International Monetary Fund, *Macro-prudential policy tools and frameworks*, Report to G20 Finance Ministers and Central bank Governors, February 2011, 2.

[12] The macro-prudential arrangements vary with respect to objectives (if any), authority in charge, legal nature of the outcome and statutory support for a macro-prudential regime. This is in contrast with monetary regimes where policymakers, economists and politicians invested great time and effort designing the structure that could be fit for the purpose of modern liberal democracies.; PAUL TUCKER, *The political economy of macro-prudential regimes,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 61.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

devastating one since the Great Depression 1929-1933—has fundamentally changed the underlying contemporary theory of finance, which in its turn, generates serious consequences toward international financial regulation and supervision for prudential purpose. Notably, while analysis focuses on macro-prudential approach of financial regulation, attention is also given to foundational issues of financial regulation itself, including its pro-cyclical tendency. On this point, it should be noted that financial regulation, whether domestic or international, has most often developed as a child of crises'. With rare exception, financial legislation was enacted on the basis of market failures, 'after innovative dealings got out of hand and created a crisis'.[13] Thus, it has been acknowledged that financial regulation is normally imposed in reaction to some prior crisis rather than founded on theoretical principle.[14] Admittedly, financial regulation is interdisciplinary by nature in the sense that policymakers typically issue regulations in the form of various legal acts, yet on the basis of economic rationale.[15] At international level, moreover, it is a matter of fact that financial regulation, macro-prudential regulation are mostly promulgated in the forms of financial standards, best practices, guidance and thus its legal nature remains 'soft' while the rule itself has been characterized as 'soft law'. Despite its advantages, this informal system has actually faced with criticisms in terms of lacking legitimacy and accountability on the basis of its transnational technocracy and democratic deficit. Of these, international prudential regulations promulgated by the Basel Committee on Banking Supervision

---

[13] CHRISTIAN TIETJE and MATTHIAS LEMANN, *The role and prospects of international law in financial regulation and supervision*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 134.
[14] CHARLES A.E GOODHART, *Chapter 5: How should we regulate bank capital and financial products? What role for "living wills"?*, in ADAIR TURNER et al., *The Future of Finance: The LSE Report*, London School of Economics and Political Science, 2010, 165.
[15] ARMIN J. KAMMEL, *Government Versus Markets—A Change in Financial Regulation*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, 5.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

are typical examples of international soft financial law. On this point, even though 'it is depressingly true that it takes a crisis to focus political attention on financial regulation',[16] the fundamental changes carried out as a result of this global financial crisis is neither sufficient nor probably desirable to harden the softness of the rules and thereby the role of law in international financial regulation.

Admittedly,'soft law' has always been an awkward topic for legal scholars, partly because neither the term regularly appears in official documents nor such instruments are explicitly labeled as soft law. Meanwhile, some existing relevant researches focus on elaborating the status quo, emphasizing on the fact that international finance is the field in which soft law has been successfully applied, more than questioning the root of the problem. In such a way, this part of the thesis is structured and analyzed also in the belief that the systemic analysis it provides could then serve as the basis to build further scholarly research on prudential rules and financial regulation in general, and on soft law in particular.

The last part of the thesis is dedicated to focus on the macro-prudential framework of the European Union. Admittedly, the European Union is unique in the sense that it comprises of two layers of governance, i.e. supranational and national levels, as well as the crucial feature of the Eurozone area where members rely heavily on bank finance while having a common monetary policy. Thus, the macro-prudential regime could be more important and powerful in this bank-based financial system than in other market-based economies, especially when the European Central Bank (ECB) has been conducting unconventional monetary policy instruments.

[16] HOWARD DAVIES and DAVID GREEN, *Global financial regulation: The essential guide*, xvii.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

As the research indicates, the ECB seems to have a bigger role within the EU macro-prudential settings than what may appear at first sight. Even though it has been demonstrated through the above-mentioned economic analysis that central bank is advocated to bear the responsibility for macro-prudential policy in order to take advantage of its natural strengths, empowering central bank with powerful macro-prudential mandates could eventually undermine the bank's independence which then produces impacts on the existing soft institutional structure governing global finance. Essentially, this part of the thesis is structured to help answer the research questions above; yet, legal basis and institutional arrangements of macro-prudential policy within the European Union are examined also in the belief that it could provide useful insights to other financial jurisdictions where a macro-prudential policy framework has been (or is about to be) put in place.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

1. Macro-prudential policywithin economic theories: A conceptual approach

The situation after the global crisis strongly called for a macro-component in financial policy in order to address the weakness of the financial system where financial authorities were too "pre-occupied with price stability (of goods and services) and with firm-level regulation and supervision (micro-prudential policy)".[17] Admittedly, monetary policy concerns with inflation of consumer goods, but not inflated asset prices, while micro-prudential policy focuses on individual financial institutions and is predominantly linked with the stability of particular institutions. The micro- approach (justified in terms of depositor/investor protection) is thus seen as "treating the aggregate risk as independent of the collective behaviors of institutions" or on the assumption that risks are exogenous.[18] As a result, the impacts of structural financial risks (e.g. asset price correlations, aggregate levels of leverage) and endogenous propagating mechanisms on a broader financial system were neglected.[19] Thus, traditional macro-economic stabilization and micro-prudential policies undoubtedly leave a regulatory gap, in which systemic risks arising from interdependencies and individual or collective actions that lead to excessive pro-cyclicality or systemic fragilities are not fully addressed.[20]To the extent there was a lack of regulatory and supervisory tools and approaches, "there is a need for an approach towards oversight and

---

[17] ALASTAIR CLARK & ANDREW LARGE, *Macro-prudential policy: Addressing the Things We Don't Know,* Occasional Paper No. 83, Group of Thirty, Washington, DC, 2011, 11.
[18] PIER CLEMENT, *The term macro-prudential: origins and evolution,* 64.
[19] KERN ALEXANDER, *International Economic Law and Macro-prudential Regulation*, in THOMAS COTTIER, ROSA M. LASTRA, CHRISTIAN TIETJE, LUCIA SATRAGNO, (eds.), *The Rule of Law in Monetary Affairs,* Cambridge University Press, 2014, 520. *See also*: ANDREW D. CROCKETT, *Marrying the micro- and macro-prudential dimensions of financial stability,* General Manager of the BIS and Chairman of the FSF, Remarks before the Eleventh International Conference of Banking Supervisors, held in Basel, 20-21 September 2000.
[20] ITAI AGUR and SUNIL SHARMA, *Rules, discretion and macro-prudential policy*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, Rutledge Research in Finance and Banking Law, 2015, 43.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

regulation that goes beyond concerns about particular markets and particular institutions".[21]

As a lesson learnt from the 2008 crisis, a more systemic orientation of the regulatory and supervisory framework is essential to defend the financial system against financial instability (triggered by either idiosyncratic or systematic, endogenous or exogenous, shocks) which could lead to widespread disruptions to the economy, at national, supranational and global level.[22] Reforms and design of new policy tools to achieve financial stability were highlighted in the aftermath of the global crisis, in which macro-prudential policy has been called on to contain systemic vulnerabilities as a way towards strengthening the resilience of the financial system.[23] In fact, there 'seems to be an agreement among both academics and policymakers where they advocate for the macro-prudential direction to become an important element of the financial stability policy'.[24] In essence, however, macro-prudential policy is distinct from financial crisis management policy in its preventative orientation.[25]

Despite the fact that the term 'macro-prudential' has gained unprecedented momentum

---

[21] PAUL A. VOLCKER, *Protecting the Stability of Global Financial Markets,* in STIJN CLAESSENS, DOUGLAS D. EVANOFF, GEORGE G. KAUFMAN, LAURA E. KODRES (eds.), *Macro-prudential Regulatory Polices: The New Road to Financial Stability?*, World Scientific Publishing Co. Pte. Ltd, 2012.

[22] The discussion on the causes of the recent global financial crisis has been exploited in academic literature where the emphasis was placed on the need to have a more systemic approach towards the financial system. *See*, generally: STIJN CLAESSENS, AYHAN KOSE, LUC LAEVEN, FABIAN VALENCIA (eds.), *Financial Crises: Causes, Consequences, and Policy Responses*, International Monetary Fund, Washington DC, 2014.

[23] Whatever its structure, the prudential regulatory framework will have to be re-oriented to have a system-wide focus, towards risk across the system as a whole, i.e. systemic risk. And that is the role of macro-prudential policy.; Bank of England, *The role of macro-prudential policy: A discussion paper,* November 2009, 4.

[24] SAMUEL G. HANSON, ANIL K KASHYAP, JEREMY C. STEIN, *A Macro-prudential Approach to Financial Regulation*, Journal of Economic Perspectives, Volume 25, No. 1, 2011, 3.

[25] It was further elaborated that although safety nets and crisis resolution tools contribute to macro-prudential objectives (for instance, by lowering the probability of runs), they are arguably most relevant in the event of a crisis, and are not treated as macro-prudential instruments here.; Bank for International Settlements, *Macro-prudential instruments and frameworks: a stocktaking of issues and experiences*, Report by the Committee on the Global Financial System, CGFS Papers No. 38, May 2010, 1.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

and "virtually every central banker in the world is on record supporting the concept of 'macro-prudential' regulation, there is still no agreed upon definition of what it means or how best it should be implemented.[26] Research on macro-prudential policy "is still in its infancy" thus appears to be far from being able to provide an analytical underpinning for policy frameworks.[27] A remark by Xavier Freixas et al. may help to shed the light as to the state of such confusion:

"Macro-prudential' has been one of main buzzwords emerging from the Global Crisis. But it means different things to different people. For some, macro-prudential policy is about managing the economic cycle. For others, it is about reining in the financial instability inherent to financial markets and institutions. For some skeptics, it is simply an empty term because the political economy of booms is such that country authorities will always find it hard to smooth them, as booms bring substantial benefits to society while they last."[28]

Indeed, the fact that macro-prudential policy has very recently gained its momentum to play a prominent role in policy discussions could explain the lack of a common view on this topic. But this absence could also due to the 'lack of a thorough understanding and established models of the interaction between the financial system and the macroeconomy' which could lead

---

[26] ANIL K. KASHYAP, DIMITRIOS P. TSOMOCOS & ALEXANDROS P. VARDOULAKIS, *A programme for improving macro-prudential regulation,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 21.

[27] GABRIELE GALATI & RICHHILD MOESSNER, *Macro-prudential policy: A literature review,* 13. The authors further elaborate the three main reasons for this lacking: (i) the macro-prudential approach has become visible in policy discussions only recently; coupled with (ii) the lack of a thorough understanding and established framework on the interaction between the financial system and the macro-economy; and (iii) there is no consensus on the relationship and delineation between macro-prudential policy and micro-prudential policy. *See id.*

[28] XAVIER FREIXAS, LUC LAEVEN, JOSE-LUIS PEYDRO, *Systemic risk, crises, and macro-prudential regulation*, VOX CEPR's Policy Portal, 05 August 2015, available at http://voxeu.org/article/systemic-risk-crises-and-macroprudential-regulation

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

to the build-up of systemic risk.[29] As a starting point, the discussion below intends to give a critical overview of macro-prudential policy's fundamental features, namely: objectives, instruments and actors within the institutional arrangement of a macro-prudential regime.

1.1 Objectives

Relevant academic literature in this field gives the impression that scholars are more interested in defining the objectives of macro-prudential policy instead of literally defining the concept itself. In broad sense, macro-prudential policy is seen as aiming at maintaining and fostering stability of the financial system, or reducing the macro-economic costs of financial instability, and containing systemic risks.[30] To give further clarity, the European Systemic Risk Board (ESRB) identified in its Recommendations that the ultimate objective of macro-prudential policy is "*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*".[31] Likewise, the Bank for International Settlements defined macro-prudential policy as "*the use of prudential tools with explicit objective of promoting the stability of the financial system as a whole, not necessarily of the individual institutions within it*".[32]Although there is consensus on this general view, i.e. preserving financial stability and containing systemic risk, and that macro-

---

[29] H. BROUWER, *Challenges in the design of macro-prudential tools*. Introductory speech at the workshop on "Concrete macro-prudential tools" hosted by DNB, the IMF and the Duisenberg School of Finance, Amsterdam, 13th January 2010.

[30] GABRIELE GALATI & RICHHILD MOESSNER, *Macro-prudential policy: A literature review,* 6.

[31] European Systemic Risk Board, *Recommendations on intermediate objectives and instruments of macro-prudential policy,* ESRB/2013/1, 4 April 2013, Recommendation A — Definitions of intermediate objectives, para. 1.

[32] JAIME CARUANA, *Macro-prudential policy: working towards a new consensus,* 1.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

prudential focus should be on the overall financial system rather than on particular financial institutions, there are differences in how to calibrate specific goals or sub-objectives that macro-prudential policy authority should pursue. Differences in the possible range of macro-prudential measures or what appropriate instruments should be assigned to macro-prudential regulators follow as a logical consequence.

1.1.1 Financial stability: the general system objective

The common understanding has it that financial stability is the general objective, the overarching goal, of macro-prudential policy. As we define macro-prudential policy in terms of financial stability, the target shifts to definition and objectives of financial stability itself. In such a way, it helps to shed the light on our understanding of macro-prudential policy.

To begin with, financial stability should be differentiated with monetary stability for which the main focus of the latter is on price stability.[33] It has been acknowledged since the mid-1990s, long before the global crisis, that the achievement of price stability does not ensure

[33] Broadly speaking "monetary stability refers to the maintenance of the internal value of money (i.e. price stability) as well as of 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)". As an instrument of economic policy, the objective of monetary policy should be price stability. ROSA M. LASTRA, *The role of central banks in monetary affairs,* in THOMAS COTTIER, ROSA M. LASTRA, CHRISTIAN TIETJE, LUCIA SATRAGNO, (eds.), *The Rule of Law in Monetary Affairs,* 88. Price stability has been enjoying its status as the most important objective of monetary policy by central banks, to the extent that monetary stability is taken as a synonym for price stability; OTMAR ISSING, *Monetary and Financial Stability: Is there a Trade-off?,* Conference on 'Monetary Stability, Financial Stability and the Business Cycle', Bank for International Settlements, Basle, March 28-29, 2003. Despite the fact that some remain skeptical of the need to use monetary policy if low inflation is mainly due to the swings in the price of oil, Fabio Panetta made it clear that the pursuit of price stability of central bank is still warranted and that monetary policy has not reached its limits even when interest rates are at the zero lower bound.; FABIO PANETTA, *Central banking in the XXI century: never say never*, SUERF/BAFFI CAREFIN Center Conference on *Central banking and monetary policy: Which will be the new normal*, Milan 14th April 2016.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

financial stability as financial imbalances can build up even when there is stable prices.[34] In fact, price stability has traditionally been considered one of the main functions of central bank with interest rate as its policy instrument, whereas the focus has recently been revived for financial stability to which the set of instruments centers on macro-prudential tools.[35] When it happens that central banks are obligated to achieve two objectives: financial stability and price stability, the 'Tinbergen' rule indicates that it needs two set of instruments to meet both ends satisfactorily.[36] In such a way, macro-prudential emerged as the set of tools designated for the preservation of financial stability. Nevertheless, there could actually be two distinct scenarios, as further developed later with regard to institutional structure, where central bank takes the role of macro-

---

[34] RICHARD PORTES, *Macro-prudential policy and monetary policy,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 47. "It is a fact that significant episodes of financial crises —or situations that could easily led to crisis—took place in the last two or three decades in the context of overall price stability. [...] Important individual failures (e.g. BCCI, Barings, Credit Lyonnais, and Yamaichi) have occurred in the presence of price stability". TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk,* Oxford University Press, 2004, 113.

[35] "Price stability as well as financial stability [...] had historically been a central function for those central banks operating in the 19th century, when adherence to the Gold Standard ensured the maintenance of price stability, it had not been foremost in the minds of those preparing a legal mandate for more recently established central banks." CHARLES A.E. GOODHART, *The use of macro-prudential instruments,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 12.; After the financial crisis, as Dirk Schoenmaker pointed out, "central banks are returning to their root by re-assuming a broad mandate ...[as such] financial stability departments of central banks have been and continue to be strengthened". DIRK SCHOENMAKER, *Introduction,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 2.; Changes that have occurred over the last few decades where central banks are assigned the overriding mission of preserving price stability; they have been granted independence, however, the task of supervising banks has been taken away in a number of countries. TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk,* 93.; In addition, "Although the objective of achieving financial stability was given something of a backseat up till 2007 [...] it was historically and traditionally the second core purpose of most Central Banks. Now the need to achieve that objective has been reaffirmed and re-emphasized". CHARLES A.E. GOODHART, *The role of macro-prudential supervision,* in CHARLES A.E. GOODHART, DIMITRIOS P. TSOMOCOS (eds.), *Financial Stability in Practice: Towards an Uncertain Future,* 65.

[36] CHARLES A.E GOODHART, *'The use of macro-prudential instruments,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 47. The 'Tinbergen' Rule, named after the economist Jan Tinbergen- the first winner of the Nobel prize for economics, states that achieving the desired targets of finding solutions for political economy issues requires an equal number of instruments, and these must be independent among each other. In other words, you need at least one independent policy instrument for each policy objective.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

prudential authority and where it is not central bank but another agency, or even a committee, to be in charge of regulating and supervising macro-prudential instruments.

While the understanding of price stability enjoys its consensus and in general, the concept is widely accepted and "relatively straightforward to handle, both conceptually and in central banking practice";[37] there has not been a clear and consensus definition of financial stability either in academic research or legislation.[38] Central banks have developed a set of procedures and institutional arrangements for price stability but 'no equivalent success has been achieved on the analytics of financial stability'.[39] It is to the extent that "although a number of central banks regularly publish financial stability reports, they tend 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 Australian National Bank)".[40] Dirk Schoenmaker admits that: "*While we know ex post what went wrong in a crisis, financial stability is not easy to define ex ante. The trade-offs between enhancing growth and efficiency and reducing financial instability*

---

[37] "Price stability refers to a stable price level or a low level of inflation and not to stable individual prices"; OTMAR ISSING, *Monetary and Financial Stability: Is there a Trade-off?,* Conference on 'Monetary Stability, Financial Stability and the Business Cycle', BIS, 2003, Basle.
[38] 'This lack of a clearly established analytical and operational framework for financial stability is in contrast to the clear terms of reference available for monetary policy and prudential supervision.' *See* TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk*, 109. "[…] financial stability was not clearly identified as the responsibility of any particular regulatory authority prior to the financial crisis. Under the Dodd-Frank legislation a group of regulators, the Financial Stability Oversight Council, is now tasked with providing financial stability oversight. However […] financial stability was never defined in the legislation". *See* ERIC S. ROSENGREN, *Defining Financial Stability, and Some Policy Implications of Applying the Definition,* Keynote Remarks at the Stanford Finance Forum, Graduate School of Business, Stanford University, June 3, 2011.
[39] CLAUDIO BORIO and MATHIAS DREHMANN, *Towards an operational framework for financial stability: "fuzzy" measurement and its consequences*, BIS Working Papers No. 284, June 2009, 1.
[40] TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk*, 109-110.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

are not exactly understood".[41] In addition to the agreed upon feature of financial stability framework to focus on the financial system as a whole,[42] financial stability profession has been operating with emphasis on it as a negative concept, i.e. financial instability, which is more concrete and observable.[43] Put differently, financial stability seemingly emerged as a policy goal "more in response to the consequences of its absence and the challenges posed by systemic risks".[44]

For instance, Borio and Drehmann describe financial stability as the converse of financial instability, in which the latter is clarified to refer to "a set of conditions that is sufficient to result in the emergence of financial distress[45]/crises in response to normal-sized shocks". Thus, financial stability is described in terms of the vulnerability of the financial system to financial distress in response to normal-sized shocks, rather than large shocks, through the amplifying mechanism in the system.[46] While there could be different definitions as to financial stability, those that rule out the possibility of the financial system being a source of shocks is likely to risk

---

[41] DIRK SCHOENMAKER, *Governance of International Banking: The Financial Trilemma*, Oxford University Express, 2013, 24.
[42] In such a way, we refer to financial stability as the systemic stability of the financial system, not necessarily of any individual bank or financial institution.
[43] GUNDBERT SCHEFF, *Financial Stability in the Euro Zone: The Political Economy of National Banking Regulation in an Integrating Monetary Union*, Springer Gabler, Germany, 2012, 48. For a discussion on the definitional problems of financial stability, *see also* HOWARD DAVIES, *Two Cheers for Financial Stability,* Group of Thirty, Washington, DC, 2006, 14-17.
[44] GUNDBERT SCHEFF, *Financial Stability in the Euro Zone: The Political Economy of National Banking Regulation in an Integrating Monetary Union,* 48.
[45] "Financial distress/a financial crisis as an event in which substantial losses at financial institutions and/or the failure of these institutions cause, or threaten to cause, serious dislocations to the real economy, measured in terms of output foregone". CLAUDIO BORIO and MATHIAS DREHMANN, *Towards an operational framework for financial stability: "fuzzy" measurement and its consequences*, 4.
[46] CLAUDIO BORIO and MATHIAS DREHMANN, *Towards an operational framework for financial stability: "fuzzy" measurement and its consequences,* 4.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

being too restrictive and misleading.[47] According to Borio and Drehmann, the macro-prudential orientation, which is of necessity for any operating financial stability framework, should then rely on risks of 'endogenous' nature as it "is precisely the feature that underlies the amplifying mechanism that generate financial distress in response to normal-sized shocks".[48] Garry Schinasi, while taking a more positive and constructive approach to define financial stability instead of its absence,[49] also emphasizes on the endogeneity of financial imbalances: "*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"*.[50] Schinasi takes the financial system approach to

---

[47] The financial system could play a key role in generating financial distress in the form of an endogenous cycle, which happens through the natural result of the build-up in risk-taking over time, owing to self-reinforcing feedback mechanism within the financial system and between it and the real economy. This endogenous cycle should be distinguished from exogenous shock-amplification views of financial instability.; *See further* at CLAUDIO BORIO and MATHIAS DREHMANN, *Towards an operational framework for financial stability: "fuzzy" measurement and its consequences,* 5-6.

[48] CLAUDIO BORIO and MATHIAS DREHMANN, *Towards an operational framework for financial stability: "fuzzy" measurement and its consequences,* 2.

[49] 'Taking a different approach compared to Borio, Schinasi define financial stability itself rather than its absence, in part because he considers this is likely to be the more useful "policy" objective. A policy objective of avoiding financial instability or crisis—or of managing systemic risk—could bias policy decisions, analyses, and analytical frameworks towards sacrificing both private and social benefits of finance. In such a way, a more positive or constructive approach may serve additional practical purposes, including leaving open the possibility of assessing whether the private and social benefits of finance can be increased further which would be particularly useful in countries that have relatively undeveloped financial systems'.; GARRY J. SCHINASI, *Defining Financial Stability*, International Capital Markets Department, IMF Working Paper, October 2004, 3.

[50] GARRY J. SCHINASI, *Defining Financial Stability*, 6-10. Schinasi suggests five principles that are defining characteristics of financial stability: (1) Financial stability is a broad concept, encompassing the different aspects of finance (and the financial system)—infrastructure, institutions, and markets; (2) Financial stability should also imply that the systems of payment throughout the economy function smoothly (across official and private, retail and wholesale, and formal and informal payments mechanisms); (3) It relates also to the ability of the financial system to limit, contain, and deal with the emergence of imbalances before they constitute a threat to itself or economic processes; (4) It should be embedded in terms of the potential consequences or in the well-functioning of the real economy; and (5) Financial stability occurs along a continuum, i.e. it is dynamic and dependent on many parts of the system working reasonably well, not all of which has to be stable at all times for financial stability to be present.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

define financial stability in a more comprehensive manner and essentially refers to the resilience of the financial system to 'endogenous' shocks originating within the system itself. As a result, this contributes to (rather than impedes) "the allocations of real resources, the rate of growth of output, and the processes of saving, investment, and wealth creation".[51]

Alternatively, Allen and Wood considers financial stability as the property of an economic system which is not prone to episodes of financial instability, where financial instability is characterized "*as episodes in which a large number of parties, whether they are households, companies, or (individual) governments, experience financial crises which are not warranted by their previous behavior, and where these crises collectively have seriously adverse macro-economic effects*".[52]Also defining financial stability in the absence of its negative counterpart, yet Allen and Wood describe it as the ability of the financial system to withstand external shocks.

In another attempt to clarify the notion, Tommaso Padoa-Schioppa defines "*financial stability as 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*".[53] Thus, Padoa-Schioppa pays specific attention to channels of savings towards investment opportunities and the facilitation of payment services across the economy, i.e. the integrity of the payment system. This is very important, as De

---

[51] GARRY J. SCHINASI, *Defining Financial Stability*, 9.
[52] WILLIAM A. ALLEN & GEOFFREY WOOD, *Defining and Achieving Financial Stability,* LSE Financial Markets Group, Special Paper Series, No.160, April 2005, 5-13.
[53] In relation to the definition of financial stability, Padoa-Schioppa adopts a broad definition of financial system to consist of all financial intermediaries, organized as well as informal markets, payments and settlement circuits, technical infrastructures supporting financial activity, legal and regulatory provisions, and supervisory agencies. TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk*, 110.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Vincenzo and Generale indicated, "because it demonstrates [Padoa-Schioppa's] attention to the systemic risks stemming from the interconnectedness of financial institutions – an issue that is at the core of the current phase of the financial crisis".[54]

In line with this concern on payment services, Eric S. Rosengren put forward two definitions with respect to both financial stability and its counterpart financial instability:[55]"*Financial stability reflects the ability of the financial system to consistently supply the credit intermediation and payment services that are needed in the real economy if it is to continue on its growth path; Financial instability occurs when problems (or concerns about potential problems) within institutions, markets, payment systems, or the financial system in general significantly impair the supply of credit intermediation services - so as to substantially impact the expected path of real economic activity." (emphases original)*. Rosengren takes into account the performance of the economy andalso puts in center the supply of credit intermediation and payment services which are considered to have critical role in preserving the stability of the system as evidences that the economy is well-functioning.[56] Rosengren's take is

---

[54] ALESSIO DE VINCENZO and ANDREA GENERALE, *Background note: T. Padoa-Schioppa's perspective on financial system regulation and supervision*, in Bank of Italy, *Conference in Memory of Tommaso Padoa-Schioppa*, Rome, December 2011, 123. For financial interconnectedness and contagion, the recent global crisis demonstrates that 'even though the US subprime mortgage market constitutes only a relatively small part of total exposures for most banks and even total direct interbank exposures to Lehman Brothers were not that large compared to the size of the global financial system, its failure triggered the worst wave of the ongoing financial system'.; ITAI AGUR and SUNIL SHARMA, *Rules, discretion and macro-prudential policy*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 43.

[55] ERIC S. ROSENGREN, *Defining Financial Stability, and Some Policy Implications of Applying the Definition,* Keynote Remarks at the Stanford Finance Forum.

[56] The Bank of England, in its Discussion Paper on Macro-prudential policy, also considers the goal of financial stability policies, in general terms, should be the stable provisions of financial intermediation services to the wider economy, namely payment services, credit intermediation and insurance against risks.; Bank of England, *The role of macro-prudential policy: A discussion paper,* November 2009, 9.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

that financial stability would not be compromised even in the event of individual or group failure of financial institutions if intermediation services are not significantly impaired; for instance, if they were highly substitutable so that consumer can switch to another intermediary at little cost.[57] In such a way, financial stability could be taken as maintaining the capacity of the financial system to deliver core services across the credit cycle to secure and foster vital credit intermediation and payment services. In parallel with Padoa-Schioppa's concerns relating to financial interconnectedness, this understanding demonstrates the need to widen the scope of institutions beyond what financial regulation and supervision have traditionally relied upon, namely banking, securities and insurance, to include service providers involved in the model of credit intermediation (such as clearing and settlement system, credit-rating agency, auditing firms, and private pools of capital such as hedge funds and private equity funds, or even pension funds).[58] In this sense, the implication for macro-prudential policy framework is to have a more complete view of the system where sectors, other than banking and shadow banking, should also receive appropriate attention. Macro-prudential tools, therefore, need to widen its scope to cover these sort of neglected sectors which are now central to financial stability.[59]

---

[57] ERIC S. ROSENGREN, *Defining Financial Stability, and Some Policy Implications of Applying the Definition,* Keynote Remarks at the Stanford Finance Forum.

[58] ROSA M. LASTRA, *The crisis of 2007-09: Nature, Causes, and Reactions,* in THOMAS COTTIER, ROSA M. LASTRA, CHRISTIAN TIETJE, LUCIA SATRAGNO, (eds.), *The Rule of Law in Monetary Affairs,* 24. Together with widening the scope of institutions, Kashyap et al. suggest that macro-prudential policy should also acknowledge the different functions of banking system to the real economy, namely monitoring loans, helping people and businesses share risks, and creating liquidity claims to facilitate transactions.; ANIL K. KASHYAP, DIMITRIOS P. TSOMOCOS & ALEXANDROS P. VARDOULAKIS, *A programme for improving macro-prudential regulation,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 23.

[59] MALOU DIRKS, CASPER DE VRIES and FIEKE VAN DE LECQ, *Macro-prudential policy: The neglected sectors,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 73-74. Sectors other than banking such as insurance and fully funded pensions are less susceptible to runs in the classic sense but their balance sheets are large. Hence,

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

The definitions of financial stability, in general, "do not consider financial system in isolation, but ultimately measure economic (welfare) benefits and costs in terms of the 'real economy' (economic activity)".[60] Admittedly, 'financial stability is not an end by itself' and it remains necessary to the extent that it is conducive to fostering 'better macro-economic performance'.[61] In this regard, the preservation of financial stability secures the safety and soundness of the financial system and the stability of international payment and settlement systems.[62] Thus it appears to be "a precondition for the real economy to provide jobs, credit and growth".[63] However, when being specified in broad terms, financial stability mandates seem to put emphasis on containing systemic risk rather than smoothing out credit and asset prices cycles.[64] Safeguarding financial stability is then understood as strengthening the resilience of the financial system to risks and vulnerabilities as it helps to mitigate the effects of shocks which could lead to disruptions that severely impacting the functioning of the system as a whole.[65]

---

they deserve appropriate focus in the macro-prudential policy framework because they are "important long-term investors in the economy and are accordingly of importance for the financial stability of a country". As poorly designed micro-supervisory rules for these institutions, insurance and pension funds, may amplify the business cycle, there is also a need to have a macro makeover of these micro rules. *See id.* at 4, 82-85.

[60] CLAUDIO BORIO and MATHIAS DREHMANN, *Towards an operational framework for financial stability: "fuzzy" measurement and its consequences,* 5.

[61] JEAN-PIERRE LANDAU, *Pro-cyclicality – what it means and what could be done*, Remarks at the Bank of Spain's conference on *Pro-cyclicality and the Role of Financial Regulation*, Madrid, 4 May 2009.

[62] ROSA M. LASTRA, *Legal Foundations of International Monetary Stability,* Oxford University Express, 2006, 92.

[63] European Systemic Risk Board, *Regulations on European macro-prudential oversight of the financial system and establishing a European Systemic Risk Board,* Regulation (EU) No. 1092/2010 of the European Parliament and of the Council, 24 October 2010, Recital no.1.

[64] JEAN-PIERRE LANDAU, *Macro-prudential policy: Central banking reconsidered*, in STIJN CLAESSENS, DOUGLAS D. EVANOFF, GEORGE G. KAUFMAN, LAURA E. KODRES (eds.), *Macro-prudential Regulatory Polices: The New Road to Financial Stability?*, 91.

[65] LUCAS PAPADEMOS, *Price stability, financial stability and efficiency, and monetary policy,* Speech at the Third conference of the Monetary Stability Foundation on "Challenges to the financial system – aging and low growth", Frankfurt am Main, 7 July 2006.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Sources of financial instability could come from the individual failure of financial institutions and systemic failure of many parts of the financial system.[66] However, the threat has to be important enough to the system through their production of systemic risks,[67] as they need "not be considered threats to financial stability if they are not expected to damage economic activity at large".[68] Systemic risks containment is thus at the core of the preservation of financial stability- the general objective of macro-prudential policy.

1.1.2 Containing systemic risks: same goal in different languages

There is consensus on the broad objective of macro-prudential policy, yet its precise aim is somewhat not clear. What appears to be clear is that the specific goal of macro-prudential policy should be to reduce the risks and economic costs of systemic crisis as evidences of financial instability. In other words, it is to limit systemic or system-wide financial risk.[69] The question then turns to what exactly constitutes systemic risk and to what extent there is a common understanding on this very concept which has experienced its tremendous popularity in academic literature as well as regulations.[70] In this regard, the section intends to give a broad overview on

---

[66] GUNDBERT SCHEFF, *Financial Stability in the Euro Zone: The Political Economy of National Banking Regulation in an Integrating Monetary Union,* 49.
[67] GUNDBERT SCHEFF, *Financial Stability in the Euro Zone: The Political Economy of National Banking Regulation in an Integrating Monetary Union,* 51.
[68] GARRY J. SCHINASI, *Defining Financial Stability*, IMF Working Paper, October 2004, 7.
[69] GABRIELE GALATI & RICHHILD MOESSNER, *Macro-prudential policy: A literature review,* 6.
[70] "After the financial crisis, systemic risk reduction was at the top of the international regulatory agenda [...] Financial regulators worldwide have thus devoted particular attention to reducing systemic risk by enacting appropriate legislation and by setting up new institutional mechanisms, such as the Financial Stability Oversight Council in the United States and the European Systemic Risk Board in the European Union"; FEDERICO LUPO-PASINI and ROSS P. BUCKLEY, *Global systemic risk and international regulatory coordination: Squaring sovereignty and financial stability,* American University International Law Review, Vol. 30, No. 4, October 2015, 668-669. For a discussion on the various way to define systemic risk, *see also* STEVEN L. SCHWARCZ, *Systemic Risk,* The Georgetown Law Journal, Vol. 97:193, 2008, 193-204.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

the notion of systemic risk in order to further clarify the concrete intermediate objectives of macro-prudential policy which have been translated in systemic risk language. It is obviously by no means exhaustive, as Bisias et al. admits, “even if an exhaustive overview of the systemic risk literature were possible, it would likely be out of date as soon as it was written”.[71]

At the outset, it is noteworthy to remind that the concept of systemic risk is not limited to economics or finance. As Goldin and Mariathasan pointed out, risk typically refers to the possibility for negative phenomena to occur, and systemic risk is understood as “the risk or probability of breakdowns in an entire system, as opposed to breakdowns in individual parts or components, and is evidenced by co-movements (correlation) amongst most or all of the parts”.[72] Examples of systemic risk can be found in many areas, especially the field of epidemiology where unexpected large-scale risks took the form of epidemic diseases. In the area of economics, according to De Bandt and Hartmann, systemic risk is a particular feature of the financial system, where the likelihood and severity of adverse consequences to the real economy is often regarded as considerably higher than in other sectors of the economy.[73]

In fact, this concept was already dealt with before the global financial crisis, where

---

[71] DIMITRIOS BISIAS, MARK FLOOD, ANDREW W. LO, STAVROS VALAVANIS, *A Survey of Systemic Risk Analytics*, U.S. Department of the Treasury, Working paper #0001, January 2012, 4.

[72] Acknowledging the ambiguity of the term ‘systemic risk’, three main manifestations of systemic risk are clarified to include: (i) a large shock or ‘macro-shock’ which produces large, cascading failure in most or all of the system; (ii) a shock propagated through a network via risk sharing; and (iii) a common shock which is not the result of direct causation but of indirect impacts.; IAN GOLDIN and MIKE MARIATHASAN, *The Butterfly Defect: How Globalization Creates Systemic Risks, and What to Do about It,* Princeton University Press, Princeton and Oxford, 2014, 25-27. For a wider scope of discussion on systemic risk in general and systemic risk in the financial sector in particular: *See id.* at 9-64.

[73] OLIVIER DE BANDT AND PHILIPP HARTMANN, *Systemic risk: A survey,* European Central Bank Working Paper Series, No. 35, November 2000, 10.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

systemic risk was "predominantly understood as the probability of contagion effects that causes cascades to defaults".[74] Together with the constantly changing underlying structure of financial markets and technological advancements, "systemic risk theory has evolved over time".[75] Despite that, systemic risk is seen as "a problem that has always existed in financial systems"[76] and is herein discussed as "a form of financial risk".[77] At the heart of systemic risk lies contagion effect as well as various forms of external effects.[78] Systemic risk thus goes well beyond the vulnerability of an individual bank or a single financial institution to affect the financial system or the real economy. In this regard, De Bandt and Hartmann argue that the notion of systemic risk could be distinguished both in broad and narrow senses. In narrow sense, systemic risks could emerge where contagion affects interbank market, for instance, when "bad news about one bank

---

[74] IAN GOLDIN and MIKE MARIATHASAN, *The Butterfly Defect: How Globalization Creates Systemic Risks, and What to Do about It,* 55. Specifically with systemic financial risk, Goldin and Mariathasan examined how economic integration and financial innovation in a deregulated environment created a financial network that inherently vulnerable to systemic risk. Furthermore, the authors demonstrated that the advances in information technology led to revolution in financial sector and this complexity facilitated the creation of financial instability and systemic risk. When analyzing the global financial crisis, it seems that the subprime mortgage burst was the trigger for the crisis but the underlying instability was accumulated through the process of globalization; *See id.* at *Preface,* 36-37.

[75] FEDERICO LUPO-PASINI and ROSS P. BUCKLEY, *Global systemic risk and international regulatory coordination: Squaring sovereignty and financial stability,* 675.

[76] FEDERICO LUPO-PASINI and ROSS P. BUCKLEY, *Global systemic risk and international regulatory coordination: Squaring sovereignty and financial stability,* 668.

[77] Financial risk reduction has been tackled in micro-prudential policy. Indeed, the primary goal for regulating financial risk is micro-prudential to correct market failures, such as: information failure, rationality failure, principal-agent failure, and incentive failure. As systemic risk directly represents risk to the financial system itself, therefore, "any framework for regulating systemic risk should also include the larger 'macro-prudential' goal of protecting the financial system as a system"; STEVEN L. SCHWARCZ, *Systemic Risk and the Financial Crisis: Protecting the Financial System as a 'System',* University of California Berkeley School of Law, 2014, 1-4. On such a basis, this sections deals primarily and specifically with the notion of systemic risk embedded in macro-prudential orientation.

[78] "A comprehensive view of systemic risk has to integrate bank failure contagion with financial markets spillover effects and payment and settlement risks. At the very basis of the concept (in the 'narrow' sense) is the notion of contagion — often a strong form of external effect — working from one institution, market or system to the others. In a broad sense the concept also includes wide systematic shocks which by themselves adversely affect many institutions or markets at the same time."; OLIVIER DE BANDT AND PHILIPP HARTMANN, *Systemic risk: A survey,* 6.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

increases the refinancing cost of all other banks" due to the financial interconnectedness.[79]In fact, 'bank run' could be considered the classic example for risk of systemic nature in narrow sense which directly pertains to the financial system itself.[80] Systemic event in this regard is essentially a 'domino effect' from one institution to the other or from one market to the other, originating from an 'idiosyncratic shock'— limited in scope, possibly in a sequential fashion. On the other hand, systemic risk in broad senseis then characterized as a common shock to many institutions or markets.[81]Systemic event triggered by severe 'systematic' (widespread) shocks like this also has simultaneous adverse (destabilization) effect on a large number of institutions or markets that comprise the financial system.[82] Admittedly, financial markets as much as financial firms, as parts of the financial system, could also be triggers and transmitters of systemic risk.[83] De Bandt and Hartmann, notably, define systemic risk in terms of experiencing systemic events in strong sense, where such events could affect a considerable number of institutions or markets in the

---

[79] IAN GOLDIN and MIKE MARIATHASAN, *The Butterfly Defect: How Globalization Creates Systemic Risks, and What to Do about It,* 56.

[80] The inability of a bank to satisfy withdrawal-demands causes its failure and subsequent failures of other banks as they are intertwined financially. Because of this interconnectedness, "one bank's default on an obligation to another may adversely affect that other bank's ability to meet its obligations to yet other banks, and so on down the chain of banks and beyond". STEVEN L. SCHWARCZ, *Systemic Risk,* 199.

[81] IAN GOLDIN and MIKE MARIATHASAN, *The Butterfly Defect: How Globalization Creates Systemic Risks, and What to Do about It,* 56. For instance, "common shocks proved to be a destructive force in the 2008 financial crisis when the collapse in the market of collateralized debt obligations led to a freeze in the repo market and from there the system"; FEDERICO LUPO-PASINI and ROSS P. BUCKLEY, *Global systemic risk and international regulatory coordination: Squaring sovereignty and financial stability,* 681.

[82] The authors distinguished the use of 'systemic event' and 'systematic shock' following the terminology of financial theory. They use the term 'systematic' for wide shock. In such a way, a systematic shock may imply a systemic event in broad sense, but a systemic event does not need to originate from systematic shock, as in the case of contagion; OLIVIER DE BANDT AND PHILIPP HARTMANN, *Systemic risk: A survey,* 10.

[83] STEVEN L. SCHWARCZ, *Systemic Risk and the Financial Crisis: Protecting the Financial System as a 'System',* 20. Financial markets could even be sources of systematic shock (widespread) such as general price fluctuations or liquidity crises, or extreme events of major financial market (stock market, government bond market, etc.) are themselves shocks to financial institutions and agents. The shocks are even more widespread if they are contagious across markets.; OLIVIER DE BANDT AND PHILIPP HARTMANN, *Systemic risk: A survey,* 31-33.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

second round effect or in a sequential manner.[84] In other words, the key elements of systemic risk are shocks and propagation mechanism in which shocks could spread beyond their direct impact to affect institutions which have been solvent initially, undoubtedly, as an indirect consequence.

An alternative view suggested by Borio where he emphasizes on the endogeneity of the origin of risk rather than the propagation mechanism or contagion.[85] Borio asserts that the commonly held view of systemic risk tends to treat risk as endogenous in terms of amplifying mechanism, but not with respect to the original shocks, which are seen as exogenous.[86] Undoubtedly, systemic risk can arise from these sort of contagion processes but, according to Borio, it is the systemic risk which arises through the 'common exposures' to macro-economic risk factors across institutions is the one that carries the more significant and longer-lasting real cost.[87] In other words, Borio considers the source of financial instability originates within the system itself, to an important extent that risk is understood as fundamentally endogenous and

---

[84] OLIVIER DE BANDT AND PHILIPP HARTMANN, *Systemic risk: A survey,* see Table I, 12.

[85] The debate on whether financial crises are caused by endogenous cycles or exogenous shocks has received much attention. The endogenous-cycle view was originally developed by Minsky, where the financial instability hypothesis is "a model of a capitalist economy which does not rely upon exogenous shocks to generate business cycles of varying severity. The hypothesis holds that business cycles of history are compounded out of (i) the internal dynamics of capitalist economies, and (ii) the system of interventions and regulations that are designed to keep the economy operating within reasonable bounds." Hence, the financial system itself is the source of financial instability that leads to economic fragility. To illustrate, financial institutions engage in riskier investment during boom and build up financial imbalances. In contrast, financial crisis could occur due to financial distress caused by exogenous shocks, such as oil prices, productivity, labour militancy, a shift in (equity) risk aversion and a shift in exchange rate preferences. As demonstrated through the recent global financial crisis, the endogenous-cycle view helps to explain how losses in seemingly small market, i.e. the US prime mortgage, have triggered the severe financial recession but not by any exogenous shock as such.; HYMAN P. MINSKY, *The Financial Instability Hypothesis*, Working Paper No. 74, The Jerome Levy Economics Institute of Bard College, May 1992; CHARLES A.E. GOODHART, *A framework for assessing financial stability?*, Journal of Banking and Finance 30, 2006, 3415–3422.; NELLIE LIANG, *Systemic Risk Monitoring and Financial Stability, Journal of Money, Credit and Banking*, Supplement to Vol. 45, No. 1, August 2013, 130.

[86] CLAUDIO BORIO, *Towards a macro-prudential framework for financial supervision and regulation?* BIS Working Papers No. 128, February 2003, 6.

[87] CLAUDIO BORIO, *Towards a macro-prudential framework for financial supervision and regulation?*, 6.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

reflects the mutually reinforcing dynamic interactions between the financial system and the real economy. In such a way, risk is built up over time, and eventually the boom sows the seeds of the subsequent bust.[88]

Similar to the concept of financial stability, there has not been a clear understanding of the overall concept of systemic risk and the linkages between its different facets.[89] The recent financial crisis highlighted the fact that there has been a fundamental lack of understanding of systemic risk.[90] Indeed, "policymakers, regulators, academics and practitioners have yet to reach a consensus on how to define systemic risk".[91] However, the general understanding has it that an institution, market or instrument is considered to be systemic "if its failure or malfunction causes widespread distress, either as a direct impact or as a trigger for broader contagion".[92] In fact, trigger for a systemic event could actually originate externally as 'exogenous' shock from outside

---

88 The triggering shock is actually the least interesting part of the story. What is more necessary is to understand how risk is built up through developing a proper theory of business fluctuations that merges financial and real factors.; CLAUDIO BORIO, *Towards a macro-prudential framework for financial supervision and regulation?*, 7.

89 It was noted by Bandt and Hartmann in the year 2000 that a clear understanding of overall concept of systemic risk was nowhere to be found; OLIVIER DE BANDT AND PHILIPP HARTMANN, *Systemic risk: A survey,* 8. A bit less than a decade later, it was indicated in another publication of the European Central Bank that "there is no commonly accepted definition of systemic risk at the present"; European Central Bank, *The concept of systemic,* Financial Stability Review, December 2009, 134. "Establishing what constitutes systemic importance has proved difficult, and most G20 members do not have a formal definition."; International Monetary Fund, Bank for International Settlements, Financial Stability Board, *Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations,* Report to G20 Finance Ministers and Governors, October 2009, 5.

90 GABRIELE GALATI & RICHHILD MOESSNER, *Macro-prudential policy: A literature review,* 3.

91 DIMITRIOS BISIAS, MARK FLOOD, ANDREW W. LO, STAVROS VALAVANIS, *A Survey of Systemic Risk Analytics*, 1. There is not even agreement on whether systemic risk should be defined in terms of market losses or market participant losses; STEVEN L. SCHWARCZ, *Systemic Risk,* 197.

92 International Monetary Fund, Bank for International Settlements, Financial Stability Board, *Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations,* 5. "The systemic event is strong when the intermediaries concerned fail or when the markets concerned becomes dysfunctional"; IAN GOLDIN and MIKE MARIATHASAN, *The Butterfly Defect: How Globalization Creates Systemic Risks, and What to Do about It,* 56-57.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

the financial system, or emerge 'endogenously' within the financial system itself or within the economy at large.[93] However, the definitions and consequences of the triggers are inconsistent in several manners, and "the only common denominator in these definitions is that a trigger event causes a chain of bad economic consequences".[94] Together with the interaction among different dimensions of a systemic event, it makes systemic risk a highly complex phenomenon.[95]

The scope of interpretation of systemic risk impact varies. Some academics focus on the impact of systemic risk on the financial system, while other authorities essentially take into account the ultimate impact on the real economy.[96] For instance, Schwarcz produces a working definition of systemic risk as: "*the risk that (i) an economic shock such as market or institutional failure triggers (through a panic or otherwise) either (X) the failure of a chain of markets or institutions or (Y) a chain of significant losses to financial institutions, (ii) resulting in increases in the cost of capital or decreases in its availability, often evidenced by substantial financial-market price volatility*".[97] The logic of understanding systemic risk remains more or less the same

---

[93] Furthermore, "one can distinguish between a 'horizontal' perspective of systemic risk, where attention is confined to the financial system, and a 'vertical' perspective of systemic risk in which the two-sided interaction between the financial system and the economy at large is taken into account."; European Central Bank, *The concept of systemic,* 134.
[94] STEVEN L. SCHWARCZ, *Systemic Risk,* 197.
[95] IAN GOLDIN and MIKE MARIATHASAN, *The Butterfly Defect: How Globalization Creates Systemic Risks, and What to Do about It,* 56.
[96] International Monetary Fund, Bank for International Settlements, Financial Stability Board, *Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations,* 5. Systemic risk is different from financial risk in the sense that financial risk focuses on risks *within* the financial system, whereas systemic risk concerns the risk *to* the financial system. However, interpretation of systemic risk differs where the focus of impact of systemic risk is different.; STEVEN L. SCHWARCZ, *Systemic Risk,* 206-208.
[97] STEVEN L. SCHWARCZ, *Systemic Risk,* 204. In another attempt, the notion of systemic risk usually "refers to the probability of a collapse of the financial system prompted by unidirectional and simultaneous downside co-movements of asset prices and/or by a generalized draught of liquidity."; ELISABETTA GUALANDRI and MARIO NOERA, *Monitoring systemic risk: A survey of the available macro-prudential toolkit,* Conference of the

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

as what have been discussed above, but the focus is specifically on the financial system itself. In essence, systemic risk is the risk of experiencing systemic events in the strong sense.[98] Macro-prudential policy, therefore, could help to protect the financial system as well as the real economy by limiting the triggers of systemic risks and/or limiting the transmission and impacts of shocks that cause failures.[99]

Moving up to a further level and to examine the issue from a wider perspective, systemic risk broadly "*refers to the risk that financial instability becomes so widespread that it impairs the functioning of the financial system to the point where economic growth and welfare suffer materially*".[100] The ESRB further clarifies that "'*systemic risk' means a risk of disruption in the financial system with the potential to have serious negative consequences for the internal market and the real economy.All types of financial intermediaries, markets and infrastructure may be potentially systemically important to some degree*".[101] In line with this emphasis on the effects toward the real economy, the core notion systemic risk is then defined by the Basel-based Financial Stability Board (FSB) as "*the risk of disruptions to the provision of financial services that is caused by* ***an impairment of all or parts of the financial system****, and can* ***causeserious***

European Association of University Teachers in Banking and Finance, Wolpertinger, Milan, 3-6 September 2014.

[98] OLIVIER DE BANDT AND PHILIPP HARTMANN, *Systemic risk: A survey,* 10.

[99] "Ideal macro-prudential regulation would act *ex ante,* eliminating the trigger of systemic risks [...] It is virtually certain that the financial system will face systemic shocks from time to time. Any macro-prudential regulatory framework should therefore be designed to also act ex post, after a systemic shock is triggered, by breaking the transmission of the shock and limiting its impact."; STEVEN L. SCHWARCZ, *Systemic Risk and the Financial Crisis: Protecting the Financial System as a 'System',*12-24.

[100] European Central Bank, *The concept of systemic,* 134.

[101] European Systemic Risk Board, *Regulations on European macro-prudential oversight of the financial system and establishing a European Systemic Risk Board,* Regulation (EU) No. 1092/2010, *Article 2.* Definitions.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

negative consequences for the real economy" (emphasis added).[102] 'Financial services' within this definition include credit intermediation, risk management and payment services.[103] Notably, the important element that differentiates systemic event with more general wealth effects that may have severe macro-economic consequences is that a systemic event has to be associated with the impairment/disruption of the financial system.[104] Depending on the source of such an impairment, however, the main concerns of macro-prudential approach has shifted over time since its origin in the late 1970s, such as from excessive lending to developing economies, concerns over financial innovations which may contribute and heighten systemic vulnerabilities, to specific focus on the failure of systemically important financial institutions, one of the causes of the most recent global financial crisis which had large magnitude and devastating impacts on the world economy as a whole.[105]

The definitions of systemic risk seems to be of ex post nature, as it could hardly advise us on how to recognize this type of risk in advance. Seemingly, for systemic risk, 'you know it when you see it' which further means that it is clear once it has been materialized. Thus, there is a need

---

[102] International Monetary Fund, Bank for International Settlements, Financial Stability Board, *Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations,* 4-8.
[103] Bank for International Settlements, *Macro-prudential instruments and frameworks: a stocktaking of issues and experiences*, 2.
[104] The idea is further elaborated in an example, where a collapse in an asset price may affect net worth, expenditure and the real economy but would not constitute a systemic event if it does not disrupt the provision of some financial services. Then "if a fall in asset prices weakens the balance sheets of financial institutions, which might in turn reduce the amount of credit provided to the real economy, this would be an important systemic event."; *See* International Monetary Fund, Bank for International Settlements, Financial Stability Board, *Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations,* 6.
[105] PIER CLEMENT, *The term macro-prudential: origins and evolution,* 63-65. See also*: Approach to regulation and supervision in the post crisis world,* Keynote address by Mr Anand Sinha, Deputy Governor of the Reserve Bank of India, at the program 'Supervisory effectiveness in the post crisis world', February 2013.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

to define the mandate of macro-prudential authority both in terms of general and specific as well as intermediate objectives in ways 'which are more concrete, observable and measurable, while bearing in mind that all types of financial intermediaries, markets and infrastructure may potentially become systemically important to some degree'.[106]

From regulators' point of view, be they international standard setters (the Basel-based Financial Stability Board) or European institution (the European Central Bank) or agency (the European Systemic Risk Board), systemic risk could be taken as potentially associated with negative externalities which create significant spillovers to the real economy. Jaime Caruana considers that "it is such negative externalities and the significant spillovers to the real economy that are the essence of systemic risk and which make a case for policy intervention".[107] Thus externalities justify the use of macro-prudential regulation.[108] One approach with respect to sources of externalities classifies these as: (i) externalities related to strategic complementaries (herding), arising from the strategic interactions of banks and other financial institutions and agents, and which cause the build-upof vulnerabilities during the expansionary phase of a financial cycle; (ii) externalities related to fire sales and credit crunches; and (iii) externalities

---

[106] Regulation (EU) No 1092/2010 of the European Parliament and of the Council on European Union macro-prudential oversight and establishing a European Systemic Risk Board (ESRB Regulation), Article 2(c).
[107] JAIME CARUANA, *Systemic risk: how to deal with it?*, Bank for International Settlements, February 2010, see link available at: http://www.bis.org/publ/othp08.htm.
[108] "Even though macro-prudential policies can mitigate, say, the general financial or business cycle, or the presence of insufficiently disciplined large financial institutions, only externalities justify a macro-prudential approach."; STIJN CLAESSENS, *An Overview of Macro-prudential Policy Tools,* IMF Working Paper WP/14/214, December 2014, 5.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

related to interconnectedness through the propagation mechanism or contagion.[109]

The externality, as commonly understood, can take two forms with different policy implications: (i) the first one is the joint failure of institutions at a particular point in time due to their *common exposures* to shocks from outside the financial system or from *interlinkages* among intermediaries; and (ii) the second form is the so-called 'pro-cyclicality'.[110]In this regard, it is noteworthy to recall that systemic risk can be understood in both narrow sense (contagion or a domino effect due to financial interconnectedness or interlinkages) and in broad sense (as a common shock to financial institutions).Pro-cyclicality, in its turn, is defined as "*the phenomenon that, overtime, the dynamics of the financial system and the real economy reinforce each other, increasing the amplitude of the financial booms and busts and undermining stability in both the financial sector and the real economy*".[111] Put differently, pro-cyclicality can facilitate the emergence of unsustainable boom, and when it turns into bust,pro-cyclicalitycan magnify the disruption to possibly create a devastating economic recession.[112] In addition to the interactions between the real economy and the financial system, financial system-wide risk can be amplified by interactions within the financial system itself. The underlying concern is that the pro-

---

[109] It is worth noting that externalities of the (i) and (ii) sources are generally considered to be more of a time-series nature (pro-cyclicality in good and bad times), while externalities from the (iii) source are more of a cross-sectional nature. Further on this characterization of two dimensions of systemic risk, see *infra.* For a detailed discussion on these sources of externalities, *see*: STIJN CLAESSENS*, An Overview of Macro-prudential Policy Tools,* 5-8.

[110] STEPHEN G. CECCHETTI, INGO FENDER and PATRICK MCGUIRE, *Toward a global risk map*, the Fifth European Central Bank Conference on Statistics "Central bank statistics: What did the financial crisis change?", May 2010, 3.

[111] In the context of systemic risk, pro-cyclicality is about progressive build-up of financial fragility exacerbating booms and increasing the risk of catastrophic collapse.; STEPHEN G. CECCHETTI, INGO FENDER and PATRICK MCGUIRE, *Toward a global risk map*, 3.

[112] Bank for International Settlements, *The 80th Annual Report 2009/10*, 28 June 2010, see link available http://www.bis.org/publ/arpdf/ar2010e7.pdf, 89.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

cyclicality dimension of systemic risk highlights the underlying build-up over time of risks that are hidden and underpriced, in such a way, "the financial system endogenously generates systemic risk and the risk can be highest precisely when it looks lowest".[113] In other words, the financial system can endogenously produce systemic risks in ways that are difficult to identify or capture. On such a basis, the objectives of macro-prudential policy is further elaborated as "to reduce systemic risk by explicitly addressing interlinkages between, and common exposures of, all financial institutions and the pro-cyclicality of the financial system".[114]

Systemic risk, however, is a process to be managed and not a problem to be resolved".[115] For this purpose, the macro-prudential approach has been then characterizedinto two specific dimensions, in which the first one was how risk evolve overtime, or the 'time dimension', and the other was about how risk was distributed within the financial system at any point in time, or the 'cross-sectional dimension'.[116] In this sense, the time dimension of aggregate risk analysis addresses the 'pro-cyclicality' of the financial system as it relates to the progressive build-ups of

---

[113] JAIME CARUANA, *Systemic risk: how to deal with it?.* A common explanation on sources of pro-cyclicality is that it is rooted in information asymmetries between borrows and lenders. Boris et al., however, noted that an additional material source of financial pro-cyclicality stems from inappropriate behaviors of financial market participants in response to changes in risks over time. This was mainly caused by difficulties in measuring the time dimension of risk, but even if the risk is correctly measured, it still can emanate from market participants having incentives to react in ways that are socially suboptimal.; For further discussion on sources of the pro-cyclicality dimension of risk: CLAUDIO BORIO, CRAIG FURFINE and PHILIP LOWE, *Pro-cyclicality of the financial system and financial stability: issues and policy options*, Bank for International Settlements, BIS Paper No.1, 8-11.

[114] JAIME CARUANA, *Macro-prudential policy: working towards a new consensus*, 1.

[115] "Systemic cannot be removed because it is endemic to globalization"; IAN GOLDIN and MIKE MARIATHASAN, *The Butterfly Defect: How Globalization Creates Systemic Risks, and What to Do about It,* Preface.

[116] PIER CLEMENT, *The term macro-prudential: origins and evolution,* 64. *See also:* DIRK SCHOENMAKER, *Introduction,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 5.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

financial fragility and how aggregate risk evolves over time.[117] The cross-sectional dimension, on the other hand, relates to how a specific shock to the financial system can promote widely to become systemic. Hence, it addresses the common exposures to shocks as well as interlinkages between financial institutions comprising the financial system.[118] In short, the time dimension tackles systemic risks between the financial sector and the real economy, while the cross-sectional dimension addresses systemic risks across financial institutions.[119]

There is seemingly consensus, especially within central banking and policymakers circles, on this aggregate risk analytical approach which was proposed by Andrew Crockett—the then General Manager of the BIS in the year 2000. Depending on which dimension, however, there are differences in terms of concrete policy options that macro-prudential authority should pursue. Broadly speaking, for the time dimension, Claudio Borio indicates that there are mandates to strengthening the resilience of the financial system in response to the building up of risks, and to constrain financial boom[120] as there is excessive risk-taking in the boom, excessive deleveraging in the bust.[121] Put differently, these two objectives have sometimes been translated as 'protecting the banks from the financial cycle and protecting the financial cycle from the banks, respectively

---

[117] JAIME CARUANA, *Systemic risk: how to deal with it?*.; *See also* CLAUDIO BORIO, *Macro-prudential frameworks: (Too) great expectations?*, in DIRK SCHOENMAKER (ed.), *Macro-prudentialism,* A VoxEU.org Book, CEPR Press, December 2014, 31.
[118] JAIME CARUANA, *Systemic risk: how to deal with it?*.
[119] International Monetary Fund, *Staff Guidance Note on Macro-prudential Policy,* December 2014, 10, see Figure 1. Systemic Risks in Time and Structural Dimension.
[120] CLAUDIO BORIO, *Macro-prudential frameworks: (Too) great expectations?,* 32. *See also* RICHARD PORTES, *Macro-prudential policy and monetary policy,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 48.
[121] Booms are typically periods of financial innovation. When things are going well, firms and individuals feel (over)confident in experimenting with and taking on risk. They create new, untested instruments that are difficult to understand and value. Credit grows rapidly, based on, and contributing to, higher asset prices. When boom becomes bust, there is excessive deleveraging as witnessed during the global financial crisis.; JAIME CARUANA, *Systemic risk: how to deal with it?*.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

(or taming the financial cycle)'.[122]

With regard to the first mandate, Gersbach and Rochet argue that it is expressed too vaguely as 'strengthening the resilience of the financial system' is a very hard-to-assess activity.[123] They then advocate a much simple and concrete objective, i.e. to limit the banking system's tendency to amplify economic fluctuations or stabilizing credit cycles, on the presumption that 'banks tend to lend too much during booms and too little during downturns thus generate excessive fluctuations of credit, output and asset prices more than the fluctuations of GDP'.[124] Dirk Schoenmaker shares similar idea and gives his take that macro-prudential policy should therefore "reduce the contribution of the financial system to the swings in the financial cycle, i.e. reining in the growth of credit and asset prices".[125] On the other hand, in its 80th Annual report, the Bank for International Settlements emphasized that the objective of macro-prudential policy should not be defined in terms of managing the economic cycle, or going so far

---

[122] CLAUDIO BORIO, *Macro-prudential frameworks: (Too) great expectations?,* 32. There is, however, no consensus on the definition of financial cycle. Boris defines the term as denoting "self-reinforcing interactions between perceptions of value and risk, attitudes towards risk and financing constraints, which translate into booms followed by busts". In this regard, the concept of pro-cyclicality of the financial system is closely tied with the notion of financial cycle itself.; For a more detailed discussion on financial cycle, *see* CLAUDIO BORIO, *The financial cycle and macroeconomics: What have we learnt?,* Journal of Banking & Finance 45, 2013, 182–198.

[123] HANS GERSBACH and JEAN-CHARLES ROCHET, *Capital regulation and credit fluctuations,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 93.

[124] In doing so, the authors propose to broaden the mandate of macro-prudential authorities, from "limiting the probability and cost of systemic crises" to "stabilizing credit cycles" as credit cycles can be detrimental to welfare even in the absence of banking crises; HANS GERSBACH and JEAN-CHARLES ROCHET, *Capital regulation and credit fluctuations,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 90-93.

[125] DIRK SCHOENMAKER, *Introduction,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 4-5. Notably, the BIS, in its 80th Annual Report, advised that the objective of macro-prudential policy should be clearly defined and realistic. It actually could include mitigating the build-up of excesses credit growth and asset prices, however, this objective would be much more elusive to achieve.; Bank for International Settlements, *The 80th Annual Report 2009/10*, 91.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

as to aim explicitly at eliminating credit booms and unsustainable asset price increases.[126] The most realistic objective is, however, "to strengthen the resilience of the financial system to the emergence of financial strains" which is, in a way, achievable through "the well timed, countercyclical building-up and releasing of capital and other buffers in the financial system".[127] One of the tasks to increase the resilience of the financial system is to build up adequate buffers in good time for the financial system to withstand the bust during recession, or the so-called counter-cyclical buffers, on the possible justification that risks tend to build up during good time.[128]

Despite differences in formulating the concrete policy objective,[129] the key issue in the time dimension which dominates literature is, however, dealing with the pro-cyclicality of the financial system. Macro-prudential policy is then designed to contain the build-up of systemic vulnerabilities over time, essentially byreducing pro-cyclical feedback between asset prices and

---

[126] Jaime Caruana, General Manager of the BIS, further suggested to avoid overly ambitious expectations that macro-prudential policy could be a powerful tool to manage the macro-economy and tame the financial cycle, also avoid any overconfidence that this tool could be used to fine-tune the financial cycle. As an implication, policymakers then should accept that periodic, mild recessions may be a necessary price for avoiding major recessions.; JAIME CARUANA, *Macro-prudential policy: working towards a new consensus,* 4.
[127] Bank for International Settlements, *The 80th Annual Report 2009/10*, 90.
[128] MATHIAS DREHMANN, CLAUDIO BORIO, LEONARDO GAMBACORTA, GABRIEL JIMENEZ and CARLOS TRUCHARTE, *Countercyclical capital buffers: exploring options,* BIS Papers No. 317, July 2010, 1. Notably, the Basel Committee on Banking Supervision released the Basel III capital standards, in which the countercyclical capital buffer forms an integral part of the standards for risk-based capital, with implementation beginning in 2016. In essence, this countercyclical buffer regime may help to lean against the build-up phase and also help to reduce the risk that the supply of credit will be constrained by regulatory capital requirements that could undermine the performance of the real economy and result in additional credit losses in the banking system.; *See further* at: Basel Committee on Banking Supervision, *Frequently asked questions on the Basel III Countercyclical Capital Buffer,* October 2015.
[129] These differences can influence the design and calibration of macro-prudential instruments to place the focus on either strengthening the resilience of the financial system or stabilizing the financial cycle. For details on macro-prudential instruments, see *infra* 1.2.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

credit, and containing unsustainable increases in leverage and volatile funding.[130] This, in turn, is closely linked with traditional counter-cyclical macro-economic policy.[131] As such, counter-cyclical buffer falls within the range of macro-prudential instruments and appears to be an effective tool which is, as noted by Borio, sufficient to increase the financial system's resilience.[132]

To further elaborate the approach taken with respect to the pro-cyclicality, Jaime Caruana summarized and highlighted guiding policies which are necessary to address this dimension of systemic risk: (i) capital and liquidity buffers need to be higher on average, as firms that contribute to systemic risks must internalize the externalities they create and higher prudential standards would be one way to achieve it; (ii) to build up safety margins of capital in good time, when it is easier and cheaper to do so; (iii) to encourage banks to use forward-looking provisions based on expected losses instead of more backward-looking provisions based on realized losses, in order to promote early identification and recognition of credit losses in a more robust manner; and (iv) acknowledging the use of macro-prudential policy to limit or prevent the emergence of macro-economic and financial imbalances.[133]

Turning to the cross-sectional (structural) dimension of systemic risk, the task is broadly

---

130 International Monetary Fund, *Staff Guidance Note on Macro-prudential Policy,* 4.
131 Bank for International Settlements, *The 80th Annual Report 2009/10*, 89. "[T]he nature of macro-economic policy is cyclical. It focuses on stabilizing economy wide aggregates (inflation, economic cycle) and involves a time varying instrument setting in a stabilizing manner. When applied to macro-prudential policy, it certainly seems the right approach for addressing the time varying dimension of systemic risk: financial imbalances".; DIRK SCHOENMAKER and PETER WIERTS, *Macro-prudential Policy: The Need for a Coherent Policy Frame-work,* Duisenberg School of Finance Policy Paper, No. 13, July 2011, 6.
132 CLAUDIO BORIO, *Macro-prudential frameworks: (Too) great expectations?,* 32.
133 JAIME CARUANA, *Systemic risk: how to deal with it?*.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

understood as to strengthen the structure of the financial system as a whole, in which the key issue is to capture system-wide risk and reduce systemic risk concentrations.[134] Put differently, it aims at managing the structural vulnerabilities that arises through common exposures and interlinkages within the financial system, especially from the failure of systemically important financial institutions. One way to address externalities in the form of common exposures and interlinkages is to focus on both the distribution of risk as well as how the system responds to either an institution-specific shock or a common shock that damages everyone.[135] On the other hand, it remains crucial to ensure that protection at individual institution level is commensurate with the institution's contribution to systemic risk.[136] General guiding policies to address this aspect are highlighted by Jaime Caruana including: (i) more and better capital liquidity; (ii) adequate and orderly resolution regime, especially for the systemically important financial institutions, to allow financial institutions to fail without imposing unacceptable costs on the rest of the economy and society at large; (iii) approaches with regard to the structure of the financial industry, where measures should to be consistent with internationally agreed standards in order to ensure the playing field is level and systemic risk is reduced; (iv) putting in place more resilient market structures to guard them against shocks; (v) taking into account the idea of taxing the bigness or interconnectedness; and (vi) adequate and more proactive supervision that looks

---

[134] DIRK SCHOENMAKER, *Introduction,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 3. *See also*: JAIME CARUANA, *Systemic risk: how to deal with it?.*

[135] STEPHEN G. CECCHETTI, INGO FENDER and PATRICK MCGUIRE, *Toward a global risk map*, 3. As the authors noted, it is thus necessary to assess the risk of contagion through credit or funding exposures and the possibility of asset fire sales, or risks arising as a direct consequence of similarities in the structure of institution's balance sheets and funding patterns. *See id.*

[136] Financial Stability Board, Bank for Intentional Settlements & International Monetary Fund, *Macro-prudential policy tools and frameworks*, February 2011, 2-3.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

through the business cycles and the structure of financial institutions.[137] These sort of guidelines would be helpful to facilitate the design and implementation of macro-prudential instruments. As Shoemaker pointed out, many economists seems to have affinity with the time dimension, however, the cross-sectional (structural) dimension takes center stage when it comes to macroprudentialism.[138]

With respect to a macro-prudential policy framework, whether a broad or a specific objective is chosen, the concern remains that the scope of interpretation for an operational definition of these objectives varies.[139] Even with the conceptually important distinction of the time dimension and the cross-sectional dimension of systemic risk, admittedly, it "does not provide an operational definition of the objective of macro-prudential policy".[140] In fact, the ESRB identifies the intermediate objectives of macro-prudential policy "on the basis of specific market failures" which may allow for a clearer classification of macro-prudential instruments.[141] It acknowledges that "while it is useful to take the structural and cyclical dimensions into account for the purpose of identifying the drivers of systemic risk and corresponding instruments, it is difficult to make a clear-cut distinction between the two dimensions given their close

---

[137] JAIME CARUANA, *Systemic risk: how to deal with it?.*

[138] DIRK SCHOENMAKER, *Introduction,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 6.

[139] Bank for International Settlements, *Macro-prudential regulation and policy,* Proceedings of a joint conference organized by the BIS and the Bank of Korea, Seoul, January 2011, BIS Paper No. 60, 121.

[140] FABIO PANETTA, *Macro-prudential tools – where do we stand?*, Remarks during the presentation of the 2013 Financial Stability Review, Central Bank of Luxembourg, Luxembourg, 14 May 2013.

[141] Notably, the market failures could be characterized to fall within the two dimensions of systemic risk.; European Systemic Risk Board, *Recommendations on intermediate objectives and instruments of macro-prudential policy,* ESRB/2013/1, Annex, section 2.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

interlinkages".[142] (For more details on intermediate objectives of macro-prudential policy within the European Union framework, see Chapter 2, part 2.2.2).

Generally speaking,macro-prudential policy requires monitoring these two dimensions in order to identify and recognize system-wide shocks and vulnerabilities, the build-up of risk, as well as potential amplification channels of systemic financial risks. In doing so, it may help to preemptively address these vulnerabilities in order to reduce the frequency and severity of financial crises in the future.[143] Historically, scholars have tended to think of systemic risks in terms of financial institutions such as banks, however, greater focus should be devoted to financial markets and the relationship between markets and institutions as well as other non-bank institutions.[144] Indeed, banks could no longer be considered the unique sources of systemic risks as the financial crisis has shown that a wide range of non-bank financial institutions can become systemically important or too-interconnected-to-fail, for instance, financial intermediaries such as securities firms (Bear Stearns, Lehman Brothers), an insurer (AIG) and mortgage securitization companies (Fannie Mae and Freddie Mac).[145] Additionally, acknowledging the fact that excessive risk-taking is likely to migrate to less regulated or unregulated part of the system, the implication for macro-prudential authority is to widen its umbrella to cover such unregulated sectors, for

[142] European Systemic Risk Board, *Recommendations on intermediate objectives and instruments of macro-prudential policy,* ESRB/2013/1, Annex, section 2.
[143] International Monetary Fund, *Staff Guidance Note on Macro-prudential Policy*, 4.
[144] STEVEN L. SCHWARCZ, *Systemic Risk*, 193.
[145] The initial stages of the global crisis witnessed the chain of collapse ran through these aforementioned non-bank intermediaries. As such, "the traditional view that only banks needed to be supervised from a systemic risk perspective has been shown to be inadequate in a twenty-first century financial system."; MICHAEL W. TAYLOR, *Regulatory reform after the financial crisis,* in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 21.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

instance the shadow banking sector.[146]

1.2 Instruments

From the outset, it would be useful to generate some remarks on the scope of analysis regarding the range of possible macro-prudential policy instruments. Macro-prudential tools, in principle, would be designed in order to achieve its objectives, broad or specific. Although the intermediate goals of macro-prudential policy vary according to different interpretations, the main concerns to be addressed through macro-prudential polices include financial stability and systemic risk. Systemic risk containment is, undoubtedly, an indispensable element in achieving financial stability. Thus, the basis of macro-prudential policy centers on systemic risk, which is, in its turn, a hardly well-defined notion due to the complex nature of the financial system. As a result, the picture seems vague when it comes to concrete instruments and there could hardly be an exclusive list of tools. The focus of this part is thus on the known and proposed ones as well as suggestions for other possible tools, notably, without identifying the primary tool or the standard taxonomy of instruments.[147] Attention is also devoted to the evaluation of the effectiveness of those instruments which are already in use.

---

[146] IAN GOLDIN and MIKE MARIATHASAN, *The Butterfly Defect: How Globalization Creates Systemic Risks, and What to Do about It,* 53. Broadly speaking, shadow banking sector is defined as 'the system of credit intermediation that involves entities and activities outside the regulated banking system', funded via the repo or money markets; Financial Stability Board, Bank for International Settlements and International Monetary Fund, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20,* October 2011, 7.

[147] This follows the approach used in Galati and Moessner's paper as a result of the fact that a comparable consensus is still missing in the literature on macro-prudential.; GABRIELE GALATI & RICHHILD MOESSNER, *Macro-prudential policy: A literature review,* 8.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

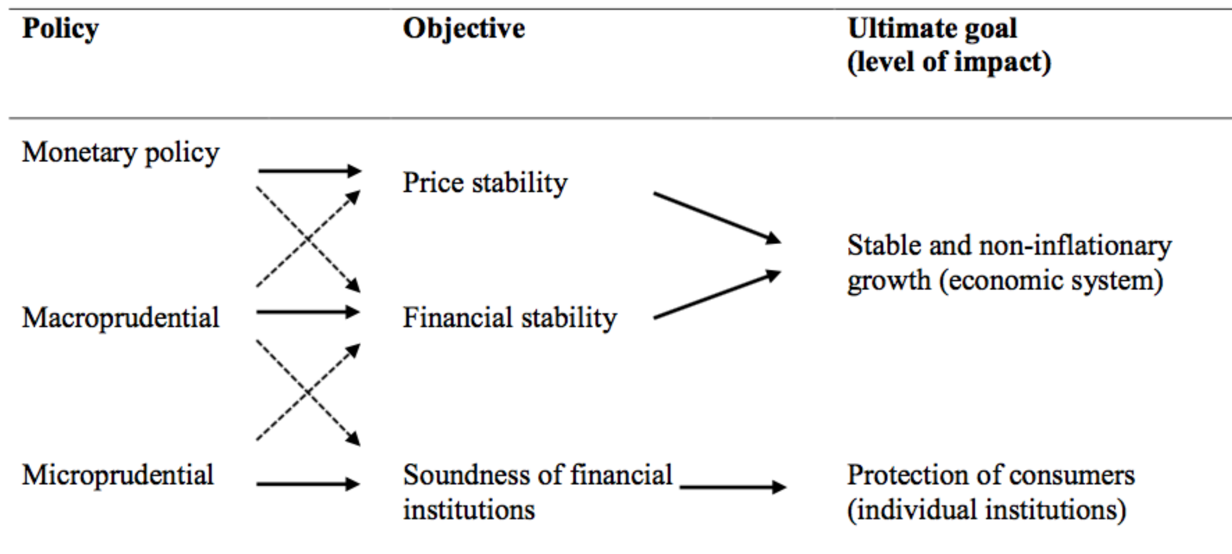
With regard to instruments that can support financial stability, there is a distinction to be made between macro-prudential instruments and other macro-economic measures. Generally speaking, policies such as micro-prudential, monetary, fiscal or exchange rate can and often promote the stability of the financial system. For illustration, Figure 1 below demonstrates the interrelation in terms of policy objectives within the financial system, where each policy has a primary impact on its direct objective and a secondary impact on the objective next to it. Monetary policy, while primarily aims at price stability, has an effect on financial stability. Likewise, micro-prudential policy also help to maintain financial stability through an indirect effect of focusing on the soundness of financial institutions. Admittedly, many policies could and should influence financial stability but not all of those should be considered macro-prudential.[148] To differentiate, however, only those tools operated with "explicit primary objective to promote the stability of the financial system as a whole, and which have the most direct and reliable impact on financial stability should be thought of as macro-prudential".[149] This is in line with recognizing the independence of macro-prudential function as well as distinguishing the differences of macro-prudential and micro-prudential policies. While the former considers problems that bear upon the overall financial market, the latter focuses on particular individual institutions within the financial system. Macro-prudential policy is, in such a way, seen not as contrast but complement to micro-prudential policy, to the extent that macro-prudential policy would account for the externalities of the micro-prudential approach of individual institutions

---

[148] Financial Stability Board, Bank for Intentional Settlements & International Monetary Fund, *Macro-prudential policy tools and frameworks*, 3.
[149] Bank for International Settlements, *The 80th Annual Report 2009/10*, 90.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Figure 1. Overall policy framework for monetary and financial system



Source: ESRB, *Reports of the Advisory Scientific Committee*, No 5, November 2014, 5.

which largely takes the rest of the financial system and the economy as given.[150] In addition, macro-prudential policy interacts with other types of public policy that have an impact on financial stability in order to preserve this shared objective.[151]

As the term 'macro-prudential' denotes, the instruments are first understood as of prudential nature. Borio argues that the term 'macro-prudential' itself does not really refer to a new policy but *"to an intellectual orientation or lens through which the task of achieving*

---

[150] The institution-specific focus causes supervisors under prudential supervision regime to overlook the emerging threat that cut across many firms or markets, such as shock correlations and the interactions arise when individual firms respond to shocks. Macro-prudential policy, with its top-down approach, allows supervisors to observe more effectively thus respond to potential sources of internal shocks or collective behavior that could cause pro-cyclicality.; Group of Thirty, *Enhancing Financial Stability and Resilience: Macro-prudential Policy, Tools and System for the Future,* Macro-prudential Policy Working Group, Washington DC, October 2010, 32.

[151] The interactions between macro-prudential policy and other types of public policy will be addressed with more details in the later part. See *infra* 1.4.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

financial stability is understood". [152] Put differently, macro-prudential regulation could be understood as using a macro lens to prudential rules, where the tools remain prudential in nature.The aims and scope of prudential regulations have thus been fundamentally redefined following the global financial crisis with an increased emphasis on macro-prudential regulation as a way towards preserving overall financial stability.[153]

In fact, as noted in the implementation of macro-prudential policy by the Bank for International Settlements, "instruments typically used in the prudential regulation and supervision of individual financial institutions are adapted to limit risk in the financial system as a whole", in the form of strong prudential standards and limits on activities that increase systemic vulnerabilities.[154] Stijn Claessens then clarifies that most macro-prudential tools considered to date apply to the banking system and mainly based on existing micro-prudential and regulatory tools, as these are adaptable to macro-prudential objectives and related more extensive theory and knowledge. [155] De Hann et al. share similar idea while pointing out that macro-prudential authorities do not have a concrete set of instruments at their disposal but often rely on instruments that are primarily intended to achieve other objectives, mostly micro-prudential supervision and

---

[152] CLAUDIO BORIO, *Macro-prudential frameworks: (Too) great expectations?,* in DIRK SCHOENMAKER (ed.), *Macro-prudentialism,* 31.

[153] DANIEL K. TARULLO, *Rethinking the Aims of Prudential Regulation*, Remarks at the Federal Reserve Bank of Chicago Bank Structure Conference, Chicago, May 2014, 1.

[154] In this regard, the BIS conceives of the core set of macro-prudential instruments as overlays to existing prudential instrument settings, or as adjustments to those settings.; Bank for International Settlements, *The 80th Annual Report 2009/10*, 89-90.

[155] "[T]he set of policies currently being considered is mostly based on existing micro-prudential and regulatory tools (i.e., caps on loan to value ratios, limits on credit growth, additional capital adequacy requirements, reserve requirements and other balance sheets restrictions), which have been given additional, macro-prudential objectives, with forms of "Pigouvian" taxes and levies added."; STIJN CLAESSENS*, An Overview of Macro-prudential Policy Tools,* 3 & 13.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

even monetary policies, then recalibrating them to address the different dimensions of systemic risk.[156] The recalibration, in this regard, is illustrated through the capacity to vary the benchmark prudential instruments—capital, liquidity and collateral requirements—to adapt in light of the system-wide threats of stability.[157]

In an effort to enlarge the scope of its instruments, macro-prudential policy is then defined as a policy that uses *primarily* prudential tools to limit systemic risks.[158] With specific focus on systemic risk containment,macro-prudential instruments are those which address explicitly systemic risk and adopt a system-wide analytical perspective, i.e a systemic orientation in terms of objective, calibration and governance.[159] The scope of instruments hence varies as changes in the structure of the economy and the financial system would possibly lead to introduction of new financial products with unseen risks. This broader view was further elaborated to include both prudential and especially non-prudential instruments, where typical non-prudential instruments to fall within the scope of macro-prudential toolkit should "*(i) targets explicitly and specifically systemic risks, and (ii) be underpinned by the necessary governance arrangements for the institutional framework chosen to conduct macro-prudential policy to ensure there is no slippage in their usage (clear mandate, necessary degree of operational independence and*

[156] JAKOB DE HAAN, SANDER OOSTERLOO, DIRK SCHOENMAKER, *Financial Markets and Institutions: A European Perspective* (2nd edition), Cambridge University Press, 2012, 407. For examples of instruments which are developed specifically to mitigate systemic risk and those that have been recalibrated to tackle systemic risk, *see* International Monetary Fund, *Macro-prudential policy: An organizing framework*, 23.
[157] PAUL TUCKER, *The political economy of macro-prudential regimes,* in DIRK SCHOENMAKER (ed.), *Macro-prudentialism,* 63.
[158] International Monetary Fund, *Keys aspects of Macro-prudential policy: Executive Summary*, 6. *See also* FSB, IMF and BIS, *Macro-prudential tools and frameworks: Update to G20 Finance Ministers and Central Bank Governors,* February 2011.
[159] Financial Stability Board, Bank for International Settlements and International Monetary Fund, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 10.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

accountability).”[160] According to this understanding, measures of prudential nature which could have an effect on systemic risks may not fall within the scope of macro-prudential policy instruments, although tools which are not of prudential nature but target explicitly systemic risks could actually remain under the umbrella of macro-prudential policy, for instance, institutional infrastructure policies.[161] This set of criteria, undoubtedly, leaves some ambiguities in terms of the overall scope of macro-prudential tools although those of prudential nature remain the key instruments in the expected framework. As such, views differ as to whether macro-prudential is a particular perspective of prudential policy or actually a new policy area in its own right.[162]

Under a near consensus view,[163] instruments which aims explicitly and specifically at systemic risk would eventually be tasked with addressing its two immediate targets, namely the time dimension and the cross-sectional dimension.Hence, the design of the macro-prudential framework would consist of a set of tools geared towards the time dimension, i.e. cyclical macro-

---

[160] Financial Stability Board, Bank for Intentional Settlements & International Monetary Fund, *Macro-prudential policy tools and frameworks*, 2.; Generally speaking, macro-prudential instruments can be defined as primarily prudential tools that are calibrated to target one or more sources of systemic risk, such as excessive leverage, excessive liquidity mismatches, too much reliance on short-term funding or interconnectedness, etc.; Bank for International Settlements, *Operationalizing the selection and application of macro-prudential instruments,* CGFS Papers No. 48, Report by a Working Group established by the Committee on the Global Financial System, December 2012, 4.

[161] Bank for International Settlements, *Operationalizing the selection and application of macro-prudential instruments,* 4.

[162] This actually leads to disagreement on the importance of carving out a specific macro-prudential framework.; Financial Stability Board, Bank for International Settlements and International Monetary Fund, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 4.

[163] DIRK SCHOENMAKER and PETER WIERTS, *Macro-prudential Policy: The Need for a Coherent Policy Framework,* 5. On the other hand, Giovanni Favara and Lev Ratnovski argue that “the objective of macro-prudential regulation must be to address market failures” (i.e. strategic complementaries, fire sales and interconnectedness) as “thinking about macro-prudential policy by looking solely at these two dimensions of risk is unsatisfactory” because this view, per se, does not justify regulatory intervention.; *See* further at: GIOVANNI FAVARA and LEV RATNOVSKI, *Externalities: An economic rationale for macro-prudential policy*, in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 137-141.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

prudential policies, along with the instruments used to address the cross-sectional dimension of systemic risk, i.e. structural macro-prudential policies. The role of cyclical policies is thus to mitigate the build-up of financial imbalances to tackle the pro-cyclicality—the self-reinforcing process that amplifies financial booms and busts of the financial system; while structural policies aims at dealing with externalities[164] originating within the system itself thus focusing on the distribution, concentration of risks as well as contribution to system-wide risk of individual institutions.[165] The two concepts are, admittedly, not independent of each other and externalities of the time-series nature can interact with externalities of the cross-sectional nature to create systemic risks.[166]

Despite having specified these immediate targets, things get blurry when it comes to generating specific instruments for each pillar as well as adapting such instruments in different environment. Given their interlinkages, many macro-prudential instruments can in fact tackle both the cyclical and the structural aspects of systemic risk depending on the design and calibration of the tools, for instance, sectorial capital requirements.[167] There are indeed various

---

[164] In this regard, externalities take the form of spill-over effects arising from interconnections, directly (e.g. interbank exposures) or indirectly (e.g. common exposures), within the financial system and are not internalized by financial institutions. Hence, it largely depends on the structure of the system.; JAKOB DE HAAN, SANDER OOSTERLOO, DIRK SCHOENMAKER, *Financial Markets and Institutions: A European Perspective*, 399.
[165] The BIS advises several guiding principles in designing macro-prudential policy instruments and making the macro-prudential framework operational including, amongst others, to calibrate prudential tools to individual institutions' contribution to system-wide risk, regardless of its legal form.; JAIME CARUANA, *Macro-prudential policy: working towards a new consensus*, 2-3.
[166] For instance, rapid growth of large financial institutions during a boom means pro-cyclicality get reinforced by contagion risks.; STIJN CLAESSENS, *An Overview of Macro-prudential Policy Tools*, 8. In a related note, Dirk Schoenmaker pointed out that the unwinding of financial imbalances poses more concerns to policy makers if shocks cause strong spill-over effects within a highly connected financial system.; DIRK SCHOENMAKER and PETER WIERTS, *Macro-prudential Policy: The Need for a Coherent Policy Framework,* 5.
[167] GIUSEPPE NAPOLETANO, *Legal aspects of macro-prudential policy in the United States and in the European Union*, Bank of Italy, No. 76, June 2014, 159. In addition, many instruments (can) also serve other policy objec-

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

methods to classify and group macro-prudential tools, with the toolkit available includes instruments that have been proposed and used (even before the crisis) as well as other regulatory tools and possible new instruments.[168] One approach, adapted from Stijn Claessens, is demonstrated in Table 1 below. (On the specific sets of macro-prudential tools used in the European Union, see Chapter 2, part 2.2.2)

At international level, the Basel III provides measures to address the time dimension of systemic risk which consists of a maximum leverage ratio, new liquidity standards, a capital conservation buffer, and a counter-cyclical buffers (CCB) to address pro-cyclicality.[169] At national level, however, price- and quantity-based prudential measures as well as other tools that are not typically prudential in nature (e.g. macro-economic or institutional infrastructure measures to be interpreted with a macro-prudential perspective) have also been used and

---

tives, including, besides micro-prudential, assuring consumer protection or fostering greater competition.; STIJN CLAESSENS*, An Overview of Macro-prudential Policy Tools*, 13.

[168] For various ways to classify macro-prudential tools, see, generally: International Monetary Fund, *Macro-prudential policy: An Organizing Framework*, 2011; FSB, BIS and IMF, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, October 2011; GABRIELE GALATI & RICHHILD MOESSNER, *Macro-prudential policy: A literature review,* 10, Table 3—Macro-prudential instruments.; European Systemic Risk Board, *Flagship Report on Macro-prudential Policy in the Banking Sector*, 18-22. Notably, there is almost no widely agreed and comprehensive theoretical framework for the optimal choice for the design and calibration of macro-prudential policy; flexibility is required as optimal choice should also be tailored to context- and country-specific.

[169] Basel Committee on Banking Supervision, *Basel III: A global regulatory framework for more resilient banks and banking systems*, Bank for International Settlements, December 2010 (rev June 2011), 54-63; More details, generally, could be found at: Basel Committee on Banking Supervision, *Frequently asked questions on the Basel III Countercyclical Capital Buffer,* October 2015. Other provisions within Basel III, a capital conservation buffer and an additional minimum leverage ratio or the new liquidity standards, can help to dampen the pro-cyclicality and limit the build-up of financial imbalances but they are not exclusively designed to address pro-cyclicality. For details on other international measures which could have an impact on pro-cyclicality, *see*: FSB, IMF and BIS, *Macro-prudential tools and frameworks: Update to G20 Finance Ministers and Central Bank Governors*, 5-6.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

proposed to mitigate the pro-cyclicality aspect through targeting at its different sources.[170] Commonly deployed examples include time-varying, discretionary caps on loan-to-value (LTV) and debt-to-income (DTI), limits on credit growth (CG), limits on foreign lending (FC), reserve requirements (RR), dynamic provisioning (DP). Of these, LTV and DTI are reportedly used the most in advanced countries while emerging economies prefer more foreign exchange and liquidity related policies, i.e. FC, RR or CG.[171]

Amongst others, CCB seems to take the leading role in the group of cyclical tools, probably as one of the most developed macro-prudential tools at the moment, for the purpose of increasing the resilience of the financial system when risks are building up. CCB is designed exclusively to addressed pro-cyclicality, to be deployed during both the expansionary and the contractionary phases of the financial cycle, thereby could act like a stabilizer to tame the cycle.[172] To give more clarity, CCB aims at accumulating capitals during the periods when systemic risks build up thus forcing banks to internalize risk taking to a greater extent; as a result,

---

[170] 'Price-based tools, countercyclical changes in risk weights on exposures to certain instruments, sectors, or markets, have been used to protect the financial system against the build-up of credit risk during periods of excessive credit growth or asset price booms. Quantity-based tools have been adjusted counter cyclically by imposing time-varying caps and limits on the demand of credit.'; FSB, IMF and BIS, *Macro-prudential tools and frameworks: Update to G20 Finance Ministers and Central Bank Governors*, 7. Additionally, while price-based tools (e.g. Pigovian taxes) fix the marginal cost of compliance and lead to uncertain level of compliance, quantity-based tools (e.g. net funding ratios) fix the level of compliance but result in uncertain marginal cost.; GABRIELE GALATI & RICHHILD MOESSNER, *Macro-prudential policy: A literature review,* 12.; Further on the performance of Pigouvian taxes and quantity-based regulations in containing the social costs of high-risk banking, *see:* ENRICO PEROTTI and JAVIER SUAREZ, *Simple analytics of systemic liquidity risk regulation*, in DIRK SCHOENMAKER (ed.), *Macroprudentialism*, 129-135.

[171] Advanced countries prefer the demand for credit related LTVs (55%) and DTIs (20%), perhaps out of concern with excessive leverage; while emerging markets use more FC, RR or CG possibly due to their concerns with large and volatile capital flows and related systemic risks and perhaps, because their system are less liberalized.; STIJN CLAESSENS*, An Overview of Macro-prudential Policy Tools,* 15.

[172] STIJN CLAESSENS, *An Overview of Macro-prudential Policy Tools*, 36, Table 1. The Macro-prudential Toolkit.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

it can somehow work like a brake, restraining risk-taking.[173] When recession period comes, this buffer allows the financial system to 'absorb emerging strains more easily, dampening amplifying mechanisms'.[174] Put differently, the proximate objective of countercyclical capital measure is to "build up buffers in good times that can be drawn down in bad ones"[175] and CCB is considered a tool of time-varying polices which deploy instruments when systemic risk is perceived as rising to dangerous levels.[176] While the aim of countercyclical capital buffer is to protect the banking sector from the credit cycle, it could also help to lean against the build-up phase of the cycle in the first place.[177] In fact, this is one useful approach to strengthen the resilience of the financial system when it is hard to identify then mitigate the threats to financial stability, or if it is unclear whether certain developments could actually undermine the stability of the system as a whole.[178] As it has to be conducted preemptively, building up countercyclical capital buffers is suggested to

---

[173] XAVIER FREIXAS, LUC LAEVEN, JOSE-LUIS PEYDRO, *Systemic risk, crises, and macro-prudential regulation*, available at http://voxeu.org/article/systemic-risk-crises-and-macroprudential-regulation. The countercyclical charge should serve to moderate the boom bust-cycle, not to eliminate the economic cycle. It helps to ensure that banks are putting aside an increasing amount of capital in an up-cycle when currently available risk measures suggest that they can safely leverage more.; MARKUS BRUNNERMEIER, ANDREW CROCKETT, CHARLES GOODHART, AVINASH D. PERSAUD, HUYN SHIN, *The Fundamental Principles of Financial Regulation*, International Center for Monetary and Banking Studies, Geneva Reports on the World Economy, November 2009, xix.

[174] *See further* at: JAIME CARUANA, *Macro-prudential policy: working towards a new consensus,* 3.

[175] MATHIAS DREHMANN, CLAUDIO BORIO, LEONARDO GAMBACORTA, GABRIEL JIMENEZ and CARLOS TRUCHARTE, *Countercyclical capital buffers: exploring options*, 1-2.

[176] ITAI AGUR and SUNIL SHARMA, *Rules, discretion and macro-prudential policy*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 42.

[177] Basel Committee on Banking Supervision, *Guidance for national authorities operating the countercyclical capital buffer*, December 2010, 1. Notably, the aim of protecting the banking sector from the credit cycle is translated as not only to ensure that individual banks remain solvent in the period of financial stress, but also to ensure that the banking sector in aggregate has capital to maintain the credit flow in the economy. See, *ibidem*.

[178] Despite using various indicators and models, threat to financial stability are often surrounded by major uncertainty which is difficult to capture in a quantitative analysis. Even when a build-up of financial imbalances is identified, it does not necessarily lead to a crisis as most imbalances and excesses unravel without requiring an abrupt correction.; JAKOB DE HAAN, SANDER OOSTERLOO, DIRK SCHOENMAKER, *Financial Markets and Institutions: A European PerspectiveI*, 396-405.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

be made in good times when it is easier and cheaper to do so.[179] For instance, in housing and property markets, the build-up of buffers is encouraged through restrictions on capital distribution (in the form of conservation buffer), or by tightening during the boom over asset (housing) prices and credit expansion and to be loose or even removed during the subsequent slump, i.e. to be counter-cyclical.[180] Additionally, a specific study on financial cycles in these core market segments, namely housing and credit, conducted by Clasessens et al. suggested the use of countercyclical capital buffer, CCB, in combination with margin controls on mortgage lending, i.e. LTV or DTI ratios, when both credit and housing prices are growing rapidly.[181]

Within Basel III framework, banks will be subject to a countercyclical buffer requirement that variesbetween zero and 2.5% of risk-weighted assets, to be put in place when authorities judge thata period of excessive credit growth[182] is resulting in an unacceptable build up of

---

[179] The creation of countercyclical capital buffers is to reduce the likelihood that banks or other financial institutions run into trouble during economic recession, hence regulators could simply require banks to build up the buffers outside periods of stress, but it is suggested to be done in boom times on the possible justification that risks tend to build up during good times. *See further* at: MATHIAS DREHMANN, CLAUDIO BORIO, LEONARDO GAMBACORTA, GABRIEL JIMENEZ and CARLOS TRUCHARTE, *Countercyclical capital buffers: exploring options,* BIS Papers No. 317, July 2010.; This, however, could be problematic according to Gersbach and Rochet. They argue that if bank capital is viewed as a 'buffer' against future losses, it should not be raised during booms but during recession, when loans are larger.; HANS GERSBACH and JEAN-CHARLES ROCHET, *Capital regulation and credit fluctuations,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 89-90.

[180] To avoid regulatory arbitrage, this method is usually applied to all banks or financial institutions that provide mortgages, irrespective of that institution's individual position as macro-prudential policy concerns with the system as a whole.; CHARLES A.E. GOODHART, *The use of macro-prudential instruments,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 13.

[181] The study indicates that financial cycles with respect to housing and credit markets can be long and deep. They also accentuate each other and become magnified, especially during coincident cyclical episodes in these markets. Thus there is a need to take into account the interactions among cycles when designing macroprudential tools.; STIJN CLAESSENS, M. AYHAN KOSE and MARCO E. TERRONES, *Understanding financial cycles*, in DIRK SCHOENMAKER (ed.), *Macroprudentialism*, 97-102.

[182] If asset growth is debt financed (i.e. credit), defaults may happen when the value of asset is lower than the value of debt which trigger other defaults due to interconnectedness; conversely, if asset growth is financed by equity then investors can absorb debts without necessarily triggering a default. Hence, monitoring credit growth is crucial in the implementation of countercyclical measure. *See* DIRK SCHOENMAKER and PETER

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

systematic risk.[183] On such a basis, national authorities activate the countercyclical capital buffer in a discretionary manner, deciding both the extent of surcharge and timing of deployment, when they consider that vulnerabilities are building up. However, Charles Goodhart expressed his concerns whether this countercyclical capital ratio can actually work, as the ratio of 2.5% potential countercyclical adjustment allowed by Basel III is tiny compared to the cyclical swings in profit and capital.[184] As it is much harder to go against the general viewpoints of the markets,regulators need to pay more attention to presumptive indicators—such as credit ratios or leverage ratios—in order to guide their reaction and also to reinforce the implementation of countercyclical measure.[185] Even with support from such indicators, admittedly, the extent of effectiveness of counter-cyclical measures will still be uncertain and difficult to measure. As the implementation largelydepends on judgment of national authorities, perhaps, experiences over time will help to develop an operating paradigm.

WIERTS, *Macro-prudential Policy: The Need for a Coherent Policy Framework*, 12.; The gap between the credit-to-GDP ratio and its long-term trend has indeed been proposed as an indicator of systemic risk build-up in the banking system, and hence as a guide to set the countercyclical capital buffer for banks.; Financial Stability Board, Bank for International Settlements and International Monetary Fund, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 5.; Similarly, simple and objective indicators such as the credit growth or credit-to-GDP ratio is used to trigger the activation of countercyclical capital ratios and capital add-ons for systemically important financial institutions (SIFIs). *See further* at: HANS GERSBACH and JEAN-CHARLES ROCHET, *Capital regulation and credit fluctuations,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 93.

[183] Basel Committee on Banking Supervision reforms - Basel III, summarized table available at: http://www.bis.org/bcbs/basel3/b3summarytable.pdf. As guided by the BCBS "national authorities can implement a range of additional macro-prudential tools, including a buffer in excess of 2.5% for banks in their jurisdiction, if this is deemed appropriate in their national context. However, the international reciprocity provisions set out in this regime treat the maximum countercyclical buffer as 2.5%."; Basel Committee on Banking Supervision, *Basel III: A global regulatory framework for more resilient banks and banking systems*, 58.

[184] CHARLES A.E. GOODHART, *Can Counter-cyclical Capital Ratios Work?*, in Bank of Italy, *Conference in Memory of Tommaso Padoa-Schioppa,* 109.

[185] Goodhart expressed his concern as to whether this requirement will work as it has to be introduced during the boom by saying that the boom is unsustainable. But, as said, it remains difficult and unpopular to claim that a boom is unsustainable as it may go away instantaneously.; *See further* at: CHARLES A.E. GOODHART, *Can Counter-cyclical Capital Ratios Work?*, in Bank of Italy, *Conference in Memory of Tommaso Padoa-Schioppa,* 109-110.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

The Basel's countercyclical capital buffer places its focus more on strengthening the resilience of the financial system, through the task of building up buffers for bad times, rather than stabilizing the financial cycle.[186] Even though countercyclical policies are probably the most developed macro-prudential tools for the time being, Wolf Wagner warns that this policy type can actually produce various unintended consequences and when it happens, the scope of such side effects is much larger than for traditional policies that focused on individual institutions only.[187]

For the cross-sectional aspect of systemic risk, Schoenmaker and Wierts indicated three sub-targets and corresponding tools for effectively addressing this dimension of systemic risk which originates within the financial system, including (i) externalities within financial institutions, especially the ones posed by systemically important financial institutions (SIFIs); (ii) externalities in markets and (iii) externalities within the financial system infrastructures.[188] As an individual bank, even if the bank can cover its own exposure, most likely it will not internalize its contribution to system-wide risks thus, in turn, creates a 'classic externality'.[189] Externalities in

---

[186] JAKOB DE HAAN, SANDER OOSTERLOO, DIRK SCHOENMAKER, *Financial Markets and Institutions: A European Perspective*, 408.

[187] According to Wagner, the unintended effects of countercyclical policies include (i) potentially increase cross-sectional risk, because such policies may increase incentives for banks to correlate with each other; (ii) effect of countercyclical policies may be partially offset by fluctuation in bank's voluntary buffers; (iii) possibly facing a significant time-inconsistency problem due to an important discretionary element, e.g. Basel III; (iv) effects from booms of endogenous nature towards macro-prudential polices could lead to the result that such tool may never have to be invoked; and (v) likely to give rise to distortion of financial system as countercyclical buffers will be imposed in different countries at different points in time.; *See*, for more details, at: WOLF WAGNER, *Unintended consequences of macro-prudential policies*, in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 105-112.

[188] Schoenmaker and Wierts advocate for the use of capital surcharges to address SIFIs, collateral-based tools for externalities in markets and to tackle externalities within the financial system infrastructure by improving its resilience of the infrastructure itself. DIRK SCHOENMAKER and PETER WIERTS, *Macro-prudential Policy: The Need for a Coherent Policy Framework*, 14.

[189] ENRICO PEROTTI and JAVIER SUAREZ, *Simple analytics of systemic liquidity risk regulation*, in DIRK SCHOENMAKER (ed.), *Macroprudentialism*, 130.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

the form of spill-over effects, arising from interconnection (i.e. interlinkages and common exposures) and are not internalized by institutions could lead to widespread disruption which largely impacts the stability of the financial system as a whole, much more so in the case of (global) SIFIs due to their significant size, complexity or even lack of substitutability. This demonstrates a need to calibrate prudential tools to individual institutions' contribution to system-wide risk to reduce the impact of their distress or failure on the rest of the system and the overall financial stability.[190] Hence, not only the scope of prudential framework should be rather broad, but also an explicit distinction between the 'systematic risk' (common exposure) charge and the 'idiosyncratic risk' charge should be embedded in its calibration.[191] For SIFIs, capital surcharge appears to be a meaningful tool to mitigate the negative consequences of financial interconnectedness and contain systemic risk from firm-level exposures.

Capital surcharge on SIFIs is the requirement that SIFIs hold a higher level of capital than other financial institutions. The main aim of this measure is to increase the resilience of the financial system to shocks and, at the same time, reduce the likelihood of failure of these too-important-to-fail, too-interconnected-to-fail institutions.[192] Ideally, capital surcharge should be based on analysis of the risks posed by SIFIs due to their systemic position within the financial

---

[190] Financial Stability Board, Bank for Intentional Settlements & International Monetary Fund, *Macro-prudential policy tools and frameworks*, February 2011, 2-3.
[191] To a varying degree, all financial institutions intermediate fund and allocate risks, hence, the gaze should be cast widely in assessing vulnerabilities to financially induced macro stress. In addition, the prudential standards should be calibrated with respect to the marginal contribution of an institution to system-wide macro risk (systematic or idiosyncratic), where the latter would be non-zero only to the extent that failure of the institution had macro stress effects, either directly or through knock-on channels.; *See details* at CLAUDIO BORIO, *Towards a macro-prudential framework for financial supervision and regulation?*, 10.
[192] Further on the aim and assessment criteria of structural tools, *see* International Monetary Fund, *Staff Guidance Note on Macro-prudential Policy,* 13-14.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

system.[193] The Basel III recommends, at international, that global systemically important financial institutions must have higher loss absorbency capacity, in addition to meeting the Basel III requirement, to reflect the greater risks that they pose to the financial system.[194]As a first step to put this requirement into practice, the Basel Committee on Banking Supervision (BCBS) provides framework to assess and mitigate the negative externalities posed by global systemically important banks (G-SIBs) based on the rationale that this kind of cross-border externalities are not fully addressed in current regulatory policies.[195] Where national financial systems are interdependent, such problem requires a globally agreed minimum. Together with the international standard setting bodies, the FSB proceeds by extending the framework to cover a wider group of SIFIs, including financial market infrastructures, insurance companies and other non-bank financial institutions that are not part of a banking group structure.[196]"For macro-prudential policy to be effective, it needs to look beyond banks".[197]Using the methodology developed by the BCBS and the International Association of Insurance Supervisors (IAIS),[198] FSB identified an initial group of 29 G-SIBs, updated to comprise of 30 G-SIBs in 2015, to be

---

[193] JAKOB DE HAAN, SANDER OOSTERLOO, DIRK SCHOENMAKER, *Financial Markets and Institutions: A European Perspective*, 410.
[194] Basel Committee on Banking Supervision reforms - Basel III, summarized table available at: http://www.bis.org/bcbs/basel3/b3summarytable.pdf.;
[195] Basel Committee on Banking Supervision, *Global systemically important banks: updated assessment methodology and the higher loss absorbency requirement*, July 2013, 3. The methodology for assessing the G-SIBs based on five broad sets of indicators: size of banks, their interconnectedness, the lack of readily available substitutes or financial institution infrastructure for the services they provide, their global (cross-jurisdictional) activity and their complexity.; See *ibidem* at 5.
[196] Basel Committee on Banking Supervision, *Global systemically important banks: updated assessment methodology and the higher loss absorbency requirement*, July 2013, 4.
[197] International Monetary Fund, *Staff Guidance Note on Macro-prudential Policy,* 6.
[198] For further details on the methodology, *see*: International Association of Insurance Supervisors, *Global Systemically Important Insurers: Initial Assessment Methodology*, July 2013.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

required an individual surcharge ranging from 1% up to 3.5%,[199] and a list of 9 global systemically important insurers, i.e. G-SIIs.[200] At national level, several countries, such as Austria, Denmark, Singapore have introduced capital surcharges and even gone beyond Basel III to impose higher capital requirements for their own domestic SIFIs.[201]

Additionally, the framework initiated by the FSB to address the risks posed by SIFIs also includes a new international standard for resolution regimes as well as additional measures to improve the authorities' capacity to resolve SIFIs.[202] It is expected to put in place *ex ante* conditions which allows for a wider range of options, instead of having the whole bank rescued.[203] These instruments, admittedly, target at reducing the too-big-to-fail moral hazard stemming from expectations of government support.[204] In addition, structural tools provided at international level also include those in the form of capital or liquidity requirements, namely (i) capital incentives for banks to use central counter-parties for over-the-counter derivatives; (ii) higher capital requirements for trading and derivative activities, as well as complex securitization and off-balance sheet exposures (e.g structured investment vehicles); (iii) higher capital requirements for inter-financial sector exposures; and (iv) the introduction of liquidity

---

[199] Note that the 3.5% bucket for required higher loss absorbency is empty, as of 2013; Financial Stability Board, *2013 update of group of global systemically important banks (G-SIBs)*, November 2013, Annex I. This list is updated annually and the latest update in 2015 consists of 30 G-SIBs.; Financial Stability Board, *FSB publishes the 2015 update of the G-SIB list*, November 2015, available at http://www.fsb.org/wp-content/uploads/FSB-announces-2015-update-of-group-of-global-systemically-important-banks-G-SIBs.pdf

[200] Financial Stability Board, *2015 update of list of global systemically important insurers (G-SIIs)*, November 2015, Annex I, available at http://www.fsb.org/wp-content/uploads/FSB-communication-G-SIIs-Final-version.pdf

[201] FSB, BIS, IMF, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 19.

[202] FSB, BIS, IMF, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 4.

[203] JAKOB DE HAAN, SANDER OOSTERLOO, DIRK SCHOENMAKER, *Financial Markets and Institutions: A European Perspective*, 410.

[204] Bank of England, *Instruments of macro-prudential policy: A Discussion Paper*, December 2011, 36.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

requirements that penalize excessive reliance on shortterm, interbank funding to support longer dated assets.[205] These are introduced within the Basel III and also help to address systemic risk and interconnectedness problems.

Other than what have been provided at international level, countries have implemented different structural measures to manage risk distribution and concentration, for instance, through varying restrictions on asset composition or permissible activities of systemic institutions (e.g the 'Volcker Rule' introduced as part of the Dodd-Frank Act in the United States, which bans on proprietary trading for systemically important banks).[206] Undoubtedly, the scope of macro-prudential tools will gradually be enlarged and the toolkit will be filled with new instruments.[207] There is no one size fits all, hence the design and calibration of macro-prudential tools should take into account local differences and be tailored to accommodate these conditions.

In terms of implementing macro-prudential instruments, efforts have been made at the international level by international standard setters to aid macro-prudential authoritiesthrough providing general or country-specific guidances as well as particular standards on macro-prudential tools.[208] As noted by Mario Draghi, however, "the application of macro-prudential

---

[205] Basel Committee on Banking Supervision, *Basel III: A global regulatory framework for more resilient banks and banking systems*, 7-8.
[206] FSB, IMF & BIS, *Macro-prudential tools and frameworks: Update to G20 Finance Ministers and Central Bank Governors*, 9.; For more details on these measure implemented within the European Union and United States, see Chapter 2.
[207] DIRK SCHOENMAKER, *Introduction,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism*, 7.
[208] *See*, generally: International Monetary Fund, *Staff Guidance Note on Macro-prudential Policy,* December 2014; Bank for International Settlements, *Operationalizing the selection and application of macro-prudential instruments,* December 2012.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

policy is still in its infancy" and "much of the analytical framework has not been developed".[209] This statement applies not only to situation within the European Union, but generally to countries that employ macro-prudential instruments.[210] Obstacles arise in the implementation of macro-prudential policy in which one key issue, amongst others, is how to determine the appropriate timing for the activation or deactivation of countercyclical macro-prudential instruments to effectively achieve its policy objective. Whether the authority is able to deploy the tools when needed also depends on the political economy of macro-prudential regulations and the pressure they may face to delay or tone down the measures.[211] During both the build-up phase of vulnerability and the release phase, premature or delayed intervention may result in unnecessary costs to the economy or weaken the impact of the chosen instrument.[212] In this regard, the ability to identify vulnerabilities, financial imbalances and to measure the accumulation, build-up and

---

[209] European Systemic Risk Board, *Flagship Report on Macro-prudential Policy in the Banking Sector*, European System of Financial Supervision, 2014, *Preface*.

[210] "The use of macro-prudential instruments is still pretty much in its infancy. Its previous main use has been in small states, such as Hong Kong, with currency pegs…The results are generally felt to have been beneficial; in the right direction, but not really sufficient to maintain the desired level of stability."; CHARLES A.E. GOODHART, *The use of macro-prudential instruments,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 15.

[211] ITAI AGUR and SUNIL SHARMA, *Rules, discretion and macro-prudential policy*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 42.

[212] 'Admittedly, costs of a mistimed activation are asymmetric, and delayed action is generally more costly than a premature intervention. During the build-up phase of any vulnerability, delayed activation would provide insufficient time for the tools to gain traction, or in worse case, it may even initiate the disorderly unwinding of imbalances that have been built-up. Early implementation during this build-up phase, on the other hand, is likely to incur unnecessary regulatory costs as market participants will have more time to develop strategies to avoid and arbitrage them. During the release phase, deactivating macro-prudential tools too early may give market participants a wrong signal, whilst releasing them too late may amplify pro-cyclical effects, as banks may have to deleverage more to satisfy additional macro-prudential buffers.'; Bank for International Settlements, *Operationalizing the selection and application of macro-prudential instruments,* 5.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

magnitude of systemic risk plays a crucial role.[213]

The diagnosis of systemic risks used for macro-prudential purpose, however, experiences difficulties as the notion itself is yet fully understood. As Agur and Sharma rightly indicate, complicating matter is the endogenous nature of risk and "even with slow moving 'fundamentals', changes in expectations and the resulting adjustments in risk appetites can transform market liquidity thus alter the path and volatilities of asset prices".[214] In addition, the measurement of systemic risk continues to proceed without a comprehensive operational definition despite some progress that has been made in recent years.[215] To the extent there is a variation of systemic risk interpretations, Bisias et al. point out that "single consensus measure of systemic risk may neither be possible nor desirable",[216] thus "there is a need for more than a single tool to measure systemic risk to capture the complex and adaptive nature of the financial system".[217] Undoubtedly, what makes systemic risk measurement a challenging task is essentially the multifaceted nature of systemic risk itself, the constantly changing and evolving nature of the financial system, as well as the complexity of interactions within the financial system and between the financial system and the real economy.[218] Macro-prudential tools would then have to be adjusted correspondingly with the changing assessments of systemic financial risks.Moreover,

---

[213] Bank for International Settlements, *Operationalizing the selection and application of macro-prudential instruments,* 5.
[214] ITAI AGUR and SUNIL SHARMA, *Rules, discretion and macro-prudential policy*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 43.
[215] ITAI AGUR and SUNIL SHARMA, *Rules, discretion and macro-prudential policy*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 42-43.
[216] DIMITRIOS BISIAS et al., *A Survey of Systemic Risk Analytics*, 2.
[217] DIMITRIOS BISIAS et al., *A Survey of Systemic Risk Analytics*, 1.
[218] *See* further *supra* at 1.1.2.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

the introduction of new financial products (or financial innovation which is endemic to financial markets[219]) and other changes within the financial system and the economy may further alter the transmission mechanisms, as a result, risk distributions and concentration can develop in an unpredictable manner and may not even be captured by our 'existing intelligence systems'.[220] Coupled with the need to address systemic risk preemptively and to take timely policy action, it increases the risk of diagnostic error.[221] Despite these factual aspects, the proliferation of macro-prudential indicators and assessments of financial system vulnerabilities demonstrates efforts invested in improving systemic risk measurement, instead of viewing it as a fruitless endeavor.[222]

In an attempt to provide guideline for the successful implementation of macro-prudential policies, the BIS suggests two approaches, namely the top-down and the bottom-up, to link systemic risk assessment and the activation of macro-prudential instruments.[223] Admittedly, the two approaches have their limits and downside. In principle, the top-down approach would ideally allow policy decisions to be guided by a general, comprehensive and system-wide risk assessment but its basis—a generally accepted theoretical and empirical framework for using

---

[219] DIMITRIOS BISIAS et al., *A Survey of Systemic Risk Analytics*, 7.
[220] Bank for International Settlements, *Macro-prudential instruments and frameworks: a stocktaking of issues and experiences*, 6. "In the realm of macro-prudential regulation, however, any simple measure is bound to be inadequate, [a]nd even complex measures will capture only certain facets of systemic risk".; ITAI AGUR and SUNIL SHARMA, *Rules, discretion and macro-prudential policy*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 45.
[221] 'Policymakers have to first identify/recognize systemic risks, the build-up of risks in order to activate macro-prudential tools. However, even when excesses are evident, it might still be difficult to assess the consequences for the real economy and weigh them against the effects of tighter macro-prudential policy, bearing in mind that the activation of such tools could result in further macro-economic costs to the economy.'; Bank for International Settlements, *Macro-prudential instruments and frameworks: a stocktaking of issues and experiences*, 6. On a related issue of taking macro-prudential decisions, see *infra* 1.3.
[222] For more details on two views towards the measurement of systemic risk, *see* CLAUDIO BORIO, *Towards a macro-prudential framework for financial supervision and regulation?*, 11-12.
[223] Bank for International Settlements, *Operationalizing the selection and application of macro-prudential instruments,* 5.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

macro-prudential instruments—is not yet available.[224] On the other hand, the bottom-up (instrument-based) approach has its downside as particular vulnerabilities may not be captured if they fall outside the range of instruments considered.[225] The BIS then indicates that these two approaches are generally mixed in practice and the application requires identification of indicators providing real-time information as well as triggering the activation or deactivation of macro-prudential instruments. In this regard, the procedure usually starts with analyzing core indicators to consider the need for macro-prudential measures, then additional indicators are needed to support a judgement on the extent of systemic risk.[226] Indicators help to identify and assess the severity of systemic risks while instruments aim at mitigating the materialization of risks.[227] Even so, there is obviously no consensus on *when* macro-prudential tool is needed and the deployment procedure is pretty much in the hand of the authority in charge.

The macro-prudential approach is established following either a rules-based fashion or in

---

[224] In the top-down approach, basically, decisions are taken in light of an accepted model which properly captures the links between systemic risk, market dynamics and macro-prudential policy choices. Accordingly, potential policy actions are guided by the signals received from a combination of indicators and forecasting models. However, given the multifaceted nature of systemic risks, it is unclear whether this model can really be achieved.; Bank for International Settlements, *Operationalizing the selection and application of macro-prudential instruments,* 6.
[225] The bottom up approach bases on a set of instruments and assesses the vulnerabilities they can address and the types of indicators that should be used to trigger their implementation and release. In this regard, potential spillovers, second-round effects and general equilibrium effects of the respective policy measures as well as interactions between macro-prudential instruments and other policies are hardly, if at all, captured.; Bank for International Settlements, *Operationalizing the selection and application of macro-prudential instruments,* 6.
[226] International Monetary Fund, *Staff Guidance Note on Macro-prudential Policy,* 7.
[227] European Systemic Risk Board, *Flagship Report on Macro-prudential Policy in the Banking Sector*, 8. Countries have used a wide range of indicators and models such as: aggregate indicators of imbalances (e.g. of bank credit, liquidity and maturity mismatch, currency risk, etc.), indicators of market conditions and concentration of risk, macro stress testing and so on.; For a more detailed discussion on this: International Monetary Fund, *Macro-prudential policy: An Organizing Framework — Background Paper*, March 2011; FSB, BIS and IMF, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 5-8.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

a discretionary manner. Hence, in addition to the rules-based instruments (so-called built-in or automatic stabilizers[228]), discretionary solutions in calibrating macro-prudential tools and thus determining the time of intervention also fall within the scope of macro-prudential policy toolkit.[229] For instance, warnings and recommendations (for potential macro-prudential actions) could broadly be considered as instruments of macro-prudential policy within the European Union framework, as the regulation makes them the main instruments of the ESRB action.[230] Other important discretionary instruments include supervisory review pressure or quantitative adjustments to the prudential tools.[231]

A rules-based approach is, in principle, preferable. Not only because it has the benefit of being transparent and easily communicated but it also helps to counter political and institutional resistance when a timely policy action is needed.[232] However, a discretionary fashion is sometimes unavoidable in practice, despite the fact that it may face resistance from financial

---

[228] GABRIELE GALATI & RICHHILD MOESSNER, *Macro-prudential policy: A literature review,* 11.

[229] The discussion on rule-based tools versus discretionary solutions, or rules versus discretion, will also be examined in details from a legal perspective in the latter part of the thesis. See *infra* Chapter 2.

[230] GIUSEPPE NAPOLETANO, *Legal aspects of macro-prudential policy in the United States and in the European Union*, 155. For further details on scope of macro-prudential instruments within ESRB framework, see Chapter 2.

[231] GABRIELE GALATI & RICHHILD MOESSNER, *Macro-prudential policy: A literature review,* 12.

[232] Bank for International Settlements, *Macro-prudential instruments and frameworks: a stocktaking of issues and experiences*, 6. An advantage of a rules–based approach that ties policy settings to a pre-defined indicator is that it can overcome political economy challenges. As a result, policy credibility would increase while a clear mandate would foster transparency and accountability.; *See further* at: DIRK SCHOENMAKER and PETER WIERTS, *Macro-prudential Policy: The Need for a Coherent Policy Framework,* 5. Political resistance happens when evaluating the benefits and costs of tightening macro-prudential policies. Indeed, while the benefits of macro-prudential policy accrue in the future, and are difficult to measure, costs are felt more immediately, potentially leading to biases in favor of inaction.; International Monetary Fund, *Staff Guidance Note on Macro-prudential Policy,* 6 & 13.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

industry and other interest groups.[233] Paul Tucker pointed out that it is the need for dynamic adjustments of macro-prudential instruments and the need for the authority in charge to respond rapidly and flexibly to stability threats that "entail a major departure from the world of static regulatory rule books".[234]

As previously discussed, assessment of systemic risk plays a key role yet the task is challenging as sources of systemic risks can shift in a rapidly changing financial markets, and in most situations the measurement of systemic risk is likely to involve a multiplicity of sources and agencies.[235] While the set of indicators can signal when to make adjustments, it cannot capture all information.[236] Jaime Caruana, to address the question of to what extent macro-prudential policy can rely on rules embedded in regulation as opposed to discretion, simply advised "as much as possible, but no more".[237] In its Staff Guidance Note, the IMF suggested that "macro-prudential policy cannot rely on rules, but must be based on a continuous assessment of evolving risks…[and] is generally better supported by guided discretion"; therefore, the decision is based on judgment of the authority in which it takes account of all available information.[238] However, the extent to which countries in fact rely on rules-based instruments or discretionary solutions, or

---

233 DIRK SCHOENMAKER and PETER WIERTS, *Macro-prudential Policy: The Need for a Coherent Policy Framework,* 5.
234 PAUL TUCKER, *The political economy of macro-prudential regimes,* in DIRK SCHOENMAKER (ed.), *Macro-prudentialism,* 65-66.
235 ITAI AGUR and SUNIL SHARMA, *Rules, discretion and macro-prudential policy*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 42.
236 International Monetary Fund, *Staff Guidance Note on Macro-prudential Policy,* 6.
237 JAIME CARUANA, *The challenge of taking macro-prudential decisions: who will press which button(s)?*, Remarks at the 13th Annual International Banking Conference, Federal Reserve Bank of Chicago and IMF, Chicago, 24 September 2010, 3.
238 Such judgment requires access to data and qualitative information, as well as the analytical capacity to assess systemic risks.; International Monetary Fund, *Staff Guidance Note on Macro-prudential Policy,* 6.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

even rules complemented with discretion, also depends on their institutional arrangements and preferred method of governance.[239] As a result, "the consequences would depend on the specifics of a country's financial system, and some consequences may be unintended".[240] Indeed, the proper degree of automaticity and discretion in the implementation of macro-prudential tools is still very much debated.[241]

The challenges faced in measuring systemic risk make limiting discretion through using rules-based approach difficult, especially with regard to the implementation of countercyclical measures.[242] As it aims at mitigating the build-up of financial imbalances at an early stage, undoubtedly, macro-prudential instruments should be employed preemptively before system-wide threats become visible.[243] As Charles Goodhart pointed out, however, "*booms are very widely popular and their sustainability is by definition uncertain, because if everybody realized that a boom was unsustainable, it would go away instantaneously. The only reason that an asset price boom can continue is because many people think it is going to go on further…So you can never be sure what is an 'unsustainable bubble' ex ante*".[244] In other words, it is hard to identify boom

---

[239] ITAI AGUR and SUNIL SHARMA, *Rules, discretion and macro-prudential policy*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 41.
[240] DIRK SCHOENMAKER, *Introduction,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism*, 1.
[241] JEAN-PIERRE LANDAU, *Macro-prudential policy: Central banking reconsidered*, in STIJN CLAESSENS, DOUGLAS D. EVANOFF, GEORGE G. KAUFMAN, LAURA E. KODRES (eds.), *Macro-prudential Regulatory Polices: The New Road to Financial Stability?*, 90.
[242] 'Limited knowledge on the nature of financial cycles requires some flexibility and room for judgement in policy making'.; DIRK SCHOENMAKER and PETER WIERTS, Macro-prudential Policy: The Need for a Coherent Policy Framework, 5.
[243] ITAI AGUR and SUNIL SHARMA, *Rules, discretion and macro-prudential policy*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 41.
[244] CHARLES A.E. GOODHART, *Can Counter-cyclical Capital Ratios Work?*, in Bank of Italy, *Conference in Memory of Tommaso Padoa-Schioppa,* 109.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

and discern in advance which channel is likely to produce vulnerabilities as well as the extent of such risk if it materializes. Agur and Sharma share similar idea and emphasize that it is systemic risk measurement difficulties which preclude an approach to macro-prudential policy in the form of both rules-based and dynamic.[245] As a result, the implementation of countercyclical measures at national level involves an important discretionary element with significant room for regulators to decide when to activate or deactivate the measure. Put differently, "in both the build-up and release phase of the buffer, the exercise of judgment remains critical".[246] The IMF also suggested that "simpler approaches, based on automatic stabilizers and measures geared primarily to improving resilience, can be more appropriate where the informational environment is poor or analytical capacity is weak".[247]Much like monetary policy, according to Dirk Schoenmaker, macro-prudential policy "is more art than science".[248]

This artistic feature seems to be inherent in the design and selection of macro-prudential tools as such choices should also reflect the underlying sources of systemic risks.[249] For instance, in order to counter sector-specific risks, system-wide tool could result in unrealistically high requirement in order to be applied across the financial system, thus "not cost-effective and rife

---

[245] 'Given the intrinsic problems in making systemic risk assessments and designing macro-prudential toolkit, trying to define preemptive responses to a rare event using fuzzy measures to calibrate (infrequently used) tools is going to be difficult and a hard sell. Since we are dealing with rare events, comparisons with past occurrences may not be useful as the evolution of the financial system may make things quite different.'; ITAI AGUR and SUNIL SHARMA, *Rules, discretion and macro-prudential policy*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 46.
[246] Financial Stability Board, Bank for International Settlements and International Monetary Fund, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 13.
[247] International Monetary Fund, *Staff Guidance Note on Macro-prudential Policy,* 6.
[248] DIRK SCHOENMAKER, *Introduction,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism*, 1.
[249] European Systemic Risk Board, *Flagship Report on Macro-prudential Policy in the Banking Sector*, 10.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

with side effects".[250] In this case, targeted instruments may be more of an ideal choice, rather than broad-based tools, in response to risks arising from particular segments or sub-sectors of the financial system. However, Fabio Panetta warns that these "targeted measures tend to be more prone to two related problems: circumvention/elusion and leakages/waterbed effects".[251] Admittedly, financial regulations are prone to circumvention, but the problem tend to be more acute when macro-prudential instruments are targeted measures. Thus in the application of such measures, effective micro (on-site) supervision is advised, even during the positive phases of the business or financial cycle, to deal with circumvention and also to alert authorities to leakages effect.[252] The simultaneous use of complementary macro-prudential tools, rather than a single targeted tool is also suggested to address the elusion and waterbed problems.[253] At international level, the IMF noted that cross-border leakage, in principle, can be effectively addressed through expanding the scope of macro-prudential intervention, supported by international coordination of macro-prudential policies as well as cooperation among national supervisory agencies, while being mindful of the different scope and practical challenges that could arise across the range of

---

[250] FABIO PANETTA, *Macro-prudential tools – where do we stand?*, 3.
[251] Targeted measures are, for instance, sector-specific capital requirements, LTVs, and limits on foreign exposures. An example was given in the case of LTV limits on mortgages, where bank may use alternative products (personal loans) to expand their real-estate exposure beyond the established LTV limits, thus it reduces the macro-prudential measure's effectiveness. Likewise, intermediaries may circumvent sector-specific capital requirements by extending personal loans to entrepreneurs rather than to their firms in order to avoid additional capital absorption. On the other hand, leakages/waterbed problem occurs in cases due to the tendency of regulation to push activity toward the less regulated part of the financial system, however, this effect may also arise within the regulated financial system.; FABIO PANETTA, *Macro-prudential tools – where do we stand?*, 4.
[252] FABIO PANETTA, *Macro-prudential tools – where do we stand?*, 5.
[253] "The possibility to circumvent an LTV limit could be substantially reduced if it were used together with a DTI limit consolidated at borrower level."; FABIO PANETTA, *Macro-prudential tools – where do we stand?*, 5.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

macro-prudentialinstruments.[254]

As a matter of fact, even though policy instruments could be tailored to address specific conditions in particular sectors, what has to be taken into account is that 'measures targeting specific markets may create imbalances or produce unintended macro-economic implications in other areas'.[255] This recognition effectively calls for a need to broaden the perimeter of prudential regulations because threat to financial stability could emanate from those outside the traditional banking structure.[256] Thus, macro-prudential regulations would ideally cover both the traditionally unregulated sectors, certain non-bank financial institutions as well as certain activities by all financial actors, towards the ultimate aim of preserving the stability of the financial system as a whole.[257]

Interestingly, early experiences with regard to the use of macro-prudential tools come from emerging economies such as South Korea, Brazil, Turkey, Singapore, India, Hong Kong SAR, on an ad-hoc or experimental bases.[258] Of these, the Asian nations have implemented

---

[254] International Monetary Fund, *Staff Guidance Note on Macro-prudential Policy,* 8.
[255] Bank for International Settlements, *Macro-prudential instruments and frameworks: a stocktaking of issues and experiences*, 5.
[256] "Since banks are often the key providers of credit to the economy macro-prudential policy will often seek to apply its policy levers to the banking system. However, as risks can migrate into the nonbank financial sector, including in response to regulatory constraints, macro-prudential policy needs to consider risks that build up in firms or activities outside the banking system".; International Monetary Fund, *Staff Guidance Note on Macro-prudential Policy,* 6.
[257] There should be changes with respect to the pre-crisis 'unitary approach to banking regulation' of statutes and regulations, where "even if nonbank financial institutions such as broker-dealers, investment companies, or insurance companies were covered, the pedagogical point seemed to be that the aims of regulating these kinds of firms were dominantly investor and customer protection—not prudential considerations such as limiting moral hazard, much less fostering financial stability."; DANIEL K. TARULLO, *Rethinking the Aims of Prudential Regulation*, Remarks at the Federal Reserve Bank of Chicago Bank Structure Conference, Chicago, May 2014, 1-4.
[258] STIJN CLAESSENS, *An Overview of Macro-prudential Policy Tools,* 3.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

various instruments; including countercyclical measures, LTV and direct controls on lending to specific sectors to manage pro-cyclicality as well as capital surcharges for SIFIs, both before and as a result of the 1997 Asian crisis.[259] On the other hand, experience in advanced economies is very limited.[260]

For the time being, it is undoubtedly hard to measure the benefits of macro-prudential policy towards financial stability through reducing the probability and severity of future financial crises. We would probably not see it clearly until the next crisis comes (!). Indeed, assessments on impact and effectiveness of macro-prudential tools can still be weighed against its intermediate goals,[261] yet the task of measuring such effects in real-time would face numerous difficulties given that macro-prudential policy framework in most countries are still in its infancy. As Daniel Health indicates, recent theoretical and empirical work shows the benefits of macro-prudential policy, despite some analytically useful history of using macro-prudential regulatory

---

[259] JAIME CARUANA, *Macro-prudential policy: working towards a new consensus*, 3. Notably, emerging market central banks have been regular practitioners of macro-prudential policy with calling it by this name; for instance, Reserve Bank of India's decision to raise the Basel I weights on mortgages and other household credit in 2005; GABRIELE GALATI & RICHHILD MOESSNER, *Macro-prudential policy: A literature review,* 12.
[260] "Exceptions are 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 [macro-prudential] policy has been set up and the authorities are ready to start experimenting with countercyclical and sector-specific capital requirements."; FABIO PANETTA, *Macro-prudential tools – where do we stand?*, 2. Information on the use of macro-prudential policies is, in fact, limited partly because the use of tools are not always clearly identified.; STIJN CLAESSENS*, An Overview of Macro-prudential Policy Tools,* 15. For specific examples of recent use of macro-prudential instruments in Europe, *see* also European Systemic Risk Board, *Flagship Report on Macro-prudential Policy in the Banking Sector*, 5.
[261] The yardstick is obviously effectiveness in achieving macro-prudential objectives. For more details on assessment approach as suggested by the IMF, *see* International Monetary Fund, *Staff Guidance Note on Macro-prudential Policy,* 13-15.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

tools in few countriespresents ambiguous evidence.[262] Evaluation of usage and the effectiveness of macro-prudential tools, while giving special focus on credit and housing markets, suggests that some tools can help to dampen pro-cyclicality and lower crisis risks, notably, 'LTV and DTI ratios seem to helpin reducing booms, and thereby busts, in real estate markets, whilereserve requirements and targeted levies on foreign exchange exposures also help in reducing system-wide macro vulnerabilities'.[263]

Even though market failures and externalities, on which macro-prudential polices ought to be motivated, can be hard to identify, "it is worth noting that the difficulties in systemic risk measurement do not diminish the effectiveness of macro-prudential tools".[264] Amongst other, one of the most recent attempts to date on evaluating the use and effectiveness of macro-prudential policies done by Cerutti et al. on the survey of national authorities conducted by the IMF. The study provides new evidence for the use of 12 macro-prudential tools in a large set of 119 countries over the period 2000-2013, as well as an empirical analysis for their effectiveness.[265]

---

[262] DANIEL HEATH, *International coordination of macro-prudential and monetary policy*, Georgetown Journal of International Law, Vol. 45, 2014, 1095.
[263] STIJN CLAESSENS, *An Overview of Macro-prudential Policy Tools*, 3.
[264] 'How precise can we measure systemic risks affects the ability to calibrate and implement macro-prudential tools; it is the difficulty of constructing 'state-contingent' rules that narrows the implementation to a choice between specifying fixed prudential rules in normal times and using discretion when a systemic threat becomes palpable. That macro-prudential policy is essential is, thus, not questionable.'; ITAI AGUR and SUNIL SHARMA, *Rules, discretion and macro-prudential policy*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 46-47.
[265] The 12 macro-prudential instruments are: General Countercyclical Capital Buffer/Requirement (CTC); Leverage Ratio for banks (LEV); Time-Varying/Dynamic Loan-Loss Provisioning (DP); Loan-to-Value Ratio (LTV); Debt-to-Income Ratio (DTI); Limits on Domestic Currency Loans (CG); Limits on Foreign Currency Loans (FC); Reserve Requirement Ratios (RR); and Levy/Tax on Financial Institutions (TAX); Capital Surcharges on SIFIs (SIFI); Limits on Interbank Exposures (INTER); and Concentration Limits (CONC). In the sample, 119 countries consists of 31 advanced, 64 emerging, and 24 developing countries.; EUGENIO CERUTTI, STIJN CLAESSENS, LUC LAEVEN, *The Use and Effectiveness of Macro-prudential Policies: New Evidence*, IMF

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Some notable findings show that (i) borrow-based tools (e.g. LTV and DTI) are used more in advanced countries, while in general, macro-prudential instruments are used more frequently in emerging economies where they prefer foreign exchange related policies; (ii) macro-prudential policies can have a significant effect on credit developments through its impact on managing the financial cycle, although it works better in the boom than in the busts; and (iii) the effectiveness of policies is both instrument- and country-specific and circumvention appears to be a real challenge for macro-prudential authority.[266] Given the interdependent nature of national financial systems, however, there should be further analysis on the effects of implementing macro-prudential policies in one country towards financial stability at global level.

The need for a macro-prudential approach in financial policy is widely accepted. Hence, the question now is not about whether we should use macro-prudential policy, but rather how to use it effectively as a way to achieve the intended objectives, while being mindful of the potential costs and benefits evaluation.[267]

Working Paper WP/15/61, March 2015. The publication also gives an overview of the previous attempts to measure the effectiveness of macro-prudential polices, *see ibidem* at 4-6.

[266] EUGENIO CERUTTI, STIJN CLAESSENS, LUC LAEVEN, *The Use and Effectiveness of Macro-prudential Policies: New Evidence*, 16.

[267] Benefits are the reduction in the probability and severity of crisis thereby also reducing negative spillovers to other countries, and costs include the costs from the circumvention of macro-prudential tools which could lead to other distortions; costs to borrowers from the reduced availability of financial services; the cost to the financial industry of adjusting to the macro-prudential constraint; and potential costs to output growth, even though quantifying benefits and costs with precision is unlikely to be feasible; International Monetary Fund, *Staff Guidance Note on Macro-prudential Policy,* 13.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Table 1. The Macro-prudential Toolkit

Policy Tool					
	Restrictions related to borrower, instrument, or activity	**Restrictions on financial sector balance sheet (assets, liabilities)**	**Capital requirements, provisioning, surcharges**	**Taxation, levies**	**Others (including institutional infrastructure)**
Expansionary phase	Time varying caps/limits/rules on: - DTI, LTI, LTV - margins, hair-cuts - lending to sectors - credit growth	Time varying caps/limits on: - mismatches (FX, interest rate) - reserve requirement	Countercyclical capital requirements, leverage restrictions, general (dynamic) provisioning	Levy/tax on specific assets and/or liabilities	- Accounting (e.g., varying rules on mark to market) - Changes to compensation, market discipline, governance
Contractionary phase	Adjustment to specific loan-loss provisioning, margins or hair-cuts (e.g. through the cycle, dynamic)	Liquidity limits (e.g., Net Stable Funding Ratio, Liquidity Coverage Ratio)	Countercyclical capital requirements, general (dynamic) provisioning	Levy/tax (e.g., on non-core liabilities)	- Standardized products - OTC vs. on exchange - Safety net (Central Bank/Treasury Liquidity, fiscal support)
Contagion, or shock propagation from SIFIs or networks	Varying restrictions on asset composition, activities (e.g., Volcker, Vickers)	Institution-specific limits on (bilateral) financial exposures, other balance sheet measures	Capital surcharges linked to systemic risk	Tax/levy varying by externality (size, network)	- Institutional infrastructure (e.g., CCPs) - Resolution (e.g., living wills) - Varying information, disclosure

Source: STIJN CLAESSENS, *An Overview of Macro-prudential Policy Tools*, 13.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

1.3 Actors and Governance

When we are more or less settled with understanding the term 'macro-prudential', there comes the word 'policy'. In a way, it gives broad meaning but seemingly less specific role to the new oversight body than 'regulation'.[268] 'Policy' is generally defined as 'a course or principle of action adopted or proposed by a government, political party, business or individual'.[269] In this regard, macro-prudential policy outputs actually enjoy a broad range of elements such as law, regulations, decisions, warning and recommendations, communications or mere analysis. The outcome largely depends on specific macro-prudential structure of different legal traditions and institutional preferences which is also the result of political economy constraints. On such a basis, the research focus of this part is dedicated to the significance of institutional arrangement of macro-prudential framework through discussing the available choices of institutional models for macro-prudential authority, its mandates, and related issues of accountability and transparency as well as the political economy of the macro-prudential regime. While a special focus is devoted to the role of central bank in the macro-prudential policy framework, attention is also given to coordination among policy areas that have a bearing on financial stability—the general objective of macro-prudential policy.

As Bisias et al. pointed out, there is a diversity of legal and institutional constraints, market practices, participant characteristics, and exogenous factors driving the financial system at

---

[268] PAUL A. VOLCKER, *Protecting the Stability of Global Financial Markets,* in STIJN CLAESSENS, DOUGLAS D. EVANOFF, GEORGE G. KAUFMAN, LAURA E. KODRES (eds.), *Macro-prudential Regulatory Polices: The New Road to Financial Stability?*, 4. Topic of how financial regulation works is addressed in the later part of the thesis, *see infra* Chapter 2.
[269] Oxford Learner's Dictionaries, *see link available*: http://www.oxfordlearnersdictionaries.com/definition/english/policy?q=policy

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

any given time thus contribute to the size and complexity of the system.[270]Indeed, if we aim at having a well-functioning financial system, we should get the rules, institutions andinstruments that govern it right.[271]

From a broader context of financial regulation, Michael Taylor proposed five factors which are essential for an effective financial regulatory regime, including (i) clarity of aims and objectives; (ii) independence and accountability; (iii) adequate resources in terms of professional staff, data collection and processing; (iv) effective enforcement powers to require information from regulated firms, to take appropriate graduated measures in the event of failure to comply with regulatory rules and so on; and (v) comprehensiveness of regulation, where the regulatory system in question is free of gaps so that no particular type of activity or firm escape regulation simply because there is doubt over which agency is responsible for regulating them.[272] Taylor went on to explain that the institutional models of financial regulation, i.e. single agency or multiplicity of agencies (organized according to objectives, e.g the Twin Peaks approach, or the traditional distinction between different industry segments—i.e. banking, insurance, securities),

---

[270] DIMITRIOS BISIAS et al., *A Survey of Systemic Risk Analytics*, 2.
[271] YVES MERSCH, *Law, money and market: the legal dimension of monetary policy*, Speech at the Information Club Meeting, Luxembourg, 31 May 2014, *see* link available:
https://www.ecb.europa.eu/press/key/date/2014/html/sp140531.en.html.
Yves Mersch tackled the case of the euro area to emphasize the principles of effective economic policy, where he took the view that the major crisis happened in the euro area due to the fact that the accord of rules, instruments and institutions in the euro area was inconsistent. The two dimensions are (i) the inconsistency *within* policy areas, which caused negative interactions between them to appear; and (ii) the inconsistency *between* policy areas, which caused negative interactions between them to appear. *See ibidem.*
[272] MICHAEL W. TAYLOR, *Regulatory reform after the financial crisis*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 12.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

are essentially subsidiary issues to the more fundamental aforementioned problems.[273]

Institutional structure

At the outset, regulatory structure,if not a sufficient condition for ensuring effective regulation, is surely a necessary one, even though it is unlikely to prevent the occurrences of future financial crises.[274] Specifically in the case of macro-prudential policy framework, institutional design matters as the conduct of macro-prudential policy can interfere with the primary policy objectives of some other agencies.[275] Macro-prudential policy also interacts with other policy areas on its way to fulfill the shared objective of financial stability, thus, the issue of how to position macro-prudential authority within the comprehensive framework of micro-prudential, monetary and fiscal authorities remains arguably one of the most important, yet has not been solved, in policymaking.[276] In fact, institutional arrangements of macro-prudential policy also reflect different specific circumstances across countries while 'acknowledging the importance of capitalizing on the existing institutions and governance structures if they are still working well'.[277] As Paul Tucker rightly observed, the structure of macro-prudential framework vary markedly across countries as the regimes have been assembled in a great hurry in the wake

---

[273] MICHAEL W. TAYLOR, *Regulatory reform after the financial crisis*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 13.
[274] 'The institutional structure of regulatory agencies matters for three main reasons: (i) it has a direct bearing on the comprehensiveness of regulation; (ii) it influences the adequacy of resources, as the multiplication or duplication of regulatory agencies may result in scarce resources being misallocated or deployed inefficiently; and (iii) the regulatory structure remains an important factor for agencies to coordinate their activities.'; MICHAEL W. TAYLOR, *Regulatory reform after the financial crisis*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 13 & 26.
[275] STIJN CLAESSENS, *An Overview of Macro-prudential Policy Tools*, 4.
[276] HANS GERSBACH, *A leverage ratio for the banking system: A macro instrument*, in DIRK SCHOENMAKER (ed.), *Macroprudentialism*, 115.
[277] FSB, BIS and IMF, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 17.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

of the financial crisis.[278]

In general, there are some main options available for the authority in charge of macro-prudential policy, i.e. either to be vested in a single agency or relying on cooperation among multiple agencies. In case of a single agency, it could be a newly established institution, or else, macro-prudential authority could remain as part of an existing public authority, for instance, monetary authority such as the central bank. The central bank could then take the role of macro-prudential authority, or the macro-prudential mandate could alternatively be given to a separate decision-making body within the monetary authority, whose sole policy objective is the promotion of financial stability.[279] Where there are multiple agencies, macro-prudential responsibilities are allocated among different agencies and there couldalso be a committee, related to the central bank or independent, to be established to ensure "whoever has the macro-prudential mandate is given the macro-prudential tools" as well as adequate inter-agency coordination and implementation.[280] In fact, many countries have multi-agency set-ups, yet there is no such committee and some simply invest efforts in enhancing cooperation within the existing institutional structure. It is worth noting that a coordinating committee, unlike policymaking committee, is typically based on a memorandum of understanding, without capability to take formal decisions as well as a separate accountability framework.[281] A study by the IMF in 2011

---

[278] PAUL TUCKER, *The political economy of macro-prudential regimes,* in DIRK SCHOENMAKER (ed.), *Macro-prudentialism,* 61.
[279] International Monetary Fund, *Implementing macro-prudential policy: Selected legal issues*, June 2013, 15.
[280] International Monetary Fund, *Implementing macro-prudential policy: Selected legal issues*, 16.
[281] ERLEND W. NIER, JACEK OSINSKI, LUIS I. JACOME, PAMELA MADRID, *Towards Effective Macro-prudential Policy Frameworks: An Assessment of Stylized Institutional Models*, IMF Working Paper WP/11/250, November 2011, 15.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

shows that, where there is a committee on financial stability, the executive branch (fiscal authority) has a leading role in half of the cases.[282]

The aforementioned study also provides an analysis on the seven stylized models, their strengths and weaknesses.[283] At one end of the analytical spectrum, macro-prudential framework follows the fully integrated institutional model where the central bank takes the role of being macro-prudential authority as there is full integration between the central bank and all financial supervisory and regulatory functions. While there are a number of strengths (in terms of risk identification, mandates and incentives, coordination), one of the main weaknesses is that it concentrates too much power in the hand of unelected central bank officials.[284] The other end of the spectrum lies the multiple agencies approach with much greater degree of separation between the central bank and the supervisory, regulatory agencies. Even though control over the use of macro-prudential instruments is vested in a separate prudential regulator, the central bank retains the oversight of payment system and often takes the lead in systemic risk identification efforts.[285] Each model has its own strengths and weaknesses, however, the pursuit of an optimal architecture can hardly be achieved through conducting the costs and benefits calculation of the possible

---

[282] The study includes relevant information of 50 countries, emerging and advanced economies; ERLEND W. NIER et al., *Towards Effective Macro-prudential Policy Frameworks: An Assessment of Stylized Institutional Models*, 8.
[283] The 7 stylized models are results of different combinations of the five features, namely (i) degree of institutional integration of central bank and supervisory agencies, (ii) ownership of macro-prudential policy mandate, (iii) role of ministry of finance/treasury/government, (iv) separation of policy decisions and control over instruments, (v) existence of separate body coordinating across policies.; Details on strengths and weaknesses of each model, see further at: ERLEND W. NIER et al., *Towards Effective Macro-prudential Policy Frameworks: An Assessment of Stylized Institutional Models*, 15-30.
[284] ERLEND W. NIER et al., *Towards Effective Macro-prudential Policy Frameworks: An Assessment of Stylized Institutional Models*, 16-19.
[285] ERLEND W. NIER et al., *Towards Effective Macro-prudential Policy Frameworks: An Assessment of Stylized Institutional Models*, 25-28.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

alternative structures only. 'Such analysis does not represent the end of the story'.[286] As Masciandaro noted, lawmaker's choices are likely to be influenced by other structural variables, which vary from country to country.[287]

From a broader perspective, Landau observes the current institutional arrangements to recognize the lack of a universal appetite for an independent macro-prudential authority, as the governments are deeply involved in the organization and management of macro-prudential supervision, especially in major jurisdictions.[288] However, given the novelty of macro-prudential policy, it remains ambiguous as to its optimum position, whether to be positioned at arm's length distance from the government or should certain parts of macro-prudential policy be vested within the government, i.e. the executive branch.[289]More generally, Gersbach argues that (i) macro-prudential policymaking should be separated from monetary policy—which is delegated to an independent central bank—since it suffers from time-inconsistency problems, and (ii) it is best to delegate macro-prudential policymaking to an institution which is independent of bank-specific regulation and supervision, i.e. micro-prudential authority.[290] Supposedly in a world of

---

[286] DONATO MASCIANDARO, *Allocating financial regulatory powers: the Twin views (Comment)*, in DAVID G. MAYES, GEOFFREY E. WOOD (eds.), *The structure of financial regulation*, Routledge International Studies in Money and Banking, 2007, 217.
[287] DONATO MASCIANDARO, *Allocating financial regulatory powers: the Twin views (Comment)*, 217.
[288] JEAN-PIERRE LANDAU, *Macro-prudential policy: Central banking reconsidered*, in STIJN CLAESSENS, DOUGLAS D. EVANOFF, GEORGE G. KAUFMAN, LAURA E. KODRES (eds.), *Macro-prudential Regulatory Polices: The New Road to Financial Stability?*, 91.
[289] Apart from macro-prudential authority, it is worth nothing that monetary and micro-prudential supervision are considered to be best placed in the hands of institutions that are at arm's length from the government, while fiscal policy is the prerogative of the government and parliament.; MALOU DIRKS et al., *Macro-prudential policy: The neglected sectors,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism*, 83.
[290] Main reasons are (i) macro-prudential instrument is flexible and involves certain degree of discretion and is thus quite different from a formula- and law- based determination of bank-specific capital requirements; (ii) making an independent macro-prudential authority may help to alleviate problems of fierce lobbying against

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

frictionless coordination, thus, the structure is likely to consist of three institutions: 'monetary policy should be delegated to an independent central bank, macro-prudential policy should be delegated to an independent macro-prudential policymaker, and a third authority should be in charge of bank-specific regulation and supervision'.[291]

Generally speaking, institutional model is highly relevant yet its importance should not be overstated. 'Effective institutional arrangements are necessary, but not a sufficient condition for the effective prevention of crises'.[292] The most recent financial crisis demonstrates the failure to contain economic recession in both the United States, where there were multiple agencies, and in the United Kingdom, where there was only one agency in charge.[293] The different structures adopted across countries with respect to financial supervision seems not to have delivered superior outcome either, as 'both the integrated model of the Financial Services Authority (FSA) in the UK and the Twin Peaks model introduced in the Netherlands suffered significant failure in supervisory performance'.[294] As such, what appears to be crucial, according to Eilis Ferran, is whether the authority in charge 'has been equipped with adequate powers and with adequate

---

raising aggregate bank equity; *See further* at HANS GERSBACH, *A leverage ratio for the banking system: A macro instrument*, in DIRK SCHOENMAKER (ed.), *Macroprudentialism*, 117-118.

[291] HANS GERSBACH, *A leverage ratio for the banking system: A macro instrument*, in DIRK SCHOENMAKER (ed.), *Macroprudentialism*, 117.

[292] 'Crises can be brought on by profligate fiscal policy and a lack of structural policies to stem an erosion of competitiveness, and also, an effective macro-prudential framework cannot substitute for prudent policy in other policy areas.'; ERLEND W. NIER et al., *Towards Effective Macro-prudential Policy Frameworks: An Assessment of Stylized Institutional Models*, 7.

[293] MICHAEL W. TAYLOR, *Regulatory reform after the financial crisis*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 13 & 27.

[294] DIRK SCHOENMAKER and JEROEN KREMERS, *Financial stability and proper business conduct: Can supervisory structure help to achieve these objectives?*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 29.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

resources to deploy them effectively in the pursuit of sound policies', and this concern goes far beyond questions pertaining to the agency's institutional set-up.[295] Still, institutional design matters to a certain extent[296] and it remains important that the 'institutional structure of regulation needs to mirror, at least to some degree, the structure of the industry it has been called on to regulate'.[297] As suggested by Erlend Nier, "if the overall framework seeks to establish the primacy of financial stability objectives over the objectives of financial regulation, it is useful for macro-prudential authority to have some *power to direct* the actions of a separate regulator".[298]

Again, one size does not fit all, the institutional structure of macro-prudential policy framework would eventually have to take into account country-specific circumstances as well as differences in legal traditions, perceived needs and preferences. In this regard, whether macro-prudential authority is placed within the central bank or not, the central bank's role remains pivotal in the macro-prudential regime.[299]

---

[295] EILIS FERRAN, *Institutional Design: The Choices for National Systems*, in NIAMH MOLONEY, EILIS FERRAN, JENNIFER PAYNE (eds.), *The Oxford Handbook of Financial Regulation*, Oxford Handbooks Online, November 2015, 98-99.

[296] A study conducted by IMF staff shows that the type of institutional arrangements seems to have some influence on a country's readiness to use macro-prudential instruments. For instance, as they indicated, countries in the Central Bank model (where banking supervision is placed within the central bank) have used more instruments and on more occasions to mitigate systemic than those in the Separate Regulator model (where banking supervision is performed outside the central bank); CHENG HOON, RISHI RAMCHARD, HONG WANG and XIAOYONG WU, *Institutional Arrangements for Macro-prudential Policy in Asia*, IMF Working Paper, July 2013, 13.

[297] MICHAEL W. TAYLOR, *Regulatory reform after the financial crisis*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, 27.

[298] ERLEND W. NIER, *On the governance of macro-prudential policies*, in STIJN CLAESSENS, DOUGLAS D. EVANOFF, GEORGE G. KAUFMAN, LAURA E. KODRES (eds.), *Macro-prudential Regulatory Polices: The New Road to Financial Stability?*, 198.

[299] Group of Thirty, *Enhancing Financial Stability and Resilience: Macro-prudential Policy, Tools and System for the Future*, 57.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

The role of central banks in macro-prudential policy framework

Central banking is an art.[300] Central bankers are artists. Although the art of central banking and the institutions practicing the art itself has changed significantly since its start in the 19th century, the major role of central bank in the preservation of financial stability seems to have continued.[301] According to Padoa-Schioppa, this role appears to have naturally rooted in the very origin of central banks, especially as issuers of money, then confirmed by their long history, and based on solid theoretical arguments.[302] Schinasi elaborated on arguments in favor of such natural role for central bank by using his three main reasons: (i) central bank is the (sole) provider of the legal means of payment and of immediate liquidity; (ii) even if central bank is confined to ensure the smooth functioning of the payment system, it has a natural role to play in financial stability because such context (payment system being the core of the financial market) induces consideration on systemic risk containment; and (iii) it is natural that central banks have crucial

---

[300] Hawtrey considered the art of central banking practical in that it teaches how to use a power of influencing events. "If the subject of central banking is classed as an art and not as a science, it is not for that reason any the less scientific…It is concerned, not merely with the relation of cause to effect, but with the relation of means to end. But there is no less scope for systematic reasoning in the study of means than in the study of causes. The pursuit of wisdom is as scientific as the pursuit of truth."; R.G. HAWTREY, *The art of central banking*, Longmans, Green and Co., 1932, *Preface*, vi.

[301] One of the most profound changes happened few decades ago at the end of the gold-standard. As a result, currencies are no longer linked to gold. Central banks have thus been assigned overriding responsibility of maintaining price stability despite the fact that financial stability had been a major responsibility of central banks under the gold-standard. However, Padoa-Schioppa strongly advocates for the involvement of contemporary central bank in financial stability and this mandate should remain an important component of central banking itself. TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk,* 93.

[302] The model of public central bank in Europe as a sole issuer of legal tender was adopted in the 19th century, but it took longer in the United States as Federal Reserve System was founded in 1913. The establishment of the central banks as such was related to financial stability and efficiency needs, to counter the coexistence of many different private monies. Since then, as the bankers' bank, central banks have provided liquidity and settlement services to commercial banks; in such a way, this puts central bank in a natural position to address financial stability concerns. Moreover, as the guarantor of the singleness of the currency, central bank's tasks include ensuring the orderly functioning and stability of the banking system, importantly as lender-of-last-resort, to maintain public's confidence in the national currency.; TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk,* 96-98.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

interests in increasing the resilience of the financial system; as agreed by Padoa-Schioppa, this characterization follows from the nature of their central banking business and also because banking system is the transmission mechanism through which monetary policy has its effects, in the first instance, on the real economy.[303]Despite concerns (brought about by intellectual as well as institutional changes when banking supervision is no longer performed within certain central banks) over whether financial stability still remains in the list of mandates of a contemporary central bank, at the very least, the IMF noted that 'central banks are seen as bearing important responsibilities for financial stability, if sometimes only implicitly so'.[304]

In fact, central banks, for instance in Asia, are typically given financial stability mandate, either as the sole responsible agency or as part of a committee that has clear responsibility for financial stability.[305] Such mandate could be explicitly stipulated by law (e.g. the Central Bank Law in China and Malaysia, the Banking Ordinance in Hong Kong SAR) or through interpreting the legislation.[306] The role of central bank in the preservation of financial stability is enhanced where banking supervision is placed within the central bank itself.[307] In such cases, it follows

---

303 GARY J. SCHINASI, *Responsibility of Central Banks for Stability in Financial Markets*, IMF Working Paper, WP/03/121, June 2003, 7-9.

304 Bank for International Settlements, *Macro-prudential instruments and frameworks: a stocktaking of issues and experiences*, 1.

305 'For instance, the central bank is the responsible agency for financial stability in China, Malaysia and Singapore. In a number of other countries, including Australia, Hong Kong SAR, Japan, and Korea, the mandate is shared by the central bank with other regulatory agencies and/or the ministry of finance. In Indonesia, the central bank participates in a committee that has a financial stability mandate.; *See further* at CHENG HOON, RISHI RAMCHARD, HONG WANG and XIAOYONG WU, *Institutional Arrangements for Macro-prudential Policy in Asia*, 3-5.

306 CHENG HOON, RISHI RAMCHARD, HONG WANG and XIAOYONG WU, *Institutional Arrangements for Macro-prudential Policy in Asia*, Table 1 for Financial Stability Mandate (in selected Asian countries), 4.

307 The issue of whether banking supervision should be placed within the framework of central bank has been touched upon, theoretically and empirically, in literature. In principle, this could be an option, however, much work needs to be done to assess the effectiveness of the model, empirically. To add some factual aspects, a

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

naturally that central bank is likely to remain as the principal agency in charge of macro-prudential policy.

When being tasked with both price stability and financial stability, as previously discussed, the Tinbergen rule says that it is necessary to have two sets of independent instruments to accommodate both ends. Central banks use interest rate as a policy tool to maintain price stability, whereas it seems to have lacked a proper instrument for the preservation of financial stability. As Charles Goodhart rightly pointed out, "central banks did nothing during the asset price and leveraged credit bubble prior to 2007, because there was almost nothing that they could do" due to 'the lack of instruments to contain the prior unsustainable expansion of leverage and also the will to use such few prudential instruments—as may be available—to temper such asset price bubble'.[308] On such a basis, "central banks will need to be closely involved in the development and implementation of macro-prudential policy"[309] as it appears to be the chosen tool aiming at securing and fostering stability of the financial system as a whole. In addition, the BIS noted in its 80th annual report that such imperative involvement "reflects both the deep experience of central banks in system-wide analysis and intervention and the close, two-way

study conducted by the World Bank in 2013 showed that 65% of the countries in study have banking supervision performed within their central banks; ANCA MARIA PODPIERA, *Central Bank Design and Banking Supervision*, Presentation at the SUERF & BAFFI CAREFIN conference "Central banking and monetary policy: Which will be the new normal?", Bocconi University, Milan, 16th April 2016.

[308] CHARLES A.E. GOODHART, *The Regulatory Response to the Financial Crisis*, Edward Elgar Publishing Limited, 2009, 31-32. On top of that, 'virtually all of the majors central bank and international financial institutions had been warning about it for years, so the problem is not about insufficient information but lack of instrument. The situation of central bank is such that it is mandated with responsibility but without power and this effectively explained its inability to secure financial stability'.; *See ibidem* at 30.

[309] Bank for International Settlements, *The 80th Annual Report 2009/10*, 90.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

relationship between addressing pro-cyclicality and conducting monetary policy".[310] As to the institutional model, macro-prudential authority could be vested in a single agency such as central bank—to be charged with both regulatory and supervisory power—or the central bank share the mandate with other agencies, whether as part of a committee.

Nevertheless, the extent to which the central bank engages in the macro-prudential regime varies across countries. On top of that, concern has been raised regarding interactions between the central banks' conducts of price stability and financial stability. While indicating there is little doubt as to the view that price stability supports sound investment and sustainable growth which is conducive to financial stability, Padoa-Schioppa expressed his concern and pointed out the fact that significant episodes of recent financial crises took place in the last two or three decades happened in the context of overall price stability.[311] This is exactly the analytical twist given by Hyman Minsky who realized that 'the better the central bank succeeded with its first core purpose, i.e. price stability, the more it was likely to imperil its second core purpose, i.e. maintaining financial stability'.[312] For instance, there are three examples of financial instability that have occurred in the United States (1929-33), Japan (1999-2005), and the mortgage subprime market (2007-08) have all taken place following this line of reasoning, i.e. periods of outstanding performance of achieving price stability followed by episodes of devastating financial

---

[310] Bank for International Settlements, *The 80th Annual Report 2009/10*, 90.
[311] TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk,* 113.
[312] As Goodhart explained, the reason for this is that the more price stability achieved is likely to induce risk premia and thereby also asset price volatility thus supporting additional leverage and asset price expansion. CHARLES A.E. GOODHART, *The Regulatory Response to the Financial Crisis*, 34-35.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

instability.[313] As such, price stability is surely not a sufficient condition for financial stability and, in principle, there could possibly be a conflict between price stability and financial stability where maintaining the former may cause harm to the preservation of the latter.[314] The achievement of price stability may, in one way or another, "induce risk premia and thereby also asset price volatility thus supporting additional leverage and asset price expansion";[315] as a result, these chain of activities could eventually lead to global recession as shown in the recent financial crisis.

In a timely response to growing concerns regarding the effectiveness of monetary policy, Fabio Panetta made it clear as to the main task of central bank, where he emphasized that monetary policy has not approached its limits yet (even when interest rates are close to or at the zero lower bound) and that the pursuit of price stability of central bank is still warranted.[316]Central banks, at the same time, have a stake in macro-prudential policy in whatever institutional model it is.[317] This, in such a way, appears to be a challenge for the bank to operate these two different policies with two sets of instruments which are not independent of each other.[318] This sort of dual mandate could undoubtedly produce negative impact on the monetary policy credibility of central banks due to the possible conflict between the two policy goals, and/or as a result of interactions between the two sets of instruments. The reputational costs of

---

[313] CHARLES A.E. GOODHART, *The Regulatory Response to the Financial Crisis*, 35.
[314] TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk,* 112.
[315] CHARLES A.E. GOODHART, *The Regulatory Response to the Financial Crisis*, 35.
[316] "There are no obvious limits to what central banks can do".; FABIO PANETTA, *Central banking in the XXI century: never say never*, 4-6.
[317] CHARLES A.E. GOODHART, *The Regulatory Response to the Financial Crisis*, 39.
[318] Since the two sets of tools corresponding to the two policy goals interact, we somehow move away from the pure 'Tinbergen' world.; JEAN-PIERRE LANDAU, *Macro-prudential policy: Central banking reconsidered*, in STIJN CLAESSENS, DOUGLAS D. EVANOFF, GEORGE G. KAUFMAN, LAURA E. KODRES (eds.), *Macro-prudential Regulatory Polices: The New Road to Financial Stability?*, 94.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

central banks may also be excessive in case they have failed their task in macro-prudential policy.[319]

But even so, central bank is advocated 'to bear the responsibility for macro-prudential regulation and policy as well as carrying out the related tasks of analysis and examination'.[320]What matters is, indeed, the preemptivemeasurement and effective management of systemic risk, as well as the timely deployment of macro-prudential instruments regardless whether the overall price is stable. These tasks, however, involve certain degree of discretionary solutions (depending on the instrument at hand) thus cause much difficulties in the implementation process. Given the critical importance of the governance arrangements for financial stability, Jaime Caruana emphasized the need to have the central banks to play a key role in the macro-prudential framework, in order to take advantage of their natural strengths, i.e. "their expertise in macroeconomic analysis; their intimate knowledge of, and active participation in, financial markets; their role as lenders, and possibly market-makers, of last resort; and their oversight of payment and settlement systems."[321] Xavier Freitas et al. noted, however, the implementation and interactions of macro-prudential policy with monetary policy generally remain unaddressed within regulatory framework.[322]

---

[319] BENJAMIN BORN, MICHAEL EHRMANN and MARCEL FRATZSCHER, *Macro-prudential policy and central bank communication*, in BIS Papers No.60 "Macro-prudential regulation and policy", The Bank of Korea, December 2011, 107.
[320] CHOONGSOO KIM, *Welcome address*, in BIS Papers No.60 "Macro-prudential regulation and policy", 3.
[321] JAIME CARUANA, *The challenge of taking macro-prudential decisions: who will press which button(s)?*, 5.
[322] XAVIER FREIXAS, LUC LAEVEN, JOSE-LUIS PEYDRO, *Systemic risk, crises, and macro-prudential regulation*, available at http://voxeu.org/article/systemic-risk-crises-and-macroprudential-regulation

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Mandates and powers

In whatever institutional model that the macro-prudential authority is vested, the institutional design should be crafted so that the authority can carry out its mandates and cope with challenges to ensure the effectiveness of macro-prudential policy.[323]It is worth noting that delegation of specific powers to an institution is desirable to the extent that the latter is given clear policy objectives.[324]Hence, for an operational framework where appropriate agencies are given appropriate goals, macro-prudential authority should be given realistic and clear mandates. It should be realistic in the sense that "the macro-prudential objective should not promise more than policymakers can deliver".[325] At the same time, a clear mandate helps to facilitate thus ensure effectiveness, and avoid unnecessary delay due to lack of clarity (as to, for instance, 'whose finger does the pushing') or inaction bias when a timely decision is needed.[326] The extent of a clear mandate is, however, not clear and it appears to be of much difficulties to translate the more general objectives of macro-prudential policy into concrete goals.[327]

Regardless of our preference for a rules-based framework (if there is such a case), in fact, the discretionary element required in the design and calibration of macro-prudential policy is likely to make it hard to determine the boundaries, as the task involves difficult judgement where

---

[323] Group of Thirty, *Enhancing Financial Stability and Resilience: Macro-prudential Policy, Tools and System for the Future*, 59. *See also* International Monetary Fund, *Macro-prudential policy: An organizing framework*, 38-40.
[324] LORENZO BINI SMAGHI, *Independence and Accountability in Supervision: General Principles and European Setting*, in DONATO MASCIANDARO and MARC QUINTYN (eds.), *Designing Financial Supervision Institutions*, Edward Elgar UK, December 2007, 47.
[325] Bank for International Settlements, *The 80th Annual Report 2009/10*, 90.
[326] JAIME CARUANA, *The challenge of taking macro-prudential decisions: who will press which button(s)?*, 6.
[327] For a more detailed discussion on objectives of macro-prudential policy, see *supra* 1.1.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

discretion may take priority instead of rules-based regulations. Macro-prudential authority, thus, also 'needs to be guided by a strong mandate which opens up and at same time constrain the discretionary use of powers'.[328] Nier suggested that such strong mandate could be achieved by setting out in the law a hierarchy of statutory objectives, including the primary objective—unambiguous mandates to ensure the primacy of systemic risk containment towards financial stability—and the secondary objective where it requires the authority, for instance, to take into account also the consumer protection concerns, i.e. 'to have regard to interests of stakeholders such as depositors if systemic risk mitigation conflicts with their interests'.[329] Likewise, Paul Tucker emphasizes on the need for statutory support through carefully framed legislative mandates to accommodate constrained discretion, obviously with stability coming first.[330]

Where a clear mandate is needed, "powers must be commensurate with mandates"[331] to help counter challenges. Macro-prudential authority, undeniably, faces with numerous difficulties on its way to achieve the intended objectives. Challenge comes first from the constantly evolving nature of the financial system and the multifaceted nature of systemic risk; from the difficulties in evaluating the benefits of macro-prudential policy and the effectiveness of its instruments; and from the interactions as well as possible conflicts of macro-prudential with other policy areas

---

[328] ERLEND W. NIER, *On the governance of macro-prudential policies*, in STIJN CLAESSENS, DOUGLAS D. EVANOFF, GEORGE G. KAUFMAN, LAURA E. KODRES (eds.), *Macro-prudential Regulatory Polices: The New Road to Financial Stability?*, 196.
[329] ERLEND W. NIER, *On the governance of macro-prudential policies*, in STIJN CLAESSENS, DOUGLAS D. EVANOFF, GEORGE G. KAUFMAN, LAURA E. KODRES (eds.), *Macro-prudential Regulatory Polices: The New Road to Financial Stability?*, 196-204.
[330] PAUL TUCKER, *The political economy of macro-prudential regimes,* in DIRK SCHOENMAKER (ed.), *Macro-prudentialism,* 61.
[331] JAIME CARUANA, *The challenge of taking macro-prudential decisions: who will press which button(s)?*, 5.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

towards the goals of containing systemic risk and preserving financial stability.[332] On such a basis, macro-prudential authority is advocated to obtain at least three core capabilities: '(i) ability to collect and analyze a wide range of data for the purpose of identifying systemic risks and the build-up of risks, as macro-prudential instruments should be deployed preemptively before risks materialize into a full-scale crisis; (ii) capacity to calibrate and implement macro-prudential tools to mitigate threats to financial stability; and (iii) ability to respond flexibly and influence other policy areas when their decisions affect or are affected by macro-prudential policy decisions'.[333]With regard to access to necessary information, it is critical that the authority should be able to request information directly from private firms when relevant data is not readily available through other means.[334] Given their objectives, the extent of macro-prudential intervention, i.e. the authority's powers, should limit as to safeguarding financial stability and only to those system-wide threats to stability.[335]

A clear mandate is, generally speaking, necessary for empowerment and a transparent decision-making process that help to avoid political and interest group pressure. It also links to the issue of accountability and provides clarity as to the roles and powers of macro-prudential authority. In fact, however, a study conducted by the IMF in 2011 showed different views on the

---

[332] International Monetary Fund, *Macro-prudential policy: An organizing framework*, 33-34

[333] Group of Thirty, *Enhancing Financial Stability and Resilience: Macro-prudential Policy, Tools and System for the Future*, 59. *See also* International Monetary Fund, *Macro-prudential policy: An organizing framework*, 38-40.

[334] Other necessary powers that are given to macro-prudential authority include: powers to communicate risk warnings and to recommend or direct the adjustment of regulatory instruments, to set and adjust macro-prudential instruments directly, or mechanisms to assign specific instruments to a new macro-prudential body.; FSB, BIS and IMF, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 16.

[335] PAUL TUCKER, *The political economy of macro-prudential regimes,* in DIRK SCHOENMAKER (ed.), *Macro-prudentialism,* 71.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

case of an explicit mandate for macro-prudential policy, where less than half of the countries surveyed at the time stated that they had a (specific) formal mandate for macro-prudential policy.[336] Notably, while many jurisdictions are putting efforts in developing such mandate, others do not intend to do so partly due to difficulties in defining the policy objectives and responsibilities precisely.[337]

Independence, accountability and transparency

As Quintyn and Taylor noted, independence, accountability, transparency and integrity have been singled out as the four institutional underpinnings which financial regulatory and supervisory agencies should possess in order to achieve good governance arrangements. This is where: "(i) independence is not a goal in itself, but part of the underpinnings for good governance arrangements; (ii) accountability is complementary, supportive of independence; and (iii) the combination of being held accountable and being transparent assists in enhancing the integrity of the agent's staff, i.e. reduces opportunities for corruption".[338]

Regardless of the institutional structure, Quintyn and Taylor argued in favor of a

---

[336] The BIS research also indicated that it was even less common to stipulate financial stability mandate in law.; FSB, BIS and IMF, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 15.
[337] For some, the lack of a quantifiable goal for macro-prudential policy needs not be a major problem, as this appears to be a common challenge in other fields of public policy as well.; FSB, BIS and IMF, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 15-16.
[338] MARC QUINTYN and MICHAEL W. TAYLOR, *Robust Regulators and Their Political Masters: Independence and Accountability in Theory*, in DONATO MASCIANDARO and MARC QUINTYN (eds.), *Designing Financial Supervision Institutions*, 18-19. For some jurisdiction, the case of financial regulator independence could be seen as a delegation of power too far. Because the agency could actually exercise all three functions of government (albeit within a narrowly defined scope): legislative (rule-making); executive (enforcement); and judicial (sanctioning). These constitutional concerns could make it difficult to cede independence to financial regulatory and supervisory agency. However, a properly structured accountability arrangements can deal with most of these concerns thus complimenting and fostering agency independence; *See ibidem* at 5-6.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

substantial degree of independence for such agencies both from the government (political interference, as it still remains a governmental agency) and the industry (freedom from 'regulatory capture'), in which four different dimensions—institutional, regulatory, supervisory and budgetary independence—are needed to make the notion of instrument independence operational.[339] The case for agency independence is based on the need for stable operating rules of the game, the fear of time inconsistency problem, and more importantly, for practical reason such that the lack of independence of regulatory authorities has been cited as one of the contributing factors to the deepening of the crises (e.g. East-Asian crisis 1997-1998).[340]

In line with these arguments, the political economy consideration has it that macro-prudential authorities should have a strong independence from the political process, especially a complete independence from short-term political pressures, in order to deal with the inherent

---

[339] The arguments were made irrespective of whether the agency is housed inside or outside the central bank. Quintyn and Taylor noted that if it is housed inside the central bank, it is likely to enjoy more independence than otherwise, albeit not always the case. Institutional and regulatory independence form the core; in which the former refers to the status of the agency as an institution separate from the executive and legislative branches of government, while the latter refers to the ability of the agency to have an appropriate degree in setting prudential rules and regulations for the sector under its supervision, within the confines of the country's broader legal framework. On such a basis, institutional and budgetary independence remain essential for the execution of the core functions.; MARC QUINTYN and MICHAEL W. TAYLOR, *Robust Regulators and Their Political Masters: Independence and Accountability in Theory*, 20-21.

[340] Underlying argument for these reason is that politicians can notoriously be influenced by short-term factors thus tempted to interfere to achieve an outcome that fits in with their immediate goals. In such a way, interference may produce inconsistency in regulatory decision-making and the case of moral hazard which, in turn, could undermine the agency's credibility. This is also the basis for the time inconsistency problem where policymakers could make a trade-off between short-term electoral gain and their long-run commitments. The specific arguments for regulatory and supervisory independence, i.e. the need for more stable rules and the issue of time inconsistency, are similar to those of central bank independence. On that basis, the authors argue that such agency independence matters from the point of view of financial sector stability for many of the same reasons that central bank independence matters for monetary stability; in such a way, independence of both agencies will reinforce each other in achieving the overall goal of financial stability.; MARC QUINTYN and MICHAEL W. TAYLOR, *Robust Regulators and Their Political Masters: Independence and Accountability in Theory*, 4, 7-12.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

conflict between the long-term possible benefits and the short-term real costs.[341] Such conflict links to the aforementioned time inconsistency problem which occurs "when the government's optimal long-run policy differs from its optimal short-run policy, leading to situations where the government in the short-run reneges on its long-term commitments".[342] Thisasymmetric structure tend to cause strong bias towards inaction, further exacerbated by political short-term pressure, thus can cause unnecessary delays when a timely decision is needed. For instance, a political decision-maker is likely to be 'tempted to allow a potentially destabilizing credit boom to persist, not only because it often brings benefits to the society while it lasts but also for their own (re-election) interests'.[343] Independence of political interference is thus crucial for the effective deployment of macro-prudential tools to contain systemic risk. In addition, systemic risk is an economic, not a political, definition. "It should not be used uncritically as an ex post political label for any large financial failure or downturn".[344] As such, academics often point to the need for an independent macro-prudential authority to be in charge. That is why independent agencies such as central bank or financial supervisory authority are usually made responsible for macro-

---

[341] ERLEND W. NIER, *On the governance of macro-prudential policies*, in STIJN CLAESSENS, DOUGLAS D. EVANOFF, GEORGE G. KAUFMAN, LAURA E. KODRES (eds.), *Macro-prudential Regulatory Polices: The New Road to Financial Stability?*, 202-203. As previously discussed, the benefits of macro-prudential policy with respect to reduction of probabilities and severity of future crises should be monitored in long-term while the cost of implementing macro-prudential instruments could be felt almost immediately. *See supra* at 1.2.

[342] MARC QUINTYN and MICHAEL W. TAYLOR, *Robust Regulators and Their Political Masters: Independence and Accountability in Theory*, in DONATO MASCIANDARO and MARC QUINTYN (eds.), *Designing Financial Supervision Institutions*, 10.

[343] PAUL TUCKER, *The political economy of macro-prudential regimes,* in DIRK SCHOENMAKER (ed.), *Macro-prudentialism,* 65.

[344] Schwarcz went on to warn that politics, by the same token, should not impede attempts to reach realistic solutions to the problem of real systemic risk. Consider the subprime mortgage crisis, for instance, a top-down approach (to create a 'liquidity-provider of last resort' to fund illiquid financial markets) may not be politically acceptable because it does not target individual homeowners. Yet by restoring financial-market confidence, it would increase the availability of home mortgages, causing home prices to rise and thereby greatly reducing mortgagor defaults.; STEVEN L. SCHWARCZ, *Systemic Risk,* 204-205.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

prudential policy.[345]

Macro-prudential authority, however, differs from monetary authority in the absence of an easily quantifiable measure to judge its performance. Indeed, an inflation target serves as a quantifiable and symmetric yardstick for judging the performance of the monetary authority.[346]As a result of the lack of similar yardstick, Nier noted that the establishment of macro-prudential authority with high degree of independence would require a strong political consensus and a high degree of trust in the ability and integrity of the macro-prudential policymaker.[347]

What is also important is that such absence would cause difficulties in the establishment of an accountability arrangement. On the relationship between independence and accountability, Quintyn and Taylor argued in favor of a complementary instead of a trade-off, in the sense that accountability generates legitimacy and credibility (reputation) which in turn supports independence.[348] Stronger accountability does not necessarily mean a less independent regulatory

---

[345] DIRK SCHOENMAKER, *Introduction,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 8. Although not all central banks are independent; notably, the principle of central bank independence has indeed been accepted and implemented in large parts of the world. Central banks and lenders of last resort in key jurisdictions—the US and the EU, UK and Switzerland—enjoy full independence from government and political process; THOMAS COTTIER and ROSA M. LASTRA, *Conclusions*, in THOMAS COTTIER, JOHN H. JACKSON, ROSA M. LASTRA (eds.), *International Law in Financial Regulation and Monetary Affairs*, Oxford University Express, 2012, 412. For more details on central bank independence in general and the case of the European Central Bank, *see infra Chapter 2, 2.2.2*

[346] ERLEND W. NIER, *On the governance of macro-prudential policies*, in STIJN CLAESSENS, DOUGLAS D. EVANOFF, GEORGE G. KAUFMAN, LAURA E. KODRES (eds.), *Macro-prudential Regulatory Polices: The New Road to Financial Stability?*, 203.

[347] ERLEND W. NIER, *On the governance of macro-prudential policies*, 203.

[348] A credible agency with a strong reputation is more likely to be trusted by the public and, thus, it can help to translate a formal grant of independence into the ability to take decisions in the face of strong opposition from vested interests. On the contrary, a poorly-designed accountability mechanism would be corrosive of agency independence, for instance, if it gives politicians the authority to intervene in agency decisions.; MARC QUINTYN and MICHAEL W. TAYLOR, *Robust Regulators and Their Political Masters: Independence and Accountability in Theory*, in DONATO MASCIANDARO and MARC QUINTYN (eds.), *Designing Financial Supervision Institutions*, 17-18.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

agency, provided that a well-designed accountability mechanism is put in place. It would even help the authority to pursue its chosen strategy irrespective of other vested interests. For Smaghi, independence and accountability are rather two sides of a coin, thus "if one side is falsified or damaged, the whole coin is worthless".[349]

There is common understanding that regulatory and supervisory authorities in general should be held accountable, in which the traditional concept consists of two elements: "the idea of checking on the agency's performance and the requirement that the agency takes responsibility for failure, amends for any fault or damage, and takes steps to prevent its future recurrence".[350] Accountability arrangement could in fact function to provide public oversight, maintain and enhance legitimacy, foster integrity of public sector governance as well as improve agency performance.[351] Since macro-prudential policy could produce major impacts on citizen through the deployment of its tools (e.g. loan-to-value, debt-to-income ratios), an adequate governance arrangement for democratic accountability should thus be taken into consideration.[352] As previously discussed, the benefits and effectiveness of implementing macro-prudential policy, i.e. the reduction of the probability and severity of future crises as a way towards preserving the stability of the financial system as a whole, could hardly be measured with precision and is

---

[349] LORENZO BINI SMAGHI, *Independence and Accountability in Supervision: General Principles and European Setting*, in DONATO MASCIANDARO and MARC QUINTYN (eds.), *Designing Financial Supervision Institutions*, Edward Elgar UK, December 2007, 45.
[350] MARC QUINTYN and MICHAEL W. TAYLOR, *Robust Regulators and Their Political Masters: Independence and Accountability in Theory*, in DONATO MASCIANDARO and MARC QUINTYN (eds.), *Designing Financial Supervision Institutions*, 15.
[351] MARC QUINTYN and MICHAEL W. TAYLOR, *Robust Regulators and Their Political Masters: Independence and Accountability in Theory*, 15-16.
[352] DIRK SCHOENMAKER, *Introduction,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 8.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

materialized over the long-term.[353] Where costs are felt immediately while benefits accrue over long-run are hard to measure, there is a need to further strengthen agency accountability to hold the authority in charge accountable with its decisions and choices of macro-prudential instruments.[354]

As to accountability, a strong arrangement should include, first and foremost, a clear mandate. Giving clarity to the policy objectives facilitate the verification process regarding whether the agency is fully committed to the goals.[355]Specifically in an institutional model where the central bank takes the role of macro-prudential authority, there should be a clear mandate to define the responsibilities with respect to monetary and macro-prudential policy so that accountability could be held properly for each of the two tasks. When it comes to macro-prudential policy, however, one problem is that the objective is quite difficult to be translated into concrete policy goals. A mandate in general term, i.e preserving the stability of the overall financial system and containing systemic risk, coupled with an absence of a quantifiable yardstick would cause much difficulties in evaluating the authority's decision-making process as well as the extent of its performance. Despite this, countries have put efforts in giving clarity to the mandate of macro-prudential policy so that the authority can effectively carry outs its tasks and also to strengthen the accountability arrangements. For instance, the ESRB identifiesfive concrete intermediate objectives of macro-prudential policy "on the basis of specific market failures"

---

[353] For more details on the assessment of the impact and effectiveness of macro-prudential policy, see *supra* 1.2.
[354] FSB, BIS and IMF, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 16-17.
[355] LORENZO BINI SMAGHI, *Independence and Accountability in Supervision: General Principles and European Setting*, in DONATO MASCIANDARO and MARC QUINTYN (eds.), *Designing Financial Supervision Institutions*, 52.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

which are derived from the aforementioned more general goals.[356] In addition, accountability can also be enhanced through disclosing information, thus, giving more clarity about the strategy, actions, decision-making process would partly make up for the seemingly lack of clear immediate goals.[357]

Another important issue for an accountable arrangement is the answer to the question of 'being held accountable to whom?'. The accountability relations have been noted to be more diversified and pluralistic than before due to 'the emergence of participatory democracy, the greater role of the media as well as the growing need to keep citizens and civil society directly involved in agency work'.[358]But as a matter of principle, an agency is accountable to the political bodies which appoint and delegate powers to it. Depending on the institutional structure, however, type of accountability arrangement varies. One option is accountability to the Parliament, i.e. in the form of hearings at Parliament, such as the case of the ESRB being held accountable to the European Parliament, orthe fact that the Financial Stability Report of the Financial Policy Committee (FPC) in the UK will be laid before the Parliament and meeting minutes will be published.[359] Another more popular arrangement is political accountability to the minister of finance, then from the minister of finance to the Parliament. Schoenmaker and Wierts

---

[356] European Systemic Risk Board, *Recommendations on intermediate objectives and instruments of macro-prudential policy,* ESRB/2013/1, Annex, section 2. For details on the objectives of macro-prudential policy within the European framework, see Chapter 2, part 2.2.2.
[357] JAIME CARUANA, *The challenge of taking macro-prudential decisions: who will press which button(s)?*, 5-6.
[358] MARC QUINTYN and MICHAEL W. TAYLOR, *Robust Regulators and Their Political Masters: Independence and Accountability in Theory*, in DONATO MASCIANDARO and MARC QUINTYN (eds.), *Designing Financial Supervision Institutions*, 15.
[359] In addition, the US structure combines both strong reporting requirements to Congress and FSOC members' obligation to individually attest that they believe that the proper actions are being taken to support financial stability.; FSB, BIS and IMF, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 17.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

noted that, however, both options do not seem fully applicable to macro-prudential policy thus it may require a new accountability regime that is in between those of monetary policy, i.e. central bank accountable to the Parliament, and micro-prudential supervision, i.e. political accountability to the minister of finance.[360]

Schoenmaker followed what Quintyn and Taylor had suggested in order to achieve political accountability by using a combination of control instruments: (i) a mix of parliamentary and government oversight; (ii) strict procedural requirements; (iii) public understanding: a clear and transparent macro-prudential policy strategyfacilitates public understanding; and (iv)judicial review: financial institutions have the right to appeal against the actions ofmacro-prudential authorities.[361] Of these, transparency and clear communications of policy decisions to the public remain central elements of accountability, as accountability (agency credibility) is enhanced in practicethrough various forms of implementing transparency. For macro-prudential authority, these forms are ranging from *ex ante* statements of strategy, publication of records of meetings, financial stability reports and annual performance statements to an *ex post* assessment of policy effectiveness.[362] Besides, communications of risk warnings and assessments could also increase both policy effectiveness and accountability.[363]

---

[360] Main reason for this seemingly incompatibility is that macro-prudential authority needs to be independent from political interference, and the fact that taxpayer's money will ultimately be at stake in times of financial instability would require the involvement of minister of finance.; DIRK SCHOENMAKER and PETER WIERTS, *Macro-prudential Policy: The Need for a Coherent Policy Framework*, 10-11.
[361] DIRK SCHOENMAKER and PETER WIERTS, *Macro-prudential Policy: The Need for a Coherent Policy Framework*, 10-11.
[362] FSB, BIS and IMF, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 17.
[363] The publication of risk warnings can in and of itself lead to changes in behavior of markets and institutions, while communication of risk warnings can also increase accountability, since they serve to create commitment

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

In a related note, experience in the conduct of monetary policy has shown that unconventional central bank communication (with respect to timing, direction of future monetary policy strategy, etc.—whether as a commitment to deliver a policy—as opposed to the traditional interest rate), appears to be a powerful tool which helps to manage expectations of market participants as well as improve the effectiveness of monetary policy itself.[364] As an illustration of powerful 'forward guidance', Mario Draghi's announcement in the midst of the European sovereign debt crisis that "the ECB is ready to do whatever it takes to preserve the euro" and the resulting Outright Monetary Transaction Program (OMT) led to a significant reduction in the sovereign yields of European periphery countries.[365] A research by Born et al. provides additional empirical findings to show that communication by monetary authorities on financial stability issues can indeed influence market developments, yet at the same time entail risks as it may unsettle the markets.[366]As such, one of the key desirable features for the macro-prudential policy arrangements, according to Nier et al., is to put in place proper accountability and transparency—without unduly compromising the effectiveness of macro-prudential policy—in order to guard

---

on the part of the macro-prudential authority or its constituent agencies to take follow-up action.; International Monetary Fund, *Macro-prudential policy: An organizing framework*, 41.

[364] For a more detailed discussion on central bank communication effectiveness, see: DANIELLE KEDAN, REBECCA STUART, *Central Bank Communications: A Comparative Study*, Central bank of Ireland, Quarterly Bulletin 02, April 2014.

[365] VIRAL V. ACHARYA, TIM EISERT, CHRISTIAN EUFINGER, CHRISTIAN HIRSCH, *Whatever it takes: The Real Effects of Unconventional Monetary Policy*, The 16th Jacques Polak Annual Research Conference, International Monetary Fund, November 5–6, 2015; Presentation available at: https://www.imf.org/external/np/res/seminars/2015/arc/pdf/Eisert_pres.pdf. Through OMT, the ECB can purchase bonds on the secondary markets to safeguard an appropriate monetary policy transmission.

[366] BENJAMIN BORN, MICHAEL EHRMANN and MARCEL FRATZSCHER, *Macro-prudential policy and central bank communication*, in BIS Papers No. 60 "Macro-prudential regulation and policy", 107.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

against overly restrictive or inadequate policy.[367] Within this arrangement, an independent macro-prudential agency could act as a fiduciary of government—to be given a certain degree of freedom—where the fiduciary relationship is based on general principles and procedures, but not on detailed plans of actions, as agreed by both parties.[368]

Interactions and coordination across policy areas towards financial stability

While macro-prudential policy broadly aims at financial stability, it does, by no means, imply that this tool is sufficient and powerful enough to ensure financial stability. Indeed, macro-prudential policy cannot substitute for sound micro-prudential, monetary and fiscal policies. It actually finds itself within these traditional macro-economic areas and interacts with them on its way towards achieving the shared objective of financial stability.[369] Micro-prudential, fiscal and monetary policies undoubtedly have an impact on systemic risk, whereas the implementation of macro-prudential instruments affects financial cycle and produces macro-economic effects hence influences macro-economic policy environment.[370] Thus, any institutional arrangement should take into account the need to promote coherence and consistency in the application of these policies that have a bearing on financial stability.[371]

To recall, the interactions between macro-prudential and monetary policies have been

---

[367] ERLEND W. NIER et al., *Towards Effective Macro-prudential Policy Frameworks: An Assessment of Stylized Institutional Models*, Box 1, 6.
[368] MARC QUINTYN and MICHAEL W. TAYLOR, *Robust Regulators and Their Political Masters: Independence and Accountability in Theory*, in DONATO MASCIANDARO and MARC QUINTYN (eds.), *Designing Financial Supervision Institutions*, 12-13.
[369] MALOU DIRKS, CASPER DE VRIES and FIEKE VAN DE LECQ, *Macro-prudential policy: The neglected sectors,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 83.
[370] FSB, BIS, IMF, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 4.
[371] FSB, BIS and IMF, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 18.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

touched upon elsewhere throughout the discussion so far. The objectives, instruments and conduct of macro-prudential policy are actually parts of an overall economic and financial stabilization function that includes monetary policy.[372] The two activities are, indeed, closely linked. On the one hand, the achievement of price stability may be counterproductive in the long run as it induces risk premia, supporting greater risk-taking and excessive leverage, which could eventually lead to devastating consequences.[373]Stability, in such a way, leads to fragility.[374]On the other hand, successful monetary policy benefits and reinforces macro-prudential policy towards stabilizing the economy.[375] In its turn, financial stability is also a necessary condition for being able to conduct monetary policy effectively.[376]

Monetary policy, which centers on price stability—concerning how inflation and development in production and employment is affected, sets general financial conditions thus influences the environment in which financial institutions operate. Macro-prudential policy, in this regard, is more specific and targeted to financial sectors and imbalances.[377] Interaction

---

[372] Bank for International Settlements, *Macro-prudential instruments and frameworks: a stocktaking of issues and experiences*, 1.

[373] For more details the discussion on interaction between monetary and macro-prudential policy, *see supra* The role of central bank in macro-prudential framework.

[374] RICHARD PORTES, *Macro-prudential policy and monetary policy,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 48.

[375] The pursuit of price stability is seen as a crucial contribution to financial stability, as price stability supports sound investment and sustainable growth which in turn is conducive to financial stability.; TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk,* 112.

[376] In order to influence economic activity and inflation by steering the price of credit—interest rates, the payment system and the interest rate steering system must function. Hence, financial stability, when defined in terms of fostering a safe and efficient payment system, would facilitate the successful deployment of monetary policy tool.; IRMA ROSENBERG, *Monetary policy and financial stability—the Riksbank's two main tasks*, Sveriges Riksbank, Sweden. Speech available at: http://www.riksbank.se/Pagefolders/36882/081002e.pdf

[377] SABINE LAUTENSCHLAGER, *The interplay between macro-prudential, micro-prudential and monetary policies at the ECB*, Conference on "Macro-prudential Policy - Implementation and Interaction with other Policies", Stockholm, 13th November 2014. Presentation available at:

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

between the two polices is further reflected through the deployment of their instruments. The implementation of interest rate (traditional monetary policy tool) directly affects the extent of credit creation which in turn contributes to systemic financial risk—a mandate given to macro-prudential policy; while the deployment of loan-to-value ratios or capital reserves (macro-prudential policy tools) would have an effect on the transmission mechanism of monetary policy.[378] Where central bank is tasked with managing both polices, mutual interaction between the two is indeed inevitable.

When it comes to the relationship between micro-prudential and macro-prudential policies,Padoa-Schioppa noted that there is a distinction commonly drawn between macro-prudential and micro-prudential which "focuses on the activities and the analytical approaches to measure risks, rather than questioning the commonality of the ultimate common objective of financial stability".[379] For instance, the (UK) House of Lords' report on the Future of the European Union Financial Supervision and Regulation made the distinction between macro-prudential supervision and micro-prudential supervision such that: "*Macro-prudential supervision is the analysis of trends and imbalances in the financial system and the detection of systemic risks that these trends may pose to financial institutions and the economy…Micro-prudential supervision is the day-to-day supervision of individual financial institutions…The*

---

http://www.riksbank.se/Documents/Avdelningar/AFS/2014/Konferens%20Makrotillsyn/2.3%20Sabine%20Lautenschläger_ECB.pdf

[378] Group of Thirty, *Enhancing Financial Stability and Resilience: Macro-prudential Policy, Tools and System for the Future,* 64.

[379] TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk,* 116.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

same or separate supervisor can carry out these two functions".[380] There is also a distinction with respect to the approach that each policy is taking. Micro-prudential is largely rules-based and backward looking, whereas macro-prudential follows the forward looking as discretionary authority has to regularly monitor, forecast and address risks that may not threaten the market today but which may lead to substantial risks in the future.[381]

Padoa-Schioppa warned, however, "whereas the distinction has some undeniable grounds, strict separation of the macro-prudential and micro-prudential dimensions would be conceptually inappropriate and could even be detrimental in practice".[382] Indeed, these two policies are not mutually exclusive. They interact with each other, and more importantly, successful micro-prudential policy facilitates the the implementation of the tasks given to macro-prudential authority. Where micro-prudential policy focuses on correcting or mitigating the effects of market failures—such as contagion, information failures, etc., it contributes to macro-prudential policy by limiting the appearance of the event that triggers systemic risk because these failures have been largely attributed as the main underlying causes of systemic risk.[383] Moreover, for the effective deployment of tools such as the countercyclical capital requirement, macro-prudential authority needs to be in close cooperation with micro-prudential supervisors since they are

---

[380] ROSA M. LASTRA, *The crisis of 2007-09: Nature, Causes, and Reactions,* in THOMAS COTTIER et al. (eds.), *The Rule of Law in Monetary Affairs*, 24.
[381] KERN ALEXANDER, *International economic law and macro-prudential regulation,* in THOMAS COTTIER et al. (eds.), *The Rule of Law in Monetary Affairs*, 529.
[382] "The distinction should not be regarded as a hard and fast concept. Fundamentally, macro- and micro-prudential analyses and controls are as inseparable as two sides of the same coin [...] The danger of a hard separation is that it risks leading to a situation in which neither central banks nor supervisory agencies would be able to perform their functions satisfactorily."; TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk,* 117.
[383] FEDERICO LUPO-PASINI and ROSS P. BUCKLEY, *Global systemic risk and international regulatory coordination: Squaring sovereignty and financial stability,* 671.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

familiar with balance sheet information as well as the day-to-day activities of individual financial institutions.[384] The underlying reason is, indeed, the fact that whereas the macro-prudential approach focuses on the financial system as a whole, regulatory and policy measures will eventually have to be introduced and implemented at individual institution level.[385]

Not only with micro-prudential and monetary policies, macro-prudential authority also needs to be closely attentive to the potential or actual impact of specific fiscal arrangements towards financial stability.[386] 'Limits on fiscal capacity are actually the limits on the extent to which the government can backstop the financial system and the economy in crisis times'.[387] As macro-prudential authority has to be able to respond flexibly to systemic risks, it also needs to communicate and influence activities of fiscal authority to a certain extent possible. In this regard, institutional structures remains crucial to manage such interactions of different policy areas and to coordinate them accordingly towards financial stability.

o0o

The defining elements of macro-prudential policy are objectives (financial stability and systemic risk containment) with corresponding scope of analysis (the financial system as a whole and its interaction with the real economy), instruments (the time-series dimension and the

---

[384] Group of Thirty, *Enhancing Financial Stability and Resilience: Macro-prudential Policy, Tools and System for the Future,* 64-65.
[385] KERN ALEXANDER, *International economic law and macro-prudential regulation,* in THOMAS COTTIER et al. (eds.), *The Rule of Law in Monetary Affairs*, 529.
[386] Group of Thirty, *Enhancing Financial Stability and Resilience: Macro-prudential Policy, Tools and System for the Future,* 64-65.
[387] RICHARD PORTES, *Macro-prudential policy and monetary policy,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 49.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

structural dimension), and a set of powers and governance.[388] To be more specific, Charles Goodhart noted "[macro-prudential policy]'s defining characteristics involve being more counter-cyclical than micro-prudential policy and more granular than the interest rate policy of the monetary policy committees around the world".[389] On the way towards financial stability, macro-prudential authority faces with numerous challenges and limits and much of these depend on its strength, independence and due to political constraints. Thus, one has to be realistic about how much macro-prudential regulation can accomplish in terms of managing financial imbalances and ensuring financial stability.[390] While it is needed to achieve the stability of the financial system as a whole, in any case, macro-prudential policy should not be expected to prevent all future financial crises.[391]

The economic foundation of macro-prudential policy helps shed the light on the understanding of the policy at hand thus contributes to the establishment of an effective legal and institutional arrangment in a jurisdiction where a macro-prudential framework has been put in place. The next part of the thesis focuses on analyzing the legal implications of the fundamental changes of modern theory of finance which facilitated the revival of macro-prudential policy with unprecedented momentum, to be tackled at both international and supranational levels and with regard to legal and institutional settings.

---

[388] FSB, IMF & BIS, *Macro-prudential tools and frameworks: Update to G20 Finance Ministers and Central Bank Governors*, 2.
[389] CHARLES A.E. GOODHART, *The use of macro-prudential instruments,* in DIRK SCHOENMAKER (ed.), *Macro-prudentialism,* 13.
[390] XAVIER FREIXAS, LUC LAEVEN, JOSE-LUIS PEYDRO, *Systemic risk, crises, and macro-prudential regulation*, available at http://voxeu.org/article/systemic-risk-crises-and-macroprudential-regulation
[391] ERLEND W. NIER, JACEK OSINSKI, LUIS I. JACOME, PAMELA MADRID, *Towards Effective Macro-prudential Policy Frameworks: An Assessment of Stylized Institutional Models*, 1.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

2. Legal and institutional framework of macro-prudential policy

The reappearance of financial instability through a series of banking and financial crises from the 1980s have struck several emerging and industrial economies thus raises important questions about the adequacy of the financial regulatory framework, both at national and international level.[392] As Charles Goodhart rightly observed, in the aftermath of the financial crisis, "there is a developing consensus on what is to be done to make the financial system less vulnerable to crisis" but "[t]he bad news is that **it is largely the same consensus we reach after every crisis**, ultimately to little effect: more disclosure, **more regulation** and reform of banker's compensation" (emphasis added).[393] The most recent global financial crisis is no exception to this observation as there is indeed a call for 'better' regulation and supervision of financial markets.[394]

In fact, it does not come as a surprise that lawmakers, with rare exception, pass banking laws only during the time of financial crisis.[395] Most often, as noted by Tietje and Lehmann, "financial legislation was enacted after innovative dealings got out of hand and created a crisis".[396] Rather than founded on theoretical principle, in such a way, it has been acknowledged

---

392 'Within the European Union, there are three such considerations: international, European and national.' TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk,* Preface.
393 CHARLES A.E. GOODHART, *The Regulatory Response to the Financial Crisis*, 98.
394 CHRISTIAN TIETJE and MATTHIAS LEMANN, *The role and prospects of international law in financial regulation and supervision*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 133.
395 *See*, for instance: FORREST CAPIE, *Some historical perspective on financial regulation*, in DAVID G. MAYES, GEOFFREY E. WOOD (eds.), *The structure of financial regulation*, 69-85.
396 CHRISTIAN TIETJE and MATTHIAS LEMANN, *The role and prospects of international law in financial regulation and supervision*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 134.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

that financial regulation is normally imposed in reaction to some prior crisis.[397] Thus, it is not complete in terms of sector coverage and "there have always been some areas willingly left unregulated by states in order not to hamper innovative talents and potential of financial actors".[398] This acknowledgement also reflects the tension between strengthening financial regulation and supervision and the essential freedom of financial markets, where the concerns are "not so much about [financial] regulation itself, but about *externally* imposed regulation, as opposed to self-regulation".[399] As Kjaer indicated, it is the number and magnitude of financial crises over the last few decades which make it pertinent to "seek an increased understanding of the reasons for the obvious failure of the self-regulative efforts of the financial system".[400] As such, it follows naturally that the call for 'more' and 'better' regulation would refer to the external type of regulation, the so-called public intervention in the form of government regulation.

Looking back on the factors leading to the global crisis, for some commentators, the main issue was that there had been a lack of financial regulation in the pre-crisis period which left many sectors of the financial system unregulated. The solution should then center on the insufficient reach of financial regulation where it is likely to require the use of "existing

---

397 CHARLES A.E GOODHART, *Chapter 5: How should we regulate bank capital and financial products? What role for "living wills"?*, in ADAIR TURNER et al., *The Future of Finance: The LSE Report*, London School of Economics and Political Science, 2010, 165.
398 CHRISTIAN TIETJE and MATTHIAS LEMANN, *The role and prospects of international law in financial regulation and supervision*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 134.
399 CHARLES A.E. GOODHART, *The rationale for regulation,* in CHARLES A.E. GOODHART, DIMITRIOS P. TSOMOCOS (eds.), *Financial Stability in Practice: Towards an Uncertain Future*, 31.
400 POUL K. KJAER, *Introduction*, in POUL F. KJAER, GUNTHER TEUBNER, ALBERTO FEBBRAJO (eds.), *The Financial Crisis in Constitutional Perspective: The Dark Side Of Functional Differentiation*, Hart Publishing, Oxford and Portland, Oregon, 2011, xvi.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

regulation and spread it more comprehensively across more institutions and jurisdictions".[401] For many others, the more important problem lies with the approach and objectives of financial regulation, thus, the appropriate remedial solution would be to address fundamental market failures as well as severe externalities "that have either been ignored or improperly dealt with in our regulation so far".[402] Apart from the insufficient reach of regulation,[403] it is now evident that regulatory and supervisory institutions "failed to detect or contain systemic risks that accompanied the transformation of the financial sector".[404] As a result, the post-crisis era has been witnessing the dominance of the concern for systemic risk mitigation as well as the fact that 'the concept of governing for financial stability has changed, ideologically and fundamentally, the character of financial regulation'.[405] And this is where the macro-prudential approach comes in as a response to the call for 'better' regulation and supervision of financial markets.In both sides of the Atlantic, as Tietje and Lehmann further pointed out, 'the traditional control of financial intermediaries is supplemented by macro-prudential supervision'. At the same time, changes in substantive requirements for financial institutions requires taking into account macro-

[401] MARKUS BRUNNERMEIER et al., *The Fundamental Principles of Financial Regulation*, xvii.
[402] 'The crisis involved a regulatory failure to which the solution is not more regulation per se, though that may well be required in some areas, but better and different regulation' compared to the pre-crisis period.; MARKUS BRUNNERMEIER et al., *The Fundamental Principles of Financial Regulation*, xvii.
[403] It goes without saying that there is not an 'insufficient reach of financial regulation'. As discussed in the previous part of the thesis, financial regulation indeed has to broaden its scope to cover also other neglected sectors, e.g insurance and fully funded pensions, yet with a macro-prudential approach. *See supra* at 1.1.
[404] Especially systemic risks of endogenous nature.; IAN GOLDIN and MIKE MARIATHASAN, *The Butterfly Defect: How Globalization Creates Systemic Risks, and What to Do about It,* 55.
[405] MADS ANDENAS and IRIS H-Y CHIU, *The foundations and future of financial regulation: Governance for responsibility*, Routledge Taylor&Francis Group, March 2015, 4.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

prudential concerns.[406] With macro-prudential regulation as a tool, the primary goal of regulatory and supervisory reforms aim toward preventing a future global economic crisis so that "it"—the bailout of major financial intermediaries—would not ever happen again.[407]

As the title suggests, this part of the thesis is dedicated to analyze the legal and institutional framework of macro-prudential policy. It also provides further clarification as to 'how the financial regulatory regime is being redesigned and has evolved from what was essentially a micro-prudential framework to the one that is primarily based on macro-prudential principles'.[408] In other words, an attempt will be made to answer the question on the extent to which the macro- approach and the objective of governing for financial stability has changed and reshaped prudential regulation. To achieve that end, the research starts with a focus on the rationale of (macro-)prudential financial regulation, then analyzing fundamental legal and institutional issues with respect to sources of macro-prudential regulation, the role of law as well as the issue of harmonization and governance of macro-prudential regulation and supervision. Meanwhile, attention is also devoted to understand how the inherent characteristics of finance (risk and uncertainty) and the advancement in technology generate impacts on the approach towards regulating finance.

---

[406] CHRISTIAN TIETJE and MATTHIAS LEMANN, *The role and prospects of international law in financial regulation and supervision*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 141-142.

[407] KATHARINA PISTOR, *A legal theory of finance*, Journal of Comparative Economics No. 41, 2013, 328. Indeed, "financial regulation has always been a theoretical, a pragmatic response by practical officials, and concerned politicians, to immediate problems, following the dictum that —We must not let that happen again".; CHARLES A.E GOODHART, *Chapter 5: How should we regulate bank capital and financial products? What role for "living wills"?*, in ADAIR TURNER et al., *The Future of Finance: The LSE Report*, 165.

[408] KERN ALEXANDER, *International Economic Law and Macro-prudential Regulation*, in THOMAS COTTIER et al. (eds.), *The Rule of Law in Monetary Affairs*, 520.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

2.1 Legal foundation of macro-prudential policy

In economics as in law (and most likely other fields of social sciences), there are concepts which could hardly enjoy a common understanding or consensus on their definitions. We have, indeed, made such confirmation when analyzing the concepts of 'financial stability' and 'systemic risk' within economic theories. When it comes to law, Hart noted that "[n]o vast literature is dedicated to study the questions "What is chemistry?" or 'What is medicine?" as it is to the question "What is law?".[409] He then listed this presumably basic and fundamental question of law among the very few questions concerning human society that have actually been "*asked with such persistence and answered by serious thinkers in so many diverse, strange and even paradoxical ways*".[410] Likewise, the notion of regulation also creates some confusion as to its scope and meaning, possibly because the language and practice of regulation have penetrated the social domains covering both public policy, law, and economics thus make it a trans- or multi-disciplinary field.[411] For the task of analyzing macro-prudential regulation, hence, an introduction on regulation and financial regulation to serve as a starting point of discussion would help to further our understanding on the issue at hand.

---

[409] H. L. A. HART, *The concept of law*, Third Edition, Oxford University Express, 2012, 1. Sometimes we face the predicament of 'you know it when you see it' (*See* Jacobellis v. Ohio, 378 US 184, 1964). For instance, Hart took an example such that 'I can recognize an elephant when I see one but I cannot define it. When it comes to the question of 'What is law?', "even skilled lawyers have felt that, although they know the law, there is much about law and its relations to other things that they cannot explain and do not fully understand".; *See ibidem* at 13.

[410] H. L. A. HART, *The concept of law*, Third Edition, 1.

[411] ROBERT BALDWIN, MARTIN CAVE, MARTIN LODGE, *Introduction: Regulation—The Field and the Developing Agenda*, in ROBERT BALDWIN, MARTIN CAVE, and MARTIN LODGE (eds.), *The Oxford Handbook of Regulation*, Oxford University Express, 2010, 4-6.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

As a way of framing its scope, regulation is first about rules,[412] where for some, the definitions of law also start by identifying laws as a subset of rules.[413] As Hart noted, however, the concept of a rule is as perplexing as that of law. Thus, using the basis of 'rules' would not advance our understanding of law and regulation much further.[414] In fact, several cases of regulation are said to be 'accomplished without recourse to rules of any kind'.[415] Even so, in the context where there is no such thing as a commonly shared definition of regulation and answers to questions of what is regulation and what is not remain at the center of a considerable debate,[416] framing regulation in terms of rules would at least help draw a boundary as to its scope of definition. For the purpose of this research, regulation is not only about legal rules, but also 'includes rules of informal nature that are not state laws, or formal rules promulgated by supranational bodies (e.g the European Union) and even rules set by subnational professional associations'.[417]In such a way, the concept of regulation seems to come across both its narrowest and simplest sense—where it is understood as *a specific form of governance, referring to* "*a set of authoritative rules, often accompanied by some administrative agency, for monitoring and*

[412] CHRISTINE PARKER, JOHN BRAITHWAITE, *The Oxford Handbook of Legal Studies*, in MARK TUSHNET and PETER CAN (eds.), Oxford University Press, Online publication, 2012, 119.
[413] H. L. A. HART, *The concept of law*, Third Edition, 15.
[414] H. L. A. HART, *The concept of law*, Third Edition, 15. "Although rules are necessary to understand laws and legal systems, they are therefore not sufficient. We also need to know what the rules are about and what they are expected to do; we need to know about other materials that fit together with rules, and we need to know about legal decision making that is not rule governed."; LESLIE GREEN, *Introduction*, in H. L. A. HART, *The concept of law*, xxvii.
[415] Parker and Braithwaite went on to further explain that regulation, conceived in its broadest view, means influencing the flows of events which could actually 'mean much the same thing as governance'.; CHRISTINE PARKER, JOHN BRAITHWAITE, *The Oxford Handbook of Legal Studies*, 119.
[416] "Varying definitions of regulation range from references to: a specific set of commands; to deliberate state influence; to all forms of social control".; ROBERT BALDWIN et al., *Introduction: Regulation—The Field and the Developing Agenda*, in ROBERT BALDWIN et al. (eds.), *The Oxford Handbook of Regulation*, 11-12.
[417] CHRISTINE PARKER, JOHN BRAITHWAITE, *The Oxford Handbook of Legal Studies*, 119.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

enforcing compliance”, as well as its broadest meaning—where it *encompasses all mechanisms of social control, including unintentional and non-state processes as well as “a range of activities, which may involve legal or quasi-legal norms, but without mechanisms for monitoring and enforcement”.*[418]

Despite the fact that the notion of regulation itself is debated as to its definitional clarity and its status as a field of study,[419] a pragmatic approach implies that the concept of financial regulation can still be shaped within specific context and goals of regulating finance thus “to provide guides to human conduct and standards of criticism of such conduct”[420] in financial markets. Based on the scope of regulation as defined, financial regulation is then understood as a set of rules—which draw from national, supranational and international sources—intended by their creators to govern financial institutions, i.e. firms and markets.[421] As such, financial

---

[418] Jordana and Levi-Faur developed the three meanings of regulation which based on analysis by Baldwin et al., visualized by using the three circles that expand from the narrowest meaning of regulation to its broadest. As various definitions of regulation reflect specific disciplinary concerns, the authors express the view that “it would be futile and somewhat nonsensical to offer one authoritative definition of the notion of regulation that hold across the divides”, thus, “we should not look for an exhaustive and consensual definition across different disciplines and agendas, but for a specific context and goal that shape the particular meaning of the notion of regulation”; *See* further at: JACINT JORDANA, DAVID LEVI-FAUR, *The politics of regulation in the age of governance*, in JACINT JORDANA, DAVID LEVI-FAUR (eds.), *The politics of regulation: Institutions and Regulatory reforms for the age of governance*, Edward Elgar, 2005, 3-5.

[419] ‘[T]he study of regulation is informed by debates from a range of disciplinary backgrounds…[a]rguably, regulation has not yet achieved the status of true inter-disciplinarity. It is therefore more accurate to see regulation as a field of study that operates between ‘trans-disciplinary’ and ‘inter-disciplinary’ conversation.’; ROBERT BALDWIN et al., *Introduction: Regulation—The Field and the Developing Agenda*, in ROBERT BALDWIN et al. (eds.), *The Oxford Handbook of Regulation*, 12-13.

[420] This is inspired by what Hart wrote with regard to law as analyzed by Leslie Green. “Hart write, ‘I think it quite vain to seek any more purpose which law as such serves beyond providing guides to human conduct and standards of criticism of such conduct’”.; LESLIE GREEN, *Introduction*, in H. L. A. HART, *The concept of law*, xxvii.

[421] This understanding is adapted from Laureen Snider in her paper outlining the conundrum of financial regulations, where the author considers financial regulation is also a concept, i.e. “an abstract idea produced by mental activity rooted in the field of finance as a distinct social space or institutional order”.; LAUREEN SNID-

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

regulation is essentially about rules setting or the promulgation and development of rules that regulate financial markets, instruments and behaviors of market participants. From a broader perspective and taking into account sources of financial regulation at all levels, Cottier and Lastra provide a comprehensive understanding where "*[r]egulation refers to the establishment of rules, to the process of rule-making and includes legislative acts and statutory instruments issued by the competent authorities nationally and supra-nationally, international rules (often 'soft law' in the field of banking and finance) and rules issued by self-regulatory organization and private bodies or 'clubs', such as cooperative bankers association*".[422] This broad understanding reflects said pragmatism to cover the increasing multiplicity of levels of governance where, as Cottier rightly observes, "[i]t seems paradoxical that financial services are among the most regulated businesses in domestic law, but that no rules of such significance exist on the global level for most advanced global players".[423] At international level, as will be discussed further in the latter part, financial regulation has been peculiar as it is guided through informal international forums and the dominant use of soft law with non-binding obligations.

As a subset of financial regulation, macro-prudential regulation would also enjoy a broad understanding embedded in its concept. However, financial policy not only includes regulation but also supervision, and despite the fact that these two terms are often used interchangeably,

---

ER, *The Conundrum of Financial Regulations: Origins, Controversies and Prospects*, The Annual Review of Law and Social Science, 7:121-37, 2011, 122.

[422] THOMAS COTTIER and ROSA M. LASTRA, *Conclusions*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 415. Within the scope of this thesis, however, the use of the term 'regulation' generally refers to externally-imposed regulation. Where the self-regulatory approach is mentioned, the term 'self-regulation' will be used.

[423] THOMAS COTTIER, *Challenges Ahead in International Economic Law*, Journal of International Economic Law, Vol. 12, No.1, Oxford University Press, 2009, 7-8.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

there is a distinction to be made between financial regulation and supervision.[424] While regulation is all about rules setting, supervision refers to "the application of those rules to particular firm or group of firms, going in there and making sure that they are following the rules".[425] Alternatively, as Kern Alexander puts it, financial supervision refers to the *discretionary* function of monitoring and assessing risks in financial markets.[426] In its broader sense, supervision is described as a process which covers four stages: from licensing, supervision *stricto sensu,* to sanctioning or imposition of penalties in the case of non-compliance, and when applicable, crisis management.[427]In fact, supervision "amounts to one of the most dense and specialized area of regulation" and is essentially addressed in domestic law.[428]Unlike the notion of regulation, supervision seems to enjoys a more common understanding as in essence, it refers to the oversight of financial institutions and markets, i.e. the monitoring practice and enforcement of financial rules, being accompanied by risk assessments.

---

424 DONATO MASCIANDARO and MARC QUINTYN (eds.), *The Evolution Of Financial Supervision: The Continuing Search For The Holy Grail*, in MORTEN BALLING and ERNEST GNAN (eds.), *50 Years of Money and Finance—Lessons and Challenges*, SUERF The European Monetary and Finance Forum, September 2013, 263. Alternatively, at international level, Rolf Weber considers "international financial regulation can be divided into three subsets of rules: (i) Systematic or institutional rules, regulating the performance of financial institutions, (ii) rules ensuring institutional safety, systemic stability, and market conduct, and (iii) rules pertaining to supervision in the form of self-supervision, industry supervision, or public supervision".; ROLF H. WEBER, *Mapping and Structuring International Financial Regulation—A Theoretical Approach*, European Business Law Review (651-688), 2009, 653.

425 European Union Committee, *The future of EU financial regulation and supervision*, 14th Report of Session 2008–09, Volume I: Report, HL Paper 106–I, 11.

426 Supervision includes also investigation for breaches of regulation and, if necessary, to bring enforcement actions including imposing sanctions.; KERN ALEXANDER, *International economic law and macro-prudential regulation,* in THOMAS COTTIER et al. (eds.), *The Rule of Law in Monetary Affairs*, 529, footnote 31.

427 THOMAS COTTIER and ROSA M. LASTRA, *Conclusions*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 415 footnote 15.

428 At international level, there is hardly any international law on supervision. Yet within the framework of the European Union, efforts have been made as to the establishment of the Single Supervisory Mechanism (SSM).; *See* THOMAS COTTIER, *Challenges Ahead in International Economic Law*, 6.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Understanding on financial regulation and supervision facilitates the analysis of macro-prudential policy. Admittedly, the revival of macro-prudential policy as a response to the global crisis aims at developing a macro-prudential approach towards regulatory and supervisory reforms. It is, nevertheless, somehow debated as to what would constitute an adequate policy response: either necessarily more regulation, or only better supervision and enforcement accompanied by greater level of transparency, or both.[429] While bearing in mind the fact that one size does not fit all, the discussion below demonstrates rationale for macro-prudential regulation and thus supervision, in the belief that it would help cast some light on the issue at hand.

2.1.1 Why regulating finance?

"Laws and legal systems are not matters of nature but artifice…made up of institutional facts like orders and rules, and those are made by people thinking and acting".[430]

Financial regulation

On the topic of reforming financial regulation and supervision in the aftermath of the crisis, Ladeur admits "[a]s legal theorists, we are clearly in an awkward position: we have to

---

[429] While Brunnermeier et al. advocate for 'more' regulation to remedy market failures that have either been ignored or improperly dealt with so far, Cottier and Lastra conclude, in many cases, the adequate response is not about more regulation but actually better supervision and enforcement or better international coordination.; For more details, *see*: MARKUS BRUNNERMEIER et al., *The Fundamental Principles of Financial Regulation*, xvii.; *See also:* THOMAS COTTIER and ROSA M. LASTRA, *Conclusions*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 417.

[430] "But, of course, law exists in the physical universe that is not socially constructed, and it is created by and for people who are not socially constructed either."; LESLIE GREEN, *Introduction*, in H. L. A. HART, *The concept of law*, Third Edition, Oxford University Express, 2012, xvii. This is typically the view of positivism, i.e. law is not given, but man made. Alternatively, Klabbers noted, the natural law thinking would 'suggest that law is not made but found somehow in the nature, ordained by God and be recognized by the proper method of analysis or by those of the right faith'. *See further* at JAN KLABBERS, *International Law*, Cambridge University Press, 2013, 6.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

reflect on the legal structures and norms that aremeant to allow for the maintenance of some kind of collective order and stability in the realm of economic transactions that we do not understand well".[431] From another angle, Partnoy added the fact that 'research about financial crises has historically been dominated by financial economists, not legal academics' and that the focus is most often on financial, not regulatory.[432] Admittedly, these statements somehow reflect the role of regulation in financial markets as well as the dominance of economic rationale as traditional justifications for financial regulation. According to Andenas and Chiu, such situation stems from the fact that the financial services industry—*a dominant actors in the regulatory space*—"has consistently preferred grounding financial regulation in economic rationale, as the economic concerns for cost-effectiveness and efficiency provide a brake against over-regulation".[433]

Before advancing to details of the rationale, however, there is another distinction to be made between industry self-regulation and regulation—referring to government regulation or the so-called public sector intervention. There are, indeed, several ways to define self-regulation as the concept also faces with the lack of definitional clarity despite its seemingly simplicity.[434] For the purpose of this discussion, self-regulation refers to 'the regime in which the private industry

---

[431] KARL-HEINZ LADEUR, *The Financial Market Crisis—a Case of Network Failure?*, in POUL F. KJAER et al. (eds.), *The Financial Crisis in Constitutional Perspective: The Dark Side Of Functional Differentiation*, 64.
[432] FRANK PARTNOY, *Financial Systems, Crises, and Regulation*, in NIAMH MOLONEY, EILÍS FERRAN, and JENNIFER PAYNE (eds.), *The Oxford Handbook of Financial Regulation*, Oxford University Press, 2015, 90.
[433] Either market failure or public good in the form of systemic stability, the role of financial regulation has actually been translated into the language of economic rationale.; *See* MADS ANDENAS and IRIS H-Y CHIU, *The foundations and future of financial regulation: Governance for responsibility*, 11.
[434] SAULE T. OMAROVA, *Wall Street as community of fate: toward financial industry self-regulation*, University of Pennsylvania Law Review, Vol. 159: 411, 2011, 422.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

designs and enforces the rules themselves'.[435] Such rules manifest in the form of self-imposed standards promulgated by professional associations which 'constitutes an informal mode of governance and being formulated under a consensus principle by those to whom they are addressed'.[436] For instance, private standards has been largely used for trading in stock markets in several financial jurisdictions and still remained an importance mode of governance. As a matter of principle, compliance with self-imposed standardsis voluntary as opposed to binding law-based provisions which represent formal public intervention. The standards 'can be binding yet only in practice'.[437] For the sake of clarity, self-imposed standard emerges endogenously from the prevailing industry practice, and this—yet not the association of hardness to legal rules or softness to standards—ultimately differentiates it from regulation which stems from exogenous public intervention.[438] In such a way, self-regulation regime is seen distant from or even as an alternative/substitute to government regulation. Omarova then noted that this understanding of self-regulation is often used as "a proxy for complete freedom of market actors from any

---

[435] It further implies that within that framework, 'firms must willingly cooperate with each other to enact and uphold the self-regulatory regime without government interference'. In the case of finance, the term 'industry' refers to the financial field as a 'financial services industry'.; ANTHONY D. WILLIAMS, *An economic theory of self-regulation*, The Political Economy Doctoral Workshop, Department of Government, LSE, January 2004, 8-9.
[436] 'In some cases, standards appear as a natural outcome of technical evolution or the result of careful preparation and agreement among industry participants and associations, for instance, the standardization of bank accounts and bank transfer instrument'.; TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk*, 42.
[437] It could be seen 'binding' where compliance is required due to peer or market pressure. In fact, standards can be more compelling than law-based provision if it is entrusted to a weak authority; *See* further at: TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk*, 40-41.
[438] In the financial field, private industry standards played an important role, in the past, as a means of governance, partly resulting from the fact that the industry remains dominant in the regulatory space—the balance of power has been with the industry—thus effectively promotes self-regulation.; TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk*, 41.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

government regulation".[439]

In fact, there has almost always been a debate as to the role of regulation in markets, to what extent there should be government intervention, or should market freedom be preserved so that the regulatory task is left to the market itself through the use of market fundamentalism.[440] On the one hand, Keynesian theory of macro-economics—which was prominent during the crisis of the Great Depression of the 1930s in the United States—emphasizes the use of state intervention to complement market forces.[441] Being interventionist policy oriented, for instance, the US Congress—on the assumptions that banking and financial risks can be unpredictable—enacted the Glass-Steagall Banking Act of 1933 which imposed structural regulation to limit banks' degree of freedom in conducting their businesses through 'restricting affiliation between banks and securities firms or banning banks from owning insurance companies'.[442] Additionally, as experiences of the United States in the aftermath of the Great Depression show, self-regulation for prudential purpose was somehow replaced by public prudential regulation for banks.[443] Then there was a shift from Keynesian to neoliberalism which dominated approximatelyfrom the 1980s

---

[439] SAULE T. OMAROVA, *Wall Street as community of fate: toward financial industry self-regulation*, 422.

[440] Generally speaking, it is the reliance of the self-correcting nature of markets to allocate resources of the society, hence, public regulation is relegated to a supporting role.; For details on understanding of market fundamentalism, *see:* DAN AWREY, *Complexity, innovation, and the regulation of modern markets*, Harvard Business Law Review, Vol. 2, 2012, 237.

[441] British economist John Maynard Keynes broke from the Classical tradition with his most famous publication of The General Theory of Employment, Interest and Money (1936) which provided a revolution in economic thinking that overturned the then-prevailing idea that free market would automatically provide full employment.; STEPHEN K. AIKINS, *Global financial crisis and government intervention: a case for effective regulatory governance*, International Public Management Review, Volume 10, Issue 2, 2009, International Public Management Network, 32. *See also*: SARWAT JAHAN, AHMED SABER MAHMUD, CHRIS PAPAGEORGIOU, *What Is Keynesian Economics?*, Finance & Development, International Monetary Fund, September 2014, Vol. 51, No. 3.

[442] STEPHEN K. AIKINS, *Global financial crisis and government intervention: a case for effective regulatory governance*, 32.

[443] TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk*, 43.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

until 2007,[444] right before the burst of the US sub-prime housing bubble that triggered the global recession.

At the outset, the theory of laissez-faire economics considers: in an idealized competitive economy, market exchange and allocative efficiency are based on self-regulating mechanism.[445] Put another way, given a free market economy, financial markets are seen as self-correcting thus could function efficiently and maintain price equilibrium without recourse to public intervention.[446] Against the backdrop of neoliberalism which gave rise to deregulation and financialization in the 1980s, it is reaffirmed that 'prosperity and efficiency are maximized when markets are set free from government interference'.[447] In this regard, some neoliberal economists went far to argue on the basis of their 'efficient market theory'—which assumes perfect markets—that 'a completely free market policy is best' thus advocating for the market to solely rely on self-regulation.[448] As the argument goes on, self-regulation advocates conclude in support of market disciplines such as 'reputational constraints, the market for corporate control, and

---

[444] The aftermath of the global crisis somehow saw the resurgence of Keynesian economics. *See* further at: Chris Giles, Ralph Atkins, Krishna Guha, *The undeniable shift to Keynes*, Financial Times, December 2008.

[445] In the sense that "in a perfectly competitive market, with zero transactions costs, there would be neither information asymmetry nor agency cost conflicts, and therefore no need for regulation".; *See* further at STEPHEN K. AIKINS, *Global financial crisis and government intervention: a case for effective regulatory governance*, 26.

[446] Charles Goodhart based this analysis on Coase's theory (1988): On the assumption of a free market economy, 'a considerable internal infrastructure and self-regulation are required for the free markets to function efficiently with minimal transaction costs'.; *See* CHARLES A.E. GOODHART et al., *The rationale for regulation,* in CHARLES A.E. GOODHART, DIMITRIOS P. TSOMOCOS (eds.), *Financial Stability in Practice: Towards an Uncertain Future,* 31.

[447] LAUREEN SNIDER, *The Conundrum of Financial Regulations: Origins, Controversies and Prospects*, 125.

[448] "The idea of a perfectly competitive market was applied to financial markets, and especially securities markets, to produce the notion of 'efficient market theory'…The policy implication of this laissez-faire economic theory is to justify a complete deregulation of financial markets. In the international context this generated the development policy known as 'capital account liberalization' or 'neo-liberalism'."; RANDALL DODD, *The Economic Rationale for Financial Market Regulation*, Special Policy Report No.12, Derivatives Study Center, Washington D.C., December 2002, 2.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

rational disclosure incentives' which areconsidered'sufficiently robust to make self-regulation superior to government regulation'.[449] In fact, for decades prior to the global crisis, there had been long-held assumptions that certain market segments operate best under self-regulation regime—for instance, securities markets—because rationally and fully informed market participants in such segment had effectively mastered risks through the use of sophisticated quantitative methods.[450] To quote Alan Greenspan "*professional counterparties to privately negotiated contracts also have demonstrated their ability to protect themselves from losses, from fraud, and counterparty insolvency…the [Federal Reserve] Board continue to believe that, aside from safety and soundness regulation of derivatives dealers under the banking or securities laws, regulation of derivatives transactions that are privately negotiated by professionals is unnecessary…The primary source of regulatory effectiveness has always been private traders being knowledgeable of their counterparties. Government regulation can only act as a backup*".[451]

If we make a pause here for a moment, however, it should be noted that such characteristics of self-regulation does not make the financial markets become external to the law. Being transactional in nature, financial markets, as Cottier et al. submits, 'are primarily

---

[449] FRANK PARTNOY, *Financial Systems, Crises, and Regulation*, in NIAMH MOLONEY et al. (eds.), *The Oxford Handbook of Financial Regulation*, 84.
[450] NIAMH MOLONEY, *Financial services and markets*, in NIAMH MOLONEY et al. (eds.), *The Oxford Handbook of Financial Regulation*, 442. *See* also: DAN AWREY, *Complexity, innovation, and the regulation of modern markets*, 237.
[451] Public regulatory intervention of OTC derivatives markets seems to be unnecessary thus may hinder the efficiency of markets to enlarge standards of living.; *See* further at: Testimony of Chairman ALAN GREENSPAN, *The regulation of OTC derivatives*, Testimony of Chairman Alan Greenspan Before the Committee on Banking and Financial Services, U.S. House of Representatives, July 24, 1998.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

constituted by law'.[452] To give more clarity, they add, "[w]ithout legal assignment and protection of property rights, without contract law, without liabilities rules, markets cannot exist and operate".[453] In such a way, the financial system consists of 'a complex, independent web of contractual obligations that link market participants to one another'.[454] Even in cases where economists strongly believe matters of financial markets should be left to the invisible hand—which is often implied that such matters should be 'deregulated' thus left to the economic laws of demand and supply—it does not mean the financial markets operate outside the bounds of law.[455] In essence, there is no market without law and private industry self-regulatory standards "do need the *underlying support* of commercial and contract law to provide sanctions and to prevent opportunistic behavior".[456]For instance, as Padoa-Schioppa noted, the self-imposed regulatory standards function 'to define the terms of supply and marketability of products'; issues such asthe provisions of information, the identification and establishment of the roles of the various market agents and dealers etc.are the outcome of private arrangements yet being reinforced and supported on the basis of commercial, contract, property, and tort law.[457]As such, legal and economic theorists achieve consensus on the perception of 'markets as rule-bound systems'. Eventually, the aforementioned debate is about the degree of public intervention in the form of

---

[452] THOMAS COTTIER, LUCIA SATRAGNO, *The potential for law and legal methodology in monetary affairs*, in THOMAS COTTIER et al. (eds.), *The Rule of Law in Monetary Affairs*, 414.
[453] 'If deregulation means there is no room for law and regulation, the authors submit, this perception perhaps links to excessive and inefficient control and command while ignoring the importance of law for the operations of market'.; *See* further at: THOMAS COTTIER, LUCIA SATRAGNO, *The potential for law and legal methodology in monetary affairs*, in THOMAS COTTIER et al. (eds.), *The Rule of Law in Monetary Affairs*, 414.
[454] KATHARINA PISTOR, *A legal theory of finance*, 317.
[455] THOMAS COTTIER, LUCIA SATRAGNO, *The potential for law and legal methodology in monetary affairs*, in THOMAS COTTIER et al. (eds.), *The Rule of Law in Monetary Affairs*, 414.
[456] CHARLES A.E. GOODHART et al., *The rationale for regulation,* in CHARLES A.E. GOODHART, DIMITRIOS P. TSOMOCOS (eds.), *Financial Stability in Practice: Towards an Uncertain Future,* 31.
[457] TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk*, 42.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

government regulation which goes beyond these fundamentals of the law. On that basis, Katharina Pistor even went further to reaffirm that “there is no such things as ‘unregulated’financial markets, and deregulation is a misnomer”.[458] In other words, she explains, this terminologyis meant to refer to some kind of ‘implicit delegation’for certain aspects with the understanding that “in all other respects they enjoy the full protection of the law”.[459]

While supporters of the self-regulatory approach are of the view that self-regulation offers significant advantages compared to government regulation due to ‘its speed, flexibility and context-driven, cost-effectiveness which could help private entities respond better and more quickly to changes in market conditions’; its critics point out their distrust in those profit-seeking enterprises as well as the weak or ineffective enforcement capabilities, limited legitimacy and the failure of accountability arrangement within a self-regulation regime.[460] Even so, the classical case for externally imposed regulation—as opposed to self-regulation—in financial markets did not come as a response to these deficiencies, but based on economic rationale of market failures,[461] being framed in the language of public interest theory.[462] Under certain conditions

---

[458] KATHARINA PISTOR, *A legal theory of finance*, 321.
[459] Deregulation, according to Pistor, usually denotes the kind of delegation of rule making to different, typically non-state actors.; KATHARINA PISTOR, *A legal theory of finance*, 321.
[460] SAULE T. OMAROVA, *Wall Street as community of fate: toward financial industry self-regulation*, 423.
[461] When it happens that the markets are unable to correct themselves, there is the case for market failures in the form of negative consequences arising from such inability. For instance, market failures include time-inconsistencies, monopolies, externalities, public goods, principal-agent problems, adverse-selection, non-competitive markets, or informational asymmetries. *See* further at: MICHAEL C. MUNGER, WILLIAM R. KEECH, *Market Failure and Government Failure*, Public Choice World Congress, 2012, Miami; FRANCIS M. BATOR, *The Anatomy of Market Failure*, The Quarterly Journal of Economics, Volume 72, Issue 3, August 1958, 351-379.
[462] There are two main theories that underpin the necessity for government regulation, i.e. the public interest and the private interest theories. On the one hand, market failure is put in the center of public interest theory which forms the basis to justify the use of regulation aiming at correcting these failures. On the other hand, private interest theory revolves around cases of ‘regulatory capture’ where regulators work instead for private interest. Despite that, the public interest theory, more often than not, finds itself in the political agendas.;

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

where competitive market allocation is inefficient and a market failure has been produced, government can then put in place "appropriate institutional and regulatory framework to correct it".[463] In this regard, it should be noted that whether government regulation is the best means to resolve market failures still remains debatable as it imposes costs on the industry which, in many cases, may exceed the benefits.

According to the traditional neoclassical economic analysis of financial regulation,market failures—in the form of information asymmetries or presence of severe externalities, i.e. negative third party effects—are standard justifications for the use of government intervention. In the case of externalities, regulation is justified to the extent that these market failures 'are not efficiently internalized but being externalized into the financial system thus generating stability risks which could eventually produce damages to the real economy'.[464] As a matter of principle, where bankers—or financial market participants in general—are considered professionals thus act rationally, the authorities "have no locus for any intervention, however risky the bank's business plan may seem" as long as the bank itself internalizes 'any adverse fallout from adverse outcomes'.[465] When losses are not internalized by firms and in circumstances where 'the private sector, left to themselves, produces suboptimal results which are arguably worse than public

---

For a review on economic theories of regulation, *see*: JOHAN DEN HERTOG, *Review of economic theories of regulation*, Utrecht School of Economics, Utrecht University, December 2010.

[463] STEPHEN K. AIKINS, *Global financial crisis and government intervention: a case for effective regulatory governance*, 26.

[464] NIAMH MOLONEY, EILIS FERRAN, JENNIFER PAYNE, *Institutional Design: The Choices for National Systems*, in NIAMH MOLONEY et al. (eds.), *The Oxford Handbook of Financial Regulation*, 4-5.

[465] CHARLES A.E. GOODHART et al., *How should we regulate financial sector,* in CHARLES A.E. GOODHART, DIMITRIOS P. TSOMOCOS (eds.), *Financial Stability in Practice: Towards an Uncertain Future,* 92.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

sector regulation',[466] then there is the case for government regulation. Like a tragedy of the commons, Schwarcz argues,"no individual market participant has sufficient incentive, given the absenceof regulation, to limit its risk taking in order to reduce the systemic danger to other participants and third parties".[467] In addition to difficulties in quantifying financial risks and costs,[468] firms would usually not internalize potential social costs and risks to other parties as a consequence of their behaviors, even if they can cover such exposure. As a result, such costs—which could possibly involve sharp decline in financial markets and create a spillover effect into the real economy—are not incorporated in their 'rational' decision making. In situations when these losses eventually develop into episodes of financial crisis—a manifestation of market failures—regulatory solutions are thus appropriate in the sense that government regulation aims at mitigating the undesirable consequences of market activity.[469] Hence, public control is needed and justified for only public authorities can take due account of losses arising from negative externalities, especially when its magnitude goes beyond the boundaries of a single institution or market to affect the real economy.[470]

In such a way, the scope of financial regulation is limited as its role is framed in economic

---

[466] This is also to say that government regulation has its restrictive effects towards economic activities thus could actually distort the economic outcome.; *See* further at: CHARLES A.E. GOODHART et al., *The rationale for regulation,* in CHARLES A.E. GOODHART, DIMITRIOS P. TSOMOCOS (eds.), *Financial Stability in Practice: Towards an Uncertain Future,* 32.
[467] *See* further at: STEVEN L. SCHWARCZ, *Systemic Risk*, 198.
[468] Firms may notice that there could be potential risks in many cases, however, they might not know whether and when it will be materialized. Thus, it contributes to the inaction bias.
[469] STEPHEN K. AIKINS, *Global financial crisis and government intervention: a case for effective regulatory governance*, 26.
[470] Indeed, the financial industry itself can hardly take into account the wide impacts of such crisis, which, in a way, gives rise to the use of public control.; *See* further at: PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk*, 48-49.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

language where it "has been intensely pragmatic and is used mainly to resolve market failures generated by the financial services industry".[471] To the extent that financial regulation helps maintain systemic and financial stability, it has indeed a role to provide 'public goods' to the society. This concept, Andenas and Chiu noted, is also couched in the language of economic rationale with 'public goods' being non-excludable and non-rivalrous.[472] For the sake of clarity, Goodhart summarizes three main reasons which make the rationale for public sector regulation in finance, namely (i) consumer protection against monopolistic exploitation, (ii) asymmetric information, and (iii) to ensure systemic stability—in which the rules become more protective and paternalistic in nature.[473] Additionally, the inherent characteristics of liquidity volatility and uncertainty of finance coupled with the complexity of its system effectively make this industry more heavily regulated compared to other sectors of the economy.[474]

Broadly defined, financial regulation consists of two groups in which the first group being 'conduct of business regulation', and the second group includes prudential and systemic regulation. With a focus on the functions of financial institutions, conduct of business regulation

---

[471] MADS ANDENAS and IRIS H-Y CHIU, *The foundations and future of financial regulation: Governance for responsibility*, 5.
[472] 'Financial stability is not rivalrous/depletable because users of financial services who derive benefits from stability do not deprive others of such benefits. Financial stability is not excludable because it is collectively enjoyed by the society and users of financial services cannot be excluded from its benefits'.; *See* further at: FRANK PARTNOY, *Financial Systems, Crises, and Regulation*, in NIAMH MOLONEY et al. (eds.), *The Oxford Handbook of Financial Regulation*, 70; MADS ANDENAS and IRIS H-Y CHIU, *The foundations and future of financial regulation: Governance for responsibility*, 4-5.
[473] CHARLES A.E. GOODHART et al., *The rationale for regulation,* in CHARLES A.E. GOODHART, DIMITRIOS P. TSOMOCOS (eds.), *Financial Stability in Practice: Towards an Uncertain Future,* 32. There are, indeed, other types of markets failures but those may not be unique to finance and/or whose principles to address them may be more readily found in other industries.
[474] These inherent characteristics of finance will be analyzed further in the latter part of the research. *See infra* at 2.3

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

is designed to "establish rules and guidelines about appropriate behaviors and business practices in dealing with customers".[475]It includes, for instance, limits on interest rates charged on loans or paid in deposits, restrictions on commercial presence of establishing domestic or foreign branches, restrictions on the fields and activities that financial institutions can conduct their business, as well as requirements on the nature and timing of disclosures so as to prevent information asymmetries or the abuse of insider information.[476] These apply horizontally across financial institutions irrespective of their size and contribution to social costs. For the second group, even though both prudential and systemic regulation focus on the institutions rather than their functions and both are deployed using the establishment of capital requirements, there is a distinction between them. While the former puts in center 'the safety and soundness of financial institutions *vis-à-vis* consumer protection' regardless of systemic consequences, the latter is "about the safety and soundness of financial institution for purely systemic reasons".[477]It should be added that prudential regulation in this sense is the traditional type or micro-prudential as opposed to macro-prudential regulation.

…

As it turned out, the mainstream of financial regulation in decades prior to the global crisis 2008 essentially centered on individual financial institutions—both firms and markets—and at best, it provided limited mechanism towards systemic event in narrow sense, for instance, bank

[475] CHARLES A.E. GOODHART et al., *The rationale for regulation,* in CHARLES A.E. GOODHART, DIMITRIOS P. TSOMOCOS (eds.), *Financial Stability in Practice: Towards an Uncertain Future,* 34.
[476] LAWRENCE J. WHITE, *The Role of Financial Regulation in a World of Deregulation and Market Forces*, Stern School of Business, New York University, November 1999.
[477] CHARLES A.E. GOODHART et al., *The rationale for regulation,* in CHARLES A.E. GOODHART, DIMITRIOS P. TSOMOCOS (eds.), *Financial Stability in Practice: Towards an Uncertain Future,* 32-33.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

runs—a classic example of contagion effect arising from idiosyncratic shock of exogenous origin. It is worthy to note that self-regulation in the form of self-disciplinary standards seems to have played a more important role in the 'conduct of business' group, especially for securities market, while "they have lost their ground in the prudential field" aiming towards the preservation of financial stability.[478] The main reason is because 'conduct of business' regulation had been most affected by the wave of deregulation and liberalization in financial services industry happened across several jurisdictions.Due to the reliance on market fundamentalism, public regulation was impliedly relegated to a supporting role to aid private risk-taking.[479] In such a way, financial regulation was considered as "primarily facilitative of market-based governance".[480] The only tool left to protect the financial system from banks' excessive leverage and risk taking was (micro-)prudential regulation in the form of capital requirement, yet it focused on individual institutions' risk profile and not the systemic risk—which is taken as potentially associated with negative externalities to the overall system and the real economy.[481]The pre-crisis stage, on such a basis, witnessed both the dominant use of market disciplines and the lack of regulatory tool to preserve the stability of the financial system as a whole. This, in its turn, reflects the role of

---

[478] TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk*, 45-46.
[479] On the basis of the provision of private property rights and efficient contract enforcement, public regulation is thought to support markets.; DAN AWREY, *Complexity, innovation, and the regulation of modern financial markets*, 237.
[480] MADS ANDENAS and IRIS H-Y CHIU, *The foundations and future of financial regulation: Governance for responsibility*, 3.
[481] On the assumptions that 'if every single tree is healthy, it is a healthy forest', this approach is considered to be seriously flawed. As Acharya et al. explained: "risk gets passed around in the system and creates a financial sector in which any individual institution's risk of failure appears low to the regulator, but it is either hidden in the unregulated sector or has combined to form an aggregate concern—in either case, it is systemic in nature."; VIRAL V. ACHARYA, THOMAS COOLEY, MATTHEW RICHARDSON, INGO WALTER, *Market Failures and Regulatory Failures: Lessons from Past and Present Financial Crises*, ADBI Working Paper Series, No. 264, February 2011, 15.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

conventional theory of finance as the main driver of public policy essentially in the period leading to the global financial crisis.

As Dan Awrey rightly observed, it is the *ideology* of modern finance—i.e. "the foundations of a widely held belief in the self-correcting nature of markets and their consequent optimality as mechanisms for the allocations of society's resources"—had profoundly influenced the approach of financial regulation towards financial markets and institutions.[482] As a result, Awrey continues, it caused regulators to 'turn a blind eye' to potential adverse effects of acquisition of huge amounts of risks thus failed to account for the complexity of modern financial market as well as the pace of financial innovation.[483] Put another way, Galati and Moessner commented, there was *overconfidence* in the self-adjusting ability of the financial markets which led to the failure in delivering a proper risk assessment; combined with insufficient recognition of the role of financial innovation as well as impacts of financial deregulation in exaggerating the boom and exacerbating the bust on the real economy.[484] As a result, financial markets became too friendly following the market-friendly approach, in which regulation was designed more to enhance market's ability rather than to prevent undesirable consequences through sanctions.[485] This is also due to the misinterpretation of the light-touch approach (in order to reap the economic benefits of financial innovation) which served as an excuse 'to allow competition in

---

[482] DAN AWREY, *Complexity, innovation, and the regulation of modern financial markets*, 237.
[483] 'It is the combination of complexity and innovation that gives rise to a host of regulatory challenges to which we have not fully understood its implications.'; DAN AWREY, *Complexity, innovation, and the regulation of modern financial markets*, 238.
[484] GABRIELE GALATI & RICHHILD MOESSNER, *Macro-prudential policy: A literature review*, 3. Also, 'it has been conventional wisdom that stock market bubbles are inherently part of the system and its efficient market-based readjustment'.;
[485] For a more detailed discussion on the market-friendly approach, *see further* at: TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk*, 2-4.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

laxity' in several jurisdictions.[486]

The global crisis, as it turned out, clearly shows the failure of the market-driven view of economic activity, in the sense that the exaggerated trust on the markets to discipline themselves created 'unintended consequences of destabilizing the financial system' which then devastated the real economy.[487] This, however, does not mean to say that not even one economist was able to predict such consequences, as there were indeed some warnings.[488] To quote Krugman "[f]ew economists saw our current crisis coming, but this predictive failure was the least of the field's problems. More important was the profession's *blindness* to the very possibility of catastrophic failures in a market economy".[489]Hence, in order to answer the famous question of 'why did no one notice this [global crisis] was coming?', instead of viewing it as a 'failure of collective imagination',[490] perhaps another more appropriate response could be because "[t]hose who

---

[486] The laxity of regulation is thought to lie at the roots of the financial crisis. In this regard, Padoa-Schioppa also noted with regard to this market-friendly approach "A policeman has to be friendly and helpful to citizens – just as regulators need to be market- friendly – but a policeman always has to remember who he is" (Padoa-Schioppa, 2002b)."; ALESSIO DE VINCENZO and ANDREA GENERALE, *Background note: T. Padoa-Schioppa's perspective on financial system regulation and supervision*, in Bank of Italy, *Conference in Memory of Tommaso Padoa-Schioppa* 118-119.

[487] VIRAL V. ACHARYA, THOMAS COOLEY, MATTHEW RICHARDSON, INGO WALTER, *Market Failures and Regulatory Failures: Lessons from Past and Present Financial Crises*, 1.

[488] Cottier cited notable exceptions, Nouriel Roubini, who firmly predicted in 2006 that a crisis was brewing as well as evidences of similar warnings from *The Economist.*; *See* further at: THOMAS COTTIER, *Challenges Ahead in International Economic Law*, 10.

[489] *See* further at: PAUL KRUGMAN, *How Did Economists Get It So Wrong?*, The New York Times Magazine, September 2009, available at: http://www.nytimes.com/2009/09/06/magazine/06Economic-t.html?_r=0

[490] The question was famously asked by the Queen of the United Kingdom on a visit to the London School of Economics at the height of the financial crisis in November 2008 to the gathered assembly of leading economists. The response was given a few months later in a letter to the Queen dated 22nd July 2009 where the cause was down to a 'failure of collective imagination' (*See*: The British Academy Forum, 'The Global Financial Crisis–Why Didn't Anybody Notice?', June 2009); JULIA BLACK, *Seeing, Knowing, and Regulating Financial Markets: Moving the Cognitive Framework from the Economic to the Social*, LSE Law, Society and Economy Working Papers 24/2013, London School of Economics and Political Science.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

warned were not heard, because people hear what they like to hear in good times".[491]

The global crisis has thus not only questioned the financial market's ability to self-regulate and auto-adjust but also the efficiency and sufficiency of financial regulation. Since self-regulation alone is not sufficient in financial markets, the aforementioned debate has changed. It is not about whether there is room for government intervention; for the time being, the focus is rather on the proper degree of government regulation in financial markets.[492] As a matter of principle, lawyers are obviously not in the position to criticize economic theories or joining the debate of whether Keynesian or neoliberalism would prevail, but 'the lawyer will observe that the economic fundamentals (be it economic engineering, economic management or economic science)[493] did not stand the test of the day'.[494] On such a basis, Cottier asserts, "[w]e can no longer be prepared to leave matters as before".[495]

Pro-cyclicality of financial regulation: A tale of a regulating cycle

Being justified on the economic rationale of market failures, it came as no surprise that

---

[491] THOMAS COTTIER, *Challenges Ahead in International Economic Law*, 10.
[492] THOMAS COTTIER, LUCIA SATRAGNO, *The potential for law and legal methodology in monetary affairs*, in THOMAS COTTIER et al. (eds.), *The Rule of Law in Monetary Affairs*, 415.
[493] To quote Ben Bernake: "*I would argue that the recent financial crisis was more a failure of economic engineering and economic management than of what I have called economic science*". In this regard, *Economic science* concerns itself primarily with theoretical and empirical generalizations about the behavior of individuals, institutions, markets, and national economies. *Economic engineering* is about the design and analysis of frameworks for achieving specific economic objectives. *Economic management* involves the operation of economic frameworks in real time.; BEN S. BERNANKE, *Implications of the Financial Crisis for Economics*, Speech at the conference co-sponsored by the Center for Economic Policy Studies and the Bendheim Center for Finance, Princeton University, Princeton, New Jersey, September 24, 2010.
[494] The economic fundamentals refer to the basis on which the current approaches to financial and monetary regulation, either domestic or international levels, stand on. *See* further at THOMAS COTTIER, *Challenges Ahead in International Economic Law*, 11.
[495] "We have to accept that economic models in financial and monetary affairs are not able to reflect the complexities of the real world."; THOMAS COTTIER, *Challenges Ahead in International Economic Law*, 11.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

there is a call for 'more' and 'better' regulation after the crisis, as this undoubtedly constitutes a manifestation of market failure thus forms the justification for such a call.[496] The prevailing view in favor of having more regulation seems also 'widely undisputed' in the belief that governments should intervene to restrain financial markets from making the same mistakes again and again.[497]However, such regulatory response has become very much familiar after every crisis and the cycle of financial expansion, crisis, then regulatory reaction has been largely repeated.[498]

In fact, the immediate and inevitable response that has been repeating any time after a financial crisis is: 'That must never be allowed to happen again'.[499] Not just generally about preventing the recurrence of the previous crisis, Pistor added, the primary goal of the reforms afterwards is that 'it'—the bailout of major financial intermediaries using taxpayers' money—would never happen again. Putting words into action, regulators then advocate for more regulation and thus supervision which means further tightening the markets when everything is already at its weakest point. In other words, the aftermath of the crisis witnesses regulators imposing even more stringent rules towards the 'already-fragile-market-participants who have

---

[496] Acharya et al. provide evidences, on the basis of the experiences of the United States from the Panic of 1907 to the Long-Term Capital Management crisis in 1998, to demonstrate the relationship between market failures and financial regulation in the sense that financial regulation was introduced in reaction to the specific market failures in the previous crisis.; For a more detailed discussion, *see*: VIRAL V. ACHARYA, THOMAS COOLEY, MATTHEW RICHARDSON, and INGO WALTER, *Market Failures and Regulatory Failures: Lessons from Past and Present Financial Crises*, 3-9.

[497] ARMIN J. KAMMEL, *Government Versus Markets—A Change in Financial Regulation*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, Nijhoff International Trade Law Series: Volume 14, November 2015, 4.

[498] NIAMH MOLONEY, EILIS FERRAN, JENNIFER PAYNE, *Institutional Design: The Choices for National Systems*, in NIAMH MOLONEY et al. (eds.), *The Oxford Handbook of Financial Regulation*, 5.

[499] CHARLES GOODHART, *Pro-cyclicality of financial regulation and how to deal with it.*

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

become so risk-adverse that they would behave more prudently, conservatively and carefully'.[500] As a result, not only it becomes much harder for financial institutions to comply with additional regulation but also such imposition would further drive down the economy. Moreover, Markus et al. commented "banning products, players and jurisdictions that were circumstantially at the center of the current crisis will do little to prevent the next one".[501] When the perception of danger is over and no other crisis taking place, the undesirable restrictive effects of regulation—which somehow appear to be unnecessary and more damaging towards increased growth, productivity and profitability than the benefits it could bring about—eventually lead to regulatory arbitrage to circumvent or get around it.[502] In combination with the national 'race to the bottom' due to fierce regulatory competition, these developments gradually erode financial regulation.[503] As such, financial regulation during the boom becomes more relaxed, notably when the market is

---

[500] For instance, within the European Union, regulation on capital requirement is relaxed during the boom (e.g. 2% of risk-weighted-assets) but gets tougher (9% RWA) in times of crisis.; CHARLES GOODHART, *Pro-cyclicality of financial regulation and how to deal with it.*

[501] MARKUS BRUNNERMEIER et al., *The Fundamental Principles of Financial Regulation*, xviii.

[502] Taking evidences in the recent histories of the US and UK, Davies and Green summarized, regulation seems to be in need right after the damaging incident (i.e. crisis), yet it takes time to be materialized. It is usually the case that by the time it is agreed and implemented, the circumstance has already faded in the collective memory, hence, the new rule appears to be excessively bureaucratic which could hamper business development.; HOWARD DAVIES and DAVID GREEN, *Global financial regulation: The essential guide (With a Revised Introduction)*, Polity Press, 2009, 27-28. As Merzaros rightly pointed out, this situation was 'precisely the fate the befell the Glass-Steagal Act of 1933 which was created in the light of the Great Depression of 1930s, and later modernized out of existence under President Clinton's Treasury Secretary, Robert Rubin'; *See further* at GEORGE MÉSZÁROS, *Macro-prudential regulation: A contradiction in its own terms*, Journal of Banking Regulation, Vol 14, 2 (164-182), Macmillan Publishers Ltd., 2013, 176.

[503] When being imposed on financial institutions, regulation limits certain forms of innovation while at the same time stimulates other forms of innovation in order to get around with it. Thus, regulatory loopholes are actively exploited by financial market participants in order to gain competitive or other advantages. In addition, regulatory competition of major jurisdictions to make theirs the most attractive to investors would contribute to make regulation loose. (In fact, except immediately after the crisis, large financial institution can threaten to move to another 'nicer' country with less regulation); CHARLES GOODHART, *Pro-cyclicality of financial regulation and how to deal with it.* This cycle has happened largely in several main financial jurisdictions.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

at its strongest point.[504] On top of that, market forces during the boom also facilitate the achievement of regulatory requirements for everything (capitals, assets, profits) is going well thus participants could even go beyond what is required. For a moment, we can see the cycle of regulating finance, where there is a sort of tension and pressure not to regulate in normal and good time (resulted in the so-called inaction bias)[505] yet an urge to strengthen regulation during recession period. Put it differently, such cyclical progression represents a 'Regulatory Sine Curve' that governs the intensity of the oversight exercised by financial regulators in the meaning that "regulatory intensity is never constant, but rather increases after a market crash, then wanes as (and to the extent that) society and the market return to normalcy".[506]

On the basis that financial regulation is inherently reactive and responsive to the financial crisis, Charles Goodhart pointed out, it is inherently pro-cyclical[507] in the sense that financial

---

[504] Perhaps the deregulation period provides clear examples of how financial regulation was gradually eroded (example of the US Glass-Steagall Act which was introduced after the Great Depression 1929-1933, then to be removed in the 80s). Several economists, for instance Stigler, would attribute such consequences to the inefficient regulatory governance on the basis of the 'private interest theory'. It remains, however, undeniable that financial regulation played a supporting role pre-crisis (2008).; For a more detailed discussion on what happened during the deregulatory climate of the 1980s and 1990s in the United States, *see*: LAUREEN SNIDER, *The Conundrum of Financial Regulations: Origins, Controversies and Prospects*, 124-127. GEORGE STIGLER, *The economic theory of regulation*, Bell Journal of Economics, Vol. 2, 3-21.

[505] In normal and good time, there is a pressure not to regulate financial products or assets as it could give a signal to the market that the asset/institution under regulation is unreliable. Due to interconnectedness, such signal could spread then affect other institution and could eventually restrict firms' profitability and growth of the economy.

[506] For a political economy analysis of regulatory response in the aftermath of a crisis, John Coffee explained that such "standard cyclical progression along the Regulatory Sine Curve (from intense to lax enforcement) is driven by a basic asymmetry between the power, resources, and organization of the latent groups (investors) and the interest groups affected by the specific legislation. Cohesion among investors begins to break down once 'normalcy' returns."; JOHN C. COFFEE, JR., *The political economy of Dodd-Frank: Why financial reform tends to be frustrated and systemic risk perpetuated*, in EILIS FERRAN, NIAMH MOLONEY, JENNIFER G. HILL, JOHN C. COFFEE, JR., *The Regulatory Aftermath of the Global Financial Crisis*, Cambridge University Press, 2013, 312-313.

[507] CHARLES GOODHART, *Pro-cyclicality of financial regulation and how to deal with it*, Lecture series: *Into the Folly of Value: Reforming Sustainable Finance*, Gresham College, March 2012.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

regulation has 'the tendency to fluctuate around a trend during an economic cycle'.[508] Admittedly, the pro-cyclicality of financial regulation is reflected through the paradoxical fluctuation where regulation is generally relaxed and easier to achieve during good times, while being tightened and becomes more difficult to comply with during the crisis. Thus, it matches with the economic cycle for it looks positive during the upturn (the boom) and negative when there is the downturn (the bust or disruptions) of the cycle.

The pro-cyclicality, by itself, does not mean it has to be avoided. When it comes to the pro-cyclicality of financial regulation, however, such fluctuation is thought to play a key role in both magnifying the boom and exacerbating the market failures that gave rise to the most recent global crisis. On the one hand, the fact that ratios requirements were all met during the upward trend of the economic cycle somehow contributed to create an 'unreal' ease that banks were prudent and "[t]he state of macro is good"[509] (i.e. the Great Moderation period where banks were well-capitalized with high profit level) thus exacerbated the boom and further induced risk premia.[510] Conversely, regulation is much harder to achieve in bad time for it being introduced while the banking system is extremely fragile and could hardly be recommended. In such a way,

---

[508] Defined as such, increased pro-cyclicality simply means fluctuations with wider amplitude.; JEAN-PIERRE LANDAU, *Pro-cyclicality – what it means and what could be done*, 1.

[509] Prior to the global crisis, the Great Moderation was a period with stable macro-economic performance. Even from 2007 and up to almost Lehman's fall, most central banks all over the world did not believe that the subprime mortgage market collapse could threaten the stability of the whole global financial system. To quote Blanchard in August 2008 "For a long while after the explosion of macroeconomics in the 1970s…The state of macro is good."; *See* further at: OLIVIER J. BLANCHARD, *The State of Macro*, NBER Working Paper, No. 14259, August 2008.

[510] Such 'ease' effectively compelled financial market participants and also regulators to ignore the amount of risks being accumulated. However, "[t]he idea that regulation can allow the growth benefits of easy credit to come without the costs is a chimera. It is precisely the increases in asset values and increased ability to borrow that stimulate the economy that are the proper concern of prudential regulation."; *See* further at: LAWRENCE SUMMERS, *Washington must not settle for secular stagnation*, Financial Times, 5 January, 2014.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

it minimizes the benefit of having regulation and even exaggerates the bust. Goodhart commented, '*financial regulation, for all the time trying to do the right things but frequently acted in such a way exaggerating or enhancing the amplitude of the crisis*'.[511] As pro-cyclicality being inherent to financial regulation, Goodhart continues, another crisis after this (2008) one is bound to happen again in the future by the time at which 'financial regulation imposed afterwards would likely be eroded'.[512]

Goodhart's prediction seems not to be too exaggerated. Retrospectively, there is a recurrent pattern of past financial crises where developments in technology gave ways to financial innovation which was then accompanied by deregulation to accelerate economic growth; a more expansive boom often followed by a stronger bust at the end of the cycle.[513] The most recent crisis also did not randomly occur as a result of a contagion effect where a bad institution failure later becomes systemic, 'yet it is another instance of an all too familiar boom and bust cycle'.[514] Even though the presence of an asset bubble may be necessary but not sufficient for a financial crisis to develop,[515] admittedly, we do not know what the future holds. It could possibly happen that more financial innovation would be created as time passes thanks to technological advancement which then induces boom; economists would again 'get it so wrong'

---

511 CHARLES GOODHART, *Pro-cyclicality of financial regulation and how to deal with it.*

512 In his lecture, Goodhart predicted the next crisis would happen in around 20 years from this most recent crisis of 2008.; CHARLES GOODHART, *Pro-cyclicality of financial regulation and how to deal with it.*

513 SABINE LAUTENSCHLAGER, *Monitoring, regulation and self-regulation in the European banking sector*, Speech at the Deutsche Aktieninstitut in Frankfurt am Main, 21 April 2015.

514 MARKUS BRUNNERMEIER et al., *The Fundamental Principles of Financial Regulation*, xviii.

515 VIRAL V. ACHARYA, THOMAS COOLEY, MATTHEW RICHARDSON, INGO WALTER, *Market Failures and Regulatory Failures: Lessons from Past and Present Financial Crises*, 10.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

that they would be 'mistaking beauty for the truth' thus could not rightly predict the situation,[516] and regulators then follow conventional wisdom accompanied by deregulation. These, all together, would probably make history to repeat itself. In such a way, it is more a matter of 'when' the next crisis will happen.

Another thing to note is the rather *ex-post* approach towards financial regulation, in which it has been, by and large, enacted through a process of learning-by-doing on the basis of the economic rationale of market failures—causes of prior crises. Being introduced when the system is at its weakest, financial regulation somehow also serves as a 'psychological comfort' that regulators are trying to discipline those who created the crisis and used taxpayers' money, but are not fixing their real problems.[517] The devastating impact of the crisis could be argued to affect lawmakers for their eagerness to be seen to be doing something may lead to errors when they 'act too quickly in a situation of considerable uncertainty'.[518] In this regard, Tietje added that the contents of financial regulation 'do not in any way form a logical or consistent system' as it depends on the cause of the prior crisis, i.e. 'sometimes it addresses the quality of financial actors, sometimes information asymmetries, sometimes market behaviors, sometimes the

---

[516] For a more detailed discussion on prevailing economic theories from Keynesian to neoliberalism and back, *see* PAUL KRUGMAN, *How Did Economists Get It So Wrong?.*

[517] In a way, the introduction of more regulation is also in response to the intuition that "[m]arket failure had to be countered by government intervention in the absence of belief in the self-restoring powers of the market"; *See* further at ARMIN J. KAMMEL, *Government Versus Markets—A Change in Financial Regulation*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, 19.

[518] Eilis Ferran provided additional analysis showing that "[k]nee-jerk over-reaction can result in misplaced crude simplification of complex issues and faulty policy choices designed to pander to populist sentiments. The general mood of hysteria and heightened political interest can also allow popular but fundamentally flawed ideas, which would be have been screened out in calmer times, to take hold."; *See further* at EILIS FERRAN, *Where in the world the EU is going?*, in EILIS FERRAN, NIAMH MOLONEY, JENNIFER G. HILL, JOHN C. COFFEE, JR., *The Regulatory Aftermath of the Global Financial Crisis*, 3-4.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

infrastructure of the market'.[519] In essence, financial regulation 'has always involved an element of trial and error',[520] was not really founded on theoretical principle but mostly being introduced after 'innovative dealings got out of hand and created crisis'.[521] Thus, there is not much reason to believe that the most recent global financial crisis—even though being the most devastating one since the US Great Depression—can make much difference to reverse the pro-cyclical tendencies of financial regulation, provided the usual regulatory response. To show that this is not just mere speculation, as Sabine Lautenschläger noted in her recent speech "*After a long phase of deregulation, a comprehensive re-regulation has been in vogue since 2009… The general public, politicians, academics, supervisors and even bankers—simply everyone—called for comprehensive and tough rules for banks and for their close supervision. But the mood seems to have changed over the past year. In Germany and Europe, more and more people are complaining of overregulation. In the rest of Europe, a connection is being made between the words 'credit crunch' and 'regulation'.Many people yearn for a pause in regulation, would*

---

519 CHRISTIAN TIETJE and MATTHIAS LEMANN, *The role and prospects of international law in financial regulation and supervision*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 134. As to the causes of crisis, despite hundreds of it have happened, Frank Partnoy pointed out the lack of comprehensive knowledge as to the causes of crisis. He noted "although there have been hundreds of financial crises, and centuries of research about them, scholars still understand very little about crises. Scholars haven't reached much consensus about common problems and conclusions related to the financial crises of the eighteenth century (the French Mississippi bubble and the South Sea bubble), the nineteenth century (the panics and crises of 1825, 1837, 1847, 1857, 1866, 1869, and 1873), the 1929 crash, the Mexican and Asian currency crises in the 1990s, the dot.com bubble, and so on. Economists even continue to debate why prices of Dutch tulip bulbs skyrocketed during February 1637 (when a single Semper Augustus bulb sold for 5,500 guilders, equivalent to more than $25,000 today), and then collapsed to a fraction of their value. The 2007–08 GFC did not generate much consensus either; instead, it created new puzzles."; *See further* at: FRANK PARTNOY, *Financial Systems, Crises, and Regulation*, in NIAMH MOLONEY et al. (eds.), *The Oxford Handbook of Financial Regulation*, 69.

520 EILIS FERRAN, *Where in the world the EU is going?*, in EILIS FERRAN et al. (eds.), *The Regulatory Aftermath of the Global Financial Crisis*, 5.

521 CHRISTIAN TIETJE and MATTHIAS LEMANN, *The role and prospects of international law in financial regulation and supervision*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 134.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

perhaps rather leave the market to regulate itself—rely on self-regulation".[522] As such, the pro-cyclicality of financial regulation seems to continue moving on its own path, unless there are mechanisms to mitigate the pro-cyclical effect or forcing it to go otherwise. More importantly, the fact that financial regulation remains pro-cyclical would somehow resist the use of it in the fear that it will, in one way or another, exacerbate the future financial booms and busts. This is especially true when even regulators often take it for granted and act using conventional wisdom (which, obviously, generated by economists).[523] At this stage, it is interesting to see how mostly economists, but not lawyers, having concerns over financial regulation—over the legal tasks of making and enforcing rules, as well as constructing financial policies.[524]

Looking back, if the global crisis has taught us anything, it is not to solely rely on self-regulation, at least in financial markets. Lautenschlager emphasized: 'it is obvious that self-regulation alone is not sufficient in financial markets, given the potential damage and the incentives to which market participants are exposed'.[525] Despite the fact that 'strengthening regulation and supervision is in potential conflict with essential freedom in financial markets',[526] there is a need for 'more' and 'better' regulation not only to correct the market failures or providing the under-supplied public good pre-crisis, but also to counter its own pro-cyclicality for

---

522 SABINE LAUTENSCHLAGER, *Monitoring, regulation and self-regulation in the European banking sector*.
523 CHARLES GOODHART, *Pro-cyclicality of financial regulation and how to deal with it.*
524 At international level, Thomas Cottier admitted "lawyers today are virtually without voice in the aftermath of the banking crisis". For instance, "we developed an interest in institutional and constitutional issues in monetary affairs, but entirely left policies to the economists".; THOMAS COTTIER, *Challenges Ahead in International Economic Law*, 8. *See also*: MARCELO MADUREIRA PRATES, *Why prudential regulation will fail to prevent financial crisis. A legal approach*, Working paper No. 335, Banco Central do Brasil, 2013.
525 SABINE LAUTENSCHLAGER, *Monitoring, regulation and self-regulation in the European banking sector*.
526 CHRISTIAN TIETJE, *The role of law in monetary affairs: taking stock,* in THOMAS COTTIER et al. (eds.), *The Rule of Law in Monetary Affairs*, 11.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

it not to be misused to support *unstable* economic growth.[527] Regulation comes at a cost,[528] of course, but it should not be the reason to abandon the use of regulation. Instead, it rather means such cost should be taken into account to channel appropriate rule-making. What is also implied in this context would be the need to find the 'proper form and adequate degree of regulation' in order to provide roadmaps for financial markets and the exercise of power to address and contain risks to the system.[529] 'This time is different'[530] and what differentiates current regulatory reaction from the previous responses would be the use of sufficiently powerful macro-prudential regulation to calm the booms and soften the busts of the regulating cycle.[531] For instance, through the imposition of the countercyclical capital buffer during boom time,[532] macro-prudential regulation would then act as a countervailing force towards the pro-cyclicality of both systemic risks and financial regulation itself for it helps to lean against the wind of deregulation.

There are, indeed, doubts as to whether this countercyclical capital requirement could

---

[527] "Under no circumstances should regulation be misused to support economic development", said Lautenschlager in her speech, because "[t]hat would blur responsibilities and shift tasks from the political domain to supervision".; SABINE LAUTENSCHLAGER, *Monitoring, regulation and self-regulation in the European banking sector*.

[528] Regulation could actually create market distortions and impose excessive costs on market participants. Where regulation fails to achieve its goal, financial crisis could happen as a result or an after-effect of regulating finance due to weak or redundant regulations which, together with its binding nature, may cause devastating effects to financial institutions and then the economy. In a slightly different reasoning, Pistor discussed the law-finance paradox to conclude that 'the actual enforcement of all legal commitments made in the past irrespective of changes in circumstances would inevitably bring down the financial system.'; *See further* at: KATHARINA PISTOR, *A legal theory of finance*, 323.

[529] THOMAS COTTIER, *Challenges Ahead in International Economic Law*, 12.

[530] The phrase is inspired from a paper with a similar title by: CARMEN M. REINHART, KENNETH S. ROGOFF, *This time is different: A panoramic view of eight centuries of financial crises*, Working paper 13882, National Bureau of Economic Research, March 2008.

[531] MARKUS BRUNNERMEIER et al., *The Fundamental Principles of Financial Regulation*, xviii.

[532] Economist introduced the counter-cyclical capital buffer (2.5% according to Basel III) in the form of an add-on capital requirement to deal with both the pro-cyclicality of systemic risk and of financial regulation. However, the 2.5% is thought to be insufficient compared to the cyclical swings.; *See supra* at 1.2 for the discussion on the types of macro-prudential instruments dealing with the time dimension of systemic risks.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

work in practice. The characteristic of being introduced during the boom times, as previously discussed, would mean that financial regulators have to 'go against the general viewpoint of market participants'.[533] While everyone is enjoying the good time, regulators then impose additional capital requirement which will most likely be justified using an explanation that the boom is actually unsustainable as systemic risks are building up. But financial markets are based on confidence and trust, thus, such announcement would affect the boom and eventually make it disappear almost instantly. Later on, Goodhart added, 'if the threat is not materialized, people would say maybe you could not have done it in the first place'[534] because there would be doubts about decisions of the regulators and the usefulness of such measure. To the extent that it still remains very much difficult to measure the effectiveness of macro-prudential instruments as well as long-term benefits of such deployment, admittedly, it adds more validity to such concerns.[535] And this is in addition to the politics of booms—when massive lobbying efforts have been put up by the private financial industry to veto radical measures—that regulators are facing with.[536] Given such context, there are tasks for countries, depending on their specific circumstances, to develop a framework of macro-prudential regulation and supervision to address the difficulties, yet not going back to the 'conceptually flawed philosophy of leaving matters to unregulated financial markets', i.e. to abandon public intervention then solely rely on self-regulation.[537]

Law undoubtedly depends upon other social sciences for effective fact finding and

---

[533] CHARLES GOODHART, *Pro-cyclicality of financial regulation and how to deal with it.*
[534] CHARLES GOODHART, *Pro-cyclicality of financial regulation and how to deal with it.*
[535] *See infra* Chapter 1, at 1.1 and 1.2.
[536] GEORGE MÉSZÁROS, *Macro-prudential regulation: A contradiction in its own terms*, 172.
[537] THOMAS COTTIER, *Challenges Ahead in International Economic Law*, 12.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

empirical research. At the most fundamental level, economics provides 'implications of rational choice' for 'figuring out the effects of legal rules' which in turn serves as the basic for the understanding of rules and to decide the substance of what rules we should have.[538]Indeed, it is a matter of fact that financial regulation is interdisciplinary by nature in the sense that policymakers typically issue regulations in the form of various legal acts, yet on the basis of economic rationales.[539]Thus, a closer tie between law and economics, lawyers and economists, should be formed in order to bring about appropriate answers to real problems of financial regulation in general and macro-prudential regulation in particular.[540] Bearing in mind that, however, macro-prudential regulation could also be eroded like other financial regulations in the aforementioned vicious circle. Thus, as a first step "[t]his has to be rule-based, or at least supervisory discretion needs to be more restrained" due to the fact that the 'politics of booms (when all seems well) would make it difficult for regulators to utilize their discretion', coupled with the resistance to implement regulation because of the cost it imposes on financial market participants.[541] As 'regulatory action to counteract the booms will always be unpopular', perhaps "only a rule will be a sufficient device to ensure that such an unpopular step is taken when required".[542] Then, the next step would be building up an institutional structure for monitoring and enforcing macro-

---

[538] DAVID D. FRIEDMAN, *Law's order: what economics has to do with law and why it matters*, Princeton University Press, New Jersey, 2000, 8.

[539] ARMIN J. KAMMEL, *Government Versus Markets—A Change in Financial Regulation*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, 5.

[540] THOMAS COTTIER, *Challenges Ahead in International Economic Law*, 12. For a discussion on the role of law in financial regulation and the extent to which financial regulation is formed in hard law, *see infra* at 2.2.1.

[541] As the authors rightly observe, financial supervisors currently have plenty of discretion but when all is well and 'lenders, borrowers, politicians and the media are all basking in the rosy glow of apparent success', it much harder for regulators to even exercise their task.; MARKUS BRUNNERMEIER et al., *The Fundamental Principles of Financial Regulation*, xviii.

[542] CHARLES A.E. GOODHART, *Pro-cyclicality and financial regulation*, Banco De España, Financial Stability, No. 16, 12.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

prudential regulation, i.e. supervision. In this regard, it should be noted further that the idea to compensate the burden of additional regulation with less stringent supervision would be in the wrong approach.[543]

2.1.2 The rationale for macro-prudential regulation

To address challenges ahead in international economic law in the aftermath of the global crisis, Thomas Cottier asserted "[t]he financial crisis, in my humble view, is also a crisis of social sciences, in particular of law, economics and international relations theory…[a]dvised by economics, we have failed to do our homework as a legal community".[544] Among the failures that needs to be tackled thereafter, regulatory failures was named one of those. Based on economic rationale aiming at correcting the weaknesses of markets, financial regulation failed to counter flawed incentives and limit the sector's exposure to the development of asset price bubbles and a corresponding credit boom.[545] It was also a failure of traditional prudential regulation in the sense that financial stability understood as the stability of the system as a whole was indeed neglected.

Generally speaking, financial stability was not considered an end by itself. Thus, it would

[543] The situation in the aftermath of the global crisis asks for not only good regulations but also a well-functioning supervisory regime in which financial supervisor exercises tough but fair control aiming towards financial system stability.; *See further* at: SABINE LAUTENSCHLAGER, *Monitoring, regulation and self-regulation in the European banking sector*.

[544] Such failure is asserted in the sense that there is 'a lack of tradition in developing a proper chapter and disciplines in substantive monetary and financial law', thus, it seems that the legal community has somehow lost its way as the reality 'leaves us with an almost blank sheet upon which to draw up future regulations'.; *See further* at: THOMAS COTTIER, *Challenges Ahead in International Economic Law*, 11-12.

[545] "The severity of the crisis depends crucially on the underlying financial sector's exposure to these conditions and, in fact, the overall market's uncertainty about the financial sector's exposure to them. A key role of financial regulation is to put limits on financial institutions so as to limit this exposure."; VIRAL V. ACHARYA, THOMAS COOLEY, MATTHEW RICHARDSON, INGO WALTER, *Market Failures and Regulatory Failures: Lessons from Past and Present Financial Crises*, 10.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

be needed to the extent it necessarily induces macro-economic performance and economic growth or having positive effects on the real economy. Under the assumption that banks and financial risks are ever predictable and measurable, the traditional prudential regulation rested on "*the notion that if bank supervisors could ensure that banks and other financial firms were managing their risks well on an individual basis they would not only be profitable and stable but the systemic risks across the financial system would be negligible*".[546] Put differently, the economic rationale that underlined financial regulation pre-crisis essentially followed conventional theory of finance which failed to account for the stability of the overall financial system. As a result, even if regulators had been aware of what was happening, it remains doubtful whether they would have been able to do anything about it given the lack of power and appropriate tools.[547] Hence, to the extent that regulatory solution afterwards will aim at solving the type of market failures which were not sufficiently addressed or providing the kind of public goods which were under-supplied prior to the crisis, it needs to address the overall financial stability.

Not surprisingly, the post-crisis period witnessed changes with regard to objectives of financial regulation where there has been a renewed emphasis on financial stability. This objective is not only considered an important driver for shaping the future of financial regulation but also exerts fundamental influence over other goals of regulating finance.[548] At all levels of sources of financial regulation, "*[f]inancial stability has become a prime principle informing*

---

[546] KERN ALEXANDER, *International economic law and macro-prudential regulation,* in THOMAS COTTIER et al. (eds.), *The Rule of Law in Monetary Affairs*, 525.
[547] IAN GOLDIN and MIKE MARIATHASAN, *The Butterfly Defect: How Globalization Creates Systemic Risks, and What to Do about It,* 55.
[548] MADS ANDENAS and IRIS H-Y CHIU, *The foundations and future of financial regulation: Governance for responsibility*, 12.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

regulation both in national and European law. It is at the heart of the developments on the global level in the creation of new soft law instruments by international standard setters".[549] Although there has not been a consensus on understanding the concept of financial stability, one thing that regulators have in common is the need to have a macro- approach where the focus of financial stability is not on individual institutions but the financial system itself.[550] In its turn, such financial stability provides the basis to rethinking the aim of prudential regulation thus gives rise to the renewed interests in redesigning financial regulation with a macro-prudential focus to fill the regulatory gaps left by the traditional approach.[551] This is reflected in the differentiation of the two sub-concepts—i.e. micro-prudential and macro-prudential regulation—where in terms of approach, the former cares about individual 'tree' while the latter takes the whole 'forest' into account. To recall, Hanson et al. make a comparison in economic terms: "A micro-prudential approach is one in which regulation is partial equilibrium in its conception and aimed at preventing the costly failure of individual financial institutions. By contrast, a 'macro-prudential' approach recognizes the importance of general equilibrium effects, and seeks to safeguard the financial system as a whole".[552] In such a way, it is more proper to see macro-prudential

[549] THOMAS COTTIER, ROSA M. LASTRA, CHRISTIAN TIETJE, LUCIA SATRAGNO, *Introduction and Overview,* in THOMAS COTTIER et al., (eds.), *The Rule of Law in Monetary Affairs,* 2.
[550] For the concept of financial stability and the objectives of macro-prudential policy, *see supra* at 1.1
[551] In fact and at the international level, macro-prudential control was in existence during the time of the gold standards when countries had to maintain the Bretton Woods fixed exchange rate regime. The abandonment of the gold standard seemingly marked the dismantlement of macro-prudential controls; in such a way, countries dramatically turned into micro-prudential policy in the post Bretton-Woods era. Kern Alexander noted that "the post-Bretton Woods period has been accompanied by a large increase in the number of banking, currency and sovereign debt crises in comparison with the number of such crises that occurred during the Bretton Woods period". The crises, especially the most recent global crisis, gave rise to a renewed interest in implementing macro-prudential policy.; *See* KERN ALEXANDER, *International economic law and macro-prudential regulation,* in THOMAS COTTIER et al. (eds.), *The Rule of Law in Monetary Affairs*, 525.
[552] SAMUEL G. HANSON et al., *A Macro-prudential Approach to Financial Regulation*, 3.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

regulation as complement to and without disregarding the application of micro-prudential regulation. As Kern Alexander rightly observes, at international level, financial regulation is also being redesigned following the macro-prudential approach whereby there has been a transformation from 'what was initially and essentially a micro-prudential framework to one that is primarily based on macro-prudential principles'.[553]

The financial crisis prompted global reactions led by the G20, yet the fundamental structures of the financial market-driven accumulation regime have been left more or less untouched and the focus seems to fall on the group of prudential regulation.[554] Additionally, quick regulatory reactions with respect to the revival of macro-prudential policy are not necessarily the product of fundamental changes in normative thinking, but these readjusted measures somehow reinforce the dominance of economic rationale in regulating finance.[555] As it was 'misguided' for the past regulation to be deployed to improve risks management practices of individual banks instead of focusing on systemic externalities,[556] the economic rationale underlying recent developments in financial regulation focuses on systemic risk which lies at the heart of the preservation of overall financial stability. Systemic risk and the potential negative

---

553 *See further* at: KERN ALEXANDER, *International economic law and macro-prudential regulation,* in THOMAS COTTIER et al. (eds.), *The Rule of Law in Monetary Affairs*, 520. For more details on developments of financial regulation at international level, *see infra* at 2.2.1.

554 In their Declaration dated 15th November 2008, the G20 specified their goal to 'support competition, dynamism and innovation in the marketplace' and that 'a fundamental turn away from financial market capitalism is not envisaged; *See further* at: KOLJA MOLLER, *Struggle for Law: Global Social Rights as an Alternative to Financial Market Capitalism*, in POUL F. KJAER et al. (eds.), *The Financial Crisis in Constitutional Perspective: The Dark Side Of Functional Differentiation*, 305.

555 MADS ANDENAS and IRIS H-Y CHIU, *The foundations and future of financial regulation: Governance for responsibility*, 10.

556 CHARLES A.E GOODHART, *Chapter 5: How should we regulate bank capital and financial products? What role for "living wills"?*, in ADAIR TURNER et al., *The Future of Finance: The LSE Report*, 165.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

externalities associated with both of its dimensions—being manifested in the form of pro-cyclicality or common exposure—have been considered 'the primary ingredient to understand financial crises and as the main rationale for financial regulation,prudentialsupervision and crisis management'.[557] Nevertheless, discussions in the previous chapters clearly show remaining key problems since 'we are still far from an operational definition of these objectives, whether a broad or a specific mandate is chosen'.[558] On top of that, the endogenous nature of systemic risk also further complicates financial policy which then results in the lack of a coherent framework for macro-prudential policy across jurisdictions.[559]

Having been noted earlier, whereas the macro-prudential approach concentrates on the financial system as a whole, ultimately, regulatory measures will have to be introduced at individual bank level.[560] In this regard, Hanson et al. suggest—on the basis of their fire sales and credit crunches based model—that financial institutions have overly strong incentives to (i) operate with too thin capital buffers before a crisis occurs and (ii) shrink asset rather than recapitalize when the crisis is underway. As a result, it raises the probability of an eventual crisis

---

[557] OLIVIER DE BANDT AND PHILIPP HARTMANN, *Systemic risk: A survey,* 8. For a more detailed discussion on systemic risks and financial stability, *see supra* at 1.1.

[558] We do have an ample array of indicators and early warning signals, but we still lack a coherent framework to interpret them, to assess the need for macro-prudential intervention, and to measure the success of the policies adopted; *See* Bank for International Settlements, *Macro-prudential regulation and policy,* BIS Paper No. 60, 121.

[559] Freixas et al. give more details as to the implementation of macro-prudential policy where banks will respond to new regulations by altering their risk profile in ways that can result in unintended consequences. For example, by limiting risk in one part of the financial system, risk may be pushed elsewhere. There is a risk that new regulations, by focusing on one type of risk, could be crafted without consideration of such second-round effects. Additionally regulations may conflict, so macro-prudential policies should be coordinated; XAVIER FREIXAS, LUC LAEVEN, JOSE-LUIS PEYDRO, *Systemic risk, crises, and macro-prudential regulation*, available at http://voxeu.org/article/systemic-risk-crises-and-macroprudential-regulation

[560] KERN ALEXANDER, *International economic law and macro-prudential regulation,* in THOMAS COTTIER et al. (eds.), *The Rule of Law in Monetary Affairs*, 529.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

and system-wide balance-sheet contraction across the financial sector.[561] These tendencies admittedly denote sources of financial instability which in turn form specific basis for macro-prudential regulation to counterbalance them. In fact, the macro-prudential toolkit includes, amongst others, instruments focusing on limiting leverage levels in the overall financial system, enhancing liquidity reserves and notably, the capital-based countercyclical buffer regulation whereby it is linked to financial and business cycle, and capital surcharges specifically for the systemically-important-financial-institutions (SIFIs).[562]

In terms of formulating method, macro-prudential capital requirementsare constructed using the same calculation of weighted risks associated with assets yet there is a difference compared to its micro- counterpart. While the former needs to be implemented on a sub-set of institutions—i.e. the larger, levered and mismatched intermediaries—taking their contribution to systemic risk into account, the latter applies horizontally to all intermediaries even without systemic impact. In such a way, micro-prudential regulation was accused for being both too broad and too narrow pre-crisis.[563] It was broad for it applies to all banks, yet remained narrow since it did not extend to financial institutions that posed threats to the system. For instance, Lehman Brothers—whose failure triggered the global recession—was not even subject to minimum capital requirement due to the limited reach of traditional prudential regulatory structure.[564]

[561] This is due to the key market failures where individual financial institutions deviate from what social planner would have them do in order to protect their interests.; SAMUEL G. HANSON et al., *A Macro-prudential Approach to Financial Regulation*, 4-7.
[562] KERN ALEXANDER, *International economic law and macro-prudential regulation,* in THOMAS COTTIER et al. (eds.), *The Rule of Law in Monetary Affairs*, 533. For details on macro-prudential toolkit, *see supra* at 1.2.
[563] DANIEL K. TARULLO, *Rethinking the Aims of Prudential Regulation*, 4.
[564] DANIEL K. TARULLO, *Rethinking the Aims of Prudential Regulation*, 4-5.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Looking at the situation closely, the rethinking financial regulation task indeed gave rise to redefining the aims of prudential regulation in the sense that it should also reflect differences in sizes and impacts of financial institutions. Macro-prudential instrument in the form of the aforementioned surcharge for SIFIs—a requirement for such institutions to hold additional capital that is commensurable to their systemic risk contribution—is an example.

Although highly regulated banks were at the core of the global crisis, admittedly, there was a lack of macro-prudential regulation and supervision imposed upon the financial sector. While being a solution to avoid another crash, at the same time, having more regulation means more burdens to the banking and finance industry and the multitude of new rules may even impair its ability to function properly.[565] Another inherent challenge is the tendency forregulatory arbitrage since 'the tighter and the more permanent the macro-prudential measures get, the stronger the incentive to engage in arbitrage becomes'.[566] Additional capital requirements force banks to become less leveraged thus less risky, however, activities and risks may still shift to unregulated parts of the system such as the parallel 'shadow banking' encompassing investment banks, hedge funds, mutual funds, pension funds and special purpose vehicles.[567] Eventually,

---

[565] SABINE LAUTENSCHLAGER, *Monitoring, regulation and self-regulation in the European banking sector*.
[566] CLAUDIO BORIO, *Macro-prudential frameworks: (Too) great expectations?,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 33. For instance, we have indeed seen the proliferation of the financial shadow banking system as a response to restrictions on interest rates which limits investments and innovation. Apart from non-regulator factors, regulatory-based constrains provided impetus for the growth of such unregulated system.; *See also* PATRICIA JACKSON, *Shadow banking and new lending channels—Past and Future*, in MORTEN BALLING and ERNEST GNAN (eds.), *50 Years of Money and Finance—Lessons and Challenges*, SUERF, 378.
[567] This is reflected through the great structural transformation of the financial system accompanied by rapid growth in the unregulated parts of the system.; *See* CHOONGSOO KIM, *Welcome address*, in BIS Papers No.60 "Macro-prudential regulation and policy", 3.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

systemic risk could increase despite banks being more prudent and less risky.[568] Given such situation, the solution could then be having even more regulation in the sense that, apart from banking sector being the center of the regulatory framework, 'all major financial institutions in the markets, irrespective of their legal forms, should now be made subject to regulation'.[569] Perhaps, for political economy reasons as in Willem Buiter's view, "[i]t is better to over-regulate now and subsequently to correct the mistakes than to risk another era of self-regulation and soft-touch under-regulation of financial markets, instruments and institutions".[570]

In her speech, Lautenschlager reminded us "[t]hese are stringent requirements which we can only honor with a consistent focus on the ultimate goal of regulation and supervision, namely a stable financial system".[571] Apart from regulation, macro-prudential supervision is indeed crucial "to support regulatory pursuit of financial stability".[572] Kern Alexander added, 'because of the wide scope of macro-prudential regulation, there is a need for *ex ante* supervisory powers, such as licensing, authorization and compliance with regulatory standards, and also *ex post* crisis

---

[568] For a more detailed discussion on this challenge, *see* XAVIER FREIXAS, LUC LAEVEN, JOSE-LUIS PEYDRO, *Systemic risk, crises, and macro-prudential regulation*, available at: http://www.voxeu.org/article/systemic-risk-crises-and-macroprudential-regulation

[569] CHOONGSOO KIM, *Welcome address*, in BIS Papers No.60 "Macro-prudential regulation and policy", 3.

[570] WILLEM H. BUITER, *Regulating the new financial sector*, Willem Buiter's Maverecon Blogs, 25th February 2009, available at http://blogs.ft.com/maverecon/2009/02/regulating-the-new-financial-sector/#axzz4G5qtGY8i

[571] SABINE LAUTENSCHLAGER, *Monitoring, regulation and self-regulation in the European banking sector*.

[572] MADS ANDENAS and IRIS H-Y CHIU, *The foundations and future of financial regulation: Governance for responsibility*, 415. 'In 2010, Padoa-Schioppa said: "I am one of those who think that supervision, not regulation, was the main problem: stronger enforcement of the existing rules (supervision) would have sufficed to avoid the disaster.'; ALESSIO DE VINCENZO and ANDREA GENERALE, *Background note: T. Padoa-Schioppa's perspective on financial system regulation and supervision*, in Bank of Italy, *Conference in Memory of Tommaso Padoa-Schioppa*, 118.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

management such as recovery and resolution plans, deposit insurance and lender of last resort'.[573] Such construction of macro-prudential regulation and supervision, as emphasized by Padoa-Schioppa, 'better prevents the emergence of future crises instead of just managing one when it arises'.[574] At this stage, it should also be noted that even though macro-prudential policy has emerged as a way towards the reduction in number and severity of future crisis,policymakers have reasons to be cautious of this new policy measure. Reluctance understandably stems from the diverse understanding of key concepts, the lack of a coherent framework as well as the pro-cyclicality of financial regulation itself.

In any case, macro-prudential policy remains only a part of financial regulation reforms in which some fundamental questions remain unaddressed.[575] For instance, the restructuring of credit institutions to resolve the too-big-to-fail institutions, moral hazard problems as well as the implementation and interactions of macro-prudential policy and monetary policy. These issues, Tietje and Lemann suggest, should be removed from political scene to remain under a legal framework.[576]

---

573 KERN ALEXANDER, *International economic law and macro-prudential regulation,* in THOMAS COTTIER et al. (eds.), *The Rule of Law in Monetary Affairs*, 529.

574 Taking into account the situation after the global crisis, Padoa-Schioppa 'requires a reconstruction that goes beyond simply introducing supervisory adjustments under the name of macro-prudential regulation TOMMASO PADOA-SCHIOPPA, *Global macro-prudential regulation*, STIJN CLAESSENS et al. (eds.), *Macro-prudential Regulatory Polices: The New Road to Financial Stability?*, 12&16.

575 In fact, some of these shortcomings in the regulatory framework have been addressed by recent financial regulatory reform—such as the Basel III regulations, EU directives, and the US financial reform under the Dodd–Frank Act but many others still remain.; XAVIER FREIXAS, LUC LAEVEN, JOSE-LUIS PEYDRO, *Systemic risk, crises, and macro-prudential regulation*, available at http://voxeu.org/article/systemic-risk-crises-and-macroprudential-regulation

576 "Although it is still totally unclear whether and how the 'too-big-to-fail' logic and moral hazards can be escaped, there is an apparent endeavor for the 'justification' of bail-outs."; CHRISTIAN TIETJE and MATTHIAS

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

2.2 Sources and institutional structures of macro-prudential regulation and supervision

As a starting point, "…it should be recalled that financial law—whether domestic or international—has always developed as a child of crises."[577]

A crisis, admittedly, would at least 'shake the status quo' and give rise to new changes.[578] From a political economy point of view, Willem Buiter added, what matters is the fact that such economic and financial disruptions would 'open a unique window of opportunity during a period of extraordinary politics'—when the private financial sector is on its 'uppers-down and out'—to actually get the thorough regulatory reform needed.[579] Thus, '*a good crisis should never go to waste*' anddespite that'it would be betternot to act in haste',[580] legislators and regulators should take advantage of such a chance to overcome the resistance of the financial sector and adopt 'comprehensive reform legislation'.[581] For a general remark to sum it all up, this is what Milton Friedman wrote back in the 1980s:

LEMANN, *The role and prospects of international law in financial regulation and supervision*, in THOMAS COTTIER et al., *International Law in Financial Regulation and Monetary Affairs*, 142.

[577] MARIO GIOVANOLI, *The reform of the international financial architecture after the global crisis*, NYU Journal of International Law and Politics, Vol. 42:81, 2009, 82.

[578] EILIS FERRAN, *Where in the world the EU is going?*, in EILIS FERRAN, NIAMH MOLONEY, JENNIFER G. HILL, JOHN C. COFFEE, JR., *The Regulatory Aftermath of the Global Financial Crisis*, 1.

[579] The political economy reason has it that the private financial sector, in the aftermath of the global crisis, and 'will not be able to put together much of a fight, let alone its usual boom-time massive lobbying effort to veto radical measures'.; WILLEM H. BUITER, *Regulating the new financial sector*, Willem Buiter's Maverecon Blogs, 25th February 2009, available at http://blogs.ft.com/maverecon/2009/02/regulating-the-new-financial-sector/#axzz4G5qtGY8i

[580] Buiter noted that it is somehow better to hold constant the likelihood of the measures being adopted and implemented, yet regulators should strive for a comprehensive regulatory reform even if it would mean over-regulation.; WILLEM H. BUITER, *Regulating the new financial sector.*

[581] Speaking with a similar voice compared to Willem Buiter, John Coffee noticed 'in the world of financial regulation, experience has shown—since at least the time of the South Sea Bubble three hundred years ago—that only after a catastrophic market collapse can produce 'real change' regarding comprehensive regulatory reform of the financial sector'.; JOHN C. COFFEE, JR., *The political economy of Dodd-Frank: Why financial reform tends to be frustrated and systemic risk perpetuated*, in EILIS FERRAN, NIAMH MOLONEY, JENNIFER G. HILL, JOHN C. COFFEE, JR., *The Regulatory Aftermath of the Global Financial Crisis*, 301.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

"*There is enormous inertia—a tyranny of the status quo—in private and especially governmental arrangements. Only a crisis—actual or perceived—produces real change. When that crisis occurs, the actions that are taken depend on the ideas that are lying around. That, I believe, is our basic function: to develop alternatives to existing policies, to keep them alive and available until the politically impossible becomes politically inevitable*".[582]

At a closer look, Milton Friedman's words seem to depict the birth and evolvement of macro-prudential policy, yet with a slight adjustment as in fact, it took several financial crises for this 'real change' to happen. Not until the most recent global crisis did macro-prudential policy—the idea that had been 'available and alive, lying around for decades'—gain its immense popularity thus somehow becoming 'politically inevitable' across jurisdictions.[583] On such a basis, this part of the thesis sets out to analyze the extent to which the comprehensive macro-prudential regulatory and supervisory reforms—being motivated and urged by the most devastating recession since the 1930s—have been taking place at global, supranational and national levels. Using legal and institutional analysis, it aims to underscore the nature and characteristics of macro-prudential regulation as well as the institutional structure of the supervisory bodies in charge. Conducted in such manner, this research also contributes to the legal analysis part of literature on macro-prudential policy in which the volume of economic literature has already far exceeded the amount of legal analysis.

Needless to mention, each country has their own approach when designing their legal and

---

[582] MILTON FRIEDMAN (Capitalism and Freedom, Preface 1982.
[583] For a more detailed discussion on the birth and development of macro-prudential policy, *see supra* Chapter 1.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

institutional framework as this largely depends on, *inter alia*, deeply rooted legal traditions and institutional preferences.[584] Whereas Chapter 1 on economic analysis outlines macro-prudential policy reforms in a broad and general manner across jurisdictions, this legal and institutional part focuses situations at international and supranational levels. Apart from analysis on the making of international financial regulation and supervision for prudential purpose, the research aims at exploring key legal and institutional arrangements of the European Union framework supporting the implementation of macro-prudential policies in order to identify the role of the ECB within such settings. Moreover, it is examined also in the belief that the existing legal and institutional arrangements set out in theEU can provide some insights for other countries—especially developing and emerging economies—where a framework for macro-prudential policy has already been put in place.

2.2.1 International arena

In the international arena, macro-prudential regulation remains a part of international financial regulation. Hence, it would be helpful to first address, even at the most general level,[585] international financial regulation and the 'changing landscape'[586] brought about by the global

---

[584] The structure of the financial system and the economy would also have an effect on such design.; *See* International Monetary Fund, *Implementing macro-prudential policy: Selected legal issues*, 4.

[585] It is not the intention of the author to describe the international financial architecture in details. The thesis focuses mainly on macro-prudential regulation and supervision, be it at international, supranational or national levels. For a more detailed discussion of the financial architecture at global level, *see:* ROLF H. WEBER, DOUGLAS W. ARNER, *Toward a New Design for International Financial Regulation*, University of Pennsylvania Journal of International Law, Volume 29, Issue 2, Article 3, 2007; MARIO GIOVANOLI, *The reform of the international financial architecture after the global crisis*, NYU Journal of International Law and Politics, Vol. 42:81, 2009.

[586] *See, for instance*: FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, Nijhoff International Trade Law Series: Volume 14, 2015.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

crisis where attempts have been made to reform the international architecture regulating finance.

International financial regulation

As a matter of fact, the world is not a centralized system where we have a 'global body' in charge of regulating the international community of states. To the extent there is no such formal structure in place at international level, admittedly, this context somehow fosters the use of standards as a tool to coordinate the regulatory policies of national authorities.[587] Standards are principally non-binding and compliance to them are set entirely on a voluntary basis; yet, be that as it may, standards has secured an important role in the multilateral forums where public authorities across jurisdictions cooperate.[588] In rapidly changing and developing fields of state practice such as finance, telecommunications, environment, Kern Alexander noted,states tend to prefer the use of such non-binding rules.[589] As it turns out, financial sector has been identified and hailed as the privileged field of successful application of the transnational networks and their international standards.[590] Broadly speaking, international financial regulation has been peculiarcompared to other areas of international economic law, as it is promulgated by inter-agency forums and *dominated* by the so-called 'soft-law' agreements comprising of a diverse set of regulatory rules, standards and best practices governing financial markets, instruments and

---

[587] TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk*, 41.
[588] TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk*, 46.
[589] KERN ALEXANDER, *The role of soft law in the legalization of international banking supervision: A conceptual approach,* ESRC Center for Business Research, University of Cambridge, Working Paper No. 168, 2000, 3. A more detailed discussion on the suitability and importance of these soft-law rules in the context of global financial governance follows shortly.
[590] EMILIOS AVGOULEAS, *Governance of Global Financial Markets: The Laws, The Economics, The Politics*, Cambridge University Express, 2011, 222.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

institutions.[591]

The international architecture regulating finance: An overview

Despite being operational in international context, Chris Brummer pointed out, 'international' financial regulation is not always 'global' in the sense that there are some countries which participate more actively and play a much more important role than others in the informal groupings aiming at devising international financial standards. In this regard, it should be noted that relevant hard-law organizationsin this field such as the International Monetary Fund (IMF), the World Bank (WB) and the World Trade Organization (WTO) have basically not fully engaged themselves in the promulgation of financial standards at global or multilateral level. As will be further analyzed later, even though the IMF and WB are not the main drivers of regulatory standard setting, these two institutions are primarily responsible for monitoring the level of compliance of national regulators with such standards, i.e. acting as international 'supervisor'.[592]

Established in 1945 as one pillar of the famous Bretton Woods system, the birth of the IMF's was intended to facilitate and ensure the proper functioning of a par-value regime—where 'exchange rates were fixed through a peg of national currencies to the US dollar, which in turn was fixed into gold'.[593] This monetary arrangement then collapsed in mid-1970s after the United States unilaterally suspended the convertibility of the US dollar into gold in 1971 thus forcing

---

[591] CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, Cambridge University Press, 2012, *Introduction: The Perils of Global Finance*, 2-6.
[592] CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, 90.
[593] For a discussion on the Bretton Woods system and its collapse, *see further*: International Monetary Fund, *History: Cooperation and Reconstruction*, available at https://www.imf.org/external/about/histcoop.htm; EMILIOS AVGOULEAS, *Governance of Global Financial Markets: The Laws, The Economics, The Politics*, 162-165.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

other countries to accept floating exchange rates.[594]Such significant changes have altered the IMF's operations even though the Fund's purposes remain largely unchanged from when it was created.[595] Under the unifying theme of promoting the stability of the international monetary system, the IMF has since focusedincreasingly on the provisions of lending which was designed to support economies experiencing recurrent exchange crises, through imposing fiscal and structural adjustment conditions ('conditionality') in return for the loans.[596] In this regard, it should be noted that the Fund's responsibility centers on international monetary system which is distinguished from international financial system, as the former limits itself to arrangements that 'directly control the balance of payments of members'.[597] Yet, in its turn, members' balance of payments are affected by their domestic policies, hence, the Fund is said to have also acquired a 'derivative authority' to analyze, assess and advise on members' internal *financial* conditions and policies.[598] Against this background, the IMF essentially acts as 'a cooperative institution' that seeks to maintain the stability of the external payments system between its members which, in

---

[594] The collapse of the Bretton Woods system indeed resulted in the loss of the Fund's well-defined monetary mission. The IMF Second Amendment gave each member state the right to choose its own exchange rate policy. In other words, IMF members have since accepted the floating exchange rates.; International Monetary Fund, *The end of the Bretton Woods system (1972-81)*, available at: https://www.imf.org/external/about/histend.htm

[595] The Fund's purposes as stipulated in Article I of the Articles of Agreement are exhaustive rather than indicative and of economic nature. Thus, the IMF is precluded from using its power for political objectives. *See further* at: International Monetary Fund, *The Fund's Mandate—The Legal Framework*, Prepared by the Legal Department, February 2010, 1-2.

[596] EMILIOS AVGOULEAS, *Governance of Global Financial Markets: The Laws, The Economics, The Politics*, 163. In fact, the Articles of Agreements recognize that the Fund's discharge of its responsibility regarding the stability of the external payments of its members 'requires it to be involved in analyzing, assessing and advising on domestic conditions and policies, including domestic *financial* conditions and policies'. In addition, even though providing loans, the Fund is not primarily a lending institution like the Bank. It provides loans in support of members to preserve the stability of the international monetary system.; *See further:* International Monetary Fund, *The Fund's Mandate—The Legal Framework*, 3-4.

[597] International Monetary Fund, *The Fund's Mandate—The Legal Framework*, 3.

[598] The domestic financial conditions and policies of an individual member could affect its balance of payments and also have an impact on the international monetary system.; International Monetary Fund, *The Fund's Mandate—The Legal Framework*, 3-4.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

such a way, differs fundamentally from the World Bank's responsibility as the Bank's task primarily lies with development issues.[599]

Since its inception, the World Bank—which was established on the basis of the International Bank for Reconstruction and Development (IBRD),[600] another pillar of the Bretton Woods system—has been mandated with financing economic development through providing loans, often for long term, on the basis of governance and financial reform conditions. Unlike the IMF, the World Bank is principally a lending institution whose works remain as an intermediary between investors or donor nations and recipients. Its mission effectively makes the Bank 'a major borrower in the world's capital markets and the largest nonresident borrower in virtually all countries where its issues (e.g. bonds and notes) are sold'.[601]Since the collapse of the par-value system, however, the Bank hasgradually moved its focus toworld-wide poverty alleviationin an effort to achieve the United Nations Millennium Development Goals.[602] As poverty reduction for developing and least-developed countries remains its overarching target, the World Bank now has a much less central role in global capital flows than it was originally envisaged under the Bretton

---

[599] For more details on the difference between the Fund and the Bank where each institution has a different purpose, a distinct structure, receives its funding from different sources, assists different categories of members, and strives to achieve distinct goals through methods peculiar to itself; *see:* DAVID D. DRISCOLL, *The IMF and the World Bank: How Do They Differ?*, About the IMF, available at: https://www.imf.org/external/pubs/ft/exrp/differ/differ.htm

[600] The World Bank has expanded from a single institution to a closely associated group of five development institutions, including the International Development Association (IDA), the International Finance Corporation (IFC), the Multilateral Guarantee Agency (MIGA) and the International Centre for the Settlement of Investment Disputes (ICSID).

[601] The amount of money borrowed is then lent to developing countries at an affordable rates of interests to finance development projects and policy reforms programs.; DAVID D. DRISCOLL, *The IMF and the World Bank: How Do They Differ?.*

[602] The Bank's mission has since evolved from post-war reconstruction and development to 'Working for a World Free of Poverty'—WB's slogan.; The World Bank, *History*, available at: http://www.worldbank.org/en/about/history

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Woods system.[603]

In fact, the Bretton Woodsdesign of international economic order was never materialized. The institutional arrangement actually comprised of the IMF and IBRD/WB being twin intergovernmental pillars providing support to the international financial and economic order as the third one, the International Trade Organization (ITO)—which was supposed to foster liberalization in global trade and investment—never came to life.[604] The task of rebuilding international trade linkages in the post-war period was thus entrusted to a system of negotiations within the framework of the General Agreement on Tariff and Trade (GATT) 1947, a provisional agreement which operated for nearly half a century before providing basis for the establishment of the WTO in 1995.[605] While GATT dealt solely with goods trade, the WTO system comprises of a set of sixteen multilateral agreements aiming at liberalizing trade in goods, services, regulating trade-related aspects of intellectual property rights, dispute settlement and a set of

---

[603] The Banks' operations now focus on encouraging, helping the poor countries to be more productive and to gain access to necessities of life, such as clean water, health care, waste-disposal facilities, infrastructure, etc. To achieve this end, the Bank provides financial and technical assistance through various development projects in which decisions for financing depends on the economic conditions of the country and not on the characteristics of the projects at hand.; *See more* at: DAVID D. DRISCOLL, *The IMF and the World Bank: How Do They Differ?.* In addition, the US Marshall Plan and European Community efforts in providing aids for Southern and Eastern European countries effectively left the World Bank with developing, often post-colonial countries, to focus on.; ROLF H. WEBER, DOUGLAS W. ARNER, *Toward a New Design for International Financial Regulation*, 394.

[604] The ITO Charter negotiations was successfully completed in Havana in 1948, yet the Charter never entered into force. During the same period, negotiations on GATT reached an agreement in October 1947.; For details on the ITO, GATT and the origins of the WTO, *see:* PETER VAN DEN BOSSCHE, *The Law and Policy of the World Trade Organization: Text, Cases, Materials*, Cambridge University Press, 2005, 78-82.

[605] Despite its provisional status, GATT was praised for being a successful framework for trade negotiations in which eight rounds were conducted under GATT. The last round, which were held from 1986-94, led to the establishment of the WTO. Since its creation, the WTO has launched only the Doha Development Agenda, i.e. the Doha Round, in 2001 yet its conclusion still remains uncertain. Nevertheless, the WTO is the only international organization dealing with the global rules of trade between nations, to ensure that trade flows as smoothly, predictably and freely as possible.; World Trade Organization, *The WTO…In Brief…*, available at: https://www.wto.org/english/thewto_e/whatis_e/inbrief_e/inbr00_e.htm

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

plurilateral agreements covering government procurement, trade in civil aircraft, etc.[606] Of these, the creation of the WTO General Agreement on Trade in Services (GATS) was considered one of the landmark achievements and has since remained the first and only set of multilateral rules regulating cross-bordertrade in services, including financial services, at international level.[607] The GATS, however, has little or no role in the promulgation of financial regulation or setting international standards. Admittedly, 'finance is close to sovereignty' and member's regulatory and prudential concerns coupled with fear of financial crises have, in one way or another, undermined negotiations on financial services regulation and liberalization.[608] As a result, WTO members maintain their domestic regulatory authority and can even depart from their GATS obligations to achieve specific regulatory objectives, especially for the purpose of preserving financial stability.

At the outset, GATS expressly recognizes in its preamble theaim to promote the progressive liberalization of trade in services while giving due respect to "the right of Membersto regulate, to introduce new regulations within their territories on the supply of services in order to

---

[606] There are currently 16 different multilateral agreements to which all WTO members are parties, and two different plurilateral agreements to which only some WTO members are parties.; World Trade Organization, *Overview*, available at: https://www.wto.org/english/thewto_e/whatis_e/wto_dg_stat_e.htm

[607] In principles, the GATS applies to all services with two exceptions as stipulated under Article I(3) GATS (services in the exercise of governmental authority) and Annex on Air Transport services (measures affecting air traffic rights).; World Trade Organization, *The General Agreement on Trade in Services (GATS): objectives, coverage and disciplines*, available at: https://www.wto.org/english/tratop_e/serv_e/gatsqa_e.htm

[608] Admittedly, factors including preferences for regulatory competition, different levels of development in the financial sectors between members, and the fragility of the international financial system played a role in shaping negotiations towards the GATS, its annexes and member's specific commitments. Coupled with resistance due to several episodes of financial crisis in the 1980s, these require compromises on how far liberalization should impinge on member's regulatory system.; MAMIKO YOKOI-ARAI, *GATS' prudential carve out in financial services and its relation with prudential regulation*, International Comparative Law Quarterly, Volume 57, 2008, [613–648], 622.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

meet their national policy objectives".[609] Without further definition or enumeration of 'national policy objectives', GATS arguably does not attempt to regulate the content and scope of its members' domestic regulation but to leave the matter for national authority, provided that "*all measures of general application affecting trade in services are administered in a reasonable, objective and impartial manne*r".[610] To give more clarity, under GATS Article VI:4, each member shall ensure their '*measures relating to qualification requirements and procedures, technical standards and licensing requirements do not constitute unnecessary barriers to trade in services…based on objective and transparent criteria, and…not more burdensome than necessary to ensure the quality of the service*'.[611]Nevertheless, as a matter of principle, neither will members have to submit their regulations to the WTO for approval, nor will they have to show that they are employing the least-trade-restrictive practices, unless being asked to justify a specific financial regulation in the event of a dispute. In such a way, GATS limits its influence on domestic regulation of financial markets and WTO members virtually retain their regulatory autonomy in this service sector. Additionally, the jurisdictional scope of GATS provides an important exception whereits definition of services include 'any service in any sector *except* services supplied in the exercises of governmental authority'. Thus, despite 'financial service' under GATS is defined to cover 'any service of a financial nature offered by a financial service

---

[609] WTO General Agreement on Trade in Services (GATS), *Preamble*, available at: https://www.wto.org/english/res_e/booksp_e/analytic_index_e/gats_01_e.htm. In addition, GATS Article XIX also recognizes the need to balance between liberalization of trade in services and respect for national policy objectives in the sense that "[t]he process of liberalization shall take place with due respect for national policy objectives and the level of development of individual Members". For a more detailed discussion, *see* WTO Panel Report, *Argentina - Measures Relating to Trade in Goods and Services*, WT/DS453/R, 2015, paras. 7.213-7.217.

[610] WTO General Agreement on Trade in Services (GATS), Article VI:1 on Domestic Regulation

[611] GATS, Article VI:4 on Domestic Regulation.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

supplier of a Member',[612] activities of central banks with regard to financial policy, monetary policy or conducting open market operations are exempted from GATS jurisdiction. In a relevant note, GATS generally does not regulate or cover liberalization of cross-border capital flows.[613] Furthermore, what has been controversial and significantly reinforce WTO members' financial regulatory and policy autonomy is the so-called 'prudential carve-out' stipulated under Article 2(a) of the GATS Annex on Financial Services. Accordingly, "*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*".[614] Thus, Article 2(a) essentially remains as an exception and measures applied for such prudential reasons would effectively be exempted from GATS jurisdiction regardless whether it produces any effects of restricting or curtailing cross-border trade in financial services.[615] In fact, GATS does not provide a definition of prudential measures or measures for prudential reasons nor does it prescribe the content of such

---

[612] GATS, Annex on Financial Services, Article 1. Scope and Definition.
[613] GATS has a very limited jurisdiction when it comes to cross-border capital flows. GATS and its Annex on Financial Services may apply in case a Member's capital controls derogates from its specific commitments, however, such restrictions could also be justified under the balance of payments exception as stipulated GATS Article XII.; KERN ALEXANDER, *The General Agreement on Trade In Services and the Balance Between Trade Liberalization and Financial Regulation*, Cambridge Endowment for Research in Finance, Cambridge University, 2003, 11.
[614] GATS, Annex on Financial Services, Article 2. Domestic regulation.
[615] In addition, Yokoi-Arai pointed out, GATS generally requires that a measure must somehow pass the 'necessity' test in order for an exception to be applicable. But this is not required for financial services to implement a prudential measure.; MAMIKO YOKOI-ARAI, *GATS' prudential carve out in financial services and its relation with prudential regulation*, 624. Generally speaking, a measure which limits free access of financial services providers—i.e. individual financial institutions, regardless of what has been agreed upon negotiations—could be seen as legitimate through the use of 'prudential carve-out' if, say, the institution lacks necessary prudential standards. Even though the second sentence of Article 2(a) specifies "*[w]here such measures do not conform with the provisions of the Agreement, they shall not be used as a means of avoiding the Member's commitments or obligations under the Agreement*", there has not been any relevant interpretation so far on how a measure is used to avoid Members' commitments and obligations under GATS and it would most likely be analyzed on a case-by-case basis.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

regulations, and up to now, the WTO Committee on Trade in Financial Services has not attempted to interpret this 'prudential carve-out'. Yet, this provision has been challenged for the first time in a dispute within the WTO framework between Panama (the complainant) and Argentina (the respondent) on measures relating to trade in goods and services. As one of the relevant key findings, notably, the Panel ruled in its report that Article 2(a) provides a prudential exception to measures taken "for prudential reasons", hence, "it is the reason which must be 'prudential' and not the measure *per se*".[616] In the words of the Panel "*the exception makes it possible to exempt or exonerate* ***any measure affecting the supply of financial services that has been taken for prudential reasons***" (emphasis added).[617] Understood as such, the scope of the 'carve-out' remains quite broad in the sense that it would not only apply to measures constituting domestic regulation as stipulated under GATS Article VI, would not only apply to measures that could be characterized specifically as prudential in the context of international standards as defined by the Basel Committee, nor would it only apply to measures taken to avoid "a risk whose materialization is imminent if the adoption of the measure is delayed" as Panama suggested in its submission.[618] This broad view is later upheld by the Appellate Body of the same case, which confirms that the carve-out provision covers *all* types of measures affecting the supply of financial services—within the meaning of paragraph 1(a) of the GATS Annex on Financial Services—which has been taken for prudential reasons.[619] In this regard, a non-

---

[616] WTO Panel Report, *Argentina - Measures Relating to Trade in Goods and Services*, WT/DS453/R, para. 7.861.
[617] WTO Panel Report, *Argentina - Measures Relating to Trade in Goods and Services*, para. 7.861.
[618] WTO Panel Report, *Argentina - Measures Relating to Trade in Goods and Services*, paras. 7.877-79.
[619] For a more detailed discussion on implications of WTO adjudicators' decision on this case, *see further* at: SIDLEY Update, *WTO Ruling Clarifies Flexibility in Member Governments' Regulation of Financial Services*, 20th

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

exhaustive list of such reasons is already provided within the first sentence of Article 2(a) itself, i.e. 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. Yet, interestingly, the Panel insisted on the need to preserve sufficient flexibility due to the 'intrinsically evolutionary nature' of the concept of prudential reasons and eventually referred to *all* reasons or causes that motivate financial sector regulators to act in order to prevent a financial risk or danger.[620] These findings remain important as it may inform future adjudicators on how to interpret the prudential carve-out.[621] Meanwhile, as a result of this decision, WTO members are left with considerable regulatory discretion and policy autonomy to choose the 'prudential reason' they want to pursue, provided there is a 'rational relationship of cause and effect' between the measure and its reason.[622] In short, the content regarding the type of regulatory standards necessary for prudential reasons is still ambiguous and debatable, hence, Article 2(a) itself could practically be considered as an 'escape clause' for national regulators when it comes to the exercise of prudential regulations, be it micro- or macro-prudential ones.[623]

April 2016, 4, available at: http://www.sidley.com/~/media/update-pdfs/2016/04/20160420-international-trade-update.pdf%2020%20April%202016

[620] In the words of the Panel "WTO Members should have sufficient freedom to define the prudential reasons that underpin their measures, in accordance with their own scales of values".; WTO Panel Report, *Argentina - Measures Relating to Trade in Goods and Services*, paras. 7.871-79.

[621] SIDLEY Update, *WTO Ruling Clarifies Flexibility in Member Governments' Regulation of Financial Services*, 5. Since the findings on prudential carve-out were not appealed, the legal standards set by the Panel on the issue at hand stand as final for the case.

[622] The Panel later on clarified that there should be a rational relationship of cause and effect between the measure and its prudential reason demonstrated in the design, structure or architecture of the measure. *See:* WTO Panel Report, *Argentina - Measures Relating to Trade in Goods and Services*, para. 7.891.

[623] KERN ALEXANDER, *The General Agreement on Trade In Services and the Balance Between Trade Liberalization and Financial Regulation*, 23. To the extent that WTO adjudicators on the case of *Argentina—Measures affecting trade in goods and services* give broad discretion to national regulators when it comes to defining prudential reasons and measures for prudential reasons, it remains ambiguous whether the carve-out would extend its reach to macro-prudential. Even if it does, macro-prudential regulations would probably remain

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

On such a basis, GATS essentially provides an important framework to progressively liberalize financial markets in supporting foreign competition in the field, yet it lacks institution and expertise and virtually has no impact on setting international financial standards for the purposes of eliminating systemic risk or preserving overall financial stability.

To sum up, the three international institutions have been tasked with mandates of different aspects of international economic life where the WTO is in charge of cross-border trade liberalization in financial services, the WB and IMF's missions relate to development, fiscal and monetary affairs, respectively.Even though the IMF and WB have, ever since their establishment, remained the two most important global financial organizations, they have indeed not fully involved in the promulgation of financial standards. The reason for this is twofold. As a starting point, admittedly, these two treaty-based institutions were not aiming at promulgating international financial regulationfrom the outset. If we look back at history to take into account the situation in the 1940s, it should be recalled that the Bretton Woods system was originally designed on the basis of three premises, i.e. 'trade liberalization, closed domestic financial system and fixed exchange rates'.[624] The idea was thus to promote cross-border trade and investment yet with limited capital flows, supposedly due to the fear that it may affect the functioning of the par-value arrangement. As a result, the volume of cross-border financial transactions remained

---

exempted from GATS jurisdiction provided that the requirements laid out in Article 2(a) are satisfied. Yet, the analysis and the decision seem to depend on a case-by-case basis.

[624] ROLF H. WEBER, DOUGLAS W. ARNER, *Toward a New Design for International Financial Regulation*, 391. If we recall, capital markets were highly integrated at international level before World War I, reflected through enormous amount of capital flows from advance economies to developing countries. Even today, capital markets are said to have been less integrated than they were 100 years ago…Yet, political leaders and economist seemed to realized back then that "the surge of protectionism following WWI had been a primary contributor to the depth of the Great Depression" (Alan Greenspan, The Age of Turbulence, 366.)

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

relatively small, the notion of financial stability somehow coincided with monetary stability, and there was virtually no efforts invested in developing financial regulation at international level. Coupled with the fact that its objects—i.e. banks, insurance companies, buyers and sellers of securities—were mainly domestic actors, financial regulation during this period was largely left within the domain of domestic law.[625]

Since the 1970s, however, when the global markets showed remarkable signs of integration, the volume of cross-border capital started to rise sharply and continued so in the following decades thanks to efforts in deregulation, technological advances which gave ways to financial innovation. Broadly speaking, there has been 'a progressive and comprehensive liberalization of capital flows and financial systems'evolving from the closed and fixed structure established under the Bretton Woods system.[626] Nonetheless, the situation was not as bright as such right after the suspension of the gold standards in 1973, since it immediately created a financial market turmoil where many banks incurred large foreign currency losses.[627] Then, merely a year later—in 1974, came the collapse of Bankhaus Herstatt—a medium-sized German bank whose failure caused a major disruption in currency markets and cross-border payments, as the bank's foreign exchange exposures 'amounted to three times its capital and it left the dollars

---

[625] For much of the postwar period until the late 1980s, Brummer argues, banks, insurance companies or securities traders tended to do business with nearby actors.; CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, 10. In such a way, it follows naturally that there was not much of a need for the promulgation of international financial regulation.
[626] ROLF H. WEBER, DOUGLAS W. ARNER, *Toward a New Design for International Financial Regulation*, 403.
[627] Bank for International Settlement, *History of the Basel Committee*, Updated October 2015, available at: http://www.bis.org/bcbs/history.htm

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

owed on its foreign-exchange deals unpaid'.[628] Irrespective of its modest size—ranked thirty-fifth in the German banking system, in fact, the case of Herstatt was considered 'the largest and most spectacular failure in German banking history since 1945' and has drawn much attention in international finance due to its regulatory implications.[629] Even though the bankruptcy was of non-systemic nature, Avgouleas pointed out, it nevertheless triggered concerns among the G-10 central bank governorsover 'increased risks to banks due to floating exchange rates, the lack of any coordinated cross-border supervision framework' as well as capital adequacy of banks.[630] In other words, there was uncertainty as to whether supervisory tasks of cross-border banking should be on home supervisor or the host in the foreign country, and also solvency problems of these institutions as well as their foreign establishments. As a result, this event ultimately led to the establishment of the Basel Committee for Banking Supervision (BCBS) in the same year 1974, shortly after Herstatt's collapse. It is the first informal transnational regulatory network of this kind, to be designed as a forum for regular cooperation between its members—i.e. central bankers or national authorities—on cross-border supervision (and later on, capital adequacy) for banks as well as other large financial institutions.[631]In addition to the BCBS which has since emerged as the main center for the promulgation of banking regulation at international level,

[628] For more details about how the bank got in troubles and was eventually insolvent, *see:* Basel Committee on Banking Supervision, *Bank Failures in Mature Economies*, Working Paper No. 13, April 2004, 4-6.;

[629] Basel Committee on Banking Supervision, *Bank Failures in Mature Economies*, 5.

[630] In this period, financial cooperation at international level happened within contact groups such as the G7 or G10.; EMILIOS AVGOULEAS, *Governance of Global Financial Markets: The Laws, The Economics, The Politics*, 168.

[631] The main feature that characterizes BCBS as informal is because 'countries are represented on the Basel Committee by their central bank and also by the authority with formal responsibility for the prudential supervision of banking business where this is not the central bank', but not by traditional subjects of international law. In essence, the Committee has no capacity to create legally binding rules, and the Committee's members have no power to bind their respective governments.; Bank for International Settlement, *History of the Basel Committee*, http://www.bis.org/bcbs/history.htm

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

other sectoral standard setters include the International Organization of Securities Commissions (IOSCO)[632] and the International Association of Insurance Supervisors (IAIS), which were founded in 1983 and 1994, respectively. In such a way, the structure of international financial regulation follows the traditional method,[633] i.e. the sectoral model, where it is divided into three agencies, each of which is responsible for setting international standards for banks, securitiesand insurance enterprises. For the sake of clarity, it should also be noted that the IOSCO was first created in response to the rapid internationalization of securities markets, but later to secure financial stability when 'securities firms began to reveal themselves as potential sources of systemic risks'.[634] In a different manner, Chris Brummer noted, the IAIS is "the direct consequence of lobbying by banking and securities regulators, through IOSCO and the Basel Committee, to form an international counterpart to their groups".[635] These 'half-governmental' regulators—as Rolf Weber framed it[636]—execute their missions under the auspices of high-profile international agenda setters such as the G7, G10 and then G8, G20, together with the Financial Stability Forum (FSF)—which was founded in 1999 in the aftermath of the Asian financial crisis 1997 and, later on, re-established as the Financial Stability Board (FSB) in 2009

---

632 The IOSCO has a more formal organizational structure than the Basel Committee where its memberships regulate more than 95% of the securities markets in more than 115 jurisdictions. Yet, its Technical Committee remains informal and is mainly in charge of developing, promoting and implementing international financial standards in securities regulation.; *See:* International Organization of Securities Commissions, *Fact Sheet*, May 2016, available at: http://www.iosco.org/about/pdf/IOSCO-Fact-Sheet.pdf

633 For more details on other model of regulation and supervision, *see also* CHRISTIAN TIETJE and MATTHIAS LEMANN, *The role and prospects of international law in financial regulation and supervision*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 136.

634 CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, 77.

635 One of the reasons for this movement was that only few regulators at that time believed that insurance companies actually posed systemic risks to their economies and the global financial system.; CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, 78-79.

636 ROLF H. WEBER, *Mapping and Structuring International Financial Regulation—A Theoretical Approach*, 1.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

with a broadened mandate to promotefinancial stability.[637]

Against this background, the demand for financial regulation at international level could be argued to stem from the need for financial risks reduction in an effort to preserve financial stability, under a unifying theme of ensuring a sound global financial system. Admittedly, Weber and Arner noted, "*a clear feature of international finance was the occurrence of a series of financial crises, often with international or global implications—exactly the sort of crises that the Bretton Woods system was designed to prevent*".[638]The response to these concerns after the breakdown of the Bretton Woods was, however, the formations of informal concertations among national authorities of key financial jurisdictions, instead of establishing treaty-based organizations or solely relying on the existing ones, i.e. the IMF and WB. Yet, the WB and IMF remain a part of the FSB thus endorsing FSB's Compendium of Standards, in addition to other standard-setters. Seen as forums for cross-border regulatory cooperation, admittedly, these predominantly informal networks of national agencies do not have a formal authority, operating without a dispute settlement mechanism while its decisions are not backed by any legal force. For instance, the Basel Committee focuses its activities on exchanging information, approaches, techniques on banking supervisory issues, and on such a basis, it develops banking guidelines, supervisory standards, and introducing best practices with global reach. Promulgated in this manner, sources of international financial regulation are thus informal, the regulatory rules,

---

[637] The FSB is an international body that monitors and makes recommendations about the global financial system. It is considered the key body of the international financial soft law.; For more details on the establishment of the FSF and its successor, the FSB, *see further:* Financial Stability Board, *Our History*, 2016, available at: http://www.fsb.org/about/history/

[638] ROLF H. WEBER, DOUGLAS W. ARNER, *Toward a New Design for International Financial Regulation*, 403.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

financial standards and best practices are legally non-binding and have been characterized as 'soft law'. As a matter of principle, compliance to these standards are entirely voluntary. Yet, in the next steps, such rules could ultimately be adopted or implemented by national regulators through which they could actually be hardened, i.e. to become binding once they have been transposed into the national legal system.[639]

So far, the Basel Committee has remained the best-known sectoral standards setter, especially for its task in devising prudential regulations for banks and other SIFIs, even though the title BCBS seems to be a bit misleading as it refers solely to supervision. As aforementioned, regulation and supervision are conceptually different in the sense that the former is about rule-making whereas the latter speaks of assessment of financial risks, monitoring and enforcement. Indeed, the agency itself can act as supervisor to identify the extent to which national regulators comply with its own standards, or relying on other methods such as peer reviews between its members. More importantly, however, such supervisory functioningis primarily conducted under the auspices of the highest-profile actors in international financial system, i.e. the IMF and WB. Having not involved entirely in the rule-making process, nevertheless, the IMF and WB retains its chief influence as 'observers of compliance' of financial standards.[640] For instance, one channel through which the IMF carries out its monitoring exercise would be to fulfill its mandate

---

[639] To give more clarity, national authorities—especially of members of the informal groups—are responsible for the implementation of these standards within the framework of their domestic financial policies. National authorities are accountable to their respective governments.

[640] CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, 69. The treaty-based institutions do participate in promulgating few international standards though rarely; for instance, the WB contributed to create 'Principles for Effective Creditor Rights and Insolvency Systems' which is under the FSB's Compendium of Standards.; HASSANE CISSE, *Alternatives to 'Hard' Law in International Financial Regulation: The Experience of the World Bank*, American Society of International Law (ASIL) Proceedings (Re: Opting Against International Law in International Financial Regulation), 2012, 320-321.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

for the surveillance of members' macroeconomic and financial policies as well as the oversight of the international monetary system, i.e. to monitor the adoption and implementation of international standards in such areas (banking, securities or insurance) relevant to the mandates.[641]In practice, Avgouleas pointed out, countries borrowing from the IMF and WB can also be forced to commit or implement the standards promulgated by BCBS, IOSCO and IAIS as a part of the 'conditionality' attached to these loans.[642] "Conditional lending agreements were simply the legal form for implementing economic policies".[643]In such a way, informal rules are practically enforced through this channel, yet somehow unevenly since the borrowers are mainly developing and poor countries. On top of that, the Financial Sector Assessment Program (FSAP), jointly established bythe IMF and WB in 1999 after several episodes of financial crises of the 1990s, also contributes to the enforcement of transnational standards.[644] Though countries' co-operation with FSAP remains voluntarily, together with the Reports on the Observance of Standards and Codes (ROSC), these assessments of compliance with core international standards would be incorporated under the Fund's surveillance and serve as the basis for the Bank's

---

[641] For more details on the Fund's surveillance mandates, how it is conducted and its impacts on member's domestic (financial) policies, *see*: International Monetary Fund, *The Fund's Mandate—The Legal Framework*, 4-12.
[642] EMILIOS AVGOULEAS, *Governance of Global Financial Markets: The Laws, The Economics, The Politics*, 232, footnote 51.
[643] In this regard, Cottier noted, substantive international law plays a minor part since the IMF and WB actually developed upon the basis of informal policy choices and programs shaped by the Washington consensus, apart from their constitutional structures and facilities which is of 'formal' nature.; THOMAS COTTIER, *Challenges Ahead in International Economic Law*, 6.
[644] The FSAP conducts comprehensive and in-depth analysis of a country's financial sector. While FSAP does not evaluate the health of individual financial institutions thus cannot effectively predict or prevent financial crisis, it helps to identify main vulnerabilities of the financial system that could trigger crisis. Notably, there are two major components (i) the financial stability assessment for developed countries (to which the Fund is mainly responsible for) and (ii) the financial development assessment for developing and emerging economies (the responsibility of the Bank); HASSANE CISSE, *Alternatives to 'Hard' Law in International Financial Regulation: The Experience of the World Bank*, 322-323.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

assistance strategy and the provision of technical assistance for its members.[645] As a result of their treaty-based status and their importance in the global financial system; not surprisingly, the IMF and WB have indeed maintained their dominant monitoring role in the implementation and enforcement of international financial standards.

To sum up, in accordance with what has been discussed so far, international financial regulation comprises of relevant rules issued by treaty-based institutions as well as transnational cooperation networks, in which the latter has been dominating in terms of rule-making while the former remains primarily responsible for monitoring the compliance to international standards across jurisdictions.

As depicted, the evolution of international financial regulation seems distinctive as "the institutions that are now responsible for monitoring standards are older than the standards setter themselves", let alone the structure's fragmentation since there is no agency which has explicit authority over day-to-day activities of all the others.[646] Admittedly, international financial regulation is somewhat peculiar compared to other branches of international law where 'the soft-law rules actually fills the vacuum in the absence of the traditional 'formal' international rules'.[647] Yet, despite its soft nature, Brummer asserted, the tendency to overlook international financial regulation reflects an incomplete understanding of soft law in general, of the 'unique institutional

[645] It follows naturally that the Bank and the Fund endorse these regulatory rules and standards because they are members of FSB, a key body in international financial soft law.; *See also* PAUL HILBERS, *The IMF/World Bank Financial Sector Assessment Program*, IMF, February 2001.
[646] CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, 61.
[647] THOMAS COTTIER, ROSA M. LASTRA, *Introduction*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 3-5.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

ecosystem' in which it operates, as well as its impacts on international financial markets.[648]

Understanding the legal nature of international financial regulation: A theoretical discussion

> "As the ancient Romans knew, wherever there is a society, there will be law (*ubi societas, ibi jus*), and the rules regulating contacts within the society of states are generally called international law…the bottom line should be clear: the existence of international relations, of whatever kind, entails the existence of international law".[649]

In the context of international finance, governance has become 'network governance',[650] and international financial regulation is somehowguided by the 'expert-led soft-law mechanism'.[651] Like a vicious circle, the notion of soft law then heated up the controversy for 'what is law?' once again. As Puri and Kupi put it, soft law is believed to be a 'descriptive term that runs a little risk of stoking confusion in concept-of-law debates'.[652] Not surprisingly, there has not been a common understanding on 'soft law' in international law, yet several controversial discussions surrounding 'soft law' and its status as law.

Some scholars are 'irritated by the very term of soft law'.[653] Legal positivists, Jan Klabbers and Prospel Weil—just to new a few, tend to deny the concept of 'soft law' in the believe: law, by definition, is 'binding'. Then if we accept the use of 'soft law', it would probably

---

[648] CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, 4.
[649] JAN KLABBERS, *International Law*, 3.
[650] JAN KLABBERS, *International Law*, 38.
[651] DOUGLAS W. ARNER, *The Politics of International Financial Law in the Aftermath of the Global Financial Crisis of 2008*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, 86.
[652] POONAM PURI and SIMON KUPI, *Say on Pay, Soft Law and the Regulatory Focus on Enforcement and Transparency*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, 175.
[653] JOOST PAUWELYN, *Is It International Law or Not, and Does It Even Matter?*, in JOOST PAUWELYN, RAMSES WESSEL, and JAN WOUTERS (eds.), *Informal International Lawmaking*, Oxford University Press, 2012, 128.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

mean that there is also another category denoted as 'hard law' at the other end of the spectrum.On that basis, Klabbers argued, the soft law concept is logically flawed, misleading and unhelpful in the sense that it suggests law can come in varying degrees of 'bindingness' while, as a matter of principle, law cannot be more or less binding.[654] As the argument goes, Klabbers added, the notion of 'soft law' is redundant since "the traditional binary conception of law (binding/non-binding) is well capable of performing the functions usually ascribed to soft law".[655] In a more extreme manner, according to Prosper Weil, these obligations—e.g. supposedly derived from the aforementioned regulatory rules and standards—are neither hard law nor soft law: they are simply not law at all.[656] Yet, at the same time, legal positivists would not agree that those are simply politics either. At best, they argue, soft law is viewed 'as an inferior instrument whose only rationale is to serve as a stepping stone to hard (real) law'.[657]Then comes the legal constructivists, whose consideration focuses less on the binding nature at enactment stage (law-in-the-book) but more on the effectiveness of law at implementation stage (law-in-action).[658] It is argued that "the degree to which an instrument is coercive or 'binding' is less a matter of obligation than

[654] Klabbers found it difficult to assess the notion of 'soft law' in legal terms since it would probably suggest as if a treaty, properly concluded between state representatives, were more binding than, say, standards developed by the Basel Committee.; JAN KLABBERS, *International Law*, 38.
[655] JAN KLABBERS, *The Redundancy of Soft* Law, Nordisk Journal of International Law, 65.2, 1996, 167-168.
[656] From a rather normative perspective, Prosper Weil further argued that the increasing use of soft law "might destabilize the whole international normative system and turn it into an instrument that can no longer serve its purpose".; PROSPER WEIL, *Towards Relative Normativity in International Law?*, American Journal of International Law, 77 A.J.I.L. 413, 1983, 420-423; *See also* ANDREW T. GUZMAN, TIMOTHY L. MEYER, *International Soft Law*, Journal of Legal Analysis, 2010: Volume 2, Number 1, 3.;
[657] GREGORY SHAFFER, MARK POLLACK, *How Hard Law and Soft Law Interact in International Regulatory Governance: Alternatives, Complements and Antagonists*, Society of International Economic Law (SIEL), Working Paper No. 45/08, 2008, 2.
[658] GREGORY SHAFFER, MARK POLLACK, *How Hard Law and Soft Law Interact in International Regulatory Governance: Alternatives, Complements and Antagonists*, 6.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

enforcement".[659] Viewed in this way, not only domestic law varies in terms of its impact, at international level where a centralized institution is typically missing, 'binding' is also highlysuspect as an operational concept and "most of international law is 'soft' in distinctive ways".[660] In other words, constructivists virtually accept the varying degrees of 'bindingness' and even went further to be suspicious of this very concept, of the enforceability of international law in general, or put another way, of whether international law is practically law without centralized sanctioning mechanisms.[661]

Admittedly, 'soft law' has always been an awkward topic for legal scholars or something actually neglected by international lawyers, partly because neither the term regularly appears in official documents nor such instruments are explicitly labeled as soft law. As this kind of governance has become omnipresent in various fields of international law,[662] it requires more

---

[659] CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, 5.

[660] In the domestic domain, there is a presumption among legal positivists and rationalists that 'hardness means binding rules interpreted and enforced by courts' which means the level of hardness varies accordingly. KENNETH W. ABBOTT, DUNCAN SNIDAL, *Hard and Soft Law in International Governance*, International Organization Vol. 54, 3, 2000 (pp. 421–456), 421.; At international level and even within the WTO framework, there is not an independent enforcement power. As the last resort, the WTO Panel/Appellate Body may authorize withdrawal or amendment of the measures concerned in case of non-compliance of the losing party. *See further* at: PETER VAN DEN BOSSCHE, *The Law and Policy of the World Trade Organization*, Cambridge University Express, Third Edition, 2013, 266-270. Generally speaking, for hard law that generates international legal obligations, it is somehow unclear as to what binding really means as withdrawal or violation could hardly be seen as coercively enforced. Even when exit to an international agreement is barred as a formal matter of international law, states have been known to exit it anyway.; KAL RAUSTIALA, *Rethinking the Sovereignty Debate in International Economic Law*, Journal of International Economic Law (JIEL), 6(4) [841-878], 2003, 846-847, footnote 18.

[661] For a discussion on intuition of whether international law is law and an analysis of skeptical internationalism, *see:* JOSHUA KLEINFELD, *Skeptical Internationalism: A Study of Whether International Law Is Law*, 78 Fordham L. Rev. 2451 (2010), available at: http://ir.lawnet.fordham.edu/ r/vol78/iss5/11. The main issue of this debate is the attribution of legal effects to international law, thus, the problem will be solved for both sides when we accept that being law and having legal effects are distinguished.; *See* JOOST PAUWELYN, *Is It International Law or Not, and Does It Even Matter?*, in JOOST PAUWELYN et al. (eds.), *Informal International Lawmaking*, 130.

[662] For a more comprehensive look on soft law at international and domestic levels, *see further at:* HARTMUT HILLGENBERG, *A fresh look at soft law*, European Journal of International Law, 1999, Vol. 10, No. 3, 499-515.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

research dedicated to understanding 'soft law' and its practical impacts as well as the compliance status of states towards this regulatory tools. Yet, while even skilled lawyers are reluctant in answering 'what is law?' and the quest for 'whether international law is law' receives contrasting opinions; it comes as no surprise that the notion of 'soft law' has indeed drawn in various views. As Teresa Fajardo noted, "*this term has been the subject of passionate debates between those denying the existence of such law and those who consider it as a new quasi source of international law, and those who study the concept frequently demand that authors embrace one position or the other*".[663] Within the scope of this research, however, it is not the intention to delve into answering these questions or determining which view is likely to prevail, but to centrally understand why and to what extent the soft-law tools have been proliferated in the context of global financial governance. In other words, a more relevant issue to be tackled in this research is the legal effects of such soft-law tools in the context of global financial governance while bearing in mind that "[n]ormativity (including legal effects) goes beyond what is law".[664] In the next steps, a set of diverse perceptions of soft law will be presented to give more clarity as to its legal nature, which is then followed by an analysis on the suitability and importance of soft law in international financial regulation. Yet, being aware of the aforementioned debate, the following discussion intends to merely look into arguments/theories that would probably *allow* soft-law tools—i.e. manifested in the forms of non-treaty regulatory rules, standards and best practices in the specific case of international financial regulation—to be sources of law thus could

[663] TERESA FAJARDO, *Soft Law*, Oxford Bibliographies, 2016, 1.
[664] Being law and having legal effects should be distinguished. In fact, a treaty provision may be ignored but it does not mean the provision itself is not law. At the same time, other norms may create legal effects, yet, depending on the criteria one is looking at, it may or may not be law. The universe of norms is larger than the universe of law.; JOOST PAUWELYN et al. (eds.), *Informal International Lawmaking*, 158-159.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

be considered as species of international law, or at the very least, accept the use of the 'soft law' concept.[665]

As the outset, a general remark could be made with respect to the characteristic of soft law where it typically refers to legally non-binding rules in international law (regardless whether such rules will later be hardened at national level). Even if 'soft law presumes consent to basic standards and norms of state practice', admittedly, it cannot form binding obligations under customary international law due to the lack of *opinion juris*.[666] Thus, one thing we know for sure is that 'these normative utterances do not neatly fit in the listing of Article 38 of the Statute of the International Court of Justice'.[667] Stipulated as such, soft law is not considered one of the traditional or recognized sources of (public) international law. Be that as it may, several scholars have nonetheless attempted to define this concept by emphasizing on its typical characteristics or alternatively, using different sets of criteria to determine the range of 'soft law', obviously under the common theme that law can be more or less binding.

---

[665] Again, depending on their position on soft law, scholars ignore, deny, or grant it a new place among the traditional sources of international law. It should be noted that the question is purely theoretical and is differentiated from whether the rules at hand will ultimately be implemented at national level.; *See:* TERESA FAJARDO, *Soft Law*, 7-8. Broadly speaking, the acceptance of the 'soft law' concept would virtually lead to accepting it as a source, or a quasi source of international law.

[666] KERN ALEXANDER, *The role of soft law in the legalization of international banking supervision: A conceptual approach*, 3.; Put differently, the prevailing view has it that there is a lack of general consensus on the compulsory nature of the rules, thus soft law in this regard would not become a part of customary international law.

[667] According to Article 38 of the Statute of the ICJ: "*1. The Court, whose function is to decide in accordance with international law such disputes as are submitted to it, shall apply:*

a. *international conventions, whether general or particular, establishing rules expressly recognized by the contesting states;*
b. *international custom, as evidence of a general practice accepted as law;*
c. *the general principles of law recognized by civilized nations;*
d. *subject to the provisions of Article 59, judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law."*;

Yet, the list is no longer thought to be complete. *See also*: JAN KLABBERS, International Law, 37-40.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

There are indeed various ways to define soft law. For instance, Guzman and Meyer denoted "*soft law as those non-binding rules or instruments that interpret or inform our understanding of binding legal rules or represent promises that in turn create expectations about future conduct*". In Guzman and Meyer's phrase, "[o]bligations are, to a large extent, in the eyes of the beholder" thus would be effectivelydefined by perceptions of states, since enforcement of international legal rules eventually relies on states—i.e. the formal subjects of international law—anyway.[668] To give more clarity, the key to understanding Guzman and Meyer's thesis lies with their perception of 'non-binding rules', which in turn depends on how these rules themselves shape states' interpretations. As a result, even if the rules are not binding on states, it can nevertheless create legal consequences in accordance with states' understanding of what constitutes appropriate behavior under these rules.[669] Yet, under a rather consensus view, Guzman and Meyer admitted, such legal effect is smaller in magnitude than the impact of hard law, all else equal. On such a basis, 'international soft law is best understood as a continuum, or spectrum, running between fully binding treaties and fully political positions', where it differentiates itself with formally binding legal rules and purely political exchanges.[670] In a similar vein yet with slightly different context of the European Union, Lisa Senden defined soft law as "*rules of conduct that are laid down in instruments which have not been attributed legally binding force as such, but nevertheless may have certain (indirect) legal effects, and that are aimed at and may*

---

[668] ANDREW T. GUZMAN, TIMOTHY L. MEYER, *International soft law*, Journal of Legal Analysis (JAL), 2010: Volume 2, No. 1, 174.
[669] ANDREW T. GUZMAN, TIMOTHY L. MEYER, *International soft law*, 175.
[670] In such a way, "soft law is something that dims in importance as the commitments of states get weaker, eventually disappearing altogether".; ANDREW T. GUZMAN, TIMOTHY L. MEYER, *International soft law*, 173-174

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

produce practical effects". [671] Thus, Guzman, Meyer and Senden follow a rather doctrinal approach (i.e. to preserve the doctrinal distinction of binding/non-binding norms) and basically agreed that soft law is, by nature, non-binding; yet with reference to the creation of effects of these obligations where the possibility is expressed by using soft language (may, expectations). In this regard, Joseph Gold noted "the essential ingredient of soft law is an *expectation* that the states accepting these instruments will take their content seriously and will give them some measures of respect".[672] By referring to the probability of producing (even indirect) legal effects, the authors apparently make it more relevant to lawyers, even though being law and having legal effects may not always be the same. Considered as such, at least, these understandings do not exclude the possibility of soft law to be a source of international law. Going a step forward to somehow tailor-made the definition of soft law to the case of international financial regulation, Kern Alexander defined soft law "*as an international rule created by a group of specially affected states which had a common intent to voluntarily observe the content of such rule* with a view of potentially adopting it into the national law or administrative code". [673] To recall, international financial standards and best practices are said to have been promulgated in such manner yet it should also be noted that central banks or national regulators effectivelyrepresent their respective governments in these transnational groupings. In essence, this definition is

[671] LISA SENDEN, *Soft Law in European Community Law*, Hart Publishing, Oxford and Portland Oregon, 2004, 3. It should be noted in addition that ignoring these rules would, in principle, not lead to a formal infringement hence not to legal consequences: "No offense is committed when a non-binding act is breached."; *See further* at: DICK W.P. RUITER, RAMSES A. WESSEL, *The Legal Nature of Informal International Law: A Legal Theoretical Exercise*, in JOOST PAUWELYN et al. (eds.), *Informal International Lawmaking*, 163.
[672] JOSEPH GOLD, *Strengthening the soft international law of exchange agreements*, Journal of International Law (JIL), Vol. 77, 1983-443-89, 443.
[673] KERN ALEXANDER, *The role of soft law in the legalization of international banking supervision: A conceptual approach*, 3.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

compatible with the aforementioned understandings of soft law, and even make the compliance of states (legal consequences) more likely to happen.

As it turns out, however, 'definition is primarily a matter of *drawing lines or distinguishing* between one kind of thing and another, yet somewhat hardly state or explain clearly the distinctions dividing one kind of thing from the other'.[674] Although scholars have virtually come to agree on this symbolic character of soft-law tools,for many writers, the notion of 'soft law' in international law actually goes beyond the binary perception of legally (formally) binding and non-binding.Thus, acknowledging that soft law would be able to appear in various forms, other scholars have come up with different ways to determine the range of soft law through the use of one or more concrete criteria.

In particular, Abbott and Snidal used the three dimensions—namely obligation, precision, and delegation—to measure the realm of soft law where it 'begins once legal arrangements are weakened along one or more of these dimensions.[675] On such a basis, the regulatory rules are considered soft law in cases where, for example, (i) the obligations are not legally binding; or (ii) even if the obligations are binding, but the content is not precise or at low level of definiteness, elaboration and density; or (iii) if there is no delegation to a third party for dispute resolution, rule interpretation and implementation. It should be noted that this theory would come across binding treaty-based obligations as well as informal ones, in the sense that both could be categorized as soft law if, for instance, the content is vague or there is no independent dispute resolution body.

[674] H. L. A. HART, *The concept of law*, Third Edition, 13.
[675] KENNETH W. ABBOTT, DUNCAN SNIDAL, *Hard and Soft Law in International Governance*, 422.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Corresponding to the combinations of such criteria, soft law can thus appear in various forms as international regimes somehow vary in the extent of their legalization which could make them 'softer' or 'harder'.[676] Inspired by this, Bin and Liu then modified it into a four-factor theory consisting of four dimensions, namely obligation (which points to a set of requirements that has legally binding effect), stringency (to focus on a higher degree of quantitative restraint), delegation (referring to a third party involvement to administrate the execution of rules), and enforcement (which calls for disciplinary measures ensuring compliance).[677] Following similar principle as the aforementioned thesis developed by Abbott and Snidal, yet some adjustments were made by Bin and Liu in an attempt to specifically foster efforts in hardening international financial soft law along one or more of these dimensions. Accordingly, soft law lies at one extreme end where an arrangement is weak in all four dimensions, and as the level of legalization increases, the law becomes harder towards a high level of legalization with strong indications in all four dimensions, i.e. hard law.[678] Be that as it may, however, there is virtually no defining factor among these dimensions and soft law then encompasses categories of treaty-based obligations as well as mere political statements. In short, while Abbott and Snidal take a rather formal approach in which 'their theory of legalization is defined in terms of characteristics of rules and procedures, not in terms of effects'; Bin and Liu employ a more effect-oriented method

---

[676] GREGORY SHAFFER, MARK POLLACK, *How Hard Law and Soft Law Interact in International Regulatory Governance: Alternatives, Complements and Antagonists*, 6-8. In a relevant note, Kern Alexander created a table for the application of the three-dimension-theory: KERN ALEXANDER, *The role of soft law in the legalization of international banking supervision: A conceptual approach*, Table 1, 20.
[677] BIN GU, TONG LIU, *Enforcing International Financial Regulatory Reforms*, Journal of International Economic Law (JIEL), 2014, Vol. 17 [139–176], 140-141.
[678] BIN GU, TONG LIU, *Enforcing International Financial Regulatory Reforms*, 150.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

through the use of 'enforcement' in addition to the other three dimensions.[679] In the context of international financial soft law, these standards would have high levels of 'precision' (e.g. as in the case of Basel III for macro-prudential regulation), and probably 'enforcement' since it is somehow backed by treaty-based institutions for monitoring exercise; yet low level of 'obligation' (legally non-binding) and 'delegation' (apparently no dispute settlement mechanism).

In a slightly different manner yet relevant to soft law, Pauwelyn examined the field of international informal lawmaking (IN-LAW, as the author named it) in which he focused on three criteria: actors, process and outputs, with the underlying presumption that IN-LAW remains a part of the legal world.[680] The scope of IN-LAW is rather broad, covering also instruments which are less formal than treaties yet have been attributed legally binding as such, as well as international standards of legally non-binding nature.[681] Viewed in this way, the dimension of 'output informality does not mean the same as not legally binding', or IN-LAW would embrace the notion of soft law in international financial regulation as having discussed so far in this

[679] Notably, 'precision' is replaced by 'stringency' in the sense that 'soft law is not necessarily less precise than hard law. Also, Gu and Liu put dispute resolution under a new dimension 'enforcement', instead of referring to it under 'delegation'. It was explained further that Abbott's theory of legalization is defined not in terms of effects, and that conflating 'enforcement' with legalization 'would make it impossible to inquire whether legalization increases rule implementation or compliance'.; BIN GU, TONG LIU, *Enforcing International Financial Regulatory Reforms*, 140-141, footnote 4&5.

[680] It is in fact a presumption that lies beneath the IN-LAW project as a whole.; DICK W.P. RUITER, RAMSES A. WESSEL, *The Legal Nature of Informal International Law: A Legal Theoretical Exercise*, in JOOST PAUWELYN et al. (eds.), *Informal International Lawmaking*, 162.

[681] For instance, the author cited the less formal press communiqués which was accepted as legally binding by the International Court of Justice in the *Pulp Mills on the River Uruguay* dispute.; JOOST PAUWELYN, *Is It International Law or Not, and Does It Even Matter?*, in JOOST PAUWELYN et al. (eds.), *Informal International Lawmaking*, 126-127. Notably, IN-LAW excludes cooperation that only involves private actors.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

research. Then, these soft law tools are informal in the sense the actors (transnational forums),[682] process and outputs are of informal and non-binding nature. Alternatively, Hatzis argues, soft law is, on one side, formal since it did not emerge spontaneously but having been developed by the transnational networks through a 'defining procedure';[683] yet, on the other side, it remains informal due to its non-binding legal nature.[684]

Taking into consideration various views that have been presented, it could be argued that the legally non-binding nature does not automatically preclude financial standards from being a source of international law as this judgement depends on the criteria one is looking at. For instance, if formalities or intent of parties to be bound to an agreement matter, soft law as we understand it would not be international law;conversely, if effect or substantive factors decide, then soft law in the form of international financial standards could be considered a source of international law.[685]Yet, having said earlier, what matters more for practitioners would be the effects these non-binding regulatory tools can generate. From a theoretical and practical point of view, soft law has been a useful coordination mechanism, especially in the field of international

---

[682] Apparently, these actors are not the traditional subjects of international law, i.e. states and state-like entities. For many scholars, whether transnational groupings are (even partial) subjects of international law is debatable.

[683] In this regard, soft law differentiates itself with customary international law since the latter "does not emerge from a specific process that marks the creation of a legal obligation" hence lacks of such 'defining procedure'; For a more detailed discussion on customary international law and its relevance, *see:* ANDREW T. GUZMAN, TIMOTHY L. MEYER, *Customary International Law in the 21st Century*, Progress in International Organization, 2007.

[684] ARISTIDES N. HATZIS, *A Law and Economics Framework for Financial Regulation: Ten Questions and A*nswers, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, 41.

[685] Indeed, depending on one's perception or criteria of what makes an instrument law or non-law, output of informal lawmaking or soft law may or may not be part of international law.; JOOST PAUWELYN, *Is It International Law or Not, and Does It Even Matter?*, in JOOST PAUWELYN et al. (eds.), *Informal International Lawmaking*, 138-139.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

financial regulation.

Unlike international trade law where the rules are mainly embedded within the framework of the treaty-based WTO or sets of preferential and regional trade agreements, the role of (hard) international law in regulating global finance is 'far from clear'. It seems, Cottier et al. noted, '*the system has been operating under the assumption that such role is inherently limited, and that it is not suitable for per se rule in order to enhance stability, predictability and legal security*'.[686] Put differently, the prevailing view in determining the most effective way to address the regulatory challenges posed by the global financial markets is by using soft law rendered through transnational regulatory networks established on an informal basis. Even though this view has been contested by several scholars in the aftermath of the global crisis, theoretically speaking, soft law has advantages that make it suitable for the use in stabilizing financial affairs worldwide.

First, soft law has greater flexibility that allows it to cope with legal uncertainty and rapid changes. Admittedly, finance is inherently instable.[687] Moreover, Avgouleas noted, 'financial markets have a tendency to produce market failures, are vulnerable to contagion and can be susceptible to crises'.[688] When moving up to the international arena, the vulnerability becomes more dangerous since financial market risk has its cross-border and cross-sector nature that could easily lead to global systemic risk. Indeed, a collapse of a financial institution—e.g. a securities firm—can severely disrupt international capital markets which could then results in serious

---

[686] THOMAS COTTIER, ROSA M. LASTRA, *Introduction*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 2.
[687] KATHARINA PISTOR, *A legal theory of finance*, 316.
[688] As a result, these can prejudice the stability of the financial system. *See* EMILIOS AVGOULEAS, *Governance of Global Financial Markets: The Laws, The Economics, The Politics*, 217.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

consequences on other market participants as well as the whole economy. Furthermore, financial markets are changing rapidly due to innovation in trading strategies or technological capabilities of market participants, which in turn requires continuous adaptation of financial regulation and supervision as the markets themselves evolve.[689]On such a basic, soft law would be an ideal choice as the informal setting of negotiations and non-binding nature of the rules help to limit the uncertainty attached to the adoption of new standards, and to cope with rapid development of the global financial markets to prevent 'unpleasant surprises'. To give more clarity, soft law is not a product of 'state actors binding themselves to the promulgated rules and standards' but co-ordination efforts are led by central banks, regulatory agencies and supervisors instead of heads of states. This feature allows standards to be negotiated and adopted in a timely manner in order to keep pace with rapidly evolving financial markets, as in such a way it overcomes the political hurdles of lengthy negotiation and ratification procedures. Then the non-binding nature effectively 'allow parties to experiment, and, if necessary, change the direction when new information and costs arise'.[690]

Second, soft law is able to cope with diversity as it can provide different alternatives for states with different degrees of readiness. Considering differences in levels of development of financial markets across jurisdictions and taking into account asymmetric distributional effects in relation to the adoption of financial standards, a binding rule would not create enough incentives for countries to join. Admittedly, each state has their own way to harmonize national interests and

---

[689] CHRIS BRUMMER, *Why soft law dominates international finance – and not trade*, Journal of International Economic Law (JIEL), Vol. 13(3) [623–643], 2010, 637.
[690] CHRIS BRUMMER, *Why soft law dominates international finance – and not trade*, 634.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

governance standards, as well as their own profile comprising of 'desired levels of risk tolerance and thresholds of resilience that are essential to protect services of public interest'.[691] In other words, Davies and Green noted, different countries, at different times, mayhave different 'risk appetite framework' reflected through their tolerance for market instability and for institutional failure.[692] Thus, regulatory rules and standards would produce different effects toward states in the sense that it could be more beneficial in one jurisdiction and far less in the others.As the financial system is of crucial importance to an economy, states would be reluctant to sign up for binding international norms, hence rather opt to choose the kind of soft governance as soft-law tools allow countries to adjust it according to their financial situations and priorities.

Third, compared to traditional international (hard) lawmaking method, states preserve its national prerogatives on the issues at hand when entering into a soft-law agreement. As a matter of principle, their sovereignty is undermined once states are bound or express the intent to be bound by an agreement, even more so in case dispute resolution is delegated to an independent third party. Despite that 'binding' may be suspect as an operating concept at international level, states may still face with disputes and even retaliation for non-compliance or breach of binding obligations. In this regard, soft law would be the choice when states want to avoid these challenges and thus enter into agreements which generate cheap exits. Even though it does not mean to say there is no such constraints attached to soft law; without necessarily committing to implementthe requisite standards, this non-binding feature undoubtedly helps lower the

[691] MADS ANDENAS and IRIS H-Y CHIU, *The foundations and future of financial regulation: Governance for responsibility*, 65.
[692] HOWARD DAVIES and DAVID GREEN, *Global financial regulation: The essential guide*, 27.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

sovereignty costs. In a relevant note, Guzman added, states may use soft law where 'the existence of a focal point is enough to generate compliance'.[693] As such, states have found incentives to continue using soft law as well as the focal pointsof informal transnational forums in international financial regulation, since the non-binding obligations is somehow enough to induce future compliance.

Apart from these advantages of soft law, practically speaking, the lack of international (hard) law of financial markets could also be explained by the fact that those who are in charge of the promulgation of financial standards do not have legislative power, or power to make hard law. Due to its complexity and technical nature reflected through the predominance of economics in the field, financial regulation is understandably guided by skilled technocrats within central banks or national regulators. To accommodate their activities, they develop informal forums to share and exchange information, interacting with regulatory peers, promulgating standards and introducing best practices at domestic or international level. In fact, for instance, the Basel Committee was established as a result of several meetings of G10 central bank governors when there were signs of increased systemic risk in international financial markets. The Committee now reports to the Group of Governors and Heads of Supervision and seeks the Group's endorsement for its major decisions and working program.[694] In such a way, the whole process of standard-making is said to be independent of political influence, yet, at the same time, it goes outside formal channels of governance. Coupled with the fact that central bankers and national

---

[693] ANDREW T. GUZMAN, TIMOTHY L. MEYER, *International soft law*, 171.
[694] Basel Committee for Banking Supervision, *About the Basel Committee*, September 2016, available at: http://www.bis.org/bcbs/about.htm

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

regulators lack treaty making power, admittedly, the agreement they are entering into would not become properly binding on their respective governments. In the steps afterwards, as the case of Basel Accords show, it seems no regulator was in a position to commit their national parliaments with what had been agreed upon, especially when even the actively-involved US regulators proved unable to secure Congress's ratification.[695] Furthermore, it should also be noted that central banks in key financial jurisdictions (the US, the EU, UK and Switzerland—countries that participate more actively in the informal groupings) enjoy full independence from government and the political process which in turn contributes (perhaps, the most) to the predominance of soft law in international financial regulation.[696] Lastly, Cottier et al. asserted, it was unilaterally attainable goals of enhancing competitiveness to boost regulatory competition and the long-standing power of large banks that have greatly influenced their governments to 'practice a hands-off approach', which then resulted in the lack of international financial regulation in general.[697]

Although international financial agreements are informal, Avgouleas emphasized, 'they are taken seriously by signatories as they are the only medium available to regulators to express

---

[695] HOWARD DAVIES and DAVID GREEN, *Global financial regulation: The essential guide*, 38-39.
[696] THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 412. Undoubtedly, the legal nature of the rules remains soft due to the characteristic of the institutional arrangement, of the bodies in charge, i.e. transnational networks of regulators and central bank representatives.
[697] Unlike trade regulation, the authors explained, financial affairs do not comprise reciprocity and immediate interdependence in a comparable manner. Thus, competitive advantages of domestic operators can be achieved by supervision and unilateral measures in the form of financial regulation.; *See further* at: THOMAS COTTIER, ROSA M. LASTRA, *Conclusions*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 412-413.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

commitment to a policy, rule or standard'.[698] Despite weaknesses of soft law when it comes to legitimacy or accountability, its advantages give incentives to induce compliance. Both countries represented by their national regulators within the framework of the transnational groupings and those outside these forums are said to have complied, albeit at different levels and in different manners, to international financial standards and best practices. At this stage, general remarks on the mechanisms motivating countries to comply with these non-binding obligations will be presented, then a more detailed analysis with practical evidences follows shortly thereafter.

As a starting point, states comply because of their self-interest in the useful features of soft law as aforementioned. Even though informally made, in addition, states are also bound by constraints—the three Rs of compliance: reciprocity, retaliation and reputation—to respect what has been agreed upon. Developed by Guzman to explain how international law works, this rational choice theory suggests that states would normally havetendency to calculate all types of costs generated by such Rs before deciding whether to comply.[699] While retaliation could be harmful and costly for the implementing state under some circumstances, reputational sanction remains a useful tool to generate compliance. In the case of soft law, though it is non-binding, it does give rise to the framework where states face with reputational disciplines. Coupled with the fact that decision-making is guided by technocrats, who has developed expectations and trust

[698] As such, the non-binding nature 'may still influence the behavior of regulators and market participants seeking to make credible commitments of efficiency, value and strong corporate governance or investor protection'.; *See* EMILIOS AVGOULEAS, *Governance of Global Financial Markets: The Laws, The Economics, The Politics*, 223.
[699] The three Rs theory and relevant analysis presented here are developed by Guzman and taken from his book. For a detailed discussion, *see* ANDREW T. GUZMAN, *How International Law Works: A Rational Choice Theory*, Oxford University Press, 2008.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

among each other in coordination within transnational regulatory networks, defection from even non-binding obligations could generate reputational costs that effectively prevent members from making credible commitments for future cooperation. Undoubtedly, members of such informal standard-setting bodies and the FSB face with peer pressure and peer reviews for the monitoring exercise of compliance. In this sense, the threat of reciprocal non-compliance also serves as an important mechanism,adding up to the cost of violation. Furthermore, for those who intend or have received financial assistance from the IMF or WB, 'compliance with international standards is often the basis upon which loans are granted' by these treaty-based institutions, thustargeted countries have found themselves in disadvantageous positions once they violate.[700]

In practice, not only co-operation through transnational regulatory network has been viewed as a key to understanding regulatory rule-making in international financial regulation, but also international financial regulation itself has been identified and hailed as the privileged field of successful application of soft lawwhere the level of compliance has remained relatively high. In a relevant note, Teubner pointed out, 'softness should not be seen as a deficiency, but as a typical characteristic of global law' and it might actually happen that "[s]tability comes from softness". Understood as such, it is 'soft law, [but] not weak law'.[701]

As the argument goes, in Chris Brummer's view, "*[w]here standards and best practices—even if informal—are backed by mechanisms that enforce compliance, they can be viewed from a*

---

[700] EMILIOS AVGOULEAS, *Governance of Global Financial Markets: The Laws, The Economics, The Politics*, 232, footnote 51. *See also* CHRIS BRUMMER, *Why soft law dominates international finance – and not trade*, Journal of International Economic Law (JIEL), Vol. 13(3) [623–643], 2010.
[701] GUNTHER TEUBNER, *Global Bukowina: Legal Pluralism in the World Society*, in GUNTHER TEUBNER (ed.), *Global Law Without a State*, Brookfield: Dartmouth 1997 (3-28), 18.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

functional standpoint as species of international law, albeit promulgated by means other than traditional treaty-making processes".[702] Considered as such, international financial regulation would come closer to be a subset of public international law since conducts of the actors—informal groupings in which states are represented by their central bankers or national financial regulators, sometimes even financial ministers—are attributed to acts of the respective states in international law, in accordance with Article 4 (Conduct of organs of a State) of the United Nations Draft Articles on Responsibility of States for Internationally Wrongful Acts 2001.[703] Thus, it connotes the involvement of public authorities in the soft lawmaking process. Be that as it may, even though public international law often regulates relations between states, yet the law ultimately affects "not only states, but also other entities, be they companies, individuals or minority groups" and financial intermediaries would be among the last addresses of these financial rules.[704]

…

Then came the great crisis.

Despite the existence of 'a comprehensive corpus of international financial standards that had been developed for over more or less four decades and covers most areas of international

---

[702] CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, 5.
[703] Article 4. Conduct of organs of a State:
1. The conduct of any State organ shall be considered an act of that State under international law, whether the organ exercises legislative, executive, judicial or any other functions, whatever position it holds in the organization of the State, and whatever its character as an organ of the central Government or of a territorial unit of the State.
2. An organ includes any person or entity which has that status in accordance with the internal law of the State.

United Nations, Draft Articles of Responsibility of States for Internationally Wrongful Acts 2001.
[704] JAN KLABBERS, *International Law*, 3.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

financial law', soft law and the structure of transnational regulatory networks failed to prevent or resolve the most recent large-scale cross-border financial crisis.[705] With its large magnitude and devastating impacts,the crisis indeed initiated a widespread call for a complete overhaul of the international financial system, in whichincreasing attention has been given to the causes, resolution, and possible prevention.[706] As a result, there have been extensive literature analyzing the crisis from almost every possible aspects in order to suggest necessary reforms in attempts to prevent the recurrence of such disruption. From an economic point of view, the problem could be just that 'all models were wrong…perhaps, none was useful'[707] to contain the crisis. Admittedly, scholars have indeed criticized financial standards as in many instances they were technically flawed, thus their use was said to 'have seriously contributed to the build up and the severity of the crisis' instead of preventing it.[708] When it comes to regulatory failures, however, the focus seems to fall on the softness of financial regulation and the role of transnational soft bodies, where their advantages are somehow outweighed by disadvantages.

With regard to discussions on the effectiveness of informal arrangements and the extent to which such settings should be maintained in the wake of the global crisis 2008, Tony Porter identified two main strands of literature. On the one hand, the first group of scholars criticize this kind of soft governance 'as too weak to be effective and at best marginally helpful, as

---

[705] MARIO GIOVANOLI, *The reform of the international financial architecture after the global crisis*, 83.
[706] ROLF H. WEBER, DOUGLAS W. ARNER, *Toward a New Design for International Financial Regulation*, 403.
[707] Inspiration from "Essentially, all models are wrong, but some are useful." by George E. P. Box (1919 – 2013).
[708] EMILIOS AVGOULEAS, *Governance of Global Financial Markets: The Laws, The Economics, The Politics*,237-243. This is in addition to the fact that some basic prudential rules were not respected as well.; For a more extensive discussion of criticisms regarding the use of Basel I, II and their side-effects, *see:* MARIO GIOVANOLI, *The reform of the international financial architecture after the global crisis*, 87-89.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

undermining traditional mechanisms of democratic accountability, legitimacy and perhaps giving undue influence to powerful states and private actors'.[709] After the fall of Lehman Brothers, for instance, the lack of a formal structure for cross-border crisis management was thought to 'generate gigantic amounts of confusion and uncertainty that resulted in a generalized collapse of confidence in the markets'.[710] As the argument continues, writers go on to underscorethe inadequacies of the existing system then demandto build up a stronger intergovernmental supervisory and regulatory structure that would go beyond informal standard-setting and networked coordination. Further to this end, it could suggest a move towards hardening current soft-law tools or even the establishment of an international finance organization led by heads of states, founded by treaties, and aiming at regulating the financial market through binding international rules.[711] On the other hand, the second group considers these soft institutions as flexible, innovative, suited to the nature of finance and much better able to respond to challenges of rapidly changing global financial markets.[712]"The system is far from perfect, yet it seems to be more or less workable".[713] Thus, regulatory reform efforts would be better spent to improve the current system—e.g. in terms of legitimacy or accountability of decision makers for their

---

[709] TONY PORTER, *Introduction*, in TONY PORTER (ed.), *Transnational Financial Regulation after the Crisis*, RIPE Studies in Global Political Economy, Routledge Publishing, 2014, 4.
[710] EMILIOS AVGOULEAS, *Governance of Global Financial Markets: The Laws, The Economics, The Politics*, 237.
[711] This organization could be structured as the WTO with different mandates, while interacting with all existing treaty-based institutions (IMF, WB, WTO), and could even incorporate the informal regulatory networks. In this regard, Kern Alexander suggested a similar model where states could possible delegate power to the international financial supervisor to devise binding rules. In such a way, it represents a trade-off between transaction costs and sovereignty costs.; *See further* at: KERN ALEXANDER, *The role of soft law in the legalization of international banking supervision: A conceptual approach*, 14-15.
[712] TONY PORTER, *Introduction*, in TONY PORTER (ed.), *Transnational Financial Regulation after the Crisis*, 4.
[713] HASSANE CISSE, *Alternatives to 'Hard' Law in International Financial Regulation: The Experience of the World Bank*, 323.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

actions—instead of ‘attempting to uproot it then construct another system of state treaties’.[714]

At this stage, few potential initiativeshave been put forward in response to the need to rethink and reshape international financial regulation. For the sake of clarity,the main scenarios are (i) to retain the role of soft law and soft bodies, while actively developing rules to fill in regulatory gaps and strengthening hard-law institutions (IMF and WB)’ monitoring exercise; (ii) to harden soft law, for instance, along one or more dimensions as suggested in the models established by Abbott and Snidal or advanced by Bin and Liu; or (iii) to promote the use of hard law in international financial regulation, through strengthening the roles of relevant existing treaty-based institutions (IMF, WB, WTO)[715] in devising binding financial rules as well as aiming towards the establishment of an international (hard law) institution governing global finance.[716]Be that as it may, however, in Chris Brummer’s view “the toolbox of options are available to regulators is both broader and deeper than is commonly assumed, and that many of the most important choices are not necessarily between hard law and soft law as such, but between different institutional arrangements”.[717]

[714] HASSANE CISSE, *Alternatives to ‘Hard’ Law in International Financial Regulation: The Experience of the World Bank*, 323.
[715] In the case of the WTO, questions remains as to whether the WTO should make efforts to interpret the scope and content of the ‘prudential carve-out’ or even goes far to render it inapplicable so that the institution could engage more in the financial regulatory rule-making. For IMF and WB, proposals center on strengthening the role of these two institutions in standard-making so that such standards could become hard law.
[716] For proposals regarding the establishment of a treaty-based institution for the governance of global finance, *see*, generally: LAWRENCE G. BAXTER, *Understanding the* Global *in Global Finance and Regulation*, in ROSS P. BUCKLEY, EMILIOS AVGOULEAS, DOUGLAS W. ARNER (eds.), *Reconceptualizing Global Finance and Its Regulation*, Cambridge University Express, 2016, 45-47.
[717] CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, 5.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Global financial crisis: How much of a change-maker has it been?

THE CRISIS, despite its US origin, has a global spill-over effect. In its aftermath, Eilis Ferran commented, "[t]he international regulatory response to the global financial crisis of 2007-9 appears to support the idea of crisis as a game-changer".[718]

Yet, in a nutshell, this is what has happened in practice regarding institutional reforms.

At the first steps, the G20 took initiative in the reform and oversight of the international financial architecture as a whole and called upon the transnational networks in an effort to stabilize the financial system.[719] This certainly comes as no surprise and serves as an acknowledgement to the fact that a fragmented country-by-country approach remains insufficient to support the entire global system, since the task itself undoubtedly goes beyond the capacity of even groups of key financial jurisdictions (e.g. G7 or G8). To fulfill its duties, the G20 has routinely organized summits, among which the Washington head-of-governmentsummit of 2008 was considered "an important landmark in the evolution of the politics of global financial regulation".[720] For the sake of clarity, as Arner rightly pointed out, it resulted in (i) the expansion of the group of *core* participants to include major emerging economies, in which the main event is the inclusion of the BRIC—Brazil, Russia, India and especially China, to the talk on tackling

---

[718] EILIS FERRAN, *Where in the world the EU is going?*, in EILIS FERRAN, NIAMH MOLONEY, JENNIFER G. HILL, JOHN C. COFFEE, JR., *The Regulatory Aftermath of the Global Financial Crisis*, 1.
[719] The G20 countries represent roughly 90% of global GDP and around two-third of the world's population. As noted, this group is seen as balancing the benefits of having a relatively small core group of countries and the need to be legitimate.; *See further* at: The Group of Twenty, *A History*, 2007, 19-20.
[720] DOUGLAS W. ARNER, *The Politics of International Financial Law in the Aftermath of the Global Financial Crisis of 2008*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, 86.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

major global economic and financial issues;[721] and (ii) for the first time, the direct involvement of all the political leaders of major economies in finance and financial regulation—a field which has been supposedly reserved to the technocratic club comprising of finance ministers, central bankers and financial regulators.[722]Be this as it may, however, the G20 was largely a dormant player since its creation back in 1999 in the wake of the Asian financial crisis and the period afterwards. The group only gained undeniable momentum then rise to pre-eminence in international economic affairs during the current crisis of 2008. In addition to the G20's revival, institutional reforms include the establishment or revamp of financial institutions dedicated for systemic risks mitigation towards the preservation of financial stability, among which is the remarkable transformation of the Financial Stability Forum—FSF into the more institutionally developed Financial Stability Board—FSB.[723] At the same time, changes have also been taking place within the IMF to somewhat strengthen its role in the architecture governing global finance.

Under the overall guidance of the G20 as an agenda-setter, the FSB has taken the lead with respect to the promulgation of financial standards, introducing best practices and coordination of standard-setters.[724] In fact, the FSB does not work as a central authority but more

---

[721] Besides, the United Nations (UN), the International Monetary Fund (IMF), the World Bank (WB), the World Trade Organization (WTO), the Financial Stability Board (FSB), the International Labour Organization (ILO), the Organization for Economic Co-operation and Development (OECD) were also invited to attend G20 Summit. Together, G20 countries and these institutions address global problems which were mainly discussed within the small and under-representative of G7 or G8 in the period before the Washington summit.

[722] DOUGLAS W. ARNER, *The Politics of International Financial Law in the Aftermath of the Global Financial Crisis of 2008*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, 86-87.

[723] EILÍS FERRAN, KERN ALEXANDER, *Can soft law bodies be effective? Soft systemic risk oversight bodies and the special case of the European Systemic Risk Board*, Legal Studies Research Paper Series, University of Cambridge, No. 36/2011, June 2011, 1.; The BIS provides infrastructure for the FSB and hosts FSB staff.

[724] Financial Stability Board, *Mandate*, 2016, available at: http://www.fsb.org/about/mandate/

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

like a platform for coordination, in which 'the Basel Committee is the most ubiquitously involved' in terms of promulgating both micro- and macro-prudential regulation, yet not as a supervisory body at global level.[725] As a part of its mandates, the FSB also collaborates with the IMF for the conduct of Early Warning Exercises.[726] Even though their collaboration—specifically in macro-prudential regulation—is seen as successful, it inevitably raises concerns about the effectiveness, accountability and legitimacy, especially for countries not represented in the G20.[727] Despite initial enthusiasm, Arner commented, the FSB seems to still face many of the same limitations as the FSF, its predecessor.[728]

Against this background, the architecture governing global finance seems to have changed but apparently not substantial. This is quite ironic compared to the seemingly strong political willingness of the comprehensive call for change during and after the global financial crisis. As such, several scholars have voiced their opinions. In particular, Tietje and Lemann expressed their discontent with the fact that 'financial regulation and supervision is almost completely dominated by domestic regulatory and supervisory institutions' since attempts have failed to

---

725 SHAWN DONNELLY, *Institutional Change at the Top: From the Financial Stability Forum to the Financial Stability Board*, University of Twente, 2012, 268.
726 The FSB and IMF remain the two important pillars of the global financial system to monitor progress of implementing G20's declaration, decisions, action plans. The institutions will then report to the G20 Finance Ministers and Central Bank Governors meetings.; *See:* G20, *Declaration on Strengthening The Financial System*, London Summit, 2nd April 2009.
727 KERN ALEXANDER, *International economic law and macro-prudential regulation,* in THOMAS COTTIER et al. (eds.), *The Rule of Law in Monetary Affairs*, 533.;
728 DOUGLAS W. ARNER, *The Politics of International Financial Law in the Aftermath of the Global Financial Crisis of 2008*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, 89.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

establish international authorities.[729] Hence, the institutional design is said to be misaligned with the scope of global financial regulation and supervision in the sense that 'the domain of the regulator is not the same as the domain of the financial markets'.[730] For Armin Kammel, 'the recent regulatory actions just add to the inefficiency of the status quo of the regulatory patchwork environment which in turn merely underscores the current lack of a (truly) International Financial Law'.[731] In other words, there has not been much changes as to the legal nature of financial rules despite various calls to harden international financial soft law. Even though macro-prudential regulation has been revived and the policy itself is seen as providing one of the most important toolbox in global financial governance for financial stability; at international level, the rules remain soft law. Admittedly, the global crisis of 2008 somehow generated a momentum towards hardening international finance law, yet, "the trend has waned as the crisis fades away" and is thus currently left with limited interests.[732]

At this stage, one may wonder the benefit of such soft law-hard law talk and to what extent it is worth being prolonged, whether it really matters to have (real) international law, what should be the role of law and what are the advantages of going towards this direction. These questions undoubtedly remain central, yet, it would be addressed in a more detailed manner in the coming parts of the thesis. This has been structured in the belief that the role of law in financial

---

[729] In this regard, the European Systemic Risk Board has been mandated with macro-prudential oversight, EU-wide and across all components of the financial system, yet, it essentially follows the 'soft law' approach since the Board is not given any binding powers.

[730] CHRISTIAN TIETJE and MATTHIAS LEMANN, *The role and prospects of international law in financial regulation and supervision*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 147.

[731] ARMIN J. KAMMEL, *Government Versus Markets—A Change in Financial Regulation*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, 22.

[732] BIN GU, TONG LIU, *Enforcing International Financial Regulatory Reforms*, 140.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

regulation in general and macro-prudential regulation in particular would be assessed more comprehensively based on analysis of both theoretical and practical grounds, covering international, supranational and national levels. Coming up next, the task is to examine more closely macro-prudential policy framework and the softness of its regulation and institution within the global context.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

International macro-prudential policy framework: The softness of the law and bodies

In the same line with the revival of macro-prudential policy in the aftermath of the global recession, Davies and Green admitted, "[i]t is depressingly true that it takes a crisis to focus political attention on financial regulation".[733] The rise to pre-dominance of the G20, replacing G7 or G8, as an agenda-setter for global economic and financial cooperation and coordination is somehow a reflection of the large magnitude and devastating consequences of the current crisis, as well as the demand for further action or intervention at the head-of-government or head-of-state level. Put another way, the relationship between markets and governments has been adjusted accordingly and the balance seems to have been moving in the direction towards the latter. As the result of the G20's efforts, the global financial architecture appears more systematic in the sense that all relevant standard-setters are then coordinated under the umbrella of the FSB—the institution which 'in many ways operates as a technocratic extension of the more political G20'.[734] In this regard, despite quite significant changes as to the structure and enlargement of membership compared to the FSF, undeniably, the FSB itself being an evidence which contributes to the continuation of the soft institutional approach. As a matter of fact, the vision of establishing a full international standard-setting authority, to be founded by a treaty, over the medium term as envisagedin the report dated February 2009 of the High-level De Larosière

[733] To recall, the Asian financial crisis 1997 led to the establishment of the Financial Stability Forum (FSF) launched by the G7, then in the aftermath of the global crisis 2008, the G20 reinforced the FSF into the Financial Stability Board (FSB) which is more institutionally developed.; *See further* at: HOWARD DAVIES and DAVID GREEN, *Global financial regulation: The essential guide*, xvii.
[734] CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, 72.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Group in the EU has not yet been materialized so far.[735] Judging by the current situation, it would not realistically be achieved any time soon in the near future.[736]For the time being, the FSB has been tasked with the general oversight of systemic risk in the financial system as a whole, while the Basel Committee remains the primary global center for the promulgation of prudential regulation with its focus being shifted to devising macro-prudential rules.

Basel Committee on Banking Supervision: General remarks

At a glance, the Basel Committee on Banking Supervision comprises of the Committee, groups, working groups, task forces, the Chairman and the Secretariat in its internal organizational structure.[737] There is an oversight body, i.e. the Group of Governors and Heads of Supervision (GHOS), to which the Committee directly reports and seeks endorsement for its major decisions. Even so, the Committee itself remains the ultimate decision-making body with responsibility for ensuring that its mandate is achieved. As stated in its Charter, decisions by the Committee are taken by consensus among its members.[738] For organizational purpose, notably, the Committee is located inside the Bank (BIS) while its Secretariat is staffed mainly with professionals provided by this host institution. Be that as it may, however, the Bank and the

[735] The High-Level Group on Financial Supervision in the EU (Chaired by Jacques de Larosière), *Report*, Brussels, February 2009, para. 230, 61.
[736] There has not been prospect for the establishment of an international financial authority, and the situation could happen because the idea itself requires a huge amount of political willingness which seems not to be realistically attainable in the present state of the world, and may not even be desirable.; For reference, *see:* MARIO GIOVANOLI, *The reform of the international financial architecture after the global crisis*, 122-123.
[737] Basel Committee for Banking Supervision, *Charter*, Section 6-7. Currently, there are five groups within the BCBS, namely, Accounting Experts Group, Supervision and Implementation Group, Policy Development Group, Macro-prudential Supervision Group, and Basel Consultative Group. As noted, task forces are temporary in nature and thus do not form part of the permanent structure of the BCBS.
[738] Basel Committee for Banking Supervision, *Charter*, Section 8.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Committee operates independently from each other since the Bank does not participate formally in the Committee but remains as an observer without voting right.[739]

Established at the end of 1974, the Basel Committee was originally designed to accommodate a 'small, homogenous, and insular club' of central bank governors from advanced G10 countries and Switzerland.[740] Up until recently, in response to the G20 Declaration at its first head-of-government (Washington, 2008) summit, the Committee expanded its membership in 2009 and again in 2014, invited representatives (central bankers and/or national regulators) from other emerging economies to join. As of now, Basel Committee consists of 45 members representing 28 jurisdictions in which all G20 (and indeed, FSB) countries are included.[741] In terms of composition, the 28 financial powerhouses include representatives from all continents worldwide—from the US to UK, Germany, as well as China, Russia, Saudi Arabia, South Africa and Australia just to name a few.[742] Despite these extensions, however, the Committee's size of membership remains very modest compared to those 'near universal membership' of the IOSCO and IAIS, its counterparts in securities and insurance respectively.[743] As it turns out, the main

---

[739] Basel Committee for Banking Supervision, *Charter*, Section 11. The Secretariat is staffed mainly by professional staff, mostly on temporary secondment from BCBS members.
[740] MICHAEL S. BARR, GEOFFREY P. MILLER, *Global Administrative Law: The View from Basel*, The European Journal of International Law Vol. 17 no.1, EJIL 2006, 18.
[741] Basel Committee members include both central banks and also national authority with formal responsibility for the prudential supervision of banking business where this is not the central bank. For a full list of members (central banks and national regulators), *see*: Basel Committee membership, at http://www.bis.org/bcbs/membership.htm
[742] 28 Jurisdictions represented in the Basel Committee are: Argentina, Australia, *Belgium*, Brazil, Canada, China, *France*, *Germany*, Hong Kong SAR, India, Indonesia, *Italy*, Japan, South Korea, *Luxembourg*, Mexico, *Netherlands*, Russia, Saudi Arabia, Singapore, South Africa, *Spain*, *Sweden*, Switzerland, Turkey, *United Kingdom*, United States, and the *European Union*.
[743] Currently, IOSCO has 126 Ordinary Members. *See:* IOSCO, *Annual Report 2015*, at https://www.iosco.org/annual_reports/2015/. Meanwhile, IAIS membership comprises of insurance supervi-

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

reason for such large gaps is closely linked to different rationales underlying the accession of new members to each of these transnational groupings.[744] While the IAIS encourages insurance supervisors/regulators to apply for its membership through an open, clear and rather easy procedure,[745] the IOSCO puts efforts in ensuring that those with *an interest* in the regulation of securities markets are able to engage themselves in the debate on such issues within the organization.[746] On the contrary, accession to the Basel Committee is solely based on invitation initiated by the Committee itself. According to Section 4 of the Basel Committee's Charter, decision of whether to accept new members shall be made after giving *due regard* to the importance of their national banking sectors to international financial stability.[747] On such a basis, despite the Committee's mandate is "*to strengthen the regulation, supervision and practices of banks worldwide* with the purpose of enhancing financial stability",[748] its membership structure remains rather closed, strictly limited and certainly not that global, since the Committee only seeks to include representatives of supposedly important financial jurisdictions in its meetings in Basel. As Iglesias-Rodriguez pointed out, the criteria that membership admission should be linked to the global relevance of their banking sectors shows evidence of a somehow elitist approach, which then effectively decreases the chance of modest financial jurisdictions to be part

---

sors and regulators from more than 200 jurisdictions in nearly 140 countries. *See:* IAIS, *Annual Report 2013-2014*, 2.

[744] PABLO IGLESIAS-RODRIGUEZ, *The Accountability of Financial Regulators*, International Banking and Financial Law Series, Wolters Kluwer (Law and Business), 2014, 320-321.

[745] The application form is available on IAIS website: http://www.iaisweb.org/page/about-the-iais/how-to-join. For the procedure, *see*: IAIS, *By-Laws*, Adopted November 2015, II. Members.

[746] The IOSCO divides its members into three categories, namely Ordinary, Associate and Affiliate, to reflect different approaches to securities markets regulation, *see further*: IOSCO, *By-Laws of IOSCO*, Adopted in 1996, available at https://www.iosco.org/about/?subsection=by-laws

[747] Basel Committee for Banking Supervision, *Charter*, Section 4. This is actually the only reference in terms of criteria for membership in the Committee's Charter.

[748] Basel Committee for Banking Supervision, *Charter*, Section 1.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

of the Basel Committee.[749]

For the sake of clarity, Basel Committee's members are central bankers and national financial regulators—who are accountable to their governments—but certainly not the governments themselves. While these central bankers generally enjoy independence from political process, other national regulators could be susceptible to such influences yet they retain relative autonomy to conduct supervisory activities. Such features clearly demonstrate the informality of BCBS and reiterate the fact that members of the Committee do not officially represent their governments, but rather participating on their own in an effort to facilitate the fulfillment of their tasks as national financial authorities. Nevertheless, BCBS is under the guidance of G20 and regularly provides updates to the Group. As such, activities of BCBS members are somehow endorsed by their respective governments yet cannot and are not intended to bind them at international level.

Notably and not surprisingly, around a third of Basel Committee's members are those from the EU, including both the European Central Bank (ECB) and the ECB Single Supervisory Mechanism (SSM), which represents the Union itself. Besides, the European Commission and the European Banking Authority (EBA) also actively participate in the Basel Committee as observes, alongside other jurisdictions (Chile, Malaysia, United Arab Emirates) and important international financial organizations, the IMF and BIS. It is worth noting that Basel Committee's oversight body GHOS is currently led by Mario Draghi—the President of the ECB, central bank of the Eurozone within the European Union. Meanwhile, the current Chairman of Basel Committee is

---

[749] PABLO IGLESIAS-RODRIGUEZ, *The Accountability of Financial Regulators*, 321.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

also another representative from the EU yet in a country currently outside the euro area, i.e. GHOS member and Governor of the Swedish Riksbank—Stefan Ingves.[750] With these establishments, the European Union generally reinforces its representation (especially for its smaller members) as well as influence on the work done at the Basel Committee. In this regard, it should be noted further that the European Systemic Risk Boarsd (ESRB)—the only EU authority which has been given a clear and as-broad-as-possible macro-prudential mandate—is absent from meetings at the Basel Committee. This is arguably due to structural arrangements for macro-prudential policy within the EUwhere it was decided to *attach* the ESRB to the ECB, while acknowledging that the ECB itself also has a stake in macro-prudential oversight which has been conferred to it by the SSM Regulation and regarding banks in the euro area.[751] As a result, the ESRB is physically hosted inside the ECB (somewhat similar to the FSB and even BCBS being hosted inside the BIS) and chaired by ECB President while its Secretariat composes of staff appointed by the ECB.[752] In the words of Masciandaro, "this institution [ESRB] is dominated by the European Central Bank".[753] Moreover, the fact that ESRB's members comprise of EU national central banks, financial supervisors (yet without voting rights), representatives of various EU financial authorities and the Commission, many of which have already attended meetings in Basel—albeit with different statuses, might as well contribute to its absence from the

[750] Basel Committee on Banking Supervision, *Organization Chart*, at: http://www.bis.org/bcbs/organigram.pdf.
[751] Council Regulation (EU) No. 1024/2013 of 15th October 2013, Article 5.
[752] Regulation (EU) No. 1092/2010 of the European Parliament and of the Council, 24th November 2010. For establishments, Article 1.1 of this Regulation literally reads as "A European Systemic Risk Board (ESRB) is established. It shall have its seat in Frankfurt am Main."; *See also*: Council Regulation (EU) No. 1096/2010 of 17 November 2010 conferring specific tasks upon the European Central Bank concerning the functioning of the European Systemic Risk Board, Article 2 on *Support of the ESRB*.
[753] DONATO MASCIANDARO, *Reconceptualizing Central Banking: From the Great Inflation to the Great Recession and Beyond*, in ROSS BUCKLEY et al. (eds.), *Reconceptualizing Global Finance and Its Regulation*, 107.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Committee.[754] At this stage, these features help to provide a quick glance at the complex and unique picture of the European Union framework for macro-prudential policy, the point at which we will come back later for a more detailed and complete discussion.

Of the three international sectoral standard-setters, unquestionably, the Basel Committee's membership has the closest resemblance in terms of composition to that of the G20 and of course, FSB. The similarity is that membership size of these institutions remains very much limited which is seen, for the most part, as the results of a restrictive and unclear procedure for the accession of new members. In fact, participation to both G20 and, as said, Basel Committee is based on invitation only, i.e. on a discretionary basis. There is no codified list of concrete criteria to determine the likelihood for a certain country to join the G20 or BCBS. Nevertheless, it becomes rather clear for the G20 that considerations on admission have been given to both (i) the importance of a jurisdiction towards financial stability and its ability to contribute to the global economy, and (ii) the criteria that the Group should be 'broadly representative' of the global economy and be 'regionally balanced'.[755] Be that as it may, however, the key concern was that the group should be small enough to facilitate open, stimulating, interactive and friendly talks as well as decision-making process. Hence, simply expanding G20 membership for the sake of representativeness may as well undermine its effectiveness.[756] Put differently, the number of jurisdictions participating in G20 seems to reflect a *trade-off* between the need for efficiency and

---

[754] For a short introduction of the ESRB and its bodies, *see* Economic Governance Support Unit—EGOV (European Parliament), *Briefing: Macro-prudential Policy in the EU*, June 2016.

[755] For a more detailed discussion on Basel Committee's membership, *see*: G20, The Group of Twenty: A History, University of Toronto, 18-21, available at: http://www.g20.utoronto.ca

[756] PAOLA SUBACCHI, STEPHEN PICKFORD, *Legitimacy vs Effectiveness for the G20: A Dynamic Approach to Global Economic Governance*, International Economics Chatham House, 2011/01, October 2011, 2-3.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

the demand for legitimacy.[757] Perhaps the same rationale applies to the Basel Committee's membership structure as its enlargement, which could be well defined as a step to become 'G20 plus', was in an effort to follow the lead of the G20 to promptly review its membership and eventually be more inclusive of emerging economies.[758] At a closer look, the Committee's expansion is more or less in the same way as how the G7/G8, in the midst of the global crisis, was replaced by G20—a same G- group style but certainly more representative, yet just big enough to cover the most important jurisdictions in the financial map worldwide—to be the key multilateral economic forum. In this sense, for the governance of global financial system and the promulgation of prudential regulations, the crisis somewhat acted as a 'game-changer', further highlighting the shift in the global economic order and narrowing the gap between established powers and emerging ones.[759] (Mind you, the gap is still there!)

When it comes to official legal status, the Charter made it clear that Basel Committee does not possess any formal supranational authority and its decisions do not have legally binding force.[760] In this sense, for Goodhart, "legal status of the BCBS is simple to discuss, it had none".[761] Even for those who asserts 'soft law is law, and the process of law-making in broad

---

[757] PAOLA SUBACCHI, STEPHEN PICKFORD, *Legitimacy vs Effectiveness for the G20: A Dynamic Approach to Global Economic Governance*, 3.
[758] G20, 2008 Washington summit Declaration, G20 Information Center, University of Toronto, available at: http://www.g20.utoronto.ca/compliance/commitments.html#2008
[759] As noted, the emergence of new economic powers and the resulting shift of global economic order predate the 2008 crisis. Undoubtedly, the crisis stressed more the importance of interdependencies of a highly integrated world economy and the need to address them while accommodating the rising economic powers.; *See further* at: PAOLA SUBACCHI, STEPHEN PICKFORD, *Legitimacy vs Effectiveness for the G20: A Dynamic Approach to Global Economic Governance*, 2.
[760] Basel Committee on Banking Supervision, *Charter*, available at: https://www.bis.org/bcbs/charter.htm
[761] CHARLES A.E. GOODHART, *The Basel Committee on Banking Supervision: A History of the Early Years, 1974-1997*, Cambridge University Press, 2011, 542-544.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

sense encompasses both hard law and soft law', at best, BCBS possesses an undefined legal status.[762] What is clear and has received common understanding is that Basel Committee does not have international legal personality of its own. As a result, the Committee has no enforcement power thus relies crucially on members' commitments to achieve its mandate. Being a primary global standard-setter for prudential regulations, yet, Basel Committee is neither a formal international organization nor a supranational one. Compared to traditional international organizations, undoubtedly, all the three sectoral standard-setters (BCBS, IOSCO, IAIS) remains informal due to the fact that they were not founded by international treaty. Strictly speaking, however, the IOSCO enjoys certain privileges for being registered as a Public Utility Association recognized by the Spanish Government, while the IAIS has the legal status of a non-profit organization domiciled in Basel, Switzerland, and is established pursuant to Article 60 of the Swiss Civil Code.[763]In other words, IAIS and IOSCO are registered under Swiss and Spanish laws respectively thus could be said to possess legal status conferred to them by these national laws. On this note, despite both being hosted inside the BIS, IAIS differentiates itself from BCBS as the latter is not registered in any domestic jurisdiction. Even so, the IOSCO and IAIS have, at best, unorthodox legal basis for an international organization, and together with BCBS, the informal feature of a non-treaty based organization resulted in the fact that these three institutions had been mostly disregarded or overlooked in public international law literature until very recently, when soft law proved to be an important, if not indispensable, means of coordination in

---

[762] Statement made by Kern Alexander, quoted by Goodhart in CHARLES A.E. GOODHART, *The Basel Committee on Banking Supervision: A History of the Early Years, 1974-1997*, 542.

[763] IAIS, By-laws, Article 1. *See also*: MONIQUE EGLI COSTI, *Institutional Evolution and Characteristics of the International Organization of Securities Commissions (IOSCO)*, New Zealand Association for Comparative Law (NZACL), CLJP/JDCP 21, 2015, 205.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

the governance of global finance.[764]

As a matter of fact, the institutional reforms of Basel Committee in the wake of the crisis was mainly the expansion of membership, while its legal status remains unchanged. Following the lead of the G20, both FSB and BCBS contribute to the continuation of the informal institutional approach and it would not come as a surprise if this kind of 'network-based, soft governance would persist in the international financial regulatory realm'.[765] Admittedly, the global crisis of a highly integrated and interdependent financial system (even back in 2008) critically called for timely universal actions to contain the contagion, preventing it from spreading any further. Thus, it was the state of urgency which facilitated the upgrade of the G20 from a forum for finance ministers, central bankers to a head-of-state summit, as it was undoubtedly the fastest way to get leaders of key financial jurisdictions, including some emerging economies, engaged in these critical economic and financial issues in a more inclusive manner than the framework of G7/G8. On the one hand, swift actions may help to contain the crisis, yet on the other hand, the evolution of G20 in the form of a crisis committee shows evidence of governance deficit reflected in the way G20 members were 'selected and co-opted'.[766] In its turn, since G20 recognized BCBS as a significant player in international financial regulation and has been

---

[764] Having discussed earlier, the fact that the regulations promulgated by these sectoral standard-setter, even though non-legally binding, produce impacts, somehow influences and shapes domestic law. Members and even non-members to BCBS, for instance, have complied with the regulations set by the Committee. This factual aspects call for more and deepen research to tackle this field as it seems to be the main mechanism for coordination in the global governance of the financial system.

[765] ERIC HELLEINER, TONY PORTER, *Making Transnational Networks More Accountable*, Dialogue on Globalization, Occasional Paper No. 42, 2009, 14-16. Even up until now, there has not been any clear signs indicating otherwise.

[766] PAOLA SUBACCHI, STEPHEN PICKFORD, *Legitimacy vs Effectiveness for the G20: A Dynamic Approach to Global Economic Governance*, 3-5.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

expressing its keen interest in the work of this Committee, it urged BCBS to follow suit so as to become more inclusive. However, the force is not strong enough (limited political willingness?!)to push for further institutional reforms hence BCBS still faces with criticisms due to its lack of representativeness, let alone same-old stories of accountabilityand legitimacy which are typical for a soft, informal institution of this kind. We now take turns to discuss these problems in details.

BCBS softness: A quick look at issues of independence, accountability and legitimacy

At the outset, it is worth recalling important elements for institutional building of a regulatory agency, namely independence, accountability, transparency and integrity. These are broadly considered relational concepts that remain necessary for a good governance arrangement. On the one hand, being held accountable and being transparent effectively contribute to the integrity of the regulatory agency.On the other hand, independence and accountability are not necessary a trade-off but in fact, a well-designed accountability arrangement generates legitimacy and credibility which in turn reinforces independence, so that the agency can focus on its goals without being influenced by other vested interests. While it seems to be a good starting point, things get blurry and perhaps problematic when it reaches the international level, supposedly due to the informal nature of the transnational Basel Committee which makes it more or less distant from public scrutiny.

If we perceive it from a traditional international law perspective, admittedly, BCBS could hardly be seen as a subject of international law and thus, the institution itself remains without international legal personality, while the best practices and guidelines developed by it, strictly

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

speaking, are not considered sources of international law. In Dixon's view, such principles will become law "only by the action of the customary, treaty or other law-making process".[767] Yet, however, apart from being a forum for banking supervision, BCBS remains the principal standard-setter and engages in harmonization of rules, setting of norms in international financial regulation which then produce an impact on behaviors of market participants. Thus, one may risk strong opposition if he quickly jumps to the conclusion that the status of BCBS as a soft institution and its lack of international legal personality indicate that the institution would not be held accountable for their acts. Given the absence of relevant procedural international law on accountability, Berman and Wessel contended, whether or not a body possesses legal personality is not very meaningful for accountability purpose, at least not from a procedural perspective.[768] From a more practical point of view, the fact that BCBS's standards, best practices, guidelines have been influencing global financial governance despite its soft nature would possibly mean that the Committee should somehow be held accountable in case things have gone wrong. Arguably, soft institutions of this kind raises even more accountability concerns than traditional international organizations.

As a starting point, central bankers, who account for a large part of Basel Committee membership, tend to operate outside channels of political process. Undoubtedly, this stems from the need for more stable rules of the game and to counter the issue of time-inconsistency between short-term political interest and long-term commitments. While central bank independence is not

[767] MARTIN DIXON, *Textbook on International Law (7th Edition)*, Oxford University Press, 2013, 52.
[768] AYELET BERMAN, RAMSES A WESSEL, *The International Legal Form and Status of Informal International Lawmaking Bodies: Consequences for Accountability*, in JOOST PAUWELYN et al. (eds.), *Informal International Lawmaking*, 57-58.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

established in absolute term, suffice it to say that central bankers generally enjoy higher level of political independence. This is true especially in advanced economies, and increasingly in the developing world, which then leads to the fact that central banks are somehow 'deemed to act legitimately without *direct* accountability'.[769] As for national regulators, a certain degree of insulation and expertise is also needed to maintain stability and predictability for the fulfillment of their supervisory tasks. Then, it goes like a circle, such independence or relative autonomy ignite and heighten concerns on legitimacy and accountability at international level where BCBS is indicated as being 'overly technocratic' by nature. Yet, if we take this issue seriously, it should not come as a surprise that this homogeneous group of the same central bankers and regulators, having had relatively high degree of insulation in domestic context, would also prefer conducting activities outside normal channels of governance when coordinating in the international arena. The fact that they chose to operate in a limited group supported by an independent Secretariat, using soft-law approach in which the method is trust-based persuasion—but not coercion or sanctions—and information sharing, adds validity to this claim. The organizational structure of BCBS contributes to solve the time-inconsistency problem at international level which then helps to ensure that the work of the Committee is more prudential and long-term, rather than being shaped purely by short-term economic and political factors, in order to promote financial stability.[770] In a related note, the technocratic nature of financial regulation, and thus macro-

---

[769] In this regard, the author explained, legitimacy may be conferred or attained independent of mechanisms of direct accountability, in the sense that performance may be measured by outcome as much as by process.; ANNE-MARIE SLAUGHTER, *Governing the Global Economy through Government Networks*, in MICHAEL BYERS (ed.), *The Role of Law in International Politics: Essays in International Relations and International Law*, 195.
[770] STEFAN INGVES, *Reflections of a Basel Committee Chairman*, Keynote address at the 19th International Conference of Banking Supervisors, Santiago, 30 November 2016.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

prudential regulation, means that the making of them greatly depends on expert's contributions hence unsurprisingly promulgated by technocrats.[771]

On such a basis, Slaughter pointed out, accountability and legitimacy problems of these trans-governmental regulatory networks have their roots both domestically and in the international arena.[772] Considered a house of technocrats, for instance, there is a risk that financial standards promulgated by Basel Committee would not reflect the democratic input from national political forums and stakeholders.[773] Since "their purported effectiveness rests on *shared functional values* rather than on responsiveness to underlying social and political issues",[774] the Committee's works are thought to reflect more technocracy than democracy. What matters is that this scenario could present possible conflicts of objectives between the goals pursued nationally and the aims to be achieved at global settings, which eventually raises concerns on legitimacy. Coupled with limited transparency (especially in the pre-crisis period), it is indeed difficult to hold this rules-maker accountable for their actions.Acknowledging the fact that soft international standards and the works of these transnational groupings, even though non-legally binding, could greatly influence domestic regulation, such conflicts then trigger additional criticisms regarding

---

[771] For a more extensive discussion of the technocratic nature of macro-prudential regulation, *see:* ANDREW BAKER, *Transnational technocracy and the macro-prudential paradox*, in TONY PORTER (ed.), *Transnational Financial Regulation after the Crisis*, 29-50. *See supra* 'The making of Basel III'.

[772] ANNE-MARIE SLAUGHTER, *Governing the Global Economy through Government Networks*, in MICHAEL BYERS (ed.), *The Role of Law in International Politics: Essays in International Relations and International Law*, Oxford University Express, 2000, 179-181.

[773] PABLO IGLESIAS-RODRIGUEZ, *The Accountability of Financial Regulators*, 311-312.

[774] ANNE-MARIE SLAUGHTER, *Governing the Global Economy through Government Networks*, in MICHAEL BYERS (ed.), *The Role of Law in International Politics: Essays in International Relations and International Law*, 180.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

the lack of legitimacy and democratic accountability from a national perspective.[775] In such a way, despite the fact that the initiatives made in Basel are likely to face with domestic political constraints once they have been introduced at national level, the transnational technocracy of BCBS remains a concern. When it comes to macro-prudential regulation, the issue would then become even more critical since macro-prudential policy instrumentsare highly technical as discussions within economic theories have shown. Coupled with different perceptions and understandings (regarding goals, tools, actors of macro-prudential policy and definitions of financial cycle) that are currently associated to this policy, the revival of a macro-prudential approach to financial regulation would definitely amplify accountability and legitimacy concerns. Admittedly, international macro-prudential regulation is drafted by technocrats through the introduction of Basel III under BCBS. Furthermore, to make this policy operational at national level requires regulators to possess technical capability to calibrate macro-prudential tools, as well as to make judgements based on economic indicators about when and how to deploy, for instance, counter-cyclical capital buffer. In such a way, Baker summarized, macro-prudential regulation both in its inception and execution is a particularly technocratic form of governance, which in turn could constrain its capacity to generate socially useful reform and sustainable legitimate forms of governance.[776]

Apart from the technocracy claim, in the context of global financial governance, the strictly selective nature of BCBS membership generates criticisms regarding *global*

---

[775] PABLO IGLESIAS-RODRIGUEZ, *The Accountability of Financial Regulators*, 314.
[776] ANDREW BAKER, *Transnational technocracy and the macro-prudential paradox*, in TONY PORTER (ed.), *Transnational Financial Regulation after the Crisis*, 37-44.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

accountability, and of course legitimacy, which revolve around the claim of 'democratic deficit' in the standard-making process. This has been established referring also to the relationship between BCBS and its non-members which are mainly developing economies. Being a 'rich club' comprising of the most powerful countries, the Basel Committee could be seen as 'a device which facilitates the politics of insulation and the politics of imposition' between the mighty and the weak.[777] Put another way, in essence, current membership structure clearly presents crucial problem of uneven representation of countries in which the common concern has been that all these groupings—G20, FSB, and BCBS—are under-representative thus not fully responsive to public interests as a whole. For the sake of clarity, criticism remains in the case of BCBS, pointing in two directions: (i) the uneven geographical coverage among different standard-setters (BCBS vs. IOSCO and IAIS); and (ii) the fact that BCBS is somehow reserved for a limited club comprising of the most systemically important financial jurisdictions and regional financial hubs, despite having recently been expanded.[778]

If we trace back to the root of these problems, perhaps it might not come under this much pressure and scrutiny if the impacts of Basel's guidelines, standards and best practices did not spread far beyond their members' respective jurisdictions. The Committee was first established in response to failures of banking institutions in advanced economies as well as other disruptions in international financial markets, but its work was dedicated to a small group of developed

---

[777] On the one hand, the author explained, it could be seen as the latest effort to 'insulate the decisions of the powerful from the input of the weak'. On the other hand, it could be portrayed as a device for the mighty countries to 'penetrate the defenses of national sovereignty to impose their policy templates on everyone else'.; ANNE-MARIE SLAUGHTER, *Governing the Global Economy through Government Networks*, 180.
[778] ERIC HELLEINER, TONY PORTER, *Making Transnational Networks More Accountable*, 15-16.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

countries. As a matter of fact, however, non-member developing countries have found themselves being compelled to comply with Basel standards over the last decades due to pressures from the international financial markets dominated by BCBS member jurisdictions, as well as from the two Bretton Woods institutions (IMF, WB) who have actively played an important role as supervisory bodies for these standards.[779] Moreover, despite the Committee's effort to make its standards more suitable for universal application, as Helleiner and Porter pointed out, Basel's guidelines and best practices are 'often deemed inappropriate for local conditions and designed to favor industrialized country interests'.[780] As a result, it heightens concerns that Basel Committee should be held accountable to the non-members as they are affected by Basel financial standards despite being excluded from its decision-making process.

Be that as it may, however, this is something of a two-way relationship. Given a highly interdependent and integrated international financial system, it will also remain essential that the Basel Committee actively promotes the adoption and implementation of its financial standards so as to help preserve the stability of the global financial system as a whole. This has been a lesson learnt in the wake of the global financial crisis that 'what happens in one country could produce substantial impacts on others', while a seemingly small collapse could lead to a worldwide disruption. Thus, it is desirable to have a generally high level of compliance to BCBS standards, especially to Basel III requirements where it has been established that a framework for macro-prudential policy should be put in place in order to foster financial stability. Ironically enough, the broader and more effective the extent to which the Basel Committee can reach, the more

---

[779] For more details, *see supra* The international architecture regulating finance: An overview, at p. 149.
[780] ERIC HELLEINER, TONY PORTER, *Making Transnational Networks More Accountable*, 16.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

criticism it will likely to receive in terms of accountability, legitimacy provided the current state of membership. The same rationale goes for G20 in which the talk on global economic issues should not be restricted to members of the G20 only.

Looking ahead, it seems that this kind of soft government network is here to stay and that Basel financial standards, including macro-prudential regulations, will still be promulgated by a limited 'G20+' group. As said, a small group is flexible thus could facilitate decision-making process for the sake of efficiency and timely actions so as to match with the time of the markets. Yet, focusing on the powerful economies risks not reflecting all possible endogenous sources that could trigger systemic risks and again, the standards would seem to represent some kind of 'best practices' from the most important financial jurisdictions. Technically speaking, just as the way the idea to make all banks copy the principles of the 'best banks' turned out to be wrong,[781] financial regulations promulgated by 'the best' could turn out to be overly excessive thus not applicable for other emerging and developing non-members. Even more so, while their voices have not been heard yet, these non-members may continue experiencing spillover effects of disruptions generated by powerful countries who have applied these international standards, should the source of systemic risks stems from these jurisdictions. Given this era of globalization, advanced information technology, integration and interdependencies; consequently, the spillover effects would spread to non-members, regardless whether they have adopted the financial standards due to market pressure and supervision of the two Bretton Woods institutions or not.

[781] CHARLES A.E. GOODHART, *Financial Regulation*, in SYLVESTER EIJFFINGER and DONATO MASCIANDARO (eds.), *Handbook of Central Banking, Financial Regulation and Supervision: After the Financial Crisis*, Edward Elgar Publishing Limited, 2011, 327.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Furthermore, since the formulation of macro-prudential regulation does not reflect the state of globalization of financial markets, it risks sacrificing its credibility as well as the credibility of the rules it creates, whatever the technocratic merits.[782]

In short, BCBS has faced with criticisms in terms of lacking legitimacy and accountability on the basis of its transnational technocracy and democratic deficit. For the sake of clarity, Rosa Lastra rightly pointed out, the question of legitimacy pre-exists and is a pre-requisite of accountability.[783] Then, if we take the notion of legitimacy separately, few things could be seen on the table as to why legitimacy has been a notable and frequent criticism regarding transnational regulatory groupings. Amongst other, concerns first stem from BCBS's informal nature as a forum for international cooperation. Admittedly, in the context where cooperation within BCBS has not received formal state consent, the extent to which financial standards developed by it are legitimate remains rather vague since the making of them 'does not require the formal blessing of elected officials' but remains technocratic by nature.[784] Then, if we consider legitimacy composed of input and output legitimacy, this could fall under the title of input legitimacy and not only BCBS and its standards, but the making of financial regulation itself is also subject to the same criticisms most of the time either in domestic context or at the international level. Several scholars have voiced their opinions in this respect. In particular,

---

[782] CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, 189.
[783] ROSA MARIA LASTRA, *Financial institutions and accountability mechanisms*, in PABLO IGLESIAS-RODRIGUEZ (ed.), *Building Responsive and Responsible Financial Regulators in the Aftermath of the Global Financial Crisis*, Intersentia Ltd., 2015, 35.
[784] Given that BCBS's constituents are not a 'global public' per se, but national regulators representing their publics through appointment and political delegations. This lead to a sort of 'attenuated proximity' to core democratic processes which remains problematic. *See further* at CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, 188.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Brummer demonstrated, this sort of input legitimacy has the tendency to be of secondary concern to the international regulatory community, and that "technocratic decision making is commonly seen as necessarily an elite process, with the consequences that departures from democratic processes are inescapable".[785] From a more general perspective yet quite relevant, Pauwelyn et al. argued that State consent should no longer be considered a sufficient condition for legitimate cooperation. In other words, "the idea that traditional international law is necessarily legitimate and democratically accountable, because it is based on State consent, can no longer be accepted blindly (if it ever could)".[786] That being said, even though BCBS may lack input legitimacy, it may suffice that the institution derives the sort of 'output' legitimacy through pursuing its goal of preserving global financial stability—the one that has increasingly been referred to as a global public good in the aftermath of the global crisis. Yet, however, this does not come without problems since the evaluation as to the outcome and success of BCBS's activities is a difficult task which may produce contrasting opinions, depending on the criteria one is looking at. For instance, for the time being, it is undoubtedly hard to measure the benefits of macro-prudential policy towards financial stability through reducing the probability and severity of future financial crises, and we would probably not see it clearly until the next crisis comes. Thus, it appears that the notion of legitimacy in international financial regulation in general and of macro-prudential regulation or BCBS in particular is problematic and the situation is likely to remain. What follows from this acknowledgment would be that the notable focus for BCBS's institutional

---

[785] As the author quoted Michael J. Warning "[i]nstitution derives legitimacy from its ability to solve problems that cannot be addressed by other means".; CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, 180.
[786] JOOST PAUWELYN et al., *Informal International Lawmaking: An Assessment and Template to Keep It Both Effective and Accountable*, in JOOST PAUWELYN et al. (eds.), *Informal International Lawmaking*, 510-512.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

reforms is on none other than accountability arrangement as it links to and helps strengthen independence, maintain and enhance legitimacy, credibility and thus integrity of the staff of the institution in order to improve agency performance.

When it comes to accountability, the concept could point to two directions: one is the accountability of BCBS members (central bankers/financial regulators) towards their respective governments and the other refers to BCBS's accountability towards excluded-yet-affected countries. (Needless to say, situations affecting accountability would somehow affect legitimacy as these two are relational concepts.) From a national perspective, possible conflict of interest remains an important issue yet vague and not easy to solve. Given certain degree of insulation of financial regulators within local contexts, the extent to which they engage themselves in the Committee's objectives to the detriment or exclusion of their national duties remains unclear, if not contested, and has to be judged on a case-by-case basis.[787] In addition, the aftermath of the global crisis witnessed the 'macro-prudential ideational shift' in the character of financial regulation, yet, this shift could hardly have happened and rose to prominence without support and endorsement of the G20 political leaders.[788] Thus, for the making of international financial standards and best practices, there is of course a weak link between technocrats and politics but the problem is not absolute, at least for those members of the G20. On such a basis, the task to

---

[787] As one of its main features, BCBS could be seen as a talking shop, in which members foster information sharing, cross-fertilization of new ideas, and developing common principles based on their respective experiences. Thus, the extent to which BCBS members implement its substantive polices in ways that differ significantly from outcomes reached by purely national processes seems difficult to prove, given their insulation in domestic context.; ANNE-MARIE SLAUGHTER, *Governing the Global Economy through Government Networks*, in MICHAEL BYERS (ed.), *The Role of Law in International Politics: Essays in International Relations and International Law*, 195.

[788] ANDREW BAKER, *Transnational technocracy and the macro-prudential paradox*, in TONY PORTER (ed.), *Transnational Financial Regulation after the Crisis*, 41.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

strengthen accountability mechanism in order to improve the level of responsiveness of these constituencies—who involve in the making of international financial standards and thus participating in government networks—should be done on a case-by-case basis, depending on the degree to which specific national regulators represent their publics. Nevertheless, as a matter of general principle, it remains necessary to strike an appropriate balance between effectiveness (and/or the independence of relevant financial regulators) and accountability in the form of control, oversight or even judicial review.[789] Put another way, it is indeed important to shield financial policy away from short-term political pressure, while at the same time ensuring an acceptable degree of political accountability.

Moving up to the international level, what is more problematic is that the accountability mechanism remains unclear—as to how and to what extent the group of these central bankers/financial regulators would be held accountable,[790] let alone an important question of being accountable to whom—due to the lack of relevant international rules on this matter. Admittedly, Brummer summarized, the international rule-making of financial standards and best practices are "the product of 'long and opaque chain of delegation' [in which] people elect legislatures that delegate power to regulators who then create (with their international

---

[789] Yet, these forms do not come without problems. For a discussion on this topic, *see:* MICHAEL S. BARR, *Comment: Accountability And Independence In Financial Regulation: Checks And Balances, Public Engagement, And Other Innovations*, Law And Contemporary Problems, Vol. 78:119, No.3, 2015, 119-121.

[790] It should be noted that democratic control of supra-national institutions is always a difficult issue, in the sense that democratic representation and accountability can be at most indirect since these institutions are governed by delegates of member governments. *See:* GESKE DIJKSTRA, *Supranational Governance and the Challenge of Democracy: The IMF and the World Bank*, in VICTOR BEKKERS, GESKE DIJKSTRA. ARTHUR EDWARDS, MENNO FENGER (EDS.), *Governance and the Democratic Deficit: Assessing the democratic legitimacy of governance practices*, 2007, 269-292.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

counterparts) organizations responsible for promulgating global standards".[791]

On such a basis, strengthen BCBS's global accountability has proven to be a difficult task. Nevertheless, there are generally two main approaches. The first one comes into play quite naturally as it refers to the enlargement of BCBS membership in response to the call that the Committee should be made more accountable to its non-members. In this regard, there are few observations to make. At the outset, it could easily be seen that BCBS operates informally based on confidence and trust which have been built over the years among its members, i.e. central bankers and national regulators. While it helps to explain the existence of a seemingly simple Charter upon which virtually all activities of the Committee has relied to date; at the same time, this operational methodology appears obviously more suitable for a limited number of participants. In such a way, following the call to expand its membership size, Basel Committee may have to consider gradually changing its institutional settings. Even though the proposal seems to encourage BCBS to be as representative as possible without indicating specific numbers of additional jurisdictions to be included, the criticisms would likely to remain unless the Committee covers almost, if not all, affected non-members. Further towards this end, for the sake of accommodating a significant number of financial jurisdictions (if there is ever such a case!), BCBS would have to adjust their operational approach and one option could be following IOSCO or IAIS structural design (e.g. with an Executive Committee, as well as different classifications of members with and without voting rights).Despite that, given its soft nature, even if Basel

[791] Since there are several links and with each additional link, claims to represent the publics become progressively weaker. As a result, some international financial institutions such as the Bank for International Settlements have no clear responsibilities to any public; CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, 187-189.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Committee is made more representative and inclusive for developing countries, their representatives may still lose out within this informal settings where 'expertise has proven to be a form of influence'.[792] In the words of Ayadi, because of the current soft-law, principle-based approach, "the Committee will likely be used increasingly as a political tool, representing the politically oriented ideals of its most active members subject to the reluctance and aversion of others".[793] So far, Brummer noted, wealthier members have generally dominated the policy and rule-making of these transnational network, including BCBS, while developing nations have had little voting power.[794] Thus, in any case, criticism would likely to persist or else, BCBS may aim at going a step further towards evolving into a hard regulatory institution in the form of a more formal centralized organization. Indeed, radical institutional reform such as the establishment of a treaty-based organization would be of great help to solve institutional problems of accountability, legitimacy towards both BCBS members and non-members while maintaining its independence. Let us delve more into the feasibility of establishing a treaty-based organization for governing international finance.

On a positive side, for some advocates of the hard-law approach, the current status (where BCBS has gradually opened up its membership structure in the aftermath of the global crisis) may mean something in transitional period and eventually BCBS would enlarge then transform its

---

[792] In the authors' view, it remains doubtful whether developing countries would be able to influence the debate without the same technical capacity. Powerful countries may nevertheless, in one way or another, manipulate informal settings where there are no clear rules or procedures to protect the weak.; ERIC HELLEINER, TONY PORTER, *Making Transnational Networks More Accountable*, 19.

[793] This prospect obviously undermines BCBS's credibility which in turn affects its accountability.; *See further* at: R. AYADI, *On the Role of the Basel Committee, the Basel Rules, and Bank's Incentives*, in GERARD CAPRIO Jr. (ed.), *Safeguarding Global Financial Stability: Political, Social, Cultural, and Economic Theories and Models*, Elsevier Inc., 2013, 406.

[794] CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, 177.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

institutional design accordingly. Along this line of reasoning,even though there has not been any clear sign after BCBS's enlargements in 2009 and 2014, things could gradually change while optimists would probably see a glass as half full (not half empty). Yet, if we think about the considerable amount of political willingness generated in response to the global recession in order to overcome resistance from the financial sector and push for the recent expansion of BCBS membership, this much pressure of accountability, legitimacy problems may not be enough for further and deeper institutional changes to materialize. Also, trade-offs to accommodate the need for quick reaction, flexibility and efficiency of BCBS will always act as counterarguments. Coupled with the pro-cyclicality of financial regulation which has resulted in several calls for deregulation since the crisis has gradually faded away, this proposal following hard-law approach could hardly be achieved any time soon. Admittedly, since the global crisis has been instrumental in underpinning the changes made to BCBS, to *fill up the glass* may well be translated into requiring several more financial crises to happen—the things we are surely not fond of!. Then, in the next step, Baxter commented, 'whether we would be driven out of desperation to muster the resolve to create a World Finance Organization through a global treaty', as some scholar suggested, remains to be seen.[795]

The first approach, proposed in such manner, indeed provides a long-term view. Meanwhile, the second approach is more of a short- and medium-term nature. It goes along the line of how to make BCBS more accountable towards both its members' and non-members' jurisdictions given its limited membership and an informal institutional characteristic. In this

---

[795] LAWRENCE G. BAXTER, *Understanding the* Global *in Global Finance and Regulation*, in ROSS P. BUCKLEY, EMILIOS AVGOULEAS, DOUGLAS W. ARNER (eds.), *Reconceptualizing Global Finance and Its Regulation*, 47-48.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

sense, one proposed solution is to make BCBS more accountable towards relevant treaty-based organization which are more representative and structured than the Committee. For instance, BCBS could be made more accountable to IMF or WB—the two most important treaty-based financial organizations worldwide—through various form of control and oversight such as reporting, seeking for comments, suggestions or approval of important decisions, etc. On this point, it should be noted that BCBS and its financial standards are indeed recognized and endorsed not only by FSB, G20 but also by IMF and WB.[796] Even if it would mean that, to a certain degree, BCBS's accountability and legitimacy could have been derived from this sort of recognition, the extent to which BCBS's accountability can rely on that of IMF and WB could hardly be defined clearly. Given the fact that IMF and WB's accountability and legitimacy are also frequently questioned due to claims on 'democratic deficit' in their decision making process, it follows that whether BCBS's accountability and legitimacy will improve as a result of being made more accountable towards IMF and WB remains to be seen.

As more accountability is undoubtedly hard to achieve provided the current structure of global financial governance, another solution points to improving the Committee's transparency, which is instrumental to reinforce accountability. Since BCBS's establishment, admittedly, transparency has also been indicated as a source of criticism as the Committee's works remained closed and secretive. For instance, BCBS's Charter was made public only recently. Yet, under the pressure generated by the global financial crisis, BCBS has become more transparent towards the

---

[796] Having said earlier, for instance, IMF has been working closely with international bodies including FSB, BCBS in developing international best practices, standards and codes for the purpose of advancing legal reforms at the global level. *See infra* The international architecture regulating finance.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

public, especially with regard to the making of macro-prudential regulation under Basel III. This is also done in attempts to promote the adoption and implementation of BCBS's standards and best practices so as to help preserve the global financial stability as a whole. Having said that, conceptual changes—from micro- to macro- stability—indeed affect BCBS's operation in the sense that it provides impetus which pushes the institution to gradually open up itself and thus appear more legitimate, accountable in public's eyes. Yet, much more still needs to be done.

To sum up, Basel Committee's recent institutional reforms, while definitely important, are not sufficient to address same-old stories of underrepresentation, legitimacy and accountability which are derived from the selective and informal characteristics of this institution. Needless to say, however, the situation in which the Committee is at right now is a sort of compromise or balancing of various factors, from the need to be effective while maintaining relative independence, political willingness, to the goal of protecting financial stability as well as to accommodate public's demands to strengthen its institutional elements. As it turns out, BCBS is under the guidance of FSB and G20, and thus remains informal by nature despite having faced with some pulling forces toward the other direction.

In its turn, since a soft institution is unable to produce hard-law (regardless whether regulation will later be transposed into national law in a separate process), the softness of macro-prudential rules issued by the Committee follows as a logical consequence. Notwithstanding changes that have been made, for the time being, soft law continues to be significant and that the implementation would mainly rely on peer reviews, peer pressures and supervision by the two Bretton Woods organizations, IMF and WB. Needless to say, even though legally non-binding, these informal law-making processes affect global finance and therefore amount to rules of the

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

game that stakeholders world-wide are compelled to comply with if they want to do their business.[797] In any case, regulatory gap between global finance and matching global financial regulation is here to stay, if not expand wider, while we await the next financial crisis.[798]

The making of Basel III: history, principles and challenges

> "Knowledge and expertise are provisional by necessity. They exist to be revised. Even worse, transitions and revisions are not steps into approximation to a final truth but remain provisional steps in a never-ending story."[799]

We have discussed, throughout this thesis, the revival of macro-prudential regulation at international level through the introduction of Basel III. We have also analyzed the macro-prudential toolkit which consists of sets of instruments corresponding to the two dimensions of the macro-prudential approach, i.e. the time and structural dimensions, respectively. Thus, to avoid overlapping, this part of the thesis dedicates its focus on the underlying principles, for it could help reveal the tensions underpinning the making of macro-prudential regulation and the implementation of Basel III in particular.

As it turned out, the aftermath of the 2008 'good crisis' indeed saw remarkable efforts invested in regulatory reform where the revival of macro-prudential policy plays an important

[797] JOOST PAUWELYN, *Informal international law-making and accountability*, Informal International Lawmaking Research Project (HIIL), 2012.
[798] As Baxter rightly pointed out, the hiatus remains to the extent that the purveyors of global finance are unlikely to withdraw to their national bases, to the extent that financialization has taken such deep root that it is unimaginable that it might shrink to more manageable levels, and to the extent that the thirst of developing economies for ever greater inflows of capital will probably not diminish.; *See* LAWRENCE G. BAXTER, *Understanding the* Global *in Global Finance and Regulation*, in ROSS P. BUCKLEY, EMILIOS AVGOULEAS, DOUGLAS W. ARNER (eds.), *Reconceptualizing Global Finance and Its Regulation*, 47.
[799] HELMUT WILLKE, *Smart Governance, Governing the Global Knowledge Society*, Campus, 2007, 33.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

role. Then, if we view it from another angle, Saint-Paul et al. argued, one key factor underlying the rapid deterioration of the global economic activity after 2008 was the collapse intrust and confidence in financial institutions and financial markets and thus, more regulation might be in demand for the purpose of restoring trust.[800] Looking back, the great crisis had its roots in the financial system and did not happen as a result of largely non-compliance (toward financial regulation) but stemmed from overconfidence of self-regulation and over-reliance on market disciplines. Hence, the trust that needs to be restored in this regard would certainly not be the trust in efficient markets, but rather "*reality, caution and skepticism*" towards this hypothesis.[801] As a result, significant reforms put in center the framework for banks' capital and liquidity requirements, the task to mitigate systemic risks arising from too-big-to-fail institutions, as well as the flawed governance and management practices of financial institutions. Undoubtedly, many of these initiatives have been introduced through macro-prudential regulation under Basel III so as to foster sound macro-economic performance and prevent future crisis. In such a way, regulators have been putting efforts so that 'it'—the bailout of major financial intermediaries using taxpayer's money—would never happen again, in order to gain public trust in finance, financial institutions, markets and the industry. At the international level, suffice it to say that trust and confidence in the co-operative and flexible institutional approach seems to remain for

---

[800] *See*, generally: Gilles Saint-Paul, Giancarlo Corsetti, John Hassler, Luigi Guiso, Hans-Werner Sinn, Jan-Egbert Sturm, Xavier Vives, Michael Devereux, *How to rebuild trust?*, available at: http://voxeu.org/article/why-financial-regulation-must-also-rebuild-trust. As Partnoy indicated "[i]n any event, trust is an important consideration not often recognized by those considering the role of law in financial markets. The trust paradox is that although financial regulation is less necessary when trust prevails, an important role of financial regulation is to preserve trust".; FRANK PARTNOY, *Financial Systems, Crises, and Regulation*, in NIAMH MOLONEY et al. (eds.), *The Oxford Handbook of Financial Regulation*, 82.

[801] For a more extensive discussion on the Enron case and the task to rebuild trust in financial markets afterwards, *see*: OECD, *Restoring Trust in Financial Markets*, at: http://www.oecd.org/finance/financial-markets/18961363.pdf

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

the time being, reflected through the current structure governing global finance.[802]

When it comes to the merits, Andrew Baker rightly pointed out, "macro-prudential regulation is a technocratic project involving a technocratic form of governance resting on the exercise of control technologies by econocrats",[803] thus to be built on the basis of mathematical projections and econometrics. In this respect, just as how economists could get so wrong with their models before,[804] lawyers have their basis to be skeptical and even disregard. Yet, as we will see below, typical characteristics of finance, i.e. liquidity volatility and uncertainty, make it inherently instable and complex. That being said, if it appears to be too sophisticated for economists to fully comprehend the risks to the (global) financial system, lawyers could hardly do the job either. What follows would then be the need to rebuild another type of trust, i.e. cognitive trust towards 'technocratic merits' while being mindful of their possible inaccuracy. This, however, does not mean 'we are prepared to leave matters as before'. Since these merits could be translated into discretionary action by financial regulators to deploy, for instance, macro-prudential instruments at national level, lawyers can actually bring to the table their expertise in institutional design in order to strengthen accountability, legitimacy mechanisms as well as constructing due process decision-making with fairness and transparency.[805] As it deserves a more detailed discussion, we can relate this point better when analyzing regulatory and

---

[802] EILÍS FERRAN, KERN ALEXANDER, *Can soft law bodies be effective? Soft systemic risk oversight bodies and the special case of the European Systemic Risk Board*, 9.
[803] ANDREW BAKER, *Transnational technocracy and the macro-prudential paradox*, in TONY PORTER (ed.), *Transnational Financial Regulation after the Crisis*, 41.
[804] PAUL KRUGMAN, *How Did Economists Get It So Wrong?*, The New York Times Magazine, September 2009.
[805] "We have to accept that economic models in financial and monetary affairs are not able to reflect the complexities of the real world". Cottier asserts, "[w]e can no longer be prepared to leave matters as before"; THOMAS COTTIER, *Challenges Ahead in International Economic Law*, 11-12.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

institutional arrangements for macro-prudential policy within the European Union.

At a closer look, the technocratic nature of macro-prudential regulation actually provides both pros and cons. On the one hand, technocracy provides advantages and plays a crucial role in facilitating the acceptance of macro-prudential regulation, for it was considered 'less dependent on building consensus, support and levels of understanding from wider societal and political actors'.[806] Even though the process to finalize all components of Basel III is still ongoing,[807] admittedly, the introduction of macro-prudential regulation under Basel III was made within a relatively short time following the global crisis. For it actually based on the capital framework already established in Basel II, the making of macro-prudential regulation is considered as putting a macro- overlay upon the traditional micro-prudential regulation. As such, Basel III represents an even deeper footprint of technocrats which in turn helps explain its speedy rise to extraordinary prominence as well as the fact that 'macro-prudential' has become a much more common term among both academics and policymakers. In this regard, it should also be noted that the immediate beneficiaries are none other than technocrats themselves since Basel III was made and then implemented by the same actors. In other words, BCBS's members, central bankers and national financial authorities who are in charge of promulgating Basel III at international level, also have power to enforce it or greatly influence the implementation of these rules within domestic context.

On the other hand, this sort of technocratic impartiality, made and then implemented by

---

[806] ANDREW BAKER, *Transnational technocracy and the macro-prudential paradox*, in TONY PORTER (ed.), *Transnational Financial Regulation after the Crisis*, 37-38.
[807] As of March 2017, Basel III has not been finalized by the BCBS.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

technocrats, is translated into considerable degree of insulation from public sentiments and politics, to the extent that the transnational technocracy has raised concerns on legitimacy, accountability, and transparency of Basel Committee and its financial standards. Even though these criticismshave always been around, they most likelygains extraordinary momentum in the midst of an economic disruption where banks need bailout taken from taxpayer's money. Indeed, apart from the claim of regulatory failures, the great financial crisis tested the structure governing global finance as well as its institutional elements. BCBS's institutional concerns apparently aided the call for more regulation toward the use of hard-law or hardening soft law in order to strengthen the Committee's accountability, legitimacy and transparency mechanisms. When the crisis seems to fade away, ironically enough, these criticisms are also used to criticize the works done at Basel so as to facilitate deregulation in domestic context. As shown in latest regulatory developments, Vice Chairman of the US Financial Services Committee Patrick McHenry—in a letter to the Chairman of the US FED Janet Yellen—stated: "*The secretive structures of these international forums must also be reevaluated. Agreements like the Basel III Accords were negotiated and agreed to by the Federal Reserve with little notice to the American public, and were the result of an opaque decision-making process. The international standards were then turned into domestic regulations that forced American firms of various sizes to substantially raise their capital requirements which leads to slower economic growth here in America*".[808] Admittedly, Chairman Yellen's answer to this would greatly depend on the extent to which the FED operates independently from the White House, the Congress and political parties, but it

[808] Quoted from the letter dated 31st January 2017 of the Vice Chairman of the Financial Services Committee (US Congress), Patrick McHenry to the Chairman of the US FED, Janet L. Yellen.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

seems that these concerns are here to stay, given the currently closed, selective and informal character of the Basel Committee.

If we pause here for a moment, technocratic nature is indeed a typical characteristic of the Basel Accords, from Basel I to Basel III, in which some basic principles underlying the making of Basel III had been developed since the first version Basel I. Yet, over the last decades, banking regulatory capital requirements have transformed significantly in the sense that 'BCBS standards have shifted from simplicity to risk-sensitivity, probably at the expense of transparency and comparability of capital positions across banks'.[809] Looking back, Basel I was first introduced in 1988 by a small group of central bankers and national regulators led by the Americans and the British.[810] The main purpose of Basel I was to impose requirement on banks to hold 'adequate' level of capital in order to absorb any shocks thus could prevent the likelihood of insolvency, i.e. to internalize the potential social costs associated with bank failures on the basis of risk-based capital adequacy requirement. At the same time, it aimed towards harmonization of domestic standards for banks since capital requirements varied greatly across jurisdictions. Yet, since this 1988 Capital Accord established a *minimum* capital adequacy requirement of eight percent (for internationally active banks within Switzerland and G10 jurisdictions), it still left ample space for national authorities to implement at their discretion.[811] In such a way, Basel I essentially based on

[809] Directorate-General for Internal Policies (European Parliament), *Upgrading the Basel standards: from Basel III to Basel IV?—Briefing*, PE 587.361, 18 January 2017.
[810] R. AYADI, *On the Role of the Basel Committee, the Basel Rules, and Bank's Incentives*, in GERARD CAPRIO Jr. (ed.), *Safeguarding Global Financial Stability: Political, Social, Cultural, and Economic Theories and Models*, 409.
[811] For banks and financial institutions subject to deposit insurance, admittedly, these minimum capital requirements which indeed constraints their activities are actually seen as protection for the deposit insurance fund.; MARKUS BRUNNERMEIER et al., *The Fundamental Principles of Financial Regulation*, 64. In fact, Basel I was hailed for its incorporation of of risk into the calculation of capital requirement.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

traditional micro-prudential approach, simply comprised of credit risk (a market risk component was added in the reform in 1996), greatly relied on market disciplines and self-regulation, reflected through the recourse to bank's internal models. As it turned out, the application of Basel I had shown various weaknesses, and thus Basel II was introduced in 2004 after a lengthy and radical revision of capital requirements. Renamed as 'the New Capital Framework', Basel II was built upon three pillars—i.e. minimum capital requirements, supervisory review, and disclosure—as well as an even greater reliance on banks' internal models in assessing all levels of risks, be it credit risk, operational or market risk.[812] Then again, Basel II turned out to be technically flawed in several aspects which was said to further exacerbate the global crisis of 2008. To recall, it was actually the collapse of the main ideology of modern finance which dominated the pre-crisis period. As a result, this crisis triggered another wave of reforms of capital requirements through the introduction of Basel III—the currently implemented international regulatory framework for banks and other financial institutions.

At this stage, few things could be seen on the table. *First*, the making of Basel Accords reflects a typical characteristic of financial regulation in that it has always been developed as a child of crisis.[813] In line with this *ex post* approach, the introduction of new regulations aims at preventing next financial crisis to the extent that at least, it would not happen with the same causes as in the previous one(s). Despite the scope of prudential regulations got substantially

---

[812] Directorate-General for Internal Policies (European Parliament), *Upgrading the Basel standards: from Basel III to Basel IV?—Briefing*, 3.

[813] To recall, BCBS was established after financial disruptions in the 1970s, while Basel I, II, and III were introduced after several crises in Latin America (1980s), Asia (late 1990s) and global financial crisis 2008, respectively.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

enlarged after each reform, under the common theme of fostering financial stability, capital requirement for banks and other financial institutions has remained the most dedicated job of the Basel Committee in recent years. Needless to say, "[t]he area in which the design of macro-prudential tools is most advanced is probably that of capital requirements for banks".[814] Yet, it should be noted further that, within Basel III framework, banks are generally subject to both micro- and macro-prudential regulation, in which the latter closely links to financial institution's related contribution to systemic risks and typically includes countercyclical buffer capital requirement as well as capital surcharges for SIFIs, G-SIBs, G-SIIs.[815] In such a way, from Basel I to Basel III, the making of prudential regulations has gone beyond "an attempt to agree on, and to harmonize, pre-existing 'best practice' in the key nation states", to be based on rationalized requirements derived from modern theory of finance which takes into account the overall financial stability.[816] It also goes beyond using solely bank's internal models that are run on the assumption that risk is exogenous, to reflect the fundamentally endogenous nature of systemic risk (more on this point, *see supra* at1.1.2.). As a general remark, Baker pointed out, BCBS's

---

[814] VÍTOR CONSTÂNCIO, *Making macro-prudential policy work*, Speech at high-level seminar organized by De Nederlandsche Bank, 2014.

[815] Other components of Basel III includes leverage ratio, capital conservation buffer, and global liquidity standard comprised of liquidity coverage, net stable funding ratio as well as supervisory monitoring, etc. For more details, *see supra* at 1.2; see also: http://www.bis.org/bcbs/basel3/b3summarytable.pdf

[816] Unlike the typical Value-at-Risk (VaR) measure, which captures the risk of a single institution, CoVaR captures the links across several institutions. MARKUS BRUNNERMEIER et al., *The Fundamental Principles of Financial Regulation*, 1.; Regarding the use of best practices, Goodhart pointed out the crucial problem: "It enabled regulation to be based on the precept that each individual bank's own risk management should be brought up to the level of, and harmonized with, those of the 'best' banks, and had the added bonus that the methodology of regulation could be rooted in the (best) practices of the most technically advanced individual banks. The implicit idea was that if you made all banks copy the principles of the best, then the system as a whole would be safe. Hardly anyone critically examined this proposition, and it turned out to be wrong.; *See further at*: CHARLES A.E. GOODHART, *Financial Regulation*, in SYLVESTER EIJFFINGER and DONATO MASCIANDARO (eds.), *Handbook of Central Banking, Financial Regulation and Supervision: After the Financial Crisis*, Edward Elgar Publishing Limited, 2011, 327.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

making of Basel III represents an ideational shift which "*largely involved technocrats from the BIS, together with some of the figures above and some officials from national central banks, exercising an insider's coup d'état to depose the simplified efficient markets orthodoxy that had reigned over the previous two decades*".[817] Yet, it also reiterates the nature of Basel III rules, whereby BCBS's transnational technocracy still remains an issue. In its turn, admittedly, the technocratic character could be seen as a reflection of the complexity of finance and the global financial markets.

Second, since Basel capital requirements typically follow the risk-based approach, the making of Basel III has to reflect sources of systemic risk which previously led to market disruptions and, at the same time, react to the evolving nature of the risks. As to the state of play, Caruana admitted: the financial system has become more complex, more globalized, more intertwined with the real economy, and even with the state-of-the-art system some risks cannot be measured and internalized. Thus, "*we need to be humble about pretending that we (official and private sector) fully comprehend the risks we face, particularly tail risks*".[818] Along this line, Pistor somewhat 'illuminated' core features of the contemporary global financial system through her construction of a legal theory of finance which rests on two premisses, namely uncertainty and liquidity volatility. Based on Frank Knight's arguments (from way back in 1921), Pistor explained "whenever circumstances are unique and deviate from 'invariable and universally known law', they cannot be reduced to variables that lend themselves to probability calculations".

---

[817] ANDREW BAKER, *Transnational technocracy and the macro-prudential paradox*, in TONY PORTER (ed.), *Transnational Financial Regulation after the Crisis*, 31.
[818] JAIME CARUANA, *Financial regulation, complexity and innovation*, BIS, speech prepared for the Promontory Annual Lecture, London, 4 June 2014.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Put differently, the problem of fundamental uncertainty of finance means that there are situations in which risk cannot be quantitatively measured, and thus these cases call for judgement, not calculus.[819] Since macro-prudential regulation has incorporated a system-wide financial risk approach and judging by the fact that financial markets are constantly innovating thus evolving, the range of risks grows wider and possibly indeterminate. At this stage, the issue becomes two-fold. One is the breath and potential indeterminacy of systemic risks, and the other lies with difficulties in measuring risks, even the known ones.[820] What then complicates the situation even more is, for instance, the implementation of countercyclical buffer requirement as it has to be deployed at an early stage before system-wide threats become visible. And exactly because risks would not be that visible at such point in time, it makes the task much harder hence relies crucially on discretion. Advised by economists, lawyers then have to admit that these layers of challengeshave "*resulted in the establishments of wide powers for regulator in terms of information collection and the development of macro-prudential tools*".[821] In other words, discretionary solution is inevitable and by necessity, the deployment of macro-prudential tools would involve certain degrees of learning-by-doing, trial-and-error, in which countries can share their experiences since the application and the tools' effectiveness vary across jurisdictions.[822]

---

[819] Pistor noted, Frank Knight argued long ago that any attempt to capture dynamic rather than static phenomena must grapple with the problem of fundamental uncertainty; that is, with risk that cannot be quantitatively measured. Then, together with liquidity volatility, uncertainty produces an effect on the inherent instability of finance.; KATHARINA PISTOR, *A legal theory of finance*, 316.
[820] For a more extensive discussion on systemic risk measurement difficulties, see *supra* at 1.2.
[821] MADS ANDENAS and IRIS H-Y CHIU, *The foundations and future of financial regulation: Governance for responsibility*, 417. In fact, the representative work on macro-prudential regulation conducted within the framework of the Basel Committee, but national regulators certainly can develop other tools that suit their economic conditions.
[822] Admittedly, little is known about how long it takes for those policies to work through the financial system, how large their effects are, or how banks react to them. We will, by necessity, have to start with some trial-and-error, to

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

For the time being, macro-prudential authorities use a broad yet non-exhaustive list of macro-prudential instruments, acknowledging that additional tools may be needed in the future to prevent or mitigate new risks to financial stability.[823] On a related note, however, even if uncertainty could justify discretion in policy, regulators should be mindful of the risk of dynamic inconsistency which is derived from the 'temptation tofind the optimal decision at every single step' while economic conditions keep evolving at the same time.[824]

Third, judging by various factors ranging from the complexity of the global financial markets, technological advances accompanied by financial innovation, uncertainty and liquidity volatility of finance as well as its inherent instability which result in multidimensional and multifaceted systemic risks; too much should not be expected of (macro-prudential) regulation and certainly, regulation could be imperfect. As a starting point, macro-prudential remains only a part of financial regulation, in which other types of regulation such as micro-prudential, monetary, insurance, securities regulation, etc., all have their stakes in the preservation of financial stability. Indeed, macro-prudential regulation was introduced directly for the purpose of lowering the incidence and cost of future crises through the prevention or mitigation of systemic risks. Yet, the state-of-play, i.e. difficulties and challenges associated with measuring risks, clearly shows that we simply cannot eliminate all triggers of systemic risk. Admittedly, it is also

---

help us identify and address the main operational issue.; VÍTOR CONSTÂNCIO, *Making macro-prudential policy work*, (speech), 2014.

823 Because there is no one-size-fits-all, we are unlikely to develop a framework for macro-prudential policy as standardized as that which had emerged for monetary policy.; Bank for International Settlements, *Macro-prudential policy*, BIS Papers No. 86, Monetary and Economic Department, September 2016, 13.

824 Bank for International Settlements, *Macro-prudential policy*, BIS Papers No. 86, 13-14. While we are at it, there is also a need to assess implementation and monitor unintended consequences.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

impossible to monitor all dimensions of the global financial systems, the dynamic interactions of risks, linkages, transmissions, etc., across all jurisdictions as well as between financial system and the real economy. Even though it has been acknowledged that a seemingly small risk could lead to systemic risk, it remains difficult and perhaps impossible, unnecessary to design such a system of regulation that could remove all possibility of risks. Thus, there is a need to recognize that regulation and supervision have limitations in the sense that not all risks can be covered. In addition, the making of Basel III which targets at known systemic risks (as lessons learnt after the crisis) turns out to be a very difficult task and takes much longer time than expected to complete. As of March 2017, Basel III has not been finalized even though it was first introduced back in 2010.[825] But even when it has been finalized, there is a need to constantly monitor effects and adjust the rules to reflect the evolving nature of systemic financial risks. That being said, "*[a]n inherent problem of financial regulation is clearly the aspect of time, in particular when considering the speed and innovation of financial markets*".[826] For the time being, the experience remains at an early stage and varies across jurisdictions and thus, "the fine-tuning of existing macro-prudential policy tools and its institutional framework continues".[827] Furthermore, as noted by Davies and Green, technical difficulties arising from constructing a (macro-prudential) mechanism—which will be 'effective, yet not punitive, and which will be equitable between very

---

[825] Basel Committee on Banking Supervision, *The Chairman of the Basel Committee reaffirms commitment to finalise post-crisis Basel III reforms*, Press Release, dated 2 March 2017, available at: http://www.bis.org/press/p170302.htm. G20's finance ministers and central bank chiefs already showed support for the Basel Committee to finalize Basel III' framework without further significantly increasing overall capital requirements across the sector, while promoting a level playing field. (Updated as of May, 2017).
[826] ARMIN J. KAMMEL, *Government Versus Markets—A Change in Financial Regulation*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, 16.
[827] Bank for International Settlements, *Macro-prudential policy*, BIS Papers No. 86, 14.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

diverse banks and countries, yet sensitive to local conditions'—are immense".[828] As a result, the making of macro-prudential regulation could possibly be imperfect and it may happen that in some unintended circumstances, the deployment of macro-prudential tools could even distort behaviors. For further analysis, Claessens pointed out "[u]nless perfectly targeted at the source, i.e. where the externalities or market failures arise, which is unlikely, [macro-prudential] policies can worsen some resource allocations. And by constraining actions of agents, they can increase overall systemic risks".[829] Thus, 'we need to be humble about the rules we put in place', and at the same time, "[w]e must also remember that markets are part of the solution since it is well functioning markets that generate growth".[830] Undoubtedly, our goal is not to promulgate rules which look appealing on paper only, thus sound financial regulation is not an end by itself but certainly a means to an end. And in order to achieve that end, not only supervision is needed so as to adapt the rules accordingly, but also markets themselves could indeed play a role in the mitigation of systemic risks. Yet, it does not mean to say that we are going back to the efficient markets orthodoxy period where regulation relied heavily on market disciplines and self-regulation. It is rather analogous to the situation in which a patient himself can be of help in treating his own illness, while following strictly doctor's advices. At the same time, the doctor monitors patient's conditions and through constant dialogues between doctor and patient, a suitable prescription could be found. Admittedly, the patient knows himself better than the doctor in some aspects, and to a certain extent, a bank knows its vulnerability, operations more than a regulator, i.e. an outsider. These reasonings could target at both micro-prudential regulation and

[828] HOWARD DAVIES and DAVID GREEN, *Global financial regulation: The essential guide*, xxi.
[829] STIJN CLAESSENS, *An Overview of Macro-prudential Policy Tools,* 4.
[830] THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 418-419.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

its macro- counterpart. Besides, even though the macro-prudential approach concentrates on the financial system as a whole, ultimately, regulatory measures will have to be introduced at individual bank/financial institution level. And in essence, macro-prudential regulation is a macro- overlay upon the traditional micro-prudential regulation. For illustrative purpose, macro-prudential rules often introduce minimum system-wide (e.g. leverage) ratio which could then be tailored to specific institutions subjecting to their risk profile, and in cases where the financial system comprises of solely few SIFIs, micro- and macro-prudential regulation even overlap, albeit differ in their calculation methodologies. Thus, it remains important to understand the patients (e.g. too-big-too-fail institutions, markets) and engage them along in the treatment process, provide them with suitable incentives and penalties. In this respect, Caruana again reminded us that "*[g]ood risk management for a bank is not just about complex models. It is also about creating the right risk culture and incentives, it is about appropriate governance and oversight, and it is about understanding the limitations of models*".[831]

Last but not least, the idea of a binding macro-prudential regulation may irritate some scholars, yet it would still remain important to have high degrees of predictability, certainty and legal security generated through the use of hard law in governing global finance. On the one hand, Pistor argued, pre-determined, binding, non-negotiable legal commitments can hasten a financial crisis and in the extreme case the financial system's demise.[832] Along this line, compliance to Basel II was said to exacerbate the global crisis of 2008 since the Accord was considered technically flawed in several aspects. In addition, using what he termed as 'regulatory

---

[831] JAIME CARUANA, *Financial regulation, complexity and innovation*, (speech), 2014.
[832] KATHARINA PISTOR, *A legal theory of finance*, 318.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

uncertainty principle', Caruana warned that as soon as a rule becomes a binding financial regulation, it will cause changes in financial institutions' risk management that will make it less binding and less effective.[833] Put somewhat differently, in reaction to such binding rule, banks tend to circumvent (due to constraints imposed on them) and in doing so, they could alter the nature of systemic risk which then result in a rule being less effective. Since the nature of risk will keep evolving, it goes like a vicious circle where regulation has to constantly adapt. As a result, the making of regulation will permanently be in a catch-up mode, let alone the fact that 'a good part of the regulatory complexity actually comes from continuous adaptation to evolving markets and risks once rules are implemented'.[834] Moreover, as seen above, macro-prudential regulation could be imperfect which in turn may increase the system's vulnerability to crisis or worsen the crisis when it has been taking place, let alone a risk of creating moral hazard. For instance, the use of externally-imposed regulation and supervision could affect perception of the investing public, hence the creditworthiness of regulated institutions could be perceived as implicitly guaranteed by the authority. As a result, moral hazard exists in the sense that both consumer and regulated firms might as well assume safety and good conduct solely on the basis of the firms obeying external regulations.[835] Further to this end, it could actually induce risk premia or exacerbate financial disruptions, especially if regulation turns out to be imperfect. Thus, given these challenges, a binding rule could hardly be an ideal choice, especially when the norms developed by BCBS have actually produced impacts on financial markets and participant's

---

[833] JAIME CARUANA, *Financial regulation, complexity and innovation*, (speech), 2014.
[834] Needless to say, in this highly dynamic world, imperfect knowledge means that regulatory design is permanently in catch-up mode.; JAIME CARUANA, *Financial regulation, complexity and innovation*, (speech), 2014.
[835] CHARLES A.E. GOODHART et al., *The rationale for regulation,* in CHARLES A.E. GOODHART, DIMITRIOS P. TSOMOCOS (eds.), *Financial Stability in Practice: Towards an Uncertain Future,* 43.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

behaviorsdespite its softness.

Nevertheless, on the other hand, same old stories of legitimacy, accountability as well as such recent regulatory developments under the new administration in the US, i.e. executive order to review the Dodd-Frank Act which incorporated Basel III and criticism towards the FED's participation in BCBS, have strengthen arguments in favor of a harder approach towards macro-prudential regulation at international level. Admittedly, the current soft approach results in "*an international rule-making process that directly engages national officials and national promulgation and enforcement mechanisms, without formal translation and implementation mechanisms from the international to the national*".[836] And as it relies primarily on legally non-binding international rules, its legitimacy has constantly been questioned, regardless of the technocratic merits. At the same time, this informal characteristic of the law and body may face additional difficulties since macro-prudential supervision will necessarily entail a more rule-based, harder approach in order to counter the pro-cyclicality of financial regulation as well as the politics of booms which would make it even more difficult for regulators to utilize their discretion, let alone resistance from market participants. For the time being, Basel III rule-makers may feel content with the result in terms of compliance and is thus left with limited interest to harden the rules at international level. Yet, admittedly, the difficult part of the game has not come yet. And thus, for the sake of maintaining financial stability throughout the financial cycle as a whole, especially being able to deploy macro-prudential instruments during the booms when

---

[836] ANNE-MARIE SLAUGHTER, *Governing the Global Economy through Government Networks*, in MICHAEL BYERS (ed.), *The Role of Law in International Politics: Essays in International Relations and International Law*, 189.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

systemic risks are supposedly building up, macro-prudential supervision will require rules and strict limits that are applied at the level of both national and international financial systems.[837] That being said, there is a need to strengthen and ensure effective implementation of these rules at international level, which could then be achieved through the introduction of binding regulation or hardening the currently soft rules. As the argument goes, since it is also inevitable for macro-prudential rules to keep adapting, the part which needs to be harden at international level should be a sort of general principle rather than specific details. For instance, a legally binding rule can impose an obligation on countries to adopt BCBS's Basel III and any changes to the rules thereafter. Even if drafted in a general manner, it would still provide more legal security, certainty and predictability for market participants, help solve institutional issues while substantially increase the cost when a country, e.g. the US, wants to deviate from its commitments. Towards the end, would it lead to an 'establishment of a totally new global authority—i.e. as a centralized international financial regulator—to respond to contemporary financial stability needs' which may appear to be superior to the 'ad-hoc decision making led by political leaders of the G20 or G30'? or, would it lead to a more integrated and robust version of an existing international organization? etc.[838] All remains to be seen.

The implementation of Basel III: Responses from both sides of the Atlantic ocean and more

---

[837] EILÍS FERRAN, KERN ALEXANDER, *Can soft law bodies be effective? Soft systemic risk oversight bodies and the special case of the European Systemic Risk Board*, 14.
[838] MADS ANDENAS and IRIS H-Y CHIU, *The foundations and future of financial regulation: Governance for responsibility*, 460-463.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

"At the end, I will always come back for politics, because banking is politics."[839]

To no one's surprise, the global financial crisis initiated a widespread call for more and better regulation, i.e. public intervention in the form of government regulation, in the belief that governments should intervene to restrain financial markets from repeating the same mistakes. Having discussed earlier, this is seen as a result of the pro-cyclicality—a typical characteristic of financial regulation, and this phenomenon undoubtedly indicated the beginning of an upward trend in the making of financial regulation. Indeed, it is not easy to predict how long this trend is going to last. Yet, in one of the most recent question-and-answer sessions with the European Parliament, ECB's President—MrDraghi told MEPs: "The last thing we need is a relaxation of regulation…The idea of repeating the conditions of before the crisis is very worrisome".[840] In fact, Mr Draghi's statement was not only to reinforce ECB's stance towards 'more' regulation but also to address concerns on deregulation and the US's continued participation in international regulatory forums, following various statements and communications recently made by the new administration under US President Donald Trump. That being said, there has been signs of discords as to the responses from both sides of the Atlantic ocean, in which one side is maintaining the imposition of 'more' regulation to mitigate financial risks while the other is 'reevaluating' additional (capital) requirements saying that these has led to slower economic

---

839 DIRK SCHOENMAKER, *Firmer Foundations for a Stronger European Banking Union*, Speech at The Institute of International and European Affairs (IIEA), 12th May 2016.
840 Financial Times, *Mario Draghi pushes back at Trump shake-up*, 6th February 2017, available at: https://www.ft.com/content/ea395010-ec88-11e6-ba01-119a44939bb6

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

growth.[841] As a matter of principle, however, this kind of tension—i.e. regulation v.s market freedom—has always existed in the making of financial regulation in general and international financial standards in particular. At the bottom line, "[i]t goes without saying that when we are discussing financial regulation we are essentially discussing law and economics".[842] Put another way, Hatzis summarized: "*[l]aw and economics is about regulation…about **choices** to be made between the enactment of necessary legal rules and the unregulated freedom…It's the **tradeoff** between wealth maximization and risk allocation…A heavily regulated market might boost financial stability and ensure consumer protection but at the cost of diminished flexibility and efficiency. A less regulated market might offer great opportunities for profit and innovation but with a cost to stability and confidence*"(emphasis added).[843] From a broader perspective, the need for additional regulation, i.e. to preserve financial stability for the ultimate goal of sound macro-economic performance and growth, somehow faces with demand for market freedom aiming at fostering short-term economic growth—which may be detrimental to the stability of financial institutions or of the system as a whole—as counterargument. Yet, if we take a closer look, what was at stake could be translated into a cross-road where the eagerness to prevent next crisis meets with the demand to restore, rebuild and foster the financial system which had been at its weakest point due to consequences of the previous one. In any case, financial stability is not an end by

---

[841] In a letter dated 31st January 2017 to the Chairman of the US FED, Janet L. Yellen, Vice Chairman of the Financial Services Committee (US Congress), Patrick McHenry called for reevaluation of the secretive structures of international forums such as FSB, BCBS, IOSCO, and the fact that these additional capital requirements has led to slower economic growth in America.
[842] ARISTIDES N. HATZIS, *A Law and Economics Framework for Financial Regulation: Ten Questions and Answers*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, 29-42.
[843] ARISTIDES N. HATZIS, *A Law and Economics Framework for Financial Regulation: Ten Questions and Answers*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, 29.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

itself, but a means to an end of sustainable economic growth.Thus, given the fact that international financial regulation derives non-binding obligation, situation in each financial jurisdiction differs and may be seen as a result of the compromise, balancing out of different factors and priorities which is also reflected in the implementation of Basel III Accord within domestic context. In other words, the introduction of macro-prudential regulation under Basel III as well as the process to transpose it into national law and then implement these rules have faced with resistance from the financial industry and also for political interests. On this point, the research will first analyze the levels of compliance to Basel III across jurisdictions and then to focus more on latest developments in the US and EU with regard to Basel III implementation, i.e. concerns on US's move towards deregulation and EU's efforts invested in hardening international soft financial law, respectively.

At the out set, it should be noted that the implementation of Basel III at national level is taking place in parallel with the task to revise/adjust these standards for necessary changes and to include new elements at international level. Admittedly, the making of Basel III has been an on-going (and also learning-by-doing) process since it was first introduced back in 2010. For a general remark, the latest implementation report to the G20 showed that the Basel III capital and liquidity standards have generally been transposed into domestic regulations within the pre-defined time frame set by the Basel Committee.[844] Yet, as Coen pointed out, the manner in which the agreed standards are applied is at the discretion of members.[845] For instance, while some

[844] Basel Committee on Banking Supervision, *Implementation of Basel standards: A report to G20 Leaders on implementation of the Basel III regulatory reforms*, August 2016, 1.
[845] WILLIAM COEN, *Finalising Basel III*, Introductory remarks, 12th October 2016.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

countries (e.g the US and Japan) apply the rules to just the largest, internationally active banks in their countries; others, like the European Union, have elected to apply the rules to all banks.

For an overall review of completeness, BCBS's eleventh progress report noted the status of Basel III standards' adoption: as of October 2016, all 27 member jurisdictions have final risk-based capital rules, liquidity coverage ratio regulations and capital conservation buffers in force; 26 member jurisdictions have issued final rules for the countercyclical capital buffers, 25 have issued final or draft rules for their domestic systemically-important-banks (SIBs) framework and 18 have issued final or draft rules for margin requirements for non-centrally cleared derivatives.[846] In case of non-members, a significant number of jurisdictions have already brought key elements of Basel III into force or intend to do so in near future (around 70 non-member jurisdictions are expected to comply with in 2018), according to statistics and survey from the Financial Stability Institute.[847] On such a basis, BCBS reports demonstrates that both countries represented by their national regulators within the Basel Committee and those outside this forum have complied, albeit at different levels and in different manners, to Basel III standards in a timely and consistent manner (*see below Graph 1 and 2 for compliance of member and non-members, respectively*). [848] Several countries, such as Austria, Denmark, Singapore have introduced capital surcharges which even go beyond Basel III to impose higher capital

---

[846] Basel Committee on Banking Supervision, *Eleventh progress report on adoption of the Basel regulatory framework*, October 2016, 1.

[847] The FSI survey results also show that, by 2018, around 70 non-Basel Committee member jurisdictions intend to have issued final rules on the above key elements of the Basel III framework.; *See* Basel Committee on Banking Supervision, *Implementation of Basel standards: A report to G20 Leaders on implementation of the Basel III regulatory reforms*, 5.

[848] Basel Committee on Banking Supervision, *Implementation of Basel standards: A report to G20 Leaders on implementation of the Basel III regulatory reforms*, 2.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

requirements for their own domestic SIFIs.[849]

Not only domestic regulations are generally aligned with Basel III standards, notably, countries have put efforts in building up appropriate institutional arrangements or restructuring the existing ones (by adding, e.g., macro-prudential mandate) to implement Basel III. For instance, within the EU, following the transposition of Basel III into European law,[850] the European Systemic Risk Board (ESRB) was established for macro-prudential oversight targeting at the prevention or mitigation of systemic risk,while national systemic risk oversight bodies have also been set up in EU members, especially the Eurozone area. In the US, the Dodd-Frank Act created theFinancial Stability Oversight Council (FSOC) for macro-prudential purpose; while the UK Financial Policy Committee (FPC) is a new committee established to cope with macro-prudential policy challenges.[851]Despite its soft nature, Basel III has indeed influenced domestic regulatory and institutional arrangement across jurisdictions, be it a member or non-member of the Basel Committee. But again, mind you, adoption of Basel III is just the beginning of the

---

[849] FSB, BIS, IMF, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 19.
[850] REGULATION (EU) No 575/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012; DIRECTIVE 2013/36/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC
[851] Indeed, for the task of preserving financial stability through preventing or mitigating systemic risks is very complex and in practice, it requires coordination and cooperation of many financial institutions in which central bank remains an important actor. For instance, Donald Kohn noted, the UK system is built around three new entities, the FPC; the Financial Conduct Authority (FCA), with responsibility for consumer protection, market functioning and the supervision of some financial firms, such as asset managers; and the Prudential Regulatory Authority (PRA), the micro-prudential regulator and supervisor for banks, other depository institutions, insurance companies, and major investment firms. Also, the Bank of England plays a major role in financial stability in the UK, housing and staffing the FPC and PRA, but also with broad responsibility for analysis and policy to promote stability.; *See further at*: Bank of England, *Institutions for macro-prudential regulation: the UK and the US*, Speech given by Donald Kohn, Senior Fellow, Brookings Institution, External Member of the Financial Policy Committee, Bank of England, At the Kennedy School of Government, Harvard University 17 April 2014.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

game, and in most jurisdictions, the harder part is yet to come.

Nevertheless, this high level of compliance apparently merits further attention, and it is independent of whether Basel III is considered a part of international law or merely has legal effect. Then, what has induced countries to comply with BCBS's financial standards? Admittedly, apart from soft law'sadvantages and suitability for the use in international financial regulation[852] which provide incentives for compliance, the fact that this soft-law tool receives all the attention is not only because of its important merits, but also due to the lack of relevant international hard-law rules in the field. Having discussed here and there throughout this thesis, despite the softness of the law and body, BCBS has been working under the auspices of high-profile international agenda setters such as the G7, G10 and then G8, G20. More importantly, its rules, standards, best practices have been endorsed by these institutions as well as the IMF and WB. Thus, although informally made, these standards affect global finance, amount to global rules of the game (given that the game is actually dominated by BCBS jurisdictions) and are 'taken seriously by signatories as they are the only medium available to regulators to express commitment to a policy, rule or standard' in this field.[853] Needless to say, IMF and WB also contribute in supervising the implementation of these standards, especially with regards to non-member developing countries.[854] Yet, however, it is clear that these are external factors and channels that induce compliance. As stated in its Charter, Basel Committee solely relies on

---

[852] For more details, *see supra* at 2.2.1

[853] As such, the non-binding nature 'may still influence the behavior of regulators and market participants seeking to make credible commitments of efficiency, value and strong corporate governance or investor protection'.; *See* EMILIOS AVGOULEAS, *Governance of Global Financial Markets: The Laws, The Economics, The Politics*, 223.

[854] For more details, *see supra* at 2.2.1

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

member's commitments to achieve its mandates. For the sake of clarity, while BCBS members are responsible to implement and apply Basel III in their domestic jurisdictions, the Committee put in place a rigorous framework to monitor compliance through producing relevant reports and especially the Basel III regulatory consistency assessment program (RCAP).[855] Undoubtedly, BCBS members face with peer pressure and peer reviews in the monitoring exercise of compliance towards Basel III. As a result, it creates reciprocaland reputational constraints on the members which in turn compel them to comply with what has been agreed upon.

At this stage, one could easily see that the informal approach to financial regulation has remained, despite being hit by a devastating crisis, reflected through the levels of compliance to BCBS's standards across jurisdictions, be it developed, emerging or developing countries. Yet, at a closer look, the crucial point which remains at the root of this successful application of soft law mechanism in governing global finance is actually none other than central bank independence. Looking back, it all started with a group of G10 central bank governors, and even until now, BCBS's membership includes central bank representative from all of its member jurisdictions. As it turned out, the making at international level then the implementation at national level of Basel standards, financial rules, and best practices are conducted by BCBS members, whereby this process undoubtedly goes outside normal channels of governance. In other words, it should be noted that the actors who make the rules or formulate the principles at international level, i.e. central bankers and national regulators, are the same actors who have the power to enforce them

---

[855] The RCAP involves: (i) monitoring progress in adopting the Basel III standards; (ii) assessing the consistency of national or regional banking regulations with the Basel III standards; and (iii) analyzing the prudential outcomes from those regulations. For more details, *see*: http://www.bis.org/bcbs/publ/d361.htm

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

within domestic context.[856] Coupled with central bank independence and the high degree of insulation of financial regulators in BCBS member jurisdictions, this feature effectively contributes to facilitate the making and then implementation of Basel III. Global wise, since BCBS's standards are endorsed by G7, G20, the IMF and WB, this shows that, indeed, the technocratic project of promulgating prudential regulations is somehow entrusted solely in the hand of BCBS members, i.e. those skilled technocrats within central banks and national regulators, despite their status being unelected governmental officials without legislative power, or power to make hard law. As a result of such endorsement, BCBS's standards went a step forward to have global reach. On such a basis, the situation at international level seems to mirror that of domestic context, where BCBS central banks have generally been granted independence in the promulgation of financial rules and standards. Yet, the difference is that this group of central bankers from solely 28 BCBS jurisdictions, a small club of officials whose domestic accountability and legitimacy is somehow subject to question from the start, have been making the rules to be implemented worldwide. Eventually, it is central bank independence that contributes the most to the establishment of BCBS, facilitating the acceptance and continuation of the informal approach as well as the predominance of soft law in the making of financial regulation in general and prudential regulations in particular. On such a basis, if we then turn our attention to recent regulatory developments in the US under the new administration, it could be argued that these moves somehow make this root feeling unstable.

---

[856] ANNE-MARIE SLAUGHTER, *Governing the Global Economy through Government Networks*, in MICHAEL BYERS (ed.), *The Role of Law in International Politics: Essays in International Relations and International Law*, 179-180.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

In fact, what's happening in the US right now is just another example of the pro-cyclicality, a typical characteristic of the vicious regulating cycle, of financial regulation. To recall what Goodhart rightly pointed out: at first, regulation and supervision have been found wanting whenever market failures develop into financial/economic disruption; after a while, eventually things go well and then everybody starts to notice the burdens that additional regulation imposes on financial institutions and markets, thus, they call for deregulation or relaxing requirements; as time passes by in peace, regulations gradually get weakened until the next crisis comes; and then we start all over again.[857] In this regard, admittedly, current regulatory development in the US is still at the beginning stage where there was an executive order to review the Dodd-Frank Act which incorporated Basel III, yet no further official action has been initiated. However, it indeed signals efforts spent towards deregulation, especially when the FED has also been accused for participating in the 'secretive' Basel Committee and that its actions 'were the result of an opaque decision-making process'. Since central bank independence remains at the root, undoubtedly, such moves from the US side towards undermining the FED's independence could have an impact towards the whole system of international soft financial law, given the fact that the US remains one key player in the international financial standards setting.

Conversely, on the other side of the Atlantic ocean,the EU has been putting efforts in hardening international soft financial law through the introduction of a more comprehensive prudential carve-out in its new generation of FTAs, starting with Vietnam and Singapore. Even though Vietnam is not a member jurisdiction of the Basel Committee, the more comprehensive

---

[857] CHARLES A.E. GOODHART, *Can Counter-cyclical Capital Ratios Work?*, in Bank of Italy, *Conference in Memory of Tommaso Padoa-Schioppa,* 108. *See supra* at 2.1.1

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

prudential carve-out incorporated in the EU-Vietnam Free Trade Agreement reads as follow:

"*Each Party shall make its best endeavors to the extent possible to ensure that internationally agreed standards for regulation and supervision in the financial services sector and for the fight against tax evasion and avoidance are implemented and applied in its territory. Such internationally agreed standards are, inter alia, the Basel Committee's "Core Principle for Effective Banking Supervision", the International Association of Insurance Supervisors' "Insurance Core Principles", the International Organization of Securities Commissions' "Objectives and Principles of Securities Regulation", the OECD's "Agreement on exchange of information on tax matters", the G20 "Statement on Transparency and exchange of information for tax purposes" and the Financial Action Task Force's "Forty Recommendations on Money Laundering" and "Nine Special recommendations on Terrorist Financing*".[858]

That being said, with specific reference to BCBS's standards, the EU has indeed taken a step forward to enhance the implementation of these soft-law rules in general and of Basel III in particular. And this is done despite the fact that there have been calls for deregulation from the financial industry in Europe. More importantly, by incorporating BCBS's standards into FTAs, the EU clearly shows efforts to harden these soft financial law at international level which in turn represents dynamic interactions between soft law and hard law, whereby soft law produces impacts on the evolution of international hard-law rules in this field while hard law complements and promotes the acceptance and implementation of soft-law standards. On this point, the EU is

---

[858] EU-Vietnam Free Trade Agreement: Agreed text as of January 2016, *Chapter 8: Trade in Services, Investment and E-Commerce*; available at: http://trade.ec.europa.eu/doclib/press/index.cfm?id=1437

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

indeed the pioneer through the introduction of its new generation of FTAs, yet it remains to be seen whether other financial jurisdictions will follow suit. In the words of Joseph Gold, eventually, "[t]he usefulness of soft law as a contribution to the growth of international law is that the application of soft law can produce over time an accretion of firm law".[859]

Given the current state of uncertainty, it seems difficult to predict anything concrete at this stage. It remains too early to judge the situation in the US, we are also not sure how long this 'variable' is going to last, and whether it can really affect the state-of-play in which central bank independence has generally been granted, albeit at different levels, across key financial jurisdictions. But again, one thing we can be sure about is that the softness of the law and body (i.e. Basel III, BCBS) makes the situation even more uncertain, let alone the fact that Basel III has not even been finalized years after its introduction. On such a basis and as a follow-up on what have been discussed earlier, there is a need to provide more certainty, predictability and legal security to financial institutions, market participants when it comes to the deployment of macro-prudential regulation. For technocrats, the task is to finalize all components of Basel III as soon as possible, and for lawyers, it is to create a legal framework for these rules to operate, not only within domestic context but also at international level, since the deployment of these instruments will undoubtedly entail a harder approach in whichever jurisdictions Basel III has been adopted and complied with. Even though we cannot predict the cause of the next crisis, we are trying to lay out the best possible framework to limit its possibility of happening, or at least make sure we would not repeat the same mistakes as in previous crises. Admittedly, solving these market

---

[859] JOSEPH GOLD, *Strengthening the soft international law of exchange agreements*, 444.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

failures would not guarantee a crisis-free future, but it would certainly help to mitigate the instability of the financial system. As the system itself keeps changing and evolving, indeed, the task to preserve global financial stability will always be an ongoing process!

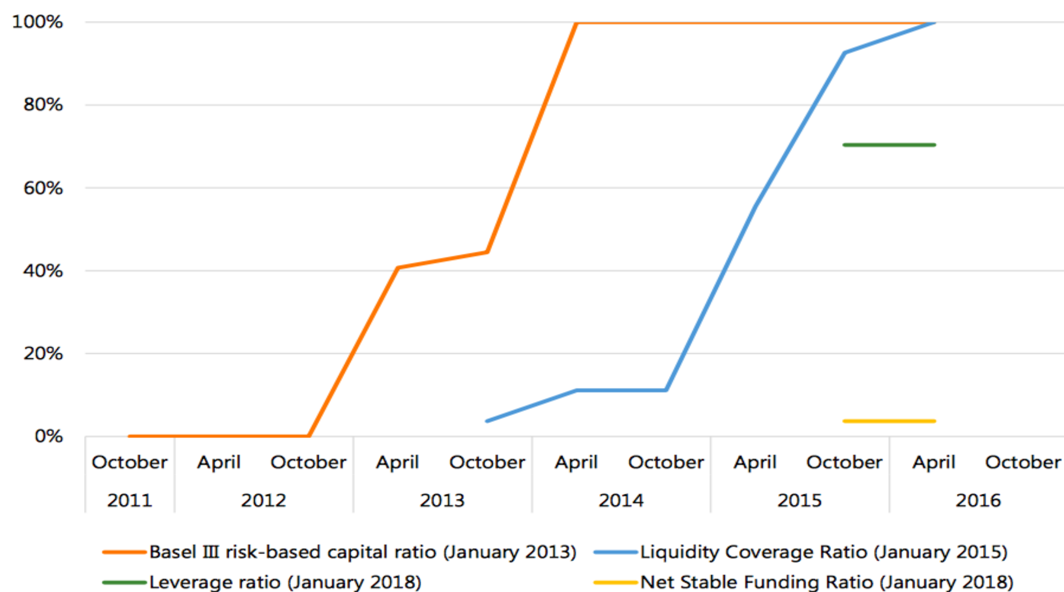
As a matter of fact, in situations where global political uncertainty indices are at all-time highs like today, political risk—which is undoubtedly difficult to manage or measure—is added on top of a series of systemic and financial risks which have already been identified. Yet, 'instead of speculating what the future will bring, it would be better to improve resilience of individual firms or banks, but also for entire countries'.[860] And this could be achieved through effective implementation of macro-prudential policy instruments. To quote Padoa-Schioppa (in 2010): "I am one of those who think that supervision, not regulation, was the main problem: stronger enforcement of the existing rules (supervision) would have sufficed to avoid the disaster".[861] Opinions may differ in this regard, yet, implementation undoubtedly remains key in the exercise of macro-prudential policy. And 'while time could be a great healer, it is always better to prevent rather than cure'.

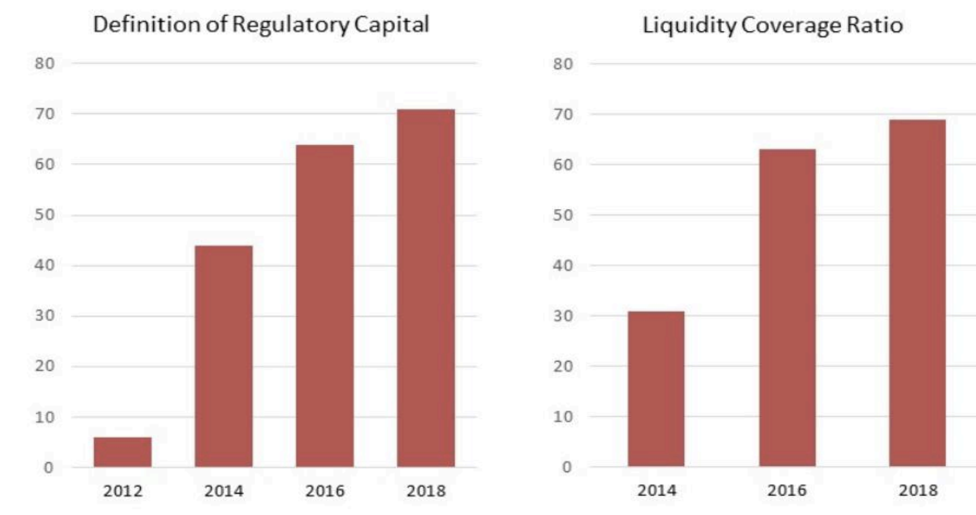
---

[860] JAIME CARUANA, Interview in Börsen-Zeitung, conducted by Mr Mark Schrörs, published on 11th April 2017.

[861] ALESSIO DE VINCENZO and ANDREA GENERALE, *Background note: T. Padoa-Schioppa's perspective on financial system regulation and supervision*, in Bank of Italy, *Conference in Memory of Tommaso Padoa-Schioppa*, 118.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.





Source: Basel Committee on Banking Supervision, *Implementation of Basel standards: A report to G20 Leaders on implementation of the Basel III regulatory reforms*, August 2016, pp. 3-5.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

On a side note: What could be learnt from the trade model?

> "…the global financial crisis highlighted the need for reflections upon the role of hard law and normative guidance".[862]

We have touched upon the fact that the structure governing global finance is different from other fields in international economic law and one good example is that of trade. On this point, the research wishes to provide some thoughts on the extent to which finance can learn from the trade model. Indeed, the topic itself is not original since several scholars have been asking the same question, hence, this part only aims at providing some additional remarks on the possible legal frameworks for international finance, taking into account current state-of-play.

At the outset, it should be reaffirmed that the WTO GATS essentially follows a traditional approach to trade liberalization and regulation, in which liberalization is achieved through a set of binding rules promulgated within the framework of WTO agreements and plurilateral, regional, bilateral trade agreements. Meanwhile, regulation is more or less left at national level, given that, for instance, these measures are administered in a reasonable, objective and impartial manner.[863] Specifically in the case of financial services within GATS, the prevailing view "*assumes that financial stability is a national or regional public good, and overall interests of the global system are better secured by regulatory competition*".[864] On such a basis, prudential regulation is also left within domestic domain while GATS prudential carve-out provides considerable regulatory

---

[862] THOMAS COTTIER, ROSA M. LASTRA, CHRISTIAN TIETJE, LUCIA SATRAGNO, *Introduction and Overview,* in THOMAS COTTIER et al., (eds.), *The Rule of Law in Monetary Affairs,* 2.
[863] WTO GATS, Article VI, available at: https://www.wto.org/english/docs_e/legal_e/26-gats_01_e.htm#articleVI
[864] THOMAS COTTIER and MARKUS KRAJEWSKI, *What role for non-discrimination and prudential standards in international financial law?*, in THOMAS COTTIER et al. (eds), *International Law in Financial Regulation and Monetary Affairs*, 279-280.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

space when it comes to the application of prudential rules for the purpose of preserving financial stability.[865] Indeed, even though 'prudential carve-out' has once been challenged in a WTO dispute, the adjudicators' interpretation remains ambiguous, debatable and incomplete since the Panel stopped after interpreting the first sentence hence did not analyze the second one of Article 2(a), GATS Annex on Financials services, which incorporated the carve-out. Despite it is still unclear as to whether this carve-out extends its reach to macro-prudential regulation, in any case, the prevailing view assumes the rule-making task to be given to individual WTO Members, and not to be harmonized within the WTO framework. Admittedly, this current approach may also stem from typical characteristic of financial products, whereby they are 'always, and necessarily so, linked to a specific legal order' and thus deeply rooted in one specific domestic legal order, despite being increasingly traded on global markets.[866]Then, as analyzed above, both within domestic context and in the international arena, the fact that central banks in key financial jurisdictions, i.e. those dominate international finance, enjoy high level of independence has eventually contributed the most to the establishment and continuation of this informal approach.

At a closer look, we get to see more clearly the stark contrast between the global architecture governing international trade and that of finance. On one hand, we have a treaty-based institution (WTO) and sets of legally binding rules (WTO law and PTAs) with continuous

---

[865] *See supra* analysis on the architecture governing global finance, at 2.2.1. For an extensive discussion on the interpretation of GATS prudential carve-out, *see:* JOHN ANWESEN, *The Prudential Carve-Out Clause: is Risk the New Corrupt Moral?*, Penn State Journal of Law & International Affairs, Volume 4, Issue 2: Violence Against Women Symposium and Collected Works, September 2016.

[866] CHRISTIAN TIETJE and MATTHIAS LEMANN, *The role and prospects of international law in financial regulation and supervision*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 134.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

membership enlargement. Even though the accession process is burdensome and can take years to finish several rounds of negotiations, country could still be accepted to join the WTO regardless of their contribution to global trade. On the contrary, the making of financial regulation is entrusted to transnational regulatory networks (BCBS, IOSCO, IAIS) which are currently under the guidance of the G20, with the FSB being the coordinator while supervisory tasks have been given to the IMF and WB.[867] In its turn, G20 or even FSB remains a soft institution, operating on the basis of trusts among its members. Like the Basel Committee, the Group of 20 aims to be broadly representative of the global economy yet small enough to facilitate frank and open talk. As a result, countries are judged by their contribution to global finance and financial stability before being invited to join the closed groups of BCBS or G20 (indeed, participation is by invitation only!). Thus, at international level, the rule-making mechanism for finance is more fragmented and far less representative than that of trade, let alone the sectoral division among banking, securities and insurance. Generally speaking, if we consider representativeness as an important factor that facilitates acceptance, then the possibility for BCBS's financial standards to be recognized as relevant for the GATS would be less than the chance given to those rules made within the IOSCO or IAIS frameworks, for, undoubtedly, the latter networks operate on the basis of an open membership to financial regulatory authorities of all states.

When it comes to the substance, the WTO framework is essentially built upon three

---

[867] For the sake of clarity, the G20 deals with various topics affecting our world today, in which financial regulation is one of those. Then, the FSB serves as a coordinator of financial sector policies, aiming at promoting global financial stability, bringing together senior policy makers from ministry, central banks, supervisory and regulatory authorities for the G20 countries, plus four other key financial centers – Hong Kong, Singapore, Spain and Switzerland; while conducting outreach to non-member jurisdictions. *For more details, see*: Financial Stability Board, *What we do?*, available at: http://www.fsb.org/what-we-do/

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

pillars, namely negotiations, trade policy review and dispute settlement mechanism. However, these features do not seem to be so appealing that would compel a change to the global financial system. Given the fact that the WTO has not been able to conclude any negotiating round since its establishment in 1995 despite tremendous efforts have been invested, the organization itself is somehow losing its credibility in this respect.[868] In fact, corresponding to the WTO's trade policy review, the Basel Committee also monitors its members through peer review, peer pressure (or moral suasion) which turn out to be effective, reflected through the high level of compliance. Then comes the third pillar: dispute settlement mechanism. On this point, it should be noted that financial products are transactional in nature, made of contractual obligations between traders, and thus are primarily constituted by law. Put another way, financial products are fundamentally children of domestic jurisdiction and always linked to a specific legal order. As such, dispute arising from these products are usually settled at national court in a jurisdiction to which they are linked to, or even within the framework of international investment arbitration.[869] For relevant financial services dispute between states, the WTO then serves as another platform. In view of future developments global wise, Cottier et al. foresee that 'future regulations of financial and monetary affairs will inevitably establish linkages with the trading system, and thus a wider range of trade measures taken for purpose of financial policy may therefore be subject to WTO dispute

---

[868] The Doha Round, the latest round of negotiations among WTO membership, was officially launched back in 2001. Members have achieved some package which remains part of the Round, yet the Round itself has not been concluded. *More details can be found at*: https://www.wto.org/english/tratop_e/dda_e/dda_e.htm

[869] For instance, about 50,000 Italian bondholders holding $900 million in defaulted bonds are claimants in a landmark arbitration against the Argentine Republic before the International Centre for Settlement of Investment Disputes (ICSID) at the World Bank. The legal basis is the Argentina-Italy bilateral investment treaty in connection with Argentina's issuance of sovereign bonds and sovereign debt restructuring. In the end, a settlement was reached which represents a victory for Italian bondholders. *See, for more details*: White & Case LLP, available at: https://www.whitecase.com/news/white-case-obtains-landmark-decision-sovereign-bonds-case

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

settlement'.[870] Thus, it remains unclear to what extent an exclusive dispute settlement framework for finance is really needed at international level. At this stage, even though these pillars are not so attractive that could compel a change, yet, for various reasons already presented throughout this thesis, the distinction between the global governance of trade and finance can actually speak for itself, in the sense that the soft structure of finance can learn from the treaty-based, hard model of trade so as to accommodate legitimacy, accountability, representativeness while providing a stronger mechanism to prevent countries deviating from commitments which have been agreed upon. Needless to mention, this remains crucial for an effective implementation of macro-prudential policy, regulation and supervision, across jurisdictions.

At last, we somehow come back to the story of promulgating hard law or hardening soft financial law at international level. As to the establishment of the so-called World Finance Organization, which corresponds to the WTO of trade, few things should be noted. First, WFO will necessarily entail the participation of politicians to the making of financial regulation. Yet, this should not come as a surprise, since the global crisis already initiated this move, signaled by the fact that the G20 indeed called on political leaders from advanced and emerging financial jurisdictions to take part in the act to contain the crisis. As it turns out, this represents the first direct involvement of all the political leaders of major economies to the financial rule-making, which then marks the evolution in the politics of global financial regulation. Yet, however, the G20 still endorses the work of BCBS which means, at the same time, to preserve the merits solely created by technocrats in 28 BCBS member jurisdictions' central banks and financial authorities.

---

[870] THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 426.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

On such a basis, the WFO (if it ever be created!) would also need to follow suit to endorse the work of central bankers and national regulators, or otherwise, it would fundamentally change the current core principles that underlie the making of international financial regulation. Indeed, central bank independence remains a somewhat sensitive and controversial topic as on the one hand, it is needed in order to counter the short-term political interest which could undermine the long-term economic development; yet on the other hand, too much power concentrated within the hands of unelected officials (who do not have legislative power) means the rule-making process lacks democratic legitimacy, let alone the accountability, representation problems as well as the fact that only a small group of officials are now making *global* financial rules. On such a basis, the current situation in the US also shows uncertainty attached to its own central bank, i.e. the FED's independence. At this point, it should be noted further that, the notion of central bank independence is not to be understood in absolute term and it varies across jurisdictions. Admittedly, the current prevailing view has it that central bank independence is to be granted. Yet, something like few more financial crises could actually turn the tables, maybe in the same vein as what happened in the previous global crisis when it did change one core principle underlying contemporary theory of finance, the part relates to the concept of financial stability. In any event, even though the work done by central bankers and financial regulators raises concerns on legitimacy and accountability due to their status as unelected technocrats, this is more of a matter at national or supranational level (i.e. the European Union) to design an appropriate mechanism since this is where the root of such insulation comes from. At international level, if we ever muster the courage to build up the WFO, its establishment will envisage two directions, depending on whether or not WFO continues to endorse the soft Basel Committee and its standards. For either options, we had better deal with it when it comes, if it ever does!

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Indeed, future regulatory development is hard to predict. And while we are still waiting, a more feasible proposal would be to harden Basel III through different channels, while, at the same time, the Committee should also enlarge its membership so as to produce matching international regulation to reflect the state of global finance and solving remaining institutional issues, especially representation. Given this current state of globalization and interdependencies, admittedly, global market needs global regulation. This is also to acknowledge the fact that sources of systemic financial risks could be found endogenously anywhere within the system, and internal mechanisms could actually propagate a not-so-big threat to become a global crisis. As such, Davies and Green noted, the international dimension of financial regulation is no longer a marginal add-on to the domestic regime, it is the central question in financial markets today.[871]

Finally, when it comes to hardening soft financial law, the EU provides a good example where it incorporated BCBS financial standards into its new generation of PTAs, to which other jurisdictions could certainly follow suit. Along this line, the two treaty-based financial organization, i.e. IMF and WB, can also provide a helping hand to harden BCBS standards at international level. In fact, their supervisory task concerns more those countries in financial troubles, yet not the rest. Thus, even though it has been a 'good crisis' for macro-prudential policy in particular, much more needs to be done in order to provide certainty, predictability, and legal security to the international financial market and its participants.

o0o

[871] HOWARD DAVIES and DAVID GREEN, *Global financial regulation: The essential guide*, 3.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

2.2.2 Supranational level: The case of the European Union

At the outset, it should be noted that this analysis serves as a follow-up on several issues that have been discussed so far in this thesis. Admittedly, the EU is unique in the sense that it comprises of two layers of governance, i.e. supranational and national levels, as well as the crucial feature of the Eurozone area (EZ) where members rely heavily on bank finance, reflected by the fact that the economies of the eurozone are financed for around three quarters via banks while this ratio is less than one fifth in the US.[872] Also, the EZ's financial markets and non-bank intermediaries are less developed than in the US or UK, hence, this high reliance on banks would in return 'imply a more powerful transmissions of macro-prudential policy'.[873] Even though the macro-prudential list of instrument is indicative and not exhaustive; Panetta pointed out, some of the most important tools, such as countercyclical capital buffers and risk weights, are generally thought to operate mainly through the banking sector, and thus the macro-prudential regime could be more powerful in the EZ than in other market-based economies.[874] In the same vein, Schoenmaker noted that the setting and implementation of macro-prudential policy would be even more important in the context of the European monetary union, for a pro-active macro-prudential policy is needed to address financial imbalances at national level given that there is a 'one-size-fits-all' monetary policy in the Eurozone area.[875] Admittedly, due to the common monetary policy, EZ Member States cannot use interest rate as an instrument to address financial

[872] HANS GEEROMS, PAWEL KARBOWNIK, *A Monetary Union Requires a Banking Union*, Bruges European Economic Policy Briefings 33/2014, 5.
[873] FABIO PANETTA, *On the special role of macro-prudential policy in the euro area*, Remarks at a seminar organized by De Nederlandsche Bank, Amsterdam, 10 June 2014, 2-3.
[874] FABIO PANETTA, *On the special role of macro-prudential policy in the euro area*, 2.
[875] DIRK SCHOENMAKER, *Introduction,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 6-7.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

imbalances within their domestic context. Meanwhile, at supranational level, the single monetary policy stance cannot take into account the heterogeneity across Member States (e.g. those in the center versus the ones in the periphery), while 'the transmission mechanism has been weakened due to financial fragmentation'.[876] Thus, given unconventional monetary policy instruments being conducted by the ECB—in which interest rate has been constantly kept close to or at zero lower bound hence may create additional risks to financial stability—macro-prudential policy remains particularly important and necessary in order to prevent, for instance, excessive credit flows or excessive bank's leverage.[877] On such a basis, the EU institutional settings for macro-prudential policy could provide implications or even serve as a model arrangement for other countries, where a framework for macro-prudential policy has already been (or is about to be) put in place.

At a closer look, for a highly integrated currency area like the eurozone in which the conduct of monetary policy is already transferred to the ECB whereas prudential supervision mainly stays at national level, there is a need for a coordination framework at the Union level to tackle the spillover effects as well as the cross-border issues that are of 'common concerns' for the EZ as a whole. Indeed, this is of crucial importance for the implementation of both micro- and macro-prudential policies in the Member States of the European monetary and banking union.[878] For the sake of clarity, if too much supervisory and discretionary power are left to national authorities, Schoenmaker pointed out, not only financial imbalances may 'go unchecked' in some

---

[876] FABIO PANETTA, *On the special role of macro-prudential policy in the euro area*, 3-5.
[877] IPOL-EGOV, *Briefing: The EU macro-prudential policy framework*, PE 587.379, 17th March 2017, 1.
[878] YVES MERSCH, *Law, money and market: the legal dimension of monetary policy*,

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

countries but also there is a risk of inconsistent application of macro-prudential instruments,[879] given that, to a certain extent, the toolkit as well as the concept of this policy are still left unclear. On such a basis, the European Systemic Risk Board (ESRB) was established in 2013 to serve as a coordinator and has remained the only independent EU authority which has been given a clear and as-broad-as-possible macro-prudential mandate. Broadly speaking, however, this institution is somehow dominated by the European Central Bank which then, in its turn, reinforces the premise that the ECB retains a strong role in the making and implementation of macro-prudential policy within the European Union as a whole, let alone the Eurozone area.[880]

Having previously discussed within economic theories, in fact, several scholars are of the same view as to the role of central bank in macro-prudential policy.[881] Not only because central bank generally has a stake in the preservation of financial stability, the main idea is to take advantage of the bank's natural strengths, i.e. their extensive expertise and experiences in macroeconomic analysis and in the oversight of payment and settlement systems, as well as existing responsibilities in financial stability issues. Needless to mention, these advantages play an important role in systemic risk measurement, in the monitoring exercise as well as the effective deployment of macro-prudential policy tools. Yet, admittedly, the role of central bank in macro-prudential policy varies across jurisdictions and greatly depends on existing institutional

---

[879] DIRK SCHOENMAKER, *Introduction,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 6-7.
[880] In light of this, the Council reaffirmed in its regulation that the ECB can make a significant contribution to the effective macro-prudential oversight of the Union's financial system. *See*: COUNCIL REGULATION (EU) No 1096/2010 of 17 November 2010 conferring specific tasks upon the European Central Bank concerning the functioning of the European Systemic Risk Board.
[881] *See supra* The role of central banks in macro-prudential policy, at p. 80.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

framework, on whether banking supervision is placed within the central bank itself.[882] As in the case of the European Union, Davies and Green noted, the ECB was first rejected by the Commission both as (i) an authority which could take on the (macro-) oversight function; and (ii) an authority which could take direct supervision of cross-border banks in the EU.[883] Yet, however, the ECB was then conferred micro-prudential supervision task within the context of the Single Supervisory Mechanism (SSM)—one important pillar of the Banking Union—launched in late 2014, while the ESRB was established to fulfill the former mandate as a macro-overseer for the European Union as a whole. At Member State level, institutional arrangement varies across jurisdictions and could be classified into three type of models: (i) where central bank being macro-prudential authority; (ii) where central bank retains strong power within a committee-type governance framework of macro-prudential policy; and (iii) where the government is in charge, e.g. through ministry of finance. Notably and not surprisingly, it turns out that central banks play a crucial role in all these institutional settings, both at European and national levels.

For a general remark, among several models of macro-prudential arrangements as having laid out in the economic discussion,[884] the EU chose not to have an 'integrated' model at supranational level with regard to the whole Union, where there is a single entity, i.e. central bank, to be tasked with different mandates and provided with various instruments to achieve

---

[882] To recall, the role of central bank in the preservation of financial stability is enhanced where banking supervision is placed within the central bank itself. In such cases, it follows naturally that central bank is likely to remain as the principal agency in charge of macro-prudential policy.

[883] Then the response was the report from a committee chaired by Jacques de Larosière, which proposed the creation of a new authority to be in charge of systemic risk oversight, i.e. ESRB as it became. *See further*: HOWARD DAVIES and DAVID GREEN, *Global financial regulation: The essential guide*, xxv-xxvii.

[884] See *infra* at 1.3. Actors and Governance.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

different policy objectives. Indeed, while much could be said as to the advantages of having a single authority to be in charge of both macro-prudential and monetary policies, it remains doubtful in terms of effectiveness this approach could actually bring about, given the potentially close interaction and conflicts of interest between the two policies, macro-prudential and monetary.[885] And this is additional to the need to somehow differentiate between Eurozone Member and non-Member States. Put differently, the ECB is in charge of monetary policy for the EZ only and thus, it could hardly be seen as a *sole* macro-prudential supervision body for the European Union as a whole. Eventually, as it turns out, the EU follows the 'coordinated' model in which relevant authorities (e.g. the ECB, national central banks and supervisors, European Commission, European Supervisory Authorities (ESAs), etc.) cooperate towards the aim of achieving overall financial stability, while relying on each entity's instruments and expertise. In such a manner, it helps explain the reason why several European authorities and agencies participating in the work of the Basel Committee, albeit with different statuses,[886] instead of empowering one authority to be the representative. Meanwhile, the ECB plays a strong role in the macro-prudential policy implementation concerning the euro area and SSM participating Member States. This feature reflects the uniqueness and complexity of the European Union, where 19 of the currently 28 EU members form the Eurozone area, on the basis of a common monetary policy

---

[885] For the coordinated approach, the authors explained, it could actually lead to conflicting opinions and strategies, especially some governance drawbacks in the sense that it may weaken accountability if authorities can divert responsibility, it may also increase the risk of inaction, and there is always the risk of inter-agency rivalries or conflicting mandates getting in the way of coordinated action on perceived risks to financial stability.; DOMENICO LOMBARDI, PIERRE L. SIKLOS, *Benchmarking macro-prudential policies: An initial assessment*, 37-38.

[886] European Central Bank and ECB Single Supervisory Mechanism are members of the Basel Committee, while the European Commission and the European Banking Authority remain BCBS's observes.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

exercised by the ECB, yet currently without a fiscal backstop. Having said that, while a special focus of this part is devoted to the Eurozone area, attention is indeed given to the role of the central bank, i.e. the ECB, along side an analysis on the ESRB. Yet, as a starting point, an overview of the European macro-prudential policyframework will be presented, from both legal and institutional perspectives.

Legal basis for macro-prudential policy arrangements within the European Union: A combination of both hard law and soft law, Union law and national law instruments

In broad sense, Vítor Constâncio considered, regulation is the first instrument of macro-prudential policy which should be decided from a macro-prudential perspective, and be concerned with the design of a resilient financial system as a whole.[887] In this respect, Basel III has indeed impacted on the evolution of hard law in financial regulation within the European Union. Generally speaking, the EU has put efforts in the transposition of Basel III into its European Union law so as to comply with international standards, in the forms of regulation which is binding and directly applicable in the Member States, as well as directive (e.g. RegulationNo 575/2013 and Directive No 2013/36/EU, or CRR and CRD IV, respectively),[888]

---

[887] VÍTOR CONSTÂNCIO, *Making macro-prudential policy work*, Speech at high-level seminar organized by De Nederlandsche Bank, 2014.

[888] These are: **REGULATION (EU) No 575/2013** OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012, i.e. CRR; and **DIRECTIVE 2013/36/EU** OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC, i.e. CRD IV.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

and other soft law instruments such as recommendations and warnings issued by the ESRB.[889] As a starting point, Regulation (EU) No 1092/2010 sets out the framework for macro-prudential oversight of the financial system within the European Union and established the ESRB for this purpose, in the spirit and on the basis of recommendations of the de Larosière Report.[890] At the same time, Regulation (EU) No 1096/2010 confers specific task upon the ECB so as to enable the bank's involvement in all important aspects concerning the functioning of the ESRB, from location, logistical and administrative supports to statistical, analytical inputs as well as financial and human resources for the task of ensuring ESRB Secretariat. Also, the cost related to the ESRB will be borne by the ECB and will not have any direct implication for the Community budget, which in turn helps to preserve independence of these bodies.[891] In the steps afterwards, ESRB issued its own Recommendations (ESRB/2013/1) to further specify the intermediate objectives of the European macro-prudential policy framework, on the basis of the ultimate goal to safeguard the stability of the financial system as a whole. The ECB defines "financial stability

---

[889] Generally speaking, the aims set out in the EU treaties, e.g. the Treaty on the Functioning of the European Union, are achieved by a mixture of several types of legislative acts, among which, some are binding and directly applicable across the EU, some are not. For instance, EU Regulation shall be binding in its entirety and directly applicable in all Member States. EU Directive is a legislative act which sets out the goals that the addressees (normally all EU countries) should achieve, yet it left open the manner in which countries may issue new or adapt their legislation to achieve those aims. Recommendations and warnings are not binding, especially since ESRB is a soft institution.

[890] **REGULATION (EU) No 1092/2010** OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board, recitals 11-15.

[891] COUNCIL REGULATION (EU) No 1096/2010 of 17 November 2010 conferring specific tasks upon the European Central Bank concerning the functioning of the European Systemic Risk Board, Article 1-5. *See also*: COMMISSION OF THE EUROPEAN COMMUNITIES, Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Community macro prudential oversight of the financial system and establishing a European Systemic Risk Board; COM(2009) 499 final, 2009, 3.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

is a state where the build-up of systemic risk is prevented".[892] On this point, financial stability is then understood as strengthening the resilience of the financial system and decreasing the build-ups of systemic risks, "thereby ensuring a sustainable contribution of the financial sector to economic growth".[893] Towards this aim, specific intermediate objectives of macro-prudential policy under the auspices of the ESRB are identified as: *(i) mitigate and prevent excessive credit growth and leverage; (ii) mitigate and prevent excessive maturity mismatch and market illiquidity; (iii) limit direct and indirect exposure concentration; (iv) limit the systemic impact of misaligned incentives with a view to reducing moral hazard; and (v) strengthen the resilience of financial infrastructures*.[894] Established on the basis of market failures, these specific objectives address both the two dimensions of systemic risk, i.e. the time and structural, as outlined in previous chapters.[895] Yet, however, it does not mean that ESRB is the sole authority for macro-prudential purpose across the EU. Since the prevailing view has it that central bank should also be assigned key responsibilities, Regulation (EU) No 1024/2013, i.e. the SSM Regulation,[896] confers specific tasks on the ECB in order to reinforce the strong role of central bank with regard to

---

[892] In its turn, "Systemic risk can best be described as the risk that the provision of necessary financial products and services by the financial system will be impaired to a point where economic growth and welfare may be materially affected."; *See:* ECB, Financial stability and macro-prudential policy, available at: https://www.ecb.europa.eu/ecb/tasks/stability/html/index.en.html

[893] RECOMMENDATION OF THE EUROPEAN SYSTEMIC RISK BOARD of 4 April 2013 on intermediate objectives and instruments of macro-prudential policy (ESRB/2013/1) (2013/C 170/01), recitals 1-5, Recommendation A, recital 1.

[894] Recommendations ESRB/2013/1, Section 1, Recommendation A, Table 1.

[895] "To be sure, some note the challenges of writing explicit mandates given the difficulties in defining the policy goal precisely. But others observe that the lack of a quantifiable goal for macro-prudential policy need not be a major problem, since many other fields of public policy face similar challenges."; Financial Stability Board, Bank for International Settlements and International Monetary Fund, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20*, 16.

[896] COUNCIL **REGULATION (EU) No 1024/2013** of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions, i.e. SSM Regulation.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

prudential, both micro- and macro-, supervision of credit institutions within the Union. As it turns out, competencies for prudential supervision tasks are shared between the ECB and national competent authorities (NCAs) or national designated authorities (NDAs), and thus, these institutions are all responsible in a cooperative manner for the deployment of macro-prudential tools across the SSM Member States.[897]

For the sake of clarify, few things should be noted further. *First*, Union legislative acts CRR and CRD IV should be read together for the purpose of establishing legal basis for macro-prudential instruments in Europe, specifically to govern banking activities, to form the supervisory framework and prudential rules for credit institutions and investment firms within the Union. In this respect, the legally-binding-in-its-entirety CRR provides uniform and directly applicable prudential requirements for financial institutions, which are also supervised under CRD IV. The CRR was drafted on the basis of Article 114 of the Treaty on the Functioning of the European Union (TFEU), since such requirements are "closely related to the functioning of financial markets".[898] Meanwhile, the CRD IV's main objective and subject-matter is to coordinate relevant national provisions relating to access to activity, modalities for governance and supervisory framework for financial institutions.[899] It is therefore binding as to the results that

[897] This is in accordance with Article 9 of the SSM Regulation No 1024/2013, which confers specific powers on the ECB. And in the exercise of these powers, the ECB and national competent authorities shall cooperate closely.

[898] DIRECTIVE No 2013/36/EU, CRD IV, recital 2.

[899] CRD IV, Title 1, Article 1: "This Directive lays down rules concerning: (a) access to the activity of credit institutions and investment firms (collectively referred to as 'institutions'); (b) supervisory powers and tools for the prudential supervision of institutions by competent authorities; (c) the prudential supervision of institutions by competent authorities in a manner that is consistent with the rules set out in Regulation (EU) No 575/2013; (d) publication requirements for competent authorities in the field of prudential regulation and supervision of institutions". This Directive shall not apply to, amongst others, central banks (Article 2, CRD IV).

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

should be achieved, yet leaves space for national authorities to choose appropriate 'forms and methods'.[900] Despite the fact that both CRR and CRD IV have mostly a micro-prudential focus, these two hard-law instruments nevertheless envisage a set of macro-prudential tools to be deployed by the corresponding authorities. Nonetheless, requirements concerning deployment of macro-prudential tools, as set out under these Union legislative acts, are to be supplemented by individual arrangements subject to consideration of national competent or designated authorities.[901] Within the context of the Euro area, as stipulated under Art. 5 SSM Regulation, CRR/CRD IV tools are to be applied by national authorities, taking into account the ECB's objections (if any). Moreover, in case it deemed necessary, the ECB can actually top-up these measures, i.e. to apply higher or more stringent requirements (than the level set by national authorities) aimed at addressing systemic or macro-prudential risks.[902]

In addition CRR/CRD IV toolkit and regarding the European Union as a whole, the ESRB suggested in its Recommendation 2013/1—a typical soft-law non-legally binding instrument—an indicative list of tools that national macro-prudential authorities could deploy in order to facilitate the achievement of specified intermediate objectives.[903] Even so, nonetheless, the ESRB does not restrict respective Member States to pursue further macro-prudential instruments to reach the same goals. At this point, it should also be noted that as a matter of principle, the application of

---

[900] For a more detailed discussion on Directives, *see*: CATHERINE BARNARD, STEVE PEERS (eds.), *European Union Law*, Oxford University Press, 2014, 100-101.
[901] CRR, Article 4(1), point 40: "'competent authority' means a public authority or body officially recognized by national law, which is empowered by national law to supervise institutions as part of the supervisory system in operation in the Member State concerned."
[902] SSM Regulation No 1024/2013, Article 5.
[903] ESRB Recommendation 2013/1, Section 1.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

macro-prudential measures should include appropriate indicators to monitor the emergence of systemic risks and to guide macro-prudential decisions accordingly.[904] Table 2 below provides a snapshot of the EU macro-prudential instruments available within the Union and across Member States.[905] From a broader view, the toolkit can be divided into groups of: (i) capital-based requirement, for which the main transmission is mortgage supply and aims at absorbing losses when risk materialize; (ii) liquidity-based measure, to be deployed so as to increase funding stability through buffers and maturity using funding conditions; (iii) borrower-based measure, which acts on mortgage demand and aims at reducing household's Probability of Default (PD) or Loss-Given Default (LGD); and other measures.[906] Needless to say, the list of tools is apparently not exhaustive, only indicative, and in the implementation of macro-prudential policy, a combination of several tools of different groups may be needed to counter excessive credit flows.

Table 2. Macro-prudential toolkit available within the European Union

Implementing authority	EU Legal basis	Instrument	Type	Corresponding intermediate objectives (ESRB)
Tools that can be used both by national	CRD IV Tools	• Countercyclical capital buffer (CCyB, Articles 130 and 135 to 140): ranging from 0% to 2.5% of risk weighted assets, but could	Capital-based measures	• Mitigate and prevent excessive credit growth and leverage

904 The indicators play an important role to guide decisions on the application, deactivation or calibration of time-varying macro-prudential instruments as well as an appropriate coordination mechanism with relevant authorities at the national level.; *See further* ESRB Recommendation 2013/1, Recommendation C, 1(b)

905 It should be noted further that CRR, CRD IV, SSM Regulation or ESRB Regulation are legislative acts which were drafted on the basis of functional division of competence of the European Parliament and the Council of the European Union, i.e. these acts were based on Article 114, Article 53(1), Article 127(6), Article 114, respectively, of the Treaty on the Functioning of the European Union. In the steps afterwards, national authorities transpose CRD IV into national law by creating or adapting their legislation to meet the goals specified in this Directive.

906 ECB, *Macro-prudential Oversight Process*, Policy Design, available at: www.ecb.europa.eu

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Table 2. Macro-prudential toolkit available within the European Union				
authorities; and the ECB (yet only for SSM participating countries). The ECB may, if deemed necessary, can top-up national macro-prudential measures (SSM Regulation Article 5)		be set higher.		
		• Structural systemic risk buffer (SRB, Articles 133 to 134): SRB is a flexible instrument and could be applied to all banks or a subset of banks.		• Strengthen the resilience of financial infrastructures
		• SIFI Capital surcharge (for G-SII and O-SII, Article 131): G-SII buffer is mandatory for global systemically-important banks, ranging from 1% to 3.5% of risk-weighted assets; O-SII is optional for systemically-important banks at national levels and is capped at a level of 2%.		• Limit the systemic impact of misaligned incentives with a view to reducing moral hazard
	CRR Tools (Flexibility package, Article 458)	• Risk weights (real estate, both commercial and residential; intra financial sector)	Capital-based measures	• Mitigate and prevent excessive credit growth and leverage
		• Level of own funds (CET 1, Tier 1 capital ratios..		
		• Level of capital conservation tools		• Mitigate and prevent excessive credit growth and leverage
		• Liquidity requirements (macro-prudential adjustment to liquidity ratio)	Liquidity-based measures	• Mitigate and prevent excessive maturity mismatch and market illiquidity
		• Large exposure limits		• Limit direct and indirect exposure concentration
		• Public disclosure requirements	Other measures	• Strengthen the resilience of financial infrastructures
Tools that are used only by national authorities, or to	Other Tools Mainly	• Loan-to-Value (LTV) ratio • Loan-to-Income (LTI) ratio • Debit-service-to-income (DSTI) ratio	Borrower-based measures	• Mitigate and prevent excessive credit growth and leverage

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Table 2. Macro-prudential toolkit available within the European Union				
be in place at national discretion	borrower-based measures (ESRB Recommendation 2013/1), etc.	• Debt-to-income (DTI) ratio		
		• Loan-to-Deposit (LTD) ratio caps (macro-prudential unweighted limit to less stable funding) • Net stable funding ratio	Liquidity-based measures	• Mitigate and prevent excessive maturity mismatch and market illiquidity
		• Margin and haircuts requirements	Other measures	
		• Leverage ratio	Capital-based measures	• Mitigate and prevent excessive credit growth and leverage

Source: (EU) CRR, CRD IV, ESRB Recommendation 2013/1, Adaptation of Figures in JOHN FELL, *The institutional Alignment of Macro-Prudential and Micro-Prudential Policy*, Cumberland Lodge, Windsor, April 2016.

Second, what can easily be seen from this table is that the EU macro-prudential toolkit includes all, but not limited to, important measures under Basel III. By specifying into specific intermediate objectives, arguably, it somehow allows for 'a clearer classification of macro-prudential instruments, and thus helps ensure an economic base for the calibration and use of those tools'.[907] Given that the notion of financial stability remains difficult to quantify or even define, it could also foster the accountability of macro-prudential authorities in the sense that such accountability could then be evaluated or 'phrased in terms of achieving intermediate

[907] European Systemic Risk Board, *Recommendations on intermediate objectives and instruments of macro-prudential policy,* ESRB/2013/1, Annex, section 2.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

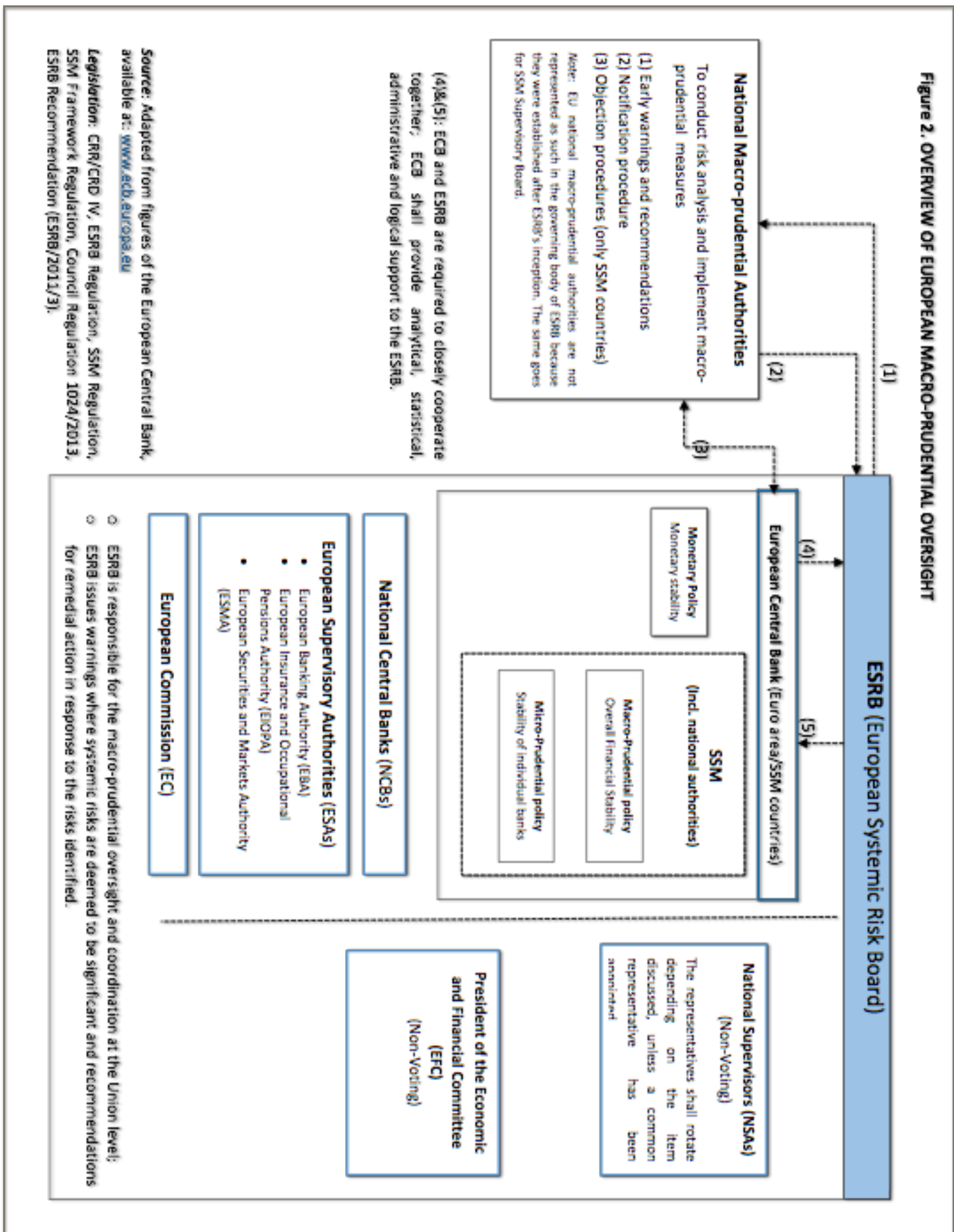
objectives'.[908]As shown in Table 2, the CRR and CRD IV provide a list of harmonized macro-prudential instruments at the Union level, in which these legislative acts set out relevant procedures for the application of the tools by national authorities. On such a basis, the SSM Regulation and SSM Framework Regulation specifically conferred macro-prudential power upon the ECB, hence entitled the ECB to use CRR/CRD IV tools or even top-up national measures. Thus, in the steps afterwards, while SSM national authorities can exercise their judgement in accordance with the Union legislative acts and ESRB's guidance; the ECB, given its independence and supposedly eurozone-wide view, could also exercise their discretionary decision-making to impose a more stringent requirement than the ones applied at national level.[909] Indeed, discretionary solution is inevitable in the implementation of macro-prudential policy, especially within the European Union in which there are different groups of countries with different ranges of fiscal space, financial and business cycles, etc., let alone the complication of having a common monetary policy as in the case of EZ Member States.

---

[908] *See*, for instance, ESRB/2011/3, recital 11.

[909] SSM Regulation, Article 4(3): "For the purpose of carrying out the tasks conferred on it by its Regulation, and with the objective of ensuring high standards of supervision, the ECB shall apply all relevant Union law, and where this Union law is composed of Directives, the national legislation transposing those Directives. Where the relevant Union law is composed of Regulations and where currently those Regulations explicitly grant options for Member States, the ECB shall apply also the national legislation exercising those options."

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.



At a closer look, the mixture of Union legislative acts, regulation and directive, ESRB

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

recommendations and national laws, reflects the essence of multi-layered governance of the macro-prudential framework. The Union legislative acts, CRR, CRD IV, ESRB Regulation, SSM Regulation, effectively establish a firm macro-prudential framework for the task of promoting financial stability by giving relevant authorities necessary powers, outlining necessary procedures for the deployment of macro-prudential tools. Further steps will then be guided by the ESRB through their recommendations and/or warnings. In such a manner, the implementation of these rules requires close coordination of national authorities and EU institutions, since rules are basically agreed centrally but could be applied de-centrally by national authorities or adjusted centrally by a European institution, or a combination thereof. Meanwhile, as a matter of principle and notwithstanding these rules, considerable space for discretion would risk negative spill-over effects or externalities from one country in the EZ to others, since 'political and economic preferences at the national level or industry lobbies can actually lead to substantial divergence between member countries'.[910] Thus, what remains even more important would be the task to guide and appropriately coordinate different national authorities across Member States to reach the same goals.

Against this background, not only coordination plays a crucial role to determine effectiveness of macro-prudential policy, undoubtedly, this is especially relevant in the European context given the important interconnections and interdependencies of different national

---

[910] YVES MERSCH, *Law, money and market: the legal dimension of monetary policy*, Speech at the Information Club Meeting, Luxembourg, 31 May 2014, *see* link available: https://www.ecb.europa.eu/press/key/date/2014/html/sp140531.en.html.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

economies and their financial systems.[911] Furthermore, it is noteworthy to stress that the CRR/CRD IV basically provide macro-prudential measures for the lender countries, and thus possible instruments for the borrowers (e.g. LTVs, DSTIs) remain at the discretion of respective national supervisors (see Table 2 above). Given situations in which 'some borrower-based measures are codified in the context of financial stability, while others fall under consumer protection law', let alone differences in institutional arrangements across countries (some delegated power to central bank, others to a prudential supervisor or even the treasury, i.e. fiscal authority), effective coordination remains crucially important yet undoubtedly difficult to achieve.[912] In its turn, such difficulties, if not properly dealt with, could undermine potentials of the EU macro-prudential policy framework towards mitigation of systemic risks, reducing the probability and severity of future financial crises.[913]

Third, even though several EU-wide authorities have involved in the oversight of financial stability, it is undeniable that central bank has been given a key role in the macro-prudential framework within the European Union. The same rationale goes for both the ECB and national central banks, so as to take advantage of their expertise as well as existing responsibilities in the area of financial stability.[914] Yet, however, the ESRB remains the only Union-level body which has been given as-broad-as-possible macro-prudential mandate to oversee risk in the financial

---

[911] VÍTOR CONSTÂNCIO, *Financial integration and macro-prudential policy*, Speech at the joint conference organized by the European Commission and the European Central Bank "European Financial Integration and Stability", 27 April 2015.
[912] For instance, capital requirements at the institutional and systemic levels are determined jointly by the actions of both micro- (Pillar 1 and 2 requirements) and macro-prudential authorities (for conservation buffer, CCyB, G-SIIs).
[913] Economic Governance Support Unit—EGOV (EP), *Briefing: Macro-prudential Policy in the EU*, 8.
[914] ESRB Regulation No 1092/2010, recital 24.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

system as a whole, despite its status as a soft-law body without legal personality or legally-binding powers.[915] Under EU legislation, the ESRB essentially works as a technocratic organization, providing analytical and statistical inputs in the form of recommendations and warnings, while being located inside the ECB and heavily supported by the Bank itself. The ECB, in its turn, dominates this institution, whereas the President of the ECB is also the Chairman of ESRB's General Board.[916] For a better overview of the institutional structure, Figure 2 below demonstrates what is at stake regarding the composition of the ESRB governing body, exchanges among different institutions within the ESRB, and a quick glance as to the macro-prudential notification/implementation procedures.

At national level, acknowledging the fact that the adoption of macro-prudential measures lies first within domestic frameworks, the ESRB outlines specific recommendations and guiding principles (ESRB/2011/3) on core elements of a well-designed national macro-prudential authority, to be equipped with tasks, powers and necessary instruments. This also reflects the transposition of the CRR/CRD IV at national level, as to the requirement that Member States designates an authority to be in charge of implementing macro-prudential instruments.[917] Based

---

[915] For a detailed proposal, *see also:* COMMISSION OF THE EUROPEAN COMMUNITIES, Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Community macro prudential oversight of the financial system and establishing a European Systemic Risk Board; COM(2009) 499 final, 2009.
[916] To recall the words of Masciandaro, "this institution [ESRB] is dominated by the European Central Bank".; DONATO MASCIANDARO, *Reconceptualizing Central Banking: From the Great Inflation to the Great Recession and Beyond*, in ROSS BUCKLEY et al. (eds.), *Reconceptualizing Global Finance and Its Regulation*, 107.
[917] Article 458(1) CRR: "Member States shall designate the authority in charge of the application of this Article. This authority shall be the competent authority or the designated authority."; In principle, as noted by the ESRB Advisory Scientific Committee, the macro-prudential authority established to comply with the ESRB recommendation could differ from the designated authority for macro-prudential purpose enshrined in the CRD/CRD IV. In any case, all EU Member States have set up a designated authority to conduct macro-prudential policy. Notably, Romania has two designated authorities, i.e. the central bank for credit institutions

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

on what was recommended by the ESRB, in the pursuits of its objectives, macro-prudential authority should be ultimately accountable to the national parliament, and (as a minimum) operationally independent from political bodies as well as financial industry.[918] For institutional arrangement, broadly speaking, there are two recommended models in which macro-prudential policy can be pursued by either a single institution, or a board/committee (e.g. often in the form of a financial stability committee) composed of several institutions whose actions have a material impact on financial stability, depending on the (existing) national institutional frameworks.[919] In fact, national macro-prudential authorities are very diverse across jurisdictions, in which 13 EU Member States have designated their central banks, another 13 MS have established a separate board or committee of several institutions (including ministry of finance), and 2 MS have designated their (micro-)prudential banking supervisor.[920] Needless to mention, in whichever models, national central banks are advocated to play a leading role, even more so when central banks are already given the task of micro-prudential supervision.[921] Yet, as noted by Gluch et al., the role of national central banks varies across jurisdictions within the Union, ranging from mere

---

and the financial authority for investment firms; *See* ESRB, *Allocating macro-prudential powers*, Reports of the Advisory Scientific Committee, No 5, November 2014.;

[918] ESRB, RECOMMENDATION OF THE EUROPEAN SYSTEMIC RISK BOARD of 22 December 2011 on the macro-prudential mandate of national authorities (ESRB/2011/3), Recommendation D and E.

[919] ESRB/2011/3, recital 6 and Recommendation B(1). Indeed, this is without prejudice to their respective mandates.

[920] Structure of national macro-prudential authorities within the EU: (i) Separate Board, 13 MS: AT, DK, HR, IT, NL, RO, PL, SI, ES, FR, DE, LU, BG; (ii) Central Bank, 13 MS: BE, CY, CZ, EE, EL, HU, IE, LV, LT, MT, PT, SK, UK; and (iii) Banking Supervisor, 2 MS: FI, SE.; *See more* at: IPOL-EGOV, *Briefing: The EU macro-prudential policy framework*, PE 587.379, 17th March 2017, Box 4.

[921] ESRB/2011/3, recital 7 and Recommendation B(3).

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

support to having full concentration of power or veto power over policy decisions.[922]

Specifically for the setting of countercyclical buffer rate, for instance, central bank is the designated authorities in most of Member States, and in cases where it is not central bank, either the supervisory authority (as in Austria, Finland, Sweden) or the Government (as in Denmark, Poland, Norway) will be in charge.[923] As a matter of principle, where central bank is entrusted with macro-prudential mandates, it should be independent and that this additional task is assigned without prejudice to the monetary mandates of the bank.[924] However, given the fact that prudential supervision and monetary policy interact and possibly overlap in some aspects, appropriate arrangement is needed to coordinate the implementation of these policies, especially when central bank is also tasked with micro-prudential supervision of banks and other financial institutions.

Against this background, the institutional arrangement for macro-prudential framework in the EU consists of three level, in which: (i) the ESRB being the EU-wide authority for macro-prudential oversight of the Union as a whole, with additional coordination role entrusted by the CRR/CRD IV, yet without binding powers; (ii) the ECB, entrusted with binding macro-prudential powers (even though limited), at the Banking Union level and with regard to SSM participating countries; (iii) as well as 28 national macro-prudential authorities at national level. Notably,

922 DANIEL GLUCH, LUCIA SKOVRANOVA, MIKAEL STENSTROM, *Central Bank Involvement in Macro-Prudential Oversight*, Legal Working Paper Series No. 14, European Central Bank, January 2013, 19-25. *See also,* for a list of NCAs, NDAs: ESRB, *National competent or designated authorities for CRD IV/CRR instruments and current or future implementation of macro-prudential instruments*, updated May 2015, available at: https://www.esrb.europa.eu/pub/pdf/other/Updated_table_macroprudential_instruments_201505.pdf?ef16550ed6dccd90da6da87f8a06918c
923 ESRB, *A Review of Macro-prudential Policy in the EU in 2015*, May 2016, 26-27.
924 ESRB/2011/3, recital 13-14.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

national macro-prudential authorities are not represented as such in the ESRB governing bodies as they were established after the ESRB's inception.[925] At the same time, the SSM Supervisory Board is also not listed in the structure of the ESRB governance since the Banking Union was introduced afterwards. Even with just a quick glance, the EU macro-prudential framework appears to be complicated and, again, it requires effective coordination at different levels. Yet, it also means that the procedures to deploy instruments may turn out to be burdensome hence affecting effectiveness of the measures and of macro-prudential policy in general.

Fourth, the above Figure 2 reveals a snapshot of reporting lines between different institutions in the macro-prudential framework, in which the ESRB and the ECB are required to closely interact while the ECB provides sufficient support to the ESRB.[926] At the same time, these two bodies also cooperate with national authorities for the implementation of macro-prudential policy tools so as to contribute to the smooth functioning of the internal market. On one hand, the ESRB issues warnings (when systemic risks are deemed to be significant), or even confidential warnings addressed to the Council (when ESRB determines that an emergency situation may arise); recommendations (for remedial action in response to the risks identified) to the addressees and then follow-up on their reactions.[927] The main principle underlying ESRB's

---

[925] IPOL-EGOV, *Briefing: The EU macro-prudential policy framework*, *see* Box 3-ESRB governance.

[926] For the sake of clarity, ESRB Regulation 1092/2010, Article 16, provides for a 'potentially unlimited' number of addressees for the ESRB recommendations. Then, in accordance with Article 9 of the SSM Regulation, the ECB can be considered a competent or designated authority under CRR/CRD IV with regard to SSM participating countries, since it shares the supervisory task with NCAs or NDAs. Thus, the ECB expressed its opinion in the sense that "the ESRB may, within its mandate, issue recommendations to national macro-prudential authorities, as well as the ECB in its micro-prudential and macro-prudential supervisory functions".; *See* ECB, *Opinion of the European Central Bank on the review of the mission and organization of the European Systemic Risk Board*, CON/2015/4, 4 Feb 2015.

[927] ESRB Regulation (EU) No 1092/2010, Article 3(2).

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

interactions with national macro-prudential authorities lies with a 'comply or explain' procedure which applies to the addressees. Accordingly, the addressee exercises its judgment and, at its discretion, responds to the ESRB. However, unlike the case of the Financial Stability Oversight Council (FSOC)—US macro-prudential authority, ESRB's warnings and recommendations are not automatically made public, but only 'where appropriate'. As stipulated in the ESRB Regulation, "a majority of two-thirds of the votes cast shall be required to adopt a recommendation or to make a warning or recommendation public".[928] In this regard, the confidentiality requirement could be seen as a way to maintain the integrity of financial markets, taking into account possible inaccuracy of quantitative models or early stage of development of systemic risks. Admittedly, financial markets are based on trust and confidence. Thus, even a warning could affect participants' confidence which then alter the nature of the risk to which the warning refers to. When the situation is 'appropriate', making these announcements public could result in faster transmission thus facilitate the process to introduce macro-prudential instruments. Apart from this 'comply or explain' procedure, national macro-prudential authority can deploy measures as it deems fit. Yet, in case the authority wants to apply instruments other than countercyclical buffer (for instance, structural systemic risk buffer), it has an obligation stipulated in the CRD IV to notify the Commission, the ESRB, the European Banking Authority (EBA) and national authority of the Member States concerned.[929]

At this point, it should be reiterated that ESRB's outputs are non-legally-binding and thus,

---

[928] ESRB Regulation (EU) No 1092/2010, Article 10(3).
[929] This systemic risk buffer is applied in order to prevent and mitigate long term non-cyclical systemic or macro-prudential risks not covered by CRR. *See* CRD IV, Article 133-134.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

it could be problematic in either situations depending on whether ESRB's announcements are taken seriously by the addressees or not. For instance, if its lack of legal personality results in the fact that ESRB's outputs are not taken and followed properly, Ferran et al. pointed out, the new European macro-prudential oversight as a whole is fundamentally flawed. Yet, however, the degree of power and influence that the ESRB can exert, including 'moral suasion' and peer pressure, is inevitably linked to the intensity of accountability and legitimacy concerns.[930] As such, the institutional arrangements for the ESRB may need to be topped-up in order to correspondingly reflect the realities of its power, in case its outputs turn out to be 'soft law, but not weak law'.

On the other hand, under the SSM Regulation and with respect to SSM participating countries, the ECB has the power to object a decision proposed by concerned (national) authority and apply even higher requirements or more stringent measures than what has been put in place within domestic context.[931] When deemed necessary, the ECB is obliged to state the reason for its objections, which then works as a reference to which the concerned authority has to 'duly consider' ECB's objections before proceeding with the decision as appropriate.[932] As a matter of principle, the ECB is indeed required to closely cooperate with national authorities in the exercise of its macro-prudential power, taking specific situation of each Member States (financial system, economic conditions, financial and business cycles) into account.[933] Since the ECB is responsible

---

[930] EILÍS FERRAN, KERN ALEXANDER, *Can soft law bodies be effective? Soft systemic risk oversight bodies and the special case of the European Systemic Risk Board*, 24.
[931] Measures are subject to procedures set out in CRR/CRD IV and SSM Regulation.
[932] SSM Regulation (EU) No 1024/2013, Article 5(1) and (2).
[933] SSM Regulation (EU) No 1024/2013, Article 5(3)-(5).

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

for the effective and consistent functioning of the SSM, it comes as no surprise that the Bank indeed becomes a key player in the exercise of macro-prudential policy with regard to SSM participating countries. As a result, this somehow overshadows the role given to the ESRB in the SSM context, yet the burden of notifications of national authorities to the ESRB remains. For the sake of clarity, SSM national authorities would normally have to follow procedures set out in CRR/CRD IV (relevant bodies: the ESRB, EBA, the Commission, the Council) for systemic risks addressed at national level while they could also be addressees for ESRB's warnings in a separate process; and then procedures set out under SSM Regulation and SSM Framework Regulation (relevant body: the ECB). In the next steps, it has to notify these relevant institutions about the action taken or justify their inaction then awaiting for these bodies's communication, depending on specific procedures as stipulated in each Union legislation.

In case of flexibility measures, for instance, where national macro-prudential authority identifies the build-up of systemic risks and considers such risks would be better addressed by means of stricter national measures (other than those already provided for under CRR/CRD IV), notification obligation extends its reach to include the European Parliament, the Council, the Commission, the ESRB and EBA in which the concerned authority has to submit relevant quantitative or qualitative evidence as well as draft national measures.[934] In case it decides to

[934] Notably, the Council has the power to adopt an implementing act to reject the draft national measures, on the basis of the proposal by the Commission. In the absence of such proposal within that period of one month, the Member State concerned may immediately adopt the draft national measures for a period of up to two years or until the macro-prudential or systemic risk ceases to exist if that occurs sooner. (CRR, Article 458).

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

apply measures,[935] for national authorities of SSM, another process which involve the ECB will follow. Since the procedures could turn out to be time-consuming and burdensome due to duplication of work, there is a need to enhance coherence between, for instance, CRR/CRD IV and SSM Regulation, as well as to simplify the reporting procedures to several institutions which have a stake in the Union's macro-prudential policy framework and in the oversight of the European financial stability as a whole, especially with respect to SSM Member States.

Against this background, *fifth*, it could be argued that the EU legislation generally provides considerable space for discretionary solutions when it comes to macro-prudential policy concerns. While it reflects technical difficulties of the subject at issue, the law-making technique demonstrates the typical 'form follows function', in which macro-prudential regulation and supervision follow the market so that 'its legal form and substance is to a large extent dependent on the factual situation of the markets for financial services'.[936] In the making of financial regulation, admittedly, the law relies on economics for empirical analysis. At the same time, Goodhart rightly pointed out, "*[f]inance is necessarily about risk, and to attempt a level of regulation that removes all risks from the investor would mean regulating away the very function*

[935] For the sake of clarity, macro-prudential tools as stipulated under SSM Framework Regulation, means any of the following instruments: (a) the capital buffers within the meaning of Articles 130 to 142 of Directive 2013/36/EU; (b) the measures for domestically authorized credit institutions, or a subset of those credit institutions pursuant to Article 458 of Regulation (EU) No 575/2013; (c) 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 Regulation (EU) No 575/2013 and Directive 2013/36/EU in the cases specifically set out in relevant Union law. (SSM Framework Regulation, Article 101)

[936] CHRISTIAN TIETJE and MATTHIAS LEMANN, *The role and prospects of international law in financial regulation and supervision*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*, 137.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

of finance and financial contracts".[937] From an economic point of view, financial regulation is necessarily about judgement and trade-offs, i.e. a calculative move taking into account costs and benefits. Accordingly, excessive regulation dedicated to remove all possible financial risks would be too costly that it may outweigh the benefits. Thus, it follows naturally that although a rules-based approach is preferred, discretionary solution is unavoidable in practice, unsurprisingly and largely due to uncertainty, complexity in assessing financial situation and measuring systemic risks, let alone the quick pace of technology and financial innovation. In this respect, hard-law legislation defines the goals, followed by general procedures which center around the use of presumptive indicators and the 'act or explain' principle so as to overcome inaction bias. This is of crucial importance as to the operations of the ESRB, in which it requires addressees to provide evidence of their follow-up to ESRB's warnings and recommendations. On such a basis, through monitoring economic variables and indicators, implementation lies within national context where macro-prudential authority has an obligation to deploy tools, or to explain why it is not intervening. Thus, discretionary solution is somehow controlled through the process of stop-think-justify. In short, John Fell summarized, European macro-prudential policy decision is based on the 'guided discretion' principle, which is a combination of three elements: (i) *guidance* through rule-based approach that helps overcome the inaction bias when thresholds of early warning signals are breached; (ii) *discretion* is needed as indicators and thresholds cannot fully capture all aspects of identified risks; and (iii) *judgement* where it is anchored by a clear set of

---

[937] CHARLES A.E. GOODHART et al., *The rationale for regulation,* in CHARLES A.E. GOODHART, DIMITRIOS P. TSOMOCOS (eds.), *Financial Stability in Practice: Towards an Uncertain Future,* 42.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

principles, supported by additional indicators and their respective thresholds.[938]

Conducted in this manner, nonetheless, one may argue that such discretionary solution makes it become 'hard law, yet soft obligation' in the sense that discretionary element is embedded in hard law and thus soften derived obligations. Further to this end, the implementation of macro-prudential tools would turn out to be fulfilling a mixture of soft obligations and soft-law instruments (e.g. ESRB's guidance, warnings, recommendations, or even public speeches). But then, even so, it would not mean that the role of law in macro-prudential regulation is limited or minimized. Seen from another angle, the use of soft obligation or even soft-law instruments rather strengthens the role of law. In situations where it is not possible to draft specific hard rules and taking into account the fact that financial regulation could be imperfect thus even exacerbate market failures or financial crisis; it comes down to two scenarios where (i) there would be no law or (ii) to use the so-called 'soft law', either in the form of hard-law with soft-obligation or soft law. In such a way, the use of soft law also reaffirm the role of law in regulating finance thus helps to establish a framework in which economic analysis operates. On this point, it could be argued that the EU macro-prudential framework effectively reflects efforts invested in balancing discretion and rules, in regulating the things we are not sure of, i.e. risk and uncertainty of finance. In this regard, macro-prudential regulation appears somewhat market-friendly which allows for quick and flexible adjustments to technology advancement as well as financial innovation.[939] In its turn, the combination of technology, innovation in the context of rapidly

---

[938] JOHN FELL, *The institutional Alignment of Macro-Prudential and Micro-Prudential Policy*, Cumberland Lodge, Windsor, April 2016.
[939] TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk*, 40.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

changing financial markets indeed compels macro-prudential authorities to rely more on their discretion than what is shown on firms' balance sheet. Despite this, in any case, discretion is not distinctto the law as the law in fact creates the framework within which discretion operates. While it cannot remove all possibility of market failures, such a system demonstrates a cost-benefit calculation so that regulatory intensity would not be too costly that eventually outweighs the benefits in can bring about. At the same time, Goodhart added, "occasional regulatory lapses and failures must be regarded as the necessary cost of devising an effective system of regulation".[940] Thus, continuous monitoring and review is put in place together with an accountability arrangement which should include, broadly speaking, forms of justification *ex ante* (e.g. Commission report, peer review, committee opinion, SSM review, a surveillance commission, etc.) and *ex post*, e.g.possibility of judicial review. Having said that, we now turn to the next part to zoom in the institutional arrangement and explore this topic further.

ESRB and ECB: Making sense of the system

To quote Tommaso Padoa-Schioppa in 2009:

> "I do not see a fundamental or likely conflict between preserving price stability and being concerned with financial stability. In special circumstances, however, a central bank could enter a 'price stability versus financial stability' trade-off in the short run. Even though synergies between price stability and financial stability prevail in the longer term, a successful monetary policy (successful in keeping prices stable) will not always be sufficient to prevent financial instability. Hence, **central banks cannot**

[940] CHARLES A.E. GOODHART et al., *The rationale for regulation,* in CHARLES A.E. GOODHART, DIMITRIOS P. TSOMOCOS (eds.), *Financial Stability in Practice: Towards an Uncertain Future,* 42.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

> **be indifferent to financial stability; a policy of benign neglect is not an option. The Eurosystem cannot be an exception to this.**"[941] (emphasis added)

We have, indeed, analyzed the situation in which stable prices were not sufficient to preserve the stability of the financial system as a whole. We have, also, touched upon circumstances where there was a trade-off between price stability and financial stability. Yet, if we take a step back, as Lastra rightly pointed out, the trend that actually prevailed in the late 1980s and during the 1990s 'relied on the pursuit of one goal, i.e. monetary stability, using one instrument—monetary policy, conducted by one agency, i.e. the central bank', and thus the emphasis was put on stable money as the primary objective of monetary policy.[942] On such a basis, central banks have turned into independent institutions, strongly focused on the pursuit of price stability and were 'often accompanied by a move away from supervisory tasks'.[943] However, in response to the global crisis which showed the importance of liquidity and contagion risks, calls for institutional reforms somewhat led to a changing role of central bank, induced the bank's involvement in the preservation of financial stability, and thus be tasked with financial supervision. The EU is not an exception to this change, especially in the context of the Eurozone where stability of the financial system has become a euro-area wide concern, let alone the fact that ECB's conduct of unconventional monetary policy may eventually create financial stability risks which requires the Bank to regularly monitors, for instance, changes in assets (household) prices and leverage for the early prevention of building-up of systemic risks. Perhaps as a result,

---

[941] TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk*, 128.
[942] ROSA M. LASTRA, *The role of central banks in monetary affairs,* in THOMAS COTTIER et al., (eds), *The Rule of Law in Monetary Affairs,* 88.
[943] Before this change, 'most central banks were still agencies charged with the defense of all public interests associated with the currency and the financial system, under rather strict dependence on the executive branch of the government'.; TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk*, Preface.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

the price stability mandate of the ECB has been increasingly accompanied by the financial stability objective. On this point, it should also be noted further that the task of preserving financial stability should not be mistaken with solely maintaining currency stability. There is indeed a link between currency and financial stability in Europe. Yet, since financial stability itself is not a currency concept, it actually means more than currency stability. In its turn, currency may remain as one source of financial instability.[944]

Admittedly,ECB's financial stability policy function is understood in both senses, i.e. preserving overall financial stability of the system as well as the soundness of individual financial institutions. As a result, the ECB, despite being literally mandated with price stability (which aims to maintain inflation rate below but close to 2% over the medium term), has a full range of supervisory powers as well as macro-prudential tasks conferred upon it. On the basis of the SSM Regulation and following a year-long preparation phase, the ECB assumed its additional responsibility for the unified supervision of euro area banks on November the 4th 2014.[945] Yet, it should be noted further that, while competencies for financial supervision of credit institutions regarding SSM Members States are shared between the ECB and respective national

---

[944] Then if we recall the situation of the global crisis, the recession spread from US (dollar) to UK (sterling) to Eurozone (Euro) and the rest of Europe and the world.

[945] Prior to taking on this responsibility, ECB conducted the comprehensive assessment, a health check of the biggest banks. At the same time, legal acts defining how the SSM operates and the establishment of new governance structures at the ECB were adopted. For the time being, the ECB is directly supervising 120 significant banking groups, which represent 82% (by assets) of the euro area banking sector. For all other 3,500 banks the ECB will also set and monitor the supervisory standards and work closely with the national competent authorities in the supervision of these banks.; *See* ECB, *ECB assumes responsibility for euro area banking supervision*, Press Release, 4th November 2014.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

authorities,[946] the Bank is required to closely cooperate with other supervisory bodies, i.e. the EBA,ESMA,EIOPA, ESRB, and the other authorities which form part of the ESFS, in order to ensure an adequate level of regulation and supervision in the European Union.[947] Nonetheless, as having discussed earlier, the ECB plays a key role in the macro-prudential framework at the Banking Union level and with regard to SSM participating Member States, while the ESRB is responsible for EU-wide macro-prudential policy.[948] For the sake of clarity, Table 3 below provides a quick look at ECB and ESRB's macro-prudential mandates as stipulated in relevant Union legislation.

---

[946] SSM Regulation (COUNCIL REGULATION (EU) No 1024/2013), recital 28: "Supervisory tasks not conferred on the ECB should remain with the national authorities. Those tasks should include the power to receive notifications from credit institutions in relation to the right of establishment and the free provision of services, to supervise bodies which are not covered by the definition of credit institutions under Union law but which are supervised as credit institutions under national law, to supervise credit institutions from third countries establishing a branch or providing cross-border services in the Union, to supervise payments services, to carry out day-to-day verifications of credit institutions, to carry out the function of competent authorities over credit institutions in relation to markets in financial instruments, the prevention of the use of the financial system for the purpose of money laundering and terrorist financing and consumer protection".

[947] SSM Regulation (COUNCIL REGULATION (EU) No 1024/2013), Article 3.

[948] For a general discussion from an economic point of view about the role of central bank in macro-prudential framework, *see supra* at p. 80.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Table 3. ECB versus ESRB: AT A GLANCE

Items/ Institutions	**ECB**	**ESRB**
Financial stability mandates under Union legislation	• Article 127(1) TFEU: The primary objective of the ESCB shall be to *maintain price stability*. • Article 127(5) TFEU: The ESCB shall *contribute* to the smooth conduct of policies pursued by the competent authorities *relating to the prudential supervision of credit institutions and the stability of the financial system*. • Article 127(6) TFEU: The Council, *acting by means of regulations*, may unanimously, and after consulting the European Parliament and the European Central Bank, *confer specific tasks upon the European Central Bank concerning policies relating to the prudential supervision of credit institutions and other financial institutions*, with the exception of insurance undertakings. *Note*: Even though the provision refers to the ESCB, it should be read to refer to the Eurosystem. As stipulated under Article 139(2)(c) and 139(3) TFEU, Member States with a derogation, i.e. not yet fulfilled conditions for the adoption of the euro, and their central banks are excluded from rights and obligations within the ESCB.	+ Article 3.1 ESRB Regulation (No 1092/2010) "The ESRB shall be responsible for the macro-prudential oversight of the financial system within the Union in order to *contribute to the prevention or mitigation of systemic risks to financial stability in the Union* that arise from developments within the financial system and taking into account macroeconomic developments, so as to avoid periods of widespread financial distress. It shall contribute to the *smooth functioning of the internal market* and thereby ensure a sustainable contribution of the financial sector to economic growth." ESRB was created as part of the European System of Financial Supervision (ESFS).
Tasks/ Functions	- ECB is responsible for **monetary policy** in the euro area. - ECB has been conferred tasks for prudential supervisory purposes, including both micro- and macro-prudential, to carry out banking supervision through the SSM in the Banking Union. ECB's full supervisory powers include: • ECB has exclusive competence and remains as the ultimate supervisor in the Eurozone. ECB currently supervises 123 significant banks in the euro area. • ECB has investigatory power to conduct	

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

	supervisory reviews, on-site inspections, to collect information, statistical data, as well as supervisory fees, etc. • ECB has sanctioning powers; ECB plays a role in the European **macro-prudential policy** framework, both at the Banking Union level with respect **toSSM participating states, and at the European Union level through its role in the ESRB:**		
Macro-prudential tasks	**ECB/SSM in macro-prudential supervision** Responsibilities for macro-prudential policy remain, first and foremost, at national level. ECB plays a key role as to macro-prudential supervision in the SSM area, but its power is restricted: • ECB macro-prudential power is limited to SSM participating Member States, and with respect to activities of credit institution, i.e. ***banking activities, in the Banking Union***; *Note*: 'credit institution' is understood as an undertaking the business of which is to take deposits or other payable funds from the public and to grant credits for its own account. (CRR Article 4(1)). • But the ECB can only use measures provided for, and	**ECB's involvement in the ESRB** • ESRB is currently located within ECB • ECB provides sufficient human and financial resources to ensure ESRB's Secretariat, which is the channel for analytical, statistical, logical or administrative support from ECB to ESRB, including: - the preparation of ESRB meetings; - the collection and processing of information, including statistical information, on behalf and for the benefit of the fulfillment of ESRB's tasks; - the preparation of the analyses necessary to carry out the tasks of the ESRB, drawing on technical advice from national	ESRB is responsible for **macro-prudential policy at European level**, under ESRB Regulation: • ESRB has been given as-broad-as-possible macro-prudential mandate, ***EU-wide level and across financial sectors***; • Collecting data, identifying and analyzing systemic risks; • Issuing warnings, recommendations and, where appropriate, making those warnings and recommendations public; • Monitoring the follow-up to warnings and recommendations; • To publish reports on potential systemic risks; • Cooperating closely with other parties to the ESFS; coordinating with international financial organizations (IMF, FSB) and relevant bodies; ESRB has been entrusted to **coordinate Member States' macro-prudential policies** under CRR/CRD IV, including specific tasks: • Providing guidance to

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

	subject to the procedures set out under CRR/CRD IV, i.e. macro-prudential instruments which have been harmonized under Union legislation; • ECB can top-up measures applied by national macro-prudential authorities, i.e. apply higher requirements for capital buffers or more stringent measures aimed at addressing systemic, macro-prudential risks, than the level applied in domestic context (Article 5 SSM Regulation); • For the deployment of macro-prudential tools, ECB can act on its own initiative or on the basis of notification request from national authorities (Article 102 SSM Framework Regulation). ECB does not have power to remove or ease the measures applied by national authorities;	central banks; - the support to the ESRB in its international cooperation at administrative level with other relevant bodies on macro-prudential issues; the support to the work of the General Board, the Steering Committee, the Advisory Technical Committee and the Advisory Scientific Committee.	national authorities on setting countercyclical capital buffer (CCB) rates, to ensure CCB is applied consistently across the EU (Article 135 CRD IV); • Giving opinions on systemic risks buffer, and recommendations for some systemic risk buffer (Article 133 CRD IV); Giving opinions on flexibility measures (Article 458(4) CRR)
Institutional structure for macro-prudential purpose	**ECB/SSM in macro-prudential supervision** Institutional framework for macro-prudential purpose: • Governing Council: macro-prudential decision making body;	**ECB's involvement in the ESRB** • ECB's participation in ESRB's organizational structure: - ESRB's General Board: the	ESRB's internal structure includes: • General Board (67 members, 38 members with voting rights): the decision-making body; • Steering Committee (14 members): assists in the decision-making process;

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

	• Macro-prudential forum: Governing Council and Supervisory Board of ECB; • *Financial Stability Committee*: assists in the decision-making process and acts as a platform for *policy coordination* between ECB and national authorities; • For the purpose of carrying out multiple tasks, the ECB sets out arrangements to ***separate its monetary function from supervisory function***, including both micro- and macro-prudential supervision,: - Strict separation of meetings and agendas of the Governing Council as regards monetary and supervisory functions; - ECB staff involved in carrying out supervisory tasks shall be organizationally separated from the staff involved in carrying out other tasks conferred on the ECB; - Strict requirement as to staff's obligation of	President and Vice-President of the ECB shall be Members of the Board, with voting rights; - ESRB's Steering Committee: Vice-President of ECB, four other members of ESRB's General Board but who are also member of ECB's General Council; - ECB ensures close cooperation at the technical level by cross-representation at the ESRB's Advisory Technical Committee and the ECB's Financial Stability Committee; - Currently, ECB's President is also the Chair of ESRB's General Board and Chair of ESRB's Steering Committee; - Various ECB staff participate in ESRB's working groups, task forces.. • ESRB's General Board resembles ECB's Governing Council, regarding the participation of	• Advisory Scientific Committee (ASC—16 members): assistance and provide relevant advice; • Advisory Technical Committee (ATC—64 members): assistance and provide relevant advice; • Secretariat; Besides, other working groups and task forces include: • Under ATC: Analysis working group; Instrument working group; Expert groups and Task forces; Assessment Teams; • Joint Expert Groups.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

	professional secrecy, even after their duties are ceased; - Classification of information in accordance with the ECB's confidentiality regime by the ECB policy function owning the information; - Strict requirements as to exchange of confidential information between the two policy functions. (SSMR Art. 25(2), ECB/2014/39)	central bank governors.	
Macro-prudential Tools/Power	**ECB/SSM in macro-prudential supervision** • CRR/ CRD IV tools; national authorities (including SSM area) retain direct responsibility for some instruments, for instance, borrower-based tools; • ECB has power to comment and object to national measures, which national authorities have to consider ECB's comments before proceeding with the decision; • ECB has binding powers to top-up	**ECB's involvement in the ESRB**	• Warnings and recommendations, (may or may not be made public) which are legally non-binding; • ESRB's monitoring of follow-up is envisaged through an 'act/comply or explain' mechanism; • ESRB has no executive or binding power. ESRB may involve in the whole process to deploy macro-prudential tools, but it is not the final decision maker. For instance, regarding flexibility measures under CRR Article 458, decision to reject draft national measures is up to the Council, on the basis of proposal from the Commission.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

	measures applied by national authorities, for instance: - counter-cyclical capital buffers - systemic risk buffers (if implemented in national law) - capital surcharges of systemically important institutions - risk weights (incl. real estate and intra-financial sector exposures - limits on large exposures - additional disclosure requirements • ECB can initiate measure on its own.		
Macro-prudential Addressees/ Member States	**ECB/SSM in macro-prudential supervision** • ECB/SSM is the macro-prudential authority at Banking Union level, with regard to SSM participating countries; • SSM Member States: Euro area countries, and other EU Member States whose currency is not the euro but nevertheless have chosen to participate in the SSM, i.e. by	**ECB's involvement in the ESRB**	• ESRB is the macro-prudential authority at Union level: 28 Member States • Potentially unlimited number of addressees to ESRB's warnings and recommendations, including: Member States, national supervisory authorities, ESAs (EBA, EIOPA, ESMA), and the Commission; • The ECB has been, in practice, a recipient of ESRB's recommendation, despite it was not identified as a potential addressee

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

	their NCAs entering into close cooperation with the ECB.		under ESRB Regulation; • Yet, ESRB may not address financial institutions directly since it remains at national level, under the oversight of ESAs.
Independence/ Impartiality arrangement	• With respect to its primary objective to maintain price stability in the euro area, the ECB is granted independence by the TFEU: - "…neither the European Central Bank, nor a national central bank, nor any member of their decision-making bodies shall seek or take instructions from Union institutions, bodies, offices or agencies, from any government of a Member State or from any other body. The Union institutions, bodies, offices or agencies and the governments of the Member States undertake to respect this principle and not to seek to influence the members of the decision-making bodies of the European Central Bank or of the national central banks in the performance of their tasks". (Article 130, TFEU) - Scope of ECB's independence: • Budget: ECB has its own budget, which is subscribed and paid up by the euro area NCBs. ECB's financial arrangements are kept separate from the EU; • The Eurosystem (ECB) is prohibited from granting loans to EU bodies or national public sector entities, thus to further prevent any influence from public bodies; • Functionally independent: ECB has at its disposal all instruments and competencies necessary for the conduct of an efficient monetary policy and is authorized to decide autonomously how and when to use them; • ECB has the right to adopt binding regulations to the extent necessary to carry out the tasks of the ESCB and in certain cases as laid down in specific acts of the EU Council; • Member of Governing Council and Executive Board have sufficiently long		Impartiality requirement (ESRB Regulation, Article 7): • ESRB members of the General Board and the Steering Committee shall perform duties impartially and solely in the interest of the Union as a whole, shall not seek nor take instructions from Member States or any other public or private body; • Members of General Board cannot have a function in the financial industry; • No public or private body shall seek to influence ESRB members in the performance of their tasks.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

	mandates, while decision-making follows the majority and 'one person, one vote' principle; NCBs governors represent in a personal capacity as independent experts and not as representatives of their respective countries or central banks. • ECB's independence framework for supervisory tasks (SSM Regulation Article 19): - When carrying out the tasks conferred on it by this [SSM] Regulation, *the ECB and the national competent authorities acting within the SSM shall act independently*. The members of the Supervisory Board and the steering committee shall act independently and objectively in the interest of the Union as a whole and shall neither seek nor take instructions from the institutions or bodies of the Union, from any government of a Member State or from any other public or private body. The institutions, bodies, offices and agencies of the Union and the governments of the Member States and any other bodies shall respect that independence.	
Accountability arrangement	• ECB is primarily accountable to the European Parliament as the representation of EU citizens, but also has to report regularly to the Council of the EU, which represents Member State governments. Article 283(4) TFEU, and Article 15(3) Statute of ESCB and ECB: "The European Central Bank shall address an annual report on the activities of the ESCB and on the monetary policy of both the previous and current year to the European Parliament, the Council and the Commission, and also to the European Council." • ECB's accountability framework for supervisory tasks (SSM Regulation, Article 20): - The ECB shall be accountable to the European Parliament and to the Council; - The ECB submits annual reports on how it has carried out its supervisory tasks to the European Parliament, the EU Council, the Eurogroup, the European Commission and the national parliaments of participating	The ESRB is accountable to the European Parliament. Article 19 (1), ESRB Regulation: "At least annually and more frequently in the event of wide spread financial distress, the Chair of the ESRB shall be invited to an annual hearing in the European Parliament, marking the publication of the ESRB's annual report to the European Parliament and the Council. That hearing shall be conducted separately from the monetary dialogue between the European Parliament and the President of the ECB."

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

	Member States; In practice, accountability arrangement is clarified in the Interinstitutional Agreement between the European Parliament and the ECB; and the Memorandum of Understanding between the EU Council and the ECB;	

Source: Author's compilation on the basis of European legislation, and analysis, available at: www.ecb.europa.eu.

Against this background, the role that legal frameworks can play in promoting financial stability, by giving to European authorities the necessary powers, ensuring their independence and accountability in the financial sector, should certainly be well-acknowledged. As to the macro-prudential policy framework, the overall situation at supranational or national level is very much different from the international context—which has previously been analyzed in details within the scope of this thesis. Nevertheless, institutional arrangement within the EU bears some resemblance to that of global context. Admittedly, such similarities should not come as a surprise since the EU remains one key player in international financial regulation, in the making of prudential rules, and thus may as well advocate for some of the conventional rationale to be applied in the Union.

At international level, the Basel Committee remains a soft body for the promulgation of prudential regulations, both micro- and especially macro-prudential regulations in response to the global crisis. Yet, in essence, it could be argued that the BCBS is not a classic and purely soft institution, since it receives G20, IMF and WB's endorsement and coupled with the fact that central banks, BCBS members, in key financial jurisdictions have been granted full independence which effectively facilitate the implementation process. At the same time, the Union-level macro-prudential authority, ESRB, is a soft body without legal personality in the supranational context

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

of the European Union. As it turns out, however, the ESRB is also "not a classic 'soft law' body as it is anchored within the EU institutional framework", having close connections to EU bodies which have formal powers, i.e. the Commission and the Council.[949] Another thing to note is the similarity between how the BCBS being hosted inside and its Secretariat is provided by the BIS, whereas the ESRB is physically hosted inside the ECB and ESRB's Secretariat is also ensured by the host institution. The arrangement in this regard seems to rely on the rationale that institutional support, ranging from infrastructure, expertise, statistical,administrative assistance and even staff of the host institution, should be utilized so as to enable respective macro-prudential authority to fulfill its task. Furthermore, the structure of ESRB's decision-making body, i.e. the General Board, resembles that of the ECB's Governing Council in the sense that it includes a group of central bank governors, with voting rights.[950] On this point, just as the way the international soft-body BCBS is dominated by central bankers, the supranational soft-body ESRB bears resemblance to it and is thus led by EU central bank governors. Nonetheless, a clear distinction should be made between ESRB and BCBS since the former 'is an integral part of a regional system located within a legal order in which formal enforcement powers are available, and thus there is more direct backup for activities in response to ESRB's warnings and recommendations than is available at the international level for BCBS's soft financial standards'.[951] In any case, however, the softness of ESRB means that its advisory-but-not-regulatory power is indeed

---

[949] DANIEL GLUCH, LUCIA SKOVRANOVA, MIKAEL STENSTROM, *Central Bank Involvement in Macro-Prudential Oversight*, 7.
[950] Of the currently 67 members of ESRB's General Board, 38 members have voting rights. Among these, 30 out of 38 members are central bankers, i.e. 28 NCBs governors and President, Vice-President of ECB.; *See further at*: IPOL-EGOV, *Briefing: The EU macro-prudential policy framework*, 23rd May 2017.
[951] EILÍS FERRAN, KERN ALEXANDER, *Can soft law bodies be effective? Soft systemic risk oversight bodies and the special case of the European Systemic Risk Board*, 29-30.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

limited, and thus some scholars remains skeptical as to the extent to which the ESRB operates as an 'authority' without being formally entrusted with binding power. To make a comparison, its US macro-prudential counterpart, the Financial Stability Oversight Council (FSOC), is assigned direct intervention tools, including at the micro level, instead of merely operating through an 'act or explain' mechanism.[952]

On such a basis, the main concern is whether the ESRB can fulfill its tasks, i.e. conducting macro-prudential oversight and acting as a platform for coordination of Member States' macro-prudential policy, given its soft status and without direct enforcement power. As a matter of principle, the ESRB issues legally non-binding guidance, opinions, consultations, and certainly recommendations and warnings, and then follow-up on these via the 'comply or explain' procedure. In such a way, the ESRB typically acts on the basis of its reputational influence, including peer pressure and moral suasion, while relying on other formal authorities, Union-wide or national level, to deploy macro-prudential tools and even to make decision on which instruments to apply in certain cases. The process appears fairly simple. From the starting point, the ESRB monitors the build-up of systemic and macro-prudential risks, it then issues warnings and recommendations in case it detects risks, and monitors compliance accordingly. Notably, such recommendations and warnings are to be transmitted to the Council, the Commission and, where appropriate, even the ESAs, in order to increase their influence and legitimacy thus facilitate the implementation procedures. For some cases, considering that

---

[952] Despite this, the FSOC, created by the Dodd-Frank legislation, performs some of the roles of a macro-prudential body, but its powers are limited and its jurisdiction is somehow contested by some domestic regulators, whose agencies do not themselves have an explicit objective of preserving financial stability.; *See further* PAUL TUCKER, *The political economy of macro-prudential regimes,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 62.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

justification for inaction from national authority is not adequate, the ESRB informs the Council, and the ESA concerned, yet has no power to act otherwise. In certain other cases, for example: when the ESRB identifies a serious risk or an emergency situation, or in circumstances as laid out under Article 458 CRR and/or Article 133, Article 135 CRD IV, the ESRB's assessment serves as the basis for the Council's decision. Thus, in essence, the ESRB could involve in the whole process of implementing macro-prudential policy instruments, but not as a final decision maker at Union level nor an initiator for any measure at national level. Put differently, the ESRB essentially works as a technocratic body, an advisor and coordinator, supporting the Commission, the Council and national authorities. On one hand, the technicality of macro-prudential oversight is guaranteed by the ESRB, while the legitimacy of macro-prudential decision is ensured as in principle, decision is made by the Council possibly on the basis of proposal from the Commission. Yet, on the other hand, even if 'legal justification for the ESRB on subsidiarity and proportionality grounds is compelling',[953] the whole process seems to be lengthy as it involves coordination of several authorities thus may delay the deployment process and eventually not match with the timing of the markets. More importantly, it has been noted that activation of specific measures by national authorities in practice is unevenly distributed among Member States, whereas notifications from Member States do not always take place, despite specific legal obligations under CRR/CRD IV.[954]In such a way, there may be a need to enhance the ESRB's soft power as well as its role as a Union-level macro-prudential hub, so as to facilitate this

[953] EILÍS FERRAN, KERN ALEXANDER, *Can soft law bodies be effective? Soft systemic risk oversight bodies and the special case of the European Systemic Risk Board*, 29.
[954] EGOV (European Parliament), *Briefing: Macro-prudential Policy in the EU*, June 2016, 5.; *See also* ESRB, *A Review of macro-prudential policy in the EU one year after the introduction of CRD/CRR*, June 2015, 4.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

authority to work towardsits ultimate objective of safeguarding the stability of the European financial system as a whole.[955]

Against this background, the ESRB is a soft institution but actually appears to be harder than the typical soft-law body, since it secures considerable indirect enforcement power owing to close connections with other EU formal authorities. This is understood in the sense that the Council, the ESAs, etc. will exert pressures on national authorities, forcing them to properly consider ESRB's warnings and recommendations, despite the soft nature of these announcements. In addition, the fact that the ESRB is 'attached' to the ECB also means that the ESRB can benefit from the ECB's expertise and strong reputation. This helps ensure the accuracy of quantitative and qualitative evidence laid out in ESRB's warnings and recommendations to eventually induce compliance. Furthermore, when the ESRB decides to make such warnings and recommendations public, practically speaking, it will definitely produce consequences on financial markets, yet most likely negative. Since financial markets are based on confidence and trust, even a soft tool could be impactful and thus generate market-destabilizing effects. Nevertheless, the ESRB's softness and weaknesses, in theory as well as in practice, remain the basis for proposals to enhance its autonomy. In this respect, however, if the ESRB were to be given binding power, much more coherence would be needed to streamline the tasks and scope of functions/duties between the ESRB and the ECB/SSM, specifically with respect to SSM participating Member

[955] This is also embedded in the Commission's proposal to ensure the right balance between national flexibility and community control, which may involve 'streamlining the toolset of instruments, changing the activation procedures, enhancing the role of the ESRB as a macro-prudential hub and clarifying the role of the SSM in the framework'. *See further* IPOL-EGOV, *Briefing: The EU macro-prudential policy framework*, PE 587.379, 17th March 2017.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

States. To recall, in the current situation of the Banking Union, the ECB has binding power as to macro-prudential policy in the SSM area, and with respect to macro-prudential instruments which have been harmonized under CRR/CRD IV. In parallel, SSM countries follow the (soft) procedures, including the 'act or explain' mechanism, as laid out under the ESRB Regulation. Admittedly, the two processes overlap in several aspects, except with regard to macro-prudential instruments that are currently reserved to be applied solely by national authorities, i.e. mainly borrower-based measures. As a result, the role of the hard ECB overshadows the soft ESRB for macro-prudential within the Banking Union, let alone the fact that the FSC within the ECB also has the task to coordinate SSM national macro-prudential authorities as well as to provide statistical inputs for macro-prudential decision by the ECB Governing Council within the SSM.[956] On such a basis, conferring the ESRB with formal power would even risk conflicting with the ECB and/or creating more burdens for SSM national authorities. At the same time, the fact that the ESRB is 'dominated' by the ECB would make it harder to empower the ESRB with more autonomy or more formal powers.Unsurprisingly, this rationale is somewhat embedded in the ECB's opinion on the review of the mission and organization of the ERSB, where it stated: "[a]s concerns the proposal advanced by several stakeholders in the Commission consultation process to enhance the ESRB's autonomy, the ECB considers that an appropriate balance should

[956] For the sake of clarity, in preparing for macro-prudential policy decisions in the SSM, the Financial Stability Committee (FSC—chaired by the ECB Vice-President) conducts risks assessments and devises proposals accordingly. These serve as the basis for the ECB Governing Council's informal recommendation. Based on this, the Supervisory Board submits draft proposal for decision. Final decision is made by the ECB Governing Council, subjecting to the non-objection procedure. Nevertheless, the policymaking process can be initiated by the ECB or by national authorities. National authorities and the ECB are obliged to notify one another if they intend to activate a macro-prudential policy instrument.; *See further at* ECB, *Macro-prudential Bulletin*, Issue 1/2016, March 2016, 9.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

be sought as an unwarranted degree of autonomy would be incompatible with the continued reliance of the ESRB on the ECB's reputation and expertise".[957] Eventually, "*the ECB considers that there is no need to establish a formal role for the ESRB in the Union legislative procedure beyond what is already provided for in Regulation (EU) No 1092/2010*", i.e. the ESRB Regulation.[958] Nonetheless, since soft institutions are generally subject to much more institutional changes and adaptation,[959] the current ESRB's framework may well be revised and adjusted in the future, for instance, to enlarge the scope of its 'soft power' toolkit or to further expand the ESRB's focus beyond banking activities. Yet, future adjustment of the ESRB is probably not going in the direction of having binding macro-prudential power.

At a glance, it seems that the EU macro-prudential framework centers around a soft-law body, i.e. the ESRB. Yet, at a closer look, it does not come as a surprise that the ECB is actually the key player in the whole EU macro-prudential settings, possessing binding power in the Banking Union with respect to SSM participating Member States, while having an important role in supporting the ESRB to fulfill the macro-prudential oversight tasks.[960] On this point, perhaps there is no need to restate the advantages of having central bank as the macro-prudential authority, but its powerful influences.[961] Not only the ESRB is dominated by the ECB, ESRB's decision-making body, the General Board, is also dominated by central bankers, the ECB and

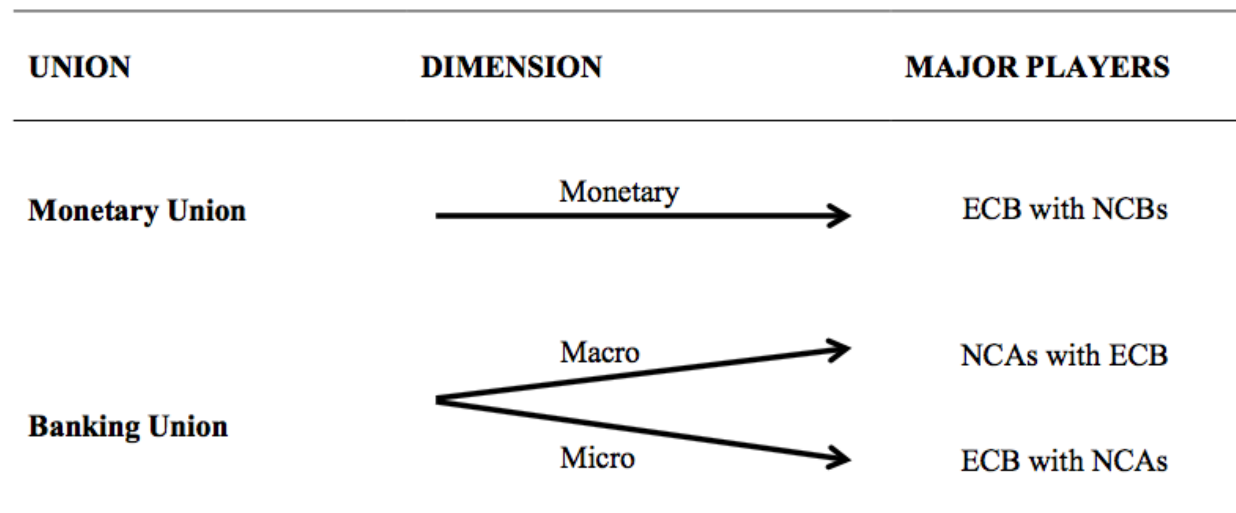
---

[957] ECB, *Opinion of the European Central Bank on the review of the mission and organization of the European Systemic Risk Board*, CON/2015/4, 4th February 2015, 2.
[958] ECB, *Opinion of the European Central Bank on the review of the mission and organization of the European Systemic Risk Board*, CON/2015/4, 4th February 2015, 5.
[959] CHRIS BRUMMER, *Soft law and the global financial system: Rule making in the 21st century*, 64.
[960] On a side note, the Bank of England has the Monetary Policy Committee side-by-side with the Financial Policy Committee responsible for macro-measures, with some overlap in membership. The Bank remains an important authority, to be responsible for relevant macro-prudential policy matters in the UK.
[961] *See supra* The role of central bank in macro-prudential policy framework, at p. 80.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

NCBs, with voting rights. At last, we come to the point that the finance (prudential regulation) world we are living in right now is actually dominated by central bankers, at international level, supranational and, for numerous jurisdictions, at national level as well. As to the euro area, Figure 3 below demonstrates the policy framework, in which the ECB interacts with SSM NCBs or NCAs to fulfill its functions. Notably, while the ECB has the leading role in both micro-prudential and monetary policies, macro-prudential implementation remains primarily at national

Figure 3. Policy framework for the euro area



Source: Dirk Schoenmaker, Peter Wierts, *Macro-prudential supervision: From theory to policy*, ESRB, 2016.

level. For a general remark, Panetta noted, despite major changes that have been taking place on the institutional side for both micro- and macro-prudential policy, which result in an increased centralization of functions within the ECB, there is still a notable retention of responsibilities for prudential supervision at national level.[962]

At this stage, few things should be noted regarding the role and power of the ECB. *First*,

[962] FABIO PANETTA, *On the special role of macro-prudential policy in the euro area*, 2.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

primarily mandated with maintaining price stability, the ECB has been conferred with supervision tasks, including both micro- and macro-prudential, thus enable it to contribute to the aimsof protecting the safety and soundness of credit institutions as well as the overall stability of the European financial system. In this respect, despite micro-prudential and monetary policies have a much longer history (in terms of theory and practical implementation) than macro-prudential, these policies indeed share similarities and even actively interacts with each other, which result in potential overlaps and/or conflicts between them.[963] Since all the three policies are currently under one roof, i.e. the ECB, it remains important how institutional arrangement is laid down to ensure that each function of the ECB is exercised properly in accordance with its applicable aim. At the outset, in order to avoid conflicts of interest, there should be full separation, i.e. 'Chinese walls', between the monetary and supervisory functions of the ECB.[964] Indeed, the Union legislation sets out strict arrangement so as to allow the ECB to conduct each of these tasks independently. On this point, however, some scholars express different view as to whether such full separation is really needed. For instance, strict separation may not be desirable during the financial crisis when both functions closely interact and thus are both needed for same purpose of crisis resolution.[965] Then, for macro-prudential purpose, the ECB's Governing Council and the

---

[963] *See supra* Interactions and coordination across policy areas towards financial stability. To recall, macro-prudential policy significantly overlaps with micro-prudential supervision in terms of instruments used, while monetary and macro-prudential polices interact through transmission channels, in which these two policies both produce effects on supply of and demand for credit, incentives for risk-taking and funding conditions for financial intermediaries. On this point, indeed, overlaps between macro-prudential and monetary policy remain one rationale for conferring macro-prudential function upon the central bank, and enabling it to play a key role in the macro-prudential policy framework. *See also*: ECB, *Macro-prudential Bulletin*, Issue 1/2016, March 2016, 6-8.

[964] SSM Regulation Article 25(2). *See also* Table 3 above.

[965] For a more extensive discussion on how economic literature is not unanimous on this issue, i.e., having strict separation between supervisory and monetary policy or between the Supervisory Board and Governing

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Supervisory Board participate in the Macro-prudential Forum, while receiving assistance from the FSC in the decision-making process as well as for coordination between the ECB and national macro-prudential authorities. Having said earlier, such arrangement, which may enable the ECB to fulfill its functions, overlaps in several aspects with the tasks and powers given to the ESRB. In return, it may well become a burden for SSM national authorities to comply with procedures set out in both SSM Regulation and under CRR/CRD IV, before it can deploy an instrument.

Second, on the basis of current institutional arrangement, in which the Supervisory Board is somehow working side-by-side the ESRB as these two are hosted within the ECB, the implication is that the ECB has virtually become 'the most powerful single institution in the EU polity'.[966] In addition to its primary monetary policy function and a full range of supervisory tasks, the ECB has been given extensive macro-prudential mandate, including binding power. Admittedly, the ESRB differs from the ECB as the former is an EU-wide macro-prudential authorities whose scope, in principle, comes across all financial sectors; whereas the ECB's power is limited to the Banking Union and with respect to banking activities. Yet, since the EU, especially the eurozone area, is mainly a bank-based financial system while currently macro-prudential tools have been designed and applied mostly to banks, it is undeniable that the ECB has played a prominent role in the European macro-prudential policy framework. Even if future application of macro-prudential instruments has to extend its reach to non-bank financial

---

Council, *see*: European Parliament, Directorate General for Internal Policies—Policy Department A: Economic And Scientific Policy, *Monetary Policy and Banking Supervision: Coordination instead of Separation*, IP/A/ECON/NT/2012-06, December 2012.

[966] RICHARD PORTES, *Macro-prudential policy and monetary policy,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism,* 55.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

institutions, the ECB would still becomes even more powerful in case more and more Member States decides to join the Banking Union/SSM. Further to this end, if it happens that at some point all EU Member States are also members of the SSM, such scenario would envisage macro-prudential power to be mostly (if not all) concentrated in the hand of central bankers, while the ECB's Financial Stability Committee (FSC) would largely overlap with the ESRB in terms of coordination task and providing assistance in the decicion-making process for macro-prudential within the Uninon.

Yet, even without the realization of such scenario, further implications of central banks' macro-prudential mandate on their governance and autonomy should be noted. On one hand, political economy constraints on macro-prudential are expected to be much more difficult than those of monetary policy. Compared to the pursuit of the ECB's price stability mandate which has been translated into 'maintaining inflation rates below, but close to, 2% over the medium term', macro-prudential policy objectives could hardly be as observable and quantifiable. Moreover, while its effectiveness can only be seen in long term, the costs of deployment of macro-prudential tools, for instance on financial institutions, could be felt immediately. Even so, the benefits of macro-prudential policy cannot be measured with precision whereas its decisions are most likely backed by a significant degree of discretion. More importantly, Richard Portes rightly observed, macro-prudential measures, unlike monetary policy, will almost certainly have to differentiate among countrieswhich then makes them 'irredeemably political'.[967] Thus, the combination of all these constraints could affect and even erode the ECB's credibility in

---

[967] RICHARD PORTES, *Macro-prudential policy and monetary policy,* in DIRK SCHOENMAKER (ed.), *Macropru-dentialism,* 55.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

conducting monetary policy once it has failed the financial stability tasks. Another thing to recall is the potential for conflict of interest between demands for price stability and the need to preserve financial stability, which may as well produce impact on the ECB's decision making process in the conduct of monetary policy—its primary mandate. On the other hand,Meszaros emphasizes, "a strong argument can be made for suggesting that macro-prudential approaches will, if anything, be subject to *much greater political pressure* (be it from state or private interests) *becauseit is intended to be more far-reaching, systemically oriented and interventionist than its micro-prudential forebear*".[968] On such a basis, taking into account strong distributional consequences and political constraints of macro-prudential policy, the fact that the ECB has acquired more power together with new decision making processes couldactually undermine theinstitution's independence—*"a value that central banker jealously guard"*.[969] Put differently, the ECB's independence, which was guaranteed under the Treaty on the Functioning of the European Union (TFEU), could turn out to be problematic given the absence of political base.

Despite the fact that it still remains as a debatable topic within economic literature, the ECB has been granted full independence in the conduct of monetary policy in the euro area.[970] Since the TFEU has been ratified by all EU Member States, such independence is thus granted at

---

[968] GEORGE MÉSZÁROS, *Macro-prudential regulation: A contradiction in its own terms*, 174.
[969] Arthur W.D. Duff, *Central Bank Independence and Macro-prudential Policy: A Critical Look at the U.S. Financial Stability Framework*, Berkeley Business Law Journal, Volume 11, Issue 1, 2014, p.202
[970] On one hand, concerns have been raised as to whether monetary policy decisions have been taken out of democratic control. On the other hand, proponents argue in favor of independence of the ECB since it is of crucial important to enable the Bank to pursue the common good of maintaining stable currency, protecting the ECB from any temptation of the governments to seek short-term political gains.; *See further*: CHIARA ZILIOLI, *The Independence of the European Central Bank and Its New Banking Supervisory Competences*, in DOMINIQUE RITLENG (ed.), *Independence and Legitimacy in the Institutional System of the European Union*, Oxford University Press, 2016, 125-126.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

the highest level of legitimacy. Since 2014, the ECB has also been granted independence under the SSM Regulation to effectively perform its supervisory tasks, in particular being free from undue political influence, industry influence, undue influences from national competent authorities and market participants, as well as strict separation between its monetary and supervisory policy functions.[971] In its turn, such independence requires accountability, and that accountability then requires transparency. Admittedly, "*power corrupts; absolute power corrupts absolutely*".[972] Thus, a strong accountability arrangement is undoubtedly needed in the case at hand. But even if 'adequate' accountability frameworks have been established for the ECB with respect to both monetary and supervisory competences at Union level, criticisms remain in the sense that central bankers—ECB and those participate in the ECB—are basically not politically legitimate. In the words of Willem Buiter, the European Central Bank is '*typical of a central banking tradition that was, until recently, dominant across theworld, which views central banking as a sacred, quasi-mystical vocation, a cult whose priests perform the holy sacraments far from the prying eyes of the non-initiates'.That is,* ***this is a club of officials engaged in transnational regulation whose domestic accountability and legitimacy is subject to question from the start***." (emphasis added).[973] On such a basis, as more powers are given to these regulators, the concerns on legitimacy of unelected systems of (macro-)prudential regulation has

---

[971] SSM Regulation, Article 19, recitals 75, 77.
[972] ROSA MARIA LASTRA, *Financial institutions and accountability mechanisms*, in PABLO IGLESIAS-RODRIGUEZ (ed.), *Building Responsive and Responsible Financial Regulators in the Aftermath of the Global Financial Crisis*, 36-39.
[973] MICHAEL S. BARR, GEOFFREY P. MILLER, *Global Administrative Law: The View from Basel*, 18-19; quoted Willem Buiter in BUITER, 'Alice in Euroland', 37 J Common Market Studies (1999) 181–209.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

increasingly received attention, both at national and supranational levels.[974] Criticisms remain also because "liability considerations against supervisors (and in this context cases for state liability) will accumulatively occur whereas no regulator or supervisor has so far been held liable for regulatory failures in the context of the global financial crisis".[975] Like a vicious circle, such criticisms then affect the independence of central banks, of the club in which these central bankers participate, i.e. the ECB.

As a matter of fact, additionally, this current time of uncertainty also poses challenges to central bank independence in general and independence of the ECB in particular. In response to the global financial crisis, the ECB has since assumed its additional supervisory competences, including macro-prudential binding power, conducted several unconventional monetary policy instruments while its decisions have been backed by a significant degree of discretion. As a result, the ECB has faced with growing political scrutiny and was even a subject of judicial review with respect to its decision to adopt the Outright Monetary Transactions (OMT) program. [976] Coupled with political constraints of macro-prudential policy and that its distributional consequences would be visible almost immediately while the effectiveness can only be realized in long-term, these would probably heighten the existing tensions. Further towards this end, for several years to come, *de jure* independence of ECB probably sustain since it has

---

[974] GEORGE MÉSZÁROS, *Macro-prudential regulation: A contradiction in its own terms*, 175.
[975] ARMIN J. KAMMEL, *Government Versus Markets—A Change in Financial Regulation*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, 24.
[976] For an overview of this case, *see*, for instance: ARMIN STEINBACH, *All's well that ends well? Crisis policy after the German constitutional court's ruling in Gauweiler*, Maastricht Journal of European and Comparative Law 2017, Vol. 24(1) 140–149, 2017.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

been granted under the TFEU,[977] but concerning *de facto* independence, the ECB is likely to face with additional political pressure on its conducts of different policy functions, thus may eventually undermine its independence. And in the worst scenario where another financial crisis occurs, it would most likely produce significant impacts on the ECB's independence, which might as well turn the tables as to the prevailing view of central bank independence in general. Since it has virtually become the most powerful single institution in the EU polity, indeed, the ECB is subject to increasing scrutiny affecting its policy making strategy. And it is likely that the ECB would take the blame as the supervisory/macro-prudential authority when there is a financial disruption, yet may not likely to be given much credit even when a crisis has been successfully prevented.

To sum up, using the words of the Commission, the current European macro-prudential framework 'has evolved incrementally over recent years, and this piecemeal approach has created a number of weaknesses in the framework'.[978] In particular, the ESRB was established prior to the SSM and even the establishment of national macro-prudential authorities. Hence, the SSM Supervisory Board and national macro-prudential authorities are not represented as such in the General Board of the ESRB. Moreover, even though the ESRB *de facto* adapt to such institutional changes, in fact, the tasks conferred on the ECB and the ESRB overlap especially with respect to SSM participating Member States. This is also due to the fact that procedures

---

[977] Even independence to perform supervisory tasks, which was granted under SSM Regulation, could also be read together with Article 130 of the TFEU. *See further at*: CHIARA ZILIOLI, *The Independence of the European Central Bank and Its New Banking Supervisory Competences*, in DOMINIQUE RITLENG (ed.), *Independence and Legitimacy in the Institutional System of the European Union.*

[978] IPOL-EGOV, *Briefing: The EU macro-prudential policy framework*, PE 587.379, 23rd May 2017.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

under CRR/CRD IV did not take into account such macro-prudential tools and powers given to the ECB.

Needless to say, even if the ESRB is the Union-level macro-prudential authority which has been given as-broad-as-possible mandate and the ECB has acquired binding macro-prudential power concerning SSM participating countries, primary responsibilities to deploy macro-prudential instruments lie first with designated authorities at national level. Even if it could be argued that there has been centralization of protection of European financial system in which prudential regulations have been set at the Union level, it turns out that supervision nonetheless remains decentralized.[979] At the Union level, the delegation of macro-prudential power in this context took the form of a dispersed or coordinated regulatory system in which several Union-wide stakeholders are involved. Of these, strictly speaking, the ESRB remains as an advisor not a 'real' regulator since it has been given advisory not regulatory power, and again, despite being the only EU-wide macro-prudential authority. On the other hand, within the Eurozone, the ECB's binding power is limited to harmonized instruments at Union level and concerning solely banking activities (not, for instance, capital markets or shadow banking). Meanwhile, the ECB's Governing Council (monetary policy decision-making body) teams up with the Supervisory Board (micro-prudential authority) to prepare macro-prudential decisions for the SSM area.[980] Thus, in essence, a macro-prudential authority for the euro area's banking system is established on the basis of monetary and micro-prudential authorities with, supposedly, 'Chinese walls'

---

[979] VIRAL ACHARYA, CHARLES W. CALOMIRIS, *A macro-prudential framework for the EU and its member states*, in DIRK SCHOENMAKER (ed.), *Macroprudentialism*, 145.

[980] The ECB's Governing Council is the final decision-maker. The decision-making process is subject to a non-objection procedure. *See* ECB, *Guide to banking supervision*, November 2014, Figure 2, 15.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

between them. Perhaps, it matches with the understanding that macro-prudential regulation is considered as putting a macro- overlay upon the traditional micro-prudential regulation. If we refer back to Figure 3 above, the implementation of macro-prudential policy seems to remain a national competence, thus national authority appears to be more than a first-in-line responsible macro-prudential authority. On this point, it does not come as a surprise that this is designed in order not to undermine national fiscal sovereignty. Nevertheless, having said earlier, the fact that the ECB has become much more powerful than before (the global crisis) may put it under much more political scrutiny, and even possibility of judicial review. In this regard, as Andenas and Chiu rightly pointed out, there may be a need for the empowering and centralization of international financial regulation, yet, at the same time, it would also be 'resisted as being remote, elitist and lacking in accountability'.[981] These concerns might as well undermine the institution's independence in medium or long-term projections. In its turn, since central bank independence remains at the root of the successful application of international soft financial law in general and prudential regulation in particular, changes as to the prevailing view of such independence will definitely produce significant impacts to the existing architecture governing global finance.[982]

---

[981] MADS ANDENAS and IRIS H-Y CHIU, *The foundations and future of financial regulation: Governance for responsibility*, 464.
[982] PAUL TUCKER, *The political economy of macro-prudential regimes,* in DIRK SCHOENMAKER (ed.), *Macro-prudentialism,* 62.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

CONCLUSION

The first idea to pursue this thesis topic actually stemmed from intellectual curiosity as to the role of law in global financial governance. Put another way, it all started with concerns on the reason why international lawyers had virtually neglected this field, and to what extent the revival of macro-prudential policy accompanied by the fundamental and ideological changes of modern theory of finance has changed and reshaped the characteristic of financial regulation.

As a matter of fact, finance and financial products are not distinct to the law. It is basically constituted by law. Hence, what we have been discussing refers to the role of externally-imposed regulation and, in this very case at hand, for prudential purpose. At international level, prudential regulations are promulgated by the Basel Committee thus the softness of such rules follows as a logical consequence. When it comes 'soft law', admittedly, opinions differ. Yet, if we deny the soft law concept or not accepting its existence, we simply have to accept that the role of (hard) international law is very limited, far from being clear to the extent that there is little or no involvement of international law of any form for prudential purpose. Nevertheless, even if international soft law is, strictly speaking, not law, its prevalence and popularity is compelling enough for it to be further analyzed. Thus, legal views expressed in this thesis includes only those which, at the very least, do not deny the 'soft law' concept.

In this respect, the fact that international prudential regulations are promulgated in the forms of financial standards, guidance and best practices signal that the role of lawyers would somehow be overshadowed by economists in the making of financial regulation, prudential regulation. Yet, isn't it more natural and logical that law should be made by lawyers and financial

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

regulation should be drafted by lawyers instead of economists? What has influenced the making of rules in the global financial governance? Regardless of what the answers would be, finance has nonetheless been hailed as the field in which international soft law has been successfully applied. Indeed, with regard to the Basel Accords on prudential regulations, compliance remains relatively high across member as well as non-member countries of the Basel Committee.

At a glance, the merits of soft law, compared to hard law, which provide greater flexibility to cope with uncertainty and thus match well with characteristics of financial markets (i.e. inherently unstable and complex, evolving rapidly) may have induced compliance. Yet, if we take a closer look, apart from the peer pressure and peer review mechanism of the Basel Committee, compliance to Basel Accords is generally achieved due to the fact that these rules are the only medium of its kind available at international level. Coupled with the fact that Basel III has been endorsed by the G20, IMF and WB, it further facilitates the implementation of such rules across financial jurisdictions. Nevertheless, at a much closer look, what remains at the core of the matter is actually central bank independence. It could be argued that the fact that central banks in key financial jurisdictions (those who participate in the Basel Committee) have enjoyed full independence has contributed the most to the informal approach concerning prudential regulation. It all started with G10 central bank governors back in 1970s. As a result, the actors who make the rules or formulate the principles at international level, i.e. central bankers and national regulators, are the same actors who have the power to enforce them within domestic context. Unsurprisingly, the independence of these actors facilitates the implementation of financial rules which have been agreed upon by them at international level, which results in compliance to Basel III Accord. Thus, it could then be argued that central bank independence remains at the root of the issue at

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

hand.

Then, if we turn our attention to the current state of play, despite the extraordinary revival of macro-prudential policy, the role of law in governing global finance remains limited and that there has not been much changes as to the institutional structure at international level. Using the rationale established above, the main reason would be that the global crisis generated impacts on the use of self-regulation, the heavy reliance on the financial market to regulate itself, but not really central bank independence. Since central bank independence has virtually not been undermined, it could follow that the current soft or informal approach to international financial regulation is likely to remain. Moreover, as the analysis of the European Union macro-prudential framework shows, the ECB and national central banks across several jurisdictions have been mandated with additional tasks in the macro-prudential policy framework.

On this point, the thesis has demonstrated how macro-prudential policy turns out to be 'more art than science'[983] and that the implementation of this policy is 'an adventure more than a job'.[984] The fact that its effectiveness remains difficult to measure while its effects could be felt immediately by market participants adds more meaning to these claims. The political constraints in the implementation of macro-prudential policy, coupled with concerns on being elitist and lacking accountability, may in turn affect financial policy of central bank once it has been assigned macro-prudential task. Put another way, central bank as macro-prudential authority may be subject to increasing scrutiny and political pressure which might eventually undermine its

---

[983] DIRK SCHOENMAKER, *Introduction,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism*, 1.
[984] FABIO PANETTA, 'On the special role of macroprudential policy in the euro area', 6.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

independence. Interestingly enough, even though the picture envisaged has not been materialized, there has been regulatory developments on both sides of the Atlantic ocean, albeit in different forms, which target at central bank independence.

On such a basis, even though not much has been changed as to the informal approach to financial regulation at international level, the fact that several jurisdictions have empowered central banks with macro-prudential mandates may produce significant changes in the years to come, probably long-term projections. Further toward this end, something like few more financial crises could actually turn the tables as to the prevailing view of central bank independence, maybe in the same vein as what happened in the previous global crisis when it did change one core principle underlying contemporary theory of finance. Once it has happened, we would probably see much greater changes as to the structure governing global finance.

Lastly, we should also be cautious about the road we are taking. For a stable financial system which aims toward the ultimate goal of sustainable economic growth, there are few more notes that regulators should bear in mind. On the one hand, as lessons learnt from the global financial crisis, financial industry cannot be left solely to its own devices. Admittedly, if we decide to regulate markets because of market failures, we should not let the market regulate the market since ‘it is an invisible hand too far’.[985] Yet, on the other hand, it also remains important ‘to have a balanced relationship with the financial industry, neither over-trusting nor over-

[985] WILLEM H. BUITER, *Regulating the new financial sector*, Willem Buiter's Maverecon Blogs.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

suspicious'.[986] Kammel commented: 'the move towards more, comprehensive and complex state intervention (being dubbed as 'paternalism') contains a great deal of danger, thus, the task to "re-thinking the role of financial regulation against the continuous changing relationship between governments and markets should always be on our agenda before taking concrete and hasty actions".[987] Again, finance is 'more art than science'. The same goes for macro-prudential policy!

---

[986] DOUGLAS W. ARNER, *The Politics of International Financial Law in the Aftermath of the Global Financial Crisis of 2008*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, 92.
[987] ARMIN J. KAMMEL, *Government Versus Markets—A Change in Financial Regulation*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, 25.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

LIST OF REFERENCES

ALASTAIR CLARK & ANDREW LARGE, *Macro-prudential policy: Addressing the Things We Don't Know,* Occasional Paper No. 83, Group of Thirty, Washington, DC, 2011.

ALESSIO DE VINCENZO and ANDREA GENERALE, *Background note: T. Padoa-Schioppa's perspective on financial system regulation and supervision*, in Bank of Italy, *Conference in Memory of Tommaso Padoa-Schioppa*, Rome, December 2011.

ANAND SINHA, *Approach to regulation and supervision in the post crisis world,* Keynote address at the program 'Supervisory effectiveness in the post crisis world', February 2013.

ANCA MARIA PODPIERA, *Central Bank Design and Banking Supervision*, Presentation at the SUERF & BAFFI CAREFIN conference "Central banking and monetary policy: Which will be the new normal?", Bocconi University, Milan, 16th April 2016.

ANDREW D. CROCKETT, *Marrying the micro- and macro-prudential dimensions of financial stability,* General Manager of the BIS and Chairman of the FSF, Remarks before the Eleventh International Conference of Banking Supervisors, held in Basel, 20-21 September 2000.

ANDREW T. GUZMAN, *How International Law Works: A Rational Choice Theory*, Oxford University Press, 2008.

ANDREW T. GUZMAN, TIMOTHY L. MEYER, *International Soft Law*, Journal of Legal Analysis, 2010: Volume 2, Number 1.

ANIL K. KASHYAP, DIMITRIOS P. TSOMOCOS & ALEXANDROS P. VARDOULAKIS, *A programme for improving macro-prudential regulation,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism*.

ANTHONY D. WILLIAMS, *An economic theory of self-regulation*, The Political Economy Doctoral Workshop, Department of Government, LSE, January 2004.

ANNA MARIA AGRESTI, PATRIZIA BAUDINO, PAOLO POLONI,*The ECB and IMF Indicators for the Macro-prudential Analysis of the Banking Sector: A comparison of the two Approaches*.ECB Occasional Paper Series, No. 99, 2004.

ITAI AGUR, SUNIL SHARMA,*Rules, Discretion, and Macro-Prudential Policy*. IMF Working Paper, No. 65, 2013.

ARISTIDES N. HATZIS, *A Law and Economics Framework for Financial Regulation: Ten Questions and* Answers, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing*

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

landscape of global financial governance and the role of soft law.

ARMIN J. KAMMEL, *Government Versus Markets—A Change in Financial Regulation*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, Nijhoff International Trade Law Series: Volume 14, November 2015.

Bank for International Settlement (BIS), *History of the Basel Committee*, Updated October 2015, available at: http://www.bis.org/bcbs/history.htm

BIS, *History of the Basel Committee*, http://www.bis.org/bcbs/history.htm

BIS, *Macro-prudential instruments and frameworks: a stocktaking of issues and experiences*, Report by the Committee on the Global Financial System, CGFS Papers No. 38, May 2010.

BIS, *Macro-prudential regulation and policy,* Proceedings of a joint conference organized by the BIS and the Bank of Korea, Seoul, January 2011, BIS Paper No. 60.

BIS, *Operationalizing the selection and application of macro-prudential instruments,* CGFS Papers No. 48, Report by a Working Group established by the Committee on the Global Financial System, December 2012.

BIS, *Operationalizing the selection and application of macro-prudential instruments,* December 2012.

BIS, *Recent innovations in international banking*, Cross Report prepared by a study group established by the central banks of the G10 countries, Basel, April 1986.

BIS, *The 80th Annual Report 2009/10*, 28 June 2010, see link available http://www.bis.org/publ/arpdf/ar2010e7.pdf.

BIS,*Recent Innovation in international banking (Cross Report)*. CGFS Publications, No 1, 1986.

BIS, The Evolution of Central Bank. In: 'The *67th Annual Report, 1st April 1996 – 31st March 1997'*. Basle, 9 June 1997.

BIS, *74th Annual Report*, 28 June 2004.

BIS, *Monetary policy frameworks and central bank market operations*. March 2009.

BIS, *Macro-prudential policy and addressing pro-cyclicality,*BIS 80th Annual Report, 2010.

BIS, *Global systemically important banks: updated assessment methodology and the higher loss absorbency requirement,* July 2013.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

Bank of England, *Instruments of macro-prudential policy: A Discussion Paper*, December 2011.

Bank of England, *The role of macro-prudential policy: A discussion paper,* November 2009.

Basel Committee for Banking Supervision (BCBS), *About the Basel Committee*, September 2016, available at: http://www.bis.org/bcbs/about.htm

BCBS, *Bank Failures in Mature Economies*, Working Paper No. 13, April 2004.

BCBS, *Basel III: A global regulatory framework for more resilient banks and banking systems*, Bank for International Settlements, December 2010 (rev June 2011).

BCBS, *Frequently asked questions on the Basel III Countercyclical Capital Buffer,* October 2015.

BCBS, *Global systemically important banks: updated assessment methodology and the higher loss absorbency requirement*, July 2013.

BCBS,*The New Basel Capital Accord*,BCBS Consultative Document, April 2003

BCSB, *Strengthening the resilience of the banking sector*,Consultative Document,December 2009

BCBS, *Basel III: A global regulatory framework for more resilient banks and banking systems*, December 2010.

BCBS, *Countercyclical capital buffer proposal:Consultative Document*, July 2010.

BCBS, *Guidance for national authorities operating the countercyclical capital buffer*, December 2010

BCBS, *Basel III: International framework for liquidity risk measurement, standards and monitoring*, December 2010.

BCBS, *The transmission channels between the financial and real sectors: a critical survey of the literature*,BISWorking Paper*,* No. 18, 2011.

BCBS, *The policy implications of transmission channels between the financial system and the real economy*,BIS Working Paper, No. 20, 2011.

BCBS, *Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools*, January 2013.

BCBS, *Basel III: the Net Stable Funding Ratio*, October 2014.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

BCBS, *Standards Interest rate risk in the banking book*, April 2016.

BEN S. BERNANKE, *Implications of the Financial Crisis for Economics*, Speech at the conference co-sponsored by the Center for Economic Policy Studies and the Bendheim Center for Finance, Princeton University, Princeton, New Jersey, September 24, 2010.

BENJAMIN BORN, MICHAEL EHRMANN and MARCEL FRATZSCHER, *Macro-prudential policy and central bank communication*, in BIS Papers No.60 "Macro-prudential regulation and policy", The Bank of Korea, December 2011.

BIN GU, TONG LIU, *Enforcing International Financial Regulatory Reforms*, Journal of International Economic Law (JIEL), 2014, Vol. 17 [139–176].

CARMEN M. REINHART, KENNETH S. ROGOFF, *This time is different: A panoramic view of eight centuries of financial crises*, Working paper 13882, National Bureau of Economic Research, March 2008.

CHARLES A.E GOODHART, *Chapter 5: How should we regulate bank capital and financial products? What role for "living wills"?*, in ADAIR TURNER et al., *The Future of Finance: The LSE Report*, London School of Economics and Political Science, 2010, 165.

CHARLES A.E. GOODHART, *A framework for assessing financial stability?*, Journal of Banking and Finance 30, 2006.

CHARLES A.E. GOODHART, *Can Counter-cyclical Capital Ratios Work?*, in Bank of Italy, *Conference in Memory of Tommaso Padoa-Schioppa,* 109-110.

CHARLES A.E. GOODHART, *The Regulatory Response to the Financial Crisis*, Edward Elgar Publishing Limited, 2009.

CHARLES A.E. GOODHART, *The role of macro-prudential supervision,* in CHARLES A.E. GOODHART, DIMITRIOS P. TSOMOCOS (eds.), *Financial Stability in Practice: Towards an Uncertain Future,* Edward Elgar, UK, 2012.

CHARLES A.E. GOODHART, *The use of macro-prudential instruments,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism*.

CHENG HOON, RISHI RAMCHARD, HONG WANG and XIAOYONG WU, *Institutional Arrangements for Macro-prudential Policy in Asia*, IMF Working Paper, July 2013.

CHRIS BRUMMER, *Soft law and the Global Financial System*, Cambridge University Press, 2012.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

CHRIS BRUMMER, *Why soft law dominates international finance – and not trade*, Journal of International Economic Law (JIEL), Vol. 13(3) [623–643], 2010.

CHRIS GILES, RALPH ATKINS, KRISHNA GUHA, *The undeniable shift to Keynes*, Financial Times, December 2008.

CHRISTIAN TIETJE and MATTHIAS LEMANN, *The role and prospects of international law in financial regulation and supervision*, in THOMAS COTTIER et al. (eds.), *International Law in Financial Regulation and Monetary Affairs*

CHRISTINE PARKER, JOHN BRAITHWAITE, *The Oxford Handbook of Legal Studies*, in MARK TUSHNET and PETER CAN (eds.), Oxford University Press, Online publication, 2012.

CLAUDIO BORIO and MATHIAS DREHMANN, *Towards an operational framework for financial stability: "fuzzy" measurement and its consequences*, BIS Working Papers No. 284, June 2009, 1.

CLAUDIO BORIO, CRAIG FURFINE and PHILIP LOWE, *Pro-cyclicality of the financial system and financial stability: issues and policy options*, Bank for International Settlements, BIS Paper No.1.

CLAUDIO BORIO, *Macro-prudential frameworks: (Too) great expectations?,* in DIRK SCHOENMAKER (ed.), *Macro-prudentialism,* A VoxEU.org Book, CEPR Press & Duisenberg School of Finance, December 2014.

CLAUDIO BORIO, *The financial cycle and macroeconomics: What have we learnt?*, Journal of Banking & Finance 45, 2013.

CLAUDIO BORIO, *Towards a macro-prudential framework for financial supervision and regulation?* BIS Working Papers No. 128, February 2003.

CLAUDIO BORIO, *Towards a macro-prudential framework for financial supervision and regulation?*BIS Working Papers, No. 128, 2003.

CLAUDIO BORIO, *The financial cycle and macroeconomics: What have we learnt?* BIS Working Papers, No 395, 2012.

CLAUDIO BORIO, PITI DISYATAT, *Unconventional monetary policies: an appraisal,*BIS Working Papers, No 292, 2009.

CLAUDIO BORIO, PITI DISYATAT, *Global imbalances and the financial crisis: Link or no link?*BIS Working Papers, No 346, 2011.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

CLAUDIO BORIO, CRAIG FURFIN, PHILIP LOWE, *Pro-cyclicality of the financial system and financial stability: issues and policy options*, BIS Paper, No. 1, 2001.

CLAUDIO BORIO, LEONARDO GAMBACORTA, BORIS HOFMANN, *The influence of monetary policy on bank profitability*, BIS Working Papers, No 514, 2014.

CLAUDIO BORIO, ILHYOCK SHIM, *What can (macro-)prudential policy do to support monetary poli*cy? BIS Working Papers, No. 242, 2007.

CLAUDIO BORIO, HAIBIN ZHU, *Capital Regulation, Risk Taking and Monetary Policy: A Missing Link in the Transmission Mechanism?* BIS Working Paper, No. 268, 2008.

DAN AWREY, *Complexity, innovation, and the regulation of modern markets*, Harvard Business Law Review, Vol. 2, 2012.

DANIEL HEATH, *International coordination of macro-prudential and monetary policy*, Georgetown Journal of International Law, Vol. 45, 2014.

DANIEL K. TARULLO, *Rethinking the Aims of Prudential Regulation*, Remarks at the Federal Reserve Bank of Chicago Bank Structure Conference, Chicago, May 2014.

DANIELLE KEDAN, REBECCA STUART, *Central Bank Communications: A Comparative Study*, Central bank of Ireland, Quarterly Bulletin 02, April 2014.

DAVID D. DRISCOLL, *The IMF and the World Bank: How Do They Differ?*, About the IMF, available at: https://www.imf.org/external/pubs/ft/exrp/differ/differ.htm

DAVID D. FRIEDMAN, *Law's order: what economics has to do with law and why it matters*, Princeton University Press, New Jersey, 2000.

DICK W.P. RUITER, RAMSES A. WESSEL, *The Legal Nature of Informal International Law: A Legal Theoretical Exercise*, in JOOST PAUWELYN et al. (eds.), *Informal International Lawmaking*.

DIMITRIOS BISIAS, MARK FLOOD, ANDREW W. LO, STAVROS VALAVANIS, *A Survey of Systemic Risk Analytics*, U.S. Department of the Treasury, Working paper #0001, January 2012.

DIRK SCHOENMAKER and PETER WIERTS, *Macro-prudential Policy: The Need for a Coherent Policy Framework,* Duisenberg School of Finance Policy Paper, No. 13, July 2011.

DIRK SCHOENMAKER, *Governance of International Banking: The Financial Trilemma*, Oxford University Express,2013, 24.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

DONATO MASCIANDARO and MARC QUINTYN (eds.), *The Evolution Of Financial Supervision: The Continuing Search For The Holy Grail*, in MORTEN BALLING and ERNEST GNAN (eds.), *50 Years of Money and Finance—Lessons and Challenges*, SUERF The European Monetary and Finance Forum, September 2013.

DONATO MASCIANDARO, *Allocating financial regulatory powers: the Twin views (Comment)*, in DAVID G. MAYES, GEOFFREY E. WOOD (eds.), *The structure of financial regulation*, Routledge International Studies in Money and Banking, 2007.

DOUGLAS W. ARNER, *The Politics of International Financial Law in the Aftermath of the Global Financial Crisis of 2008*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*.

EILIS FERRAN, *Institutional Design: The Choices for National Systems*, in NIAMH MOLONEY, EILIS FERRAN, JENNIFER PAYNE (eds.), *The Oxford Handbook of Financial Regulation*, Oxford Handbooks Online, November 2015.

EILÍS FERRAN, KERN ALEXANDER, *Can soft law bodies be effective? soft systemic risk oversight bodies and the special case of the European Systemic Risk Board*, Legal Studies Research Paper Series, University of Cambridge, No. 36/2011, June 2011.

EILIS FERRAN, *Where in the world the EU is going?*, in EILIS FERRAN, NIAMH MOLONEY, JENNIFER G. HILL, JOHN C. COFFEE, JR., *The Regulatory Aftermath of the Global Financial Crisis*.

ELISABETTA GUALANDRI and MARIO NOERA, *Monitoring systemic risk: A survey of the available macro-prudential toolkit,* Conference of the European Association of University Teachers in Banking and Finance, Wolpertinger, Milan, September 2014.

EMILIOS AVGOULEAS, *Governance of Global Financial Markets: The Laws, The Economics, The Politics*, Cambridge University Express, 2011.

ENRICO PEROTTI and JAVIER SUAREZ, *Simple analytics of systemic liquidity risk regulation*, in DIRK SCHOENMAKER (ed.), *Macroprudentialism*.

ERIC S. ROSENGREN, *Defining Financial Stability, and Some Policy Implications of Applying the Definition,* Keynote Remarks at the Stanford Finance Forum, Graduate School of Business, Stanford University, June 3, 2011.

ERLEND W. NIER, JACEK OSINSKI, LUIS I. JACOME, PAMELA MADRID, *Towards Effective Macro-prudential Policy Frameworks: An Assessment of Stylized Institutional Models*, IMF Working Paper WP/11/250, November 2011.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

ERLEND W. NIER, *On the governance of macro-prudential policies*, in STIJN CLAESSENS, DOUGLAS D. EVANOFF, GEORGE G. KAUFMAN, LAURA E. KODRES (eds.), *Macro-prudential Regulatory Polices: The New Road to Financial Stability?*.

EUGENIO CERUTTI, STIJN CLAESSENS, LUC LAEVEN, *The Use and Effectiveness of Macro-prudential Policies: New Evidence*, IMF Working Paper WP/15/61, March 2015.

European Central Bank (ECB), *The concept of systemic,* Financial Stability Review, December 2009.

ECB, *Monetary policy transmission in the euro area,* Monthly Bulletin,July 2000.

ECB, *The ECB's Monetary Policy Strategy and its implementation,*in '*Monthly Bulletin 10th Anniversary of the ECB*', Frankfurt am Main, 2008.

ECB, *The concept of systemic risk,*Financial Stability Review, December 2009.

ECB, *Monetary Policy Transmission in the Euro Area*, A Decade after the Introduction of the Euro, Monthly BulletinMay 2010.

ECB, *The Monetary Policy of the ECB*, Frankfurt am Main, 2011.

ECB, *Liquidity Regulation and Monetary Policy Implementation,*Monthly Bulletin April 2013.

ECB, *Recent experience of European countries with macro-prudential policy,* Financial Stability Review, May 2014.

ECB, *Guide to Banking Supervision,* Frankfurt am Main, 2014.

ECB, *Progress in the operational implementation of the Single Supervisory Mechanism Regulation*,SSM Quarterly Report, No. 3, 2014.

European Systemic Risk Board, *Flagship Report on Macro-prudential Policy in the Banking Sector*, European System of Financial Supervision, 2014.

European Systemic Risk Board, *Recommendations on intermediate objectives and instruments of macro-prudential policy,* ESRB/2013/1, 4 April 2013.

European Systemic Risk Board, *Recommendations on intermediate objectives and instruments of macro-prudential policy,* ESRB/2013/1.

European Systemic Risk Board, *Regulations on European macro-prudential oversight of the financial system and establishing a European Systemic Risk Board,* Regulation (EU) No. 1092/2010 of the European Parliament and of the Council, 24 October 2010.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

European Systemic Risk Board, *Regulations on European macro-prudential oversight of the financial system and establishing a European Systemic Risk Board,* Regulation (EU) No. 1092/2010.

European Union Committee, *The future of EU financial regulation and supervision*, 14th Report of Session 2008–09, Volume I: Report, HL Paper 106–I.

FABIO PANETTA, *Central banking in the XXI century: never say never*, SUERF/BAFFI CAREFIN Center Conference on *Central banking and monetary policy: Which will be the new normal*, Milan 14th April 2016.

FABIO PANETTA, *Macro-prudential tools – where do we stand?*, Remarks during the presentation of the 2013 Financial Stability Review, Central Bank of Luxembourg, Luxembourg, 14 May 2013.

FEDERICO LUPO-PASINI and ROSS P. BUCKLEY, *Global systemic risk and international regulatory coordination: Squaring sovereignty and financial stability,* American University International Law Review, Vol. 30, No. 4, October 2015.

Financial Stability Board, *2013 update of group of global systemically important banks (G-SIBs)*, November 2013.

Financial Stability Board, Bank for Intentional Settlements & International Monetary Fund, *Macro-prudential policy tools and frameworks*, Report to G20 Finance Ministers and Central bank Governors, February 2011.

Financial Stability Board, Bank for International Settlements and International Monetary Fund, *Macro-prudential Policy Tools and Frameworks: Progress Report to G20,* October 2011.

Financial Stability Board, *FSB publishes the 2015 update of the G-SIB list*, November 2015.

Financial Stability Board, *Our History*, 2016, available at: http://www.fsb.org/about/history/

FORREST CAPIE, *Some historical perspective on financial regulation*,in DAVID G. MAYES, GEOFFREY E. WOOD (eds.), *The structure of financial regulation*.

FRANK PARTNOY, *Financial Systems, Crises, and Regulation*, in NIAMH MOLONEY, EILÍS FERRAN, and JENNIFER PAYNE (eds.), *The Oxford Handbook of Financial Regulation*, Oxford University Press, 2015.

FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law*, Nijhoff International Trade Law Series: Volume 14, 2015.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

FSB, IMF and BIS, *Macro-prudential tools and frameworks: Update to G20 Finance Ministers and Central Bank Governors,* February 2011.

GABRIELE GALATI & RICHHILD MOESSNER, *Macro-prudential policy: A literature review,* BIS Working Paper No. 337.

GARRY J. SCHINASI, *Defining Financial Stability*, International Capital Markets Department, IMF Working Paper, October 2004.

GARY J. SCHINASI, *Responsibility of Central Banks for Stability in Financial Markets*, IMF Working Paper, WP/03/121, June 2003.

GEORGE MÉSZÁROS, *Macro-prudential regulation: A contradiction in its own terms*, Journal of Banking Regulation, Vol 14, 2 (164-182), Macmillan Publishers Ltd., 2013.

GIOVANNI FAVARA and LEV RATNOVSKI, *Externalities: An economic rationale for macro-prudential policy*, in DIRK SCHOENMAKER (ed.), *Macroprudentialism*.

GIUSEPPE NAPOLETANO, *Legal aspects of macro-prudential policy in the United States and in the European Union*, Bank of Italy, No. 76, June 2014.

GREGORY SHAFFER, MARK POLLACK, *How Hard Law and Soft Law Interact in International Regulatory Governance: Alternatives, Complements and Antagonists*, Society of International Economic Law (SIEL), Working Paper No. 45/08, 2008.

Group of Thirty, *Enhancing Financial Stability and Resilience: Macro-prudential Policy, Tools and System for the Future,* Macro-prudential Policy Working Group, Washington DC, October 2010.

GUNDBERT SCHEFF, *Financial Stability in the Euro Zone: The Political Economy of National Banking Regulation in an Integrating Monetary Union*, Springer Gabler, Germany, 2012.

GUNTHER TEUBNER, *Global Bukowina: Legal Pluralism in the World Society*, in GUNTHER TEUBNER (ed.), *Global Law Without a State*, Brookfield: Dartmouth 1997 (3-28).

H. BROUWER, *Challenges in the design of macro-prudential tools*. Introductory speech at the workshop on “Concrete macro-prudential tools” hosted by DNB, the IMF and the Duisenberg School of Finance, Amsterdam, 13th January 2010.

H. L. A. HART, *The concept of law*, Third Edition, Oxford University Express, 2012.

HANS GERSBACH and JEAN-CHARLES ROCHET, *Capital regulation and credit fluctuations,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism*.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

HARTMUT HILLGENBERG, *A fresh look at soft law*, European Journal of International Law, 1999, Vol. 10, No. 3.

HASSANE CISSE, *Alternatives to 'Hard' Law in International Financial Regulation: The Experience of the World Bank*, American Society of International Law (ASIL) Proceedings (Re: Opting Against International Law in International Financial Regulation), 2012.

HOWARD DAVIES, *Two Cheers for Financial Stability,* Group of Thirty, Washington, DC, 2006.

HYMAN P. MINSKY, *The Financial Instability Hypothesis*, Working Paper No. 74, The Jerome Levy Economics Institute of Bard College, May 1992

IAN GOLDIN and MIKE MARIATHASAN, *The Butterfly Defect: How Globalization Creates Systemic Risks, and What to Do about It,* Princeton University Press, Princeton and Oxford, 2014.

International Monetary Fund, Bank for International Settlements, Financial Stability Board, *Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations,* Report to G20 Finance Ministers and Governors, October 2009.

International Monetary Fund, *Key aspects of macro-prudential policy*, June 2013, 5.

International Monetary Fund, *Macro-prudential policy: An Organizing Framework — Background Paper*, March 2011.

International Monetary Fund, *Staff Guidance Note on Macro-prudential Policy,* December 2014.

International Monetary Fund, *The Fund's Mandate—The Legal Framework,* Prepared by the Legal Department, February 2010.

International Organization of Securities Commissions, *Fact Sheet*, May 2016, available at: http://www.iosco.org/about/pdf/IOSCO-Fact-Sheet.pdf

IRMA ROSENBERG, *Monetary policy and financial stability—the Riksbank's two main tasks*, Sveriges Riksbank, Sweden. Speech available at: http://www.riksbank.se/Pagefolders/36882/081002e.pdf

ITAI AGUR and SUNIL SHARMA, *Rules, discretion and macro-prudential policy*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*, Rutledge Research in Finance and Banking Law, 2015.

IVO MAES, *On the origin of the BIS macro-prudential approach to financial stability: Alexandre Lamfalussy and financial fragility,* National Bank of Belgium Working Paper No. 176,

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

October 2009.

JACINT JORDANA, DAVID LEVI-FAUR, *The politics of regulation in the age of governance*, in JACINT JORDANA, DAVID LEVI-FAUR (eds.), *The politics of regulation: Institutions and Regulatory reforms for the age of governance*, Edward Elgar, 2005.

JAIME CARUANA, *Macro-prudential policy: working towards a new consensus,* Speech at the high-level meeting on "The Emerging Framework for Financial Regulation and Monetary Policy" jointly organized by the BIS's Financial Stability Institute and the IMF Institute, Washington DC, 23 April 2010.

JAIME CARUANA, *Systemic risk: how to deal with it?*.; *See also* CLAUDIO BORIO, *Macro-prudential frameworks: (Too) great expectations?,* in DIRK SCHOENMAKER (ed.), *Macro-prudentialism,* A VoxEU.org Book, CEPR Press, December 2014.

JAIME CARUANA, *The challenge of taking macro-prudential decisions: who will press which button(s)?*, Remarks at the 13th Annual International Banking Conference, Federal Reserve Bank of Chicago and IMF, Chicago, 24 September 2010.

JAKOB DE HAAN, SANDER OOSTERLOO, DIRK SCHOENMAKER, *Financial Markets and Institutions: A European Perspective* (2nd edition), Cambridge University Press, 2012.

JAN KLABBERS, *International Law*, Cambridge University Press, 2013.

JEAN-PIERRE LANDAU, *Macro-prudential policy: Central banking reconsidered*, in STIJN CLAESSENS, DOUGLAS D. EVANOFF, GEORGE G. KAUFMAN, LAURA E. KODRES (eds.), *Macro-prudential Regulatory Polices: The New Road to Financial Stability?*.

JEAN-PIERRE LANDAU, *Pro-cyclicality – what it means and what could be done*, Remarks at the Bank of Spain's conference on *Pro-cyclicality and the Role of Financial Regulation*, Madrid, 4 May 2009.

JOHAN DEN HERTOG, *Review of economic theories of regulation*, Utrecht School of Economics, Utrecht University, December 2010.

JOHN C. COFFEE, JR., *The political economy of Dodd-Frank: Why financial reform tends to be frustrated and systemic risk perpetuated*, in EILIS FERRAN, NIAMH MOLONEY, JENNIFER G. HILL, JOHN C. COFFEE, JR., *The Regulatory Aftermath of the Global Financial Crisis*, Cambridge University Press, 2013.

JOOST PAUWELYN, *Is It International Law or Not, and Does It Even Matter?*, in JOOST PAUWELYN, RAMSES WESSEL, and JAN WOUTERS (eds.), *Informal International Lawmaking*, Oxford University Press, 2012.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

JOSEPH GOLD, *Strengthening the soft international law of exchange agreements*, Journal of International Law (JIL), Vol. 77, 1983.

JULIA BLACK, *Seeing, Knowing, and Regulating Financial Markets: Moving the Cognitive Framework from the Economic to the Social*, LSE Law, Society and Economy Working Papers 24/2013, London School of Economics and Political Science.

KAL RAUSTIALA, *Rethinking the Sovereignty Debate in International Economic Law*, Journal of International Economic Law (JIEL), 6(4) [841-878], 2003.

KARL-HEINZ LADEUR, *The Financial Market Crisis—a Case of Network Failure?*, in POUL F. KJAER et al. (eds.), *The Financial Crisis in Constitutional Perspective: The Dark Side Of Functional Differentiation*.

KATHARINA PISTOR, *A legal theory of finance*, Journal of Comparative Economics No. 41, 2013.

KENNETH W. ABBOTT, DUNCAN SNIDAL, *Hard and Soft Law in International Governance*, International Organization Vol. 54, 3, 2000 (pp. 421–456.

KERN ALEXANDER, *International Economic Law and Macro-prudential Regulation*,in THOMAS COTTIER, ROSA M. LASTRA, CHRISTIAN TIETJE, LUCIA SATRAGNO, (eds.), *The Rule of Law in Monetary Affairs,* Cambridge University Press, 2014.

KERN ALEXANDER, *The General Agreement on Trade In Services and the Balance Between Trade Liberalization and Financial Regulation*, Cambridge Endowment for Research in Finance, Cambridge University, 2003.

KERN ALEXANDER, *The role of soft law in the legalization of international banking supervision: A conceptual approach,* ESRC Center for Business Research, University of Cambridge, Working Paper No. 168, 2000.

Gouglas W. Arner, *Financial Stability, Economic Growth, and the Role of Law*, Cambridge University Press, 2007.

KERN ALEXANDER, *The role of Capital in Supporting Banking Stability*, in 'The Oxford Handbook of Financial Regulation', Eilis Ferran, Niamh Moloney, Jennifer Payne (eds), Oxford University Press, 2015.

LAUREEN SNIDER, *The Conundrum of Financial Regulations: Origins, Controversies and Prospects*, 124-127. GEORGE STIGLER, *The economic theory of regulation*, Bell Journal of Economics, Vol. 2.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

LAWRENCE J. WHITE, *The Role of Financial Regulation in a World of Deregulation and Market Forces*,Stern School of Business, New York University, November 1999.

LAWRENCE SUMMERS*, Washington must not settle for secular stagnation*, Financial Times, 5 January, 2014.

LESLIE GREEN, *Introduction*, in H. L. A. HART, *The concept of law*.

LISA SENDEN, *Soft Law in European Community Law*, Hart Publishing, Oxford and Portland Oregon, 2004.

LORENZO BINI SMAGHI, *Independence and Accountability in Supervision: General Principles and European Setting*, in DONATO MASCIANDARO and MARC QUINTYN (eds.), *Designing Financial Supervision Institutions*, Edward Elgar UK, December 2007.

LUCAS PAPADEMOS, *Price stability, financial stability and efficiency, and monetary policy,* Speech at the Third conference of the Monetary Stability Foundation on "Challenges to the financial system – aging and low growth", Frankfurt am Main, 7 July 2006.

LUIS I. JACOME and ERLEND W. NIER, *Macro-prudential policy: Protecting the whole,* Finance and Development, International Monetary Fund, *see link available:* http://www.imf.org/external/pubs/ft/fandd/basics/macropru.htm

MADS ANDENAS and IRIS H-Y CHIU, *The foundations and future of financial regulation: Governance for responsibility*, Routledge Taylor&Francis Group, March 2015, 4.

MALOU DIRKS, CASPER DE VRIES and FIEKE VAN DE LECQ, *Macro-prudential policy: The neglected sectors,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism*.

MAMIKO YOKOI-ARAI, *GATS' prudential carve out in financial services and its relation with prudential regulation*, International Comparative Law Quarterly, Volume 57, 2008, [613–648].

MARC QUINTYN and MICHAEL W. TAYLOR, *Robust Regulators and Their Political Masters: Independence and Accountability in Theory*, in DONATO MASCIANDARO and MARC QUINTYN (eds.), *Designing Financial Supervision Institutions*.

MARCELO MADUREIRA PRATES, *Why prudential regulation will fail to prevent financial crisis. A legal approach*, Working paper No. 335, Banco Central do Brasil, 2013.

MARIO GIOVANOLI, *The reform of the international financial architecture after the global crisis*, NYU Journal of International Law and Politics, Vol. 42:81, 2009.

MARKUS BRUNNERMEIER, ANDREW CROCKETT, CHARLES GOODHART, AVINASH

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

D. PERSAUD, HUYN SHIN, *The Fundamental Principles of Financial Regulation*, International Center for Monetary and Banking Studies, Geneva Reports on the World Economy, November 2009.

MATHIAS DREHMANN, CLAUDIO BORIO, LEONARDO GAMBACORTA, GABRIEL JIMENEZ and CARLOS TRUCHARTE, *Countercyclical capital buffers: exploring options,* BIS Papers No. 317, July 2010.

MICHAEL C. MUNGER, WILLIAM R. KEECH, *Market Failure and Government Failure*, Public Choice World Congress, 2012, Miami; FRANCIS M. BATOR, *The Anatomy of Market Failure*, The Quarterly Journal of Economics, Volume 72, Issue 3, August 1958.

MICHAEL W. TAYLOR, *Regulatory reform after the financial crisis*, in ROBIN HUI HUANG and DIRK SCHOENMAKER (eds.), *Institutional structure of financial regulation: Theory and international experiences*.

NELLIE LIANG, *Systemic Risk Monitoring and Financial Stability, Journal of Money, Credit and Banking*, Supplement to Vol. 45, No. 1, August 2013.

NIAMH MOLONEY, *Financial services and markets*, in NIAMH MOLONEY et al. (eds.), *The Oxford Handbook of Financial Regulation*, 442. *See* also: DAN AWREY, *Complexity, innovation, and the regulation of modern*

OLIVIER DE BANDT AND PHILIPP HARTMANN, *Systemic risk: A survey,* European Central Bank Working Paper Series, No. 35, November 2000.

OLIVIER J. BLANCHARD, *The State of Macro*, NBER Working Paper, No. 14259, August 2008.

OTMAR ISSING, *Monetary and Financial Stability: Is there a Trade-off?,* Conference on 'Monetary Stability, Financial Stability and the Business Cycle', Bank for International Settlements, Basle, March 28-29, 2003.

Oxford Learner's Dictionaries

PATRICIA JACKSON, *Shadow banking and new lending channels—Past and Future*, in MORTEN BALLING and ERNEST GNAN (eds.), *50 Years of Money and Finance—Lessons and Challenges*, SUERF.

PAUL A. VOLCKER, *Protecting the Stability of Global Financial Markets,* in STIJN CLAESSENS, DOUGLAS D. EVANOFF, GEORGE G. KAUFMAN, LAURA E. KODRES (eds.), *Macro-prudential Regulatory Polices: The New Road to Financial Stability?*, World Scientific Publishing Co. Pte. Ltd, 2012.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

PAUL HILBERS, *The IMF/World Bank Financial Sector Assessment Program*,IMF, February 2001.

PAUL KRUGMAN, *How Did Economists Get It So Wrong?*, The New York Times Magazine, September 2009, available at: http://www.nytimes.com/2009/09/06/magazine/06Economic-t.html?_r=0

PAUL TUCKER, *The political economy of macro-prudential regimes,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism.*

PETER VAN DEN BOSSCHE, *The Law and Policy of the World Trade Organization: Text, Cases, Materials*, Cambridge University Press, 2005.

PIER CLEMENT, *The term macro-prudential: origins and evolution,* BIS Quarterly Review, March 2010.

POONAM PURI and SIMON KUPI, *Say on Pay, Soft Law and the Regulatory Focus on Enforcement and Transparency*, in FRIEDL WEISS, ARMIN J. KAMMEL (eds.), *The changing landscape of global financial governance and the role of soft law.*

POUL K. KJAER, *Introduction*, in POUL F. KJAER, GUNTHER TEUBNER, ALBERTO FEBBRAJO (eds.), *The Financial Crisis in Constitutional Perspective: The Dark Side Of Functional Differentiation*, Hart Publishing, Oxford and Portland, Oregon, 2011.

PROSPER WEIL, *Towards Relative Normativity in International Law?*, American Journal of International Law, 77 A.J.I.L. 413, 1983

RANDALL DODD, *The Economic Rationale for Financial Market Regulation*, Special Policy Report No.12, Derivatives Study Center, Washington D.C., December 2002.

RICHARD PORTES, *Macro-prudential policy and monetary policy,* in DIRK SCHOENMAKER (ed.), *Macroprudentialism.*

ROBERT BALDWIN et al., *Introduction: Regulation—The Field and the Developing Agenda*, in ROBERT BALDWIN et al. (eds.), *The Oxford Handbook of Regulation.*

ROBERT BALDWIN, MARTIN CAVE, MARTIN LODGE, *Introduction: Regulation—The Field and the Developing Agenda*, in ROBERT BALDWIN, MARTIN CAVE, and MARTIN LODGE (eds.), *The Oxford Handbook of Regulation*, Oxford University Express, 2010.

ROLF H. WEBER, DOUGLAS W. ARNER, *Toward a New Design for International Financial Regulation*, University of Pennsylvania Journal of International Law, Volume 29, Issue 2, Article 3, 2007; MARIO GIOVANOLI, *The reform of the international financial architecture after the*

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

global crisis, NYU Journal of International Law and Politics, Vol. 42:81, 2009.

ROLF H. WEBER, *Mapping and Structuring International Financial Regulation—A Theoretical Approach*, European Business Law Review (651-688), 2009.

ROSA M. LASTRA, *Legal Foundations of International Monetary Stability,* Oxford University Express, 2006.

ROSA M. LASTRA, *The crisis of 2007-09: Nature, Causes, and Reactions,* in THOMAS COTTIER, ROSA M. LASTRA, CHRISTIAN TIETJE, LUCIA SATRAGNO, (eds.), *The Rule of Law in Monetary Affairs*.

ROSA M. LASTRA, *The role of central banks in monetary affairs,* in THOMAS COTTIER, ROSA M. LASTRA, CHRISTIAN TIETJE, LUCIA SATRAGNO, (eds.), *The Rule of Law in Monetary Affairs*.

SABINE LAUTENSCHLAGER, *Monitoring, regulation and self-regulation in the European banking sector*, Speech at the Deutsche Aktieninstitut in Frankfurt am Main, 21 April 2015.

SABINE LAUTENSCHLAGER, *The interplay between macro-prudential, micro-prudential and monetary policies at the ECB*, Conference on "Macro-prudential Policy - Implementation and Interaction with other Policies", Stockholm, 13th November 2014. Presentation available at: http://www.riksbank.se/Documents/Avdelningar/AFS/2014/Konferens%20Makrotillsyn/2.3%20Sabine%20Lautenschläger_ECB.pdf

SAMUEL G. HANSON, ANIL K KASHYAP, JEREMY C. STEIN, *A Macro-prudential Approach to Financial Regulation*, Journal of Economic Perspectives, Volume 25, No. 1, 2011.

SARWAT JAHAN, AHMED SABER MAHMUD, CHRIS PAPAGEORGIOU, *What Is Keynesian Economics?*, Finance & Development, International Monetary Fund, September 2014, Vol. 51, No. 3.

SAULE T. OMAROVA, *Wall Street as community of fate: toward financial industry self-regulation*, University of Pennsylvania Law Review, Vol. 159: 411, 2011.

SHAWN DONNELLY, *Institutional Change at the Top: From the Financial Stability Forum to the Financial Stability Board*, University of Twente, 2012.

SIDLEY Update, *WTO Ruling Clarifies Flexibility in Member Governments' Regulation of Financial Services*, 20th April 2016, available at: http://www.sidley.com/~/media/update-pdfs/2016/04/20160420-international-trade-update.pdf%2020%20April%202016

STEPHEN G. CECCHETTI, INGO FENDER and PATRICK MCGUIRE, *Toward a global risk*

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

map, the Fifth European Central Bank Conference on Statistics "Central bank statistics: What did the financial crisis change?", May 2010.

STEPHEN K. AIKINS, *Global financial crisis and government intervention: a case for effective regulatory governance*, International Public Management Review, Volume 10, Issue 2, 2009, International Public Management Network.

STEVEN L. SCHWARCZ, *Systemic Risk and the Financial Crisis: Protecting the Financial System as a 'System',* University of California Berkeley School of Law, 2014.

STEVEN L. SCHWARCZ, *Systemic Risk,* The Georgetown Law Journal, Vol. 97:193, 2008.

STIJN CLAESSENS*, An Overview of Macro-prudential Policy Tools,* IMF Working Paper WP/14/214, December 2014.

STIJN CLAESSENS, AYHAN KOSE, LUC LAEVEN, FABIAN VALENCIA (eds.), *Financial Crises: Causes, Consequences, and Policy Responses*, International Monetary Fund, Washington DC, 2014.

STIJN CLAESSENS, M. AYHAN KOSE and MARCO E. TERRONES, *Understanding financial cycles*, in DIRK SCHOENMAKER (ed.), *Macroprudentialism*.

Testimony of Chairman ALAN GREENSPAN, *The regulation of OTC derivatives*, Testimony of Chairman Alan Greenspan Before the Committee on Banking and Financial Services, U.S. House of Representatives, July 24, 1998.

The World Bank, *History*, available at: http://www.worldbank.org/en/about/history

THOMAS COTTIER and ROSA M. LASTRA, *Conclusions*, in THOMAS COTTIER, JOHN H. JACKSON, ROSA M. LASTRA (eds.), *International Law in Financial Regulation and Monetary Affairs*, Oxford University Express, 2012.

THOMAS COTTIER, *Challenges Ahead in International Economic Law*, Journal of International Economic Law, Vol. 12, No.1, Oxford University Press, 2009.

TOMMASO PADOA-SCHIOPPA, *Regulating Finance: Balancing Freedom and Risk,* Oxford University Press, 2004, 113.

TONY PORTER, *Introduction*, in TONY PORTER (ed.), *Transnational Financial Regulation after the Crisis*, RIPE Studies in Global Political Economy, Routledge Publishing, 2014.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

VÍTOR CONSTÂNCIO, *The Nature and Significance of Banking Union,*Speech delivered at the Chatham House Conference: Financial Regulation: Towards a Global Regulatory Framework?, London, 11 March 2013.

VÍTOR CONSTÂNCIO,*Making macro-prudential policy work,*Speech at high-level seminar organized by De Nederlandsche Bank, 10 June 2014.

VÍTOR CONSTÂNCIO, *The ECB and Macro-prudential policy: from research to implementation,*Speech held at the Third Conference of the Macro-prudential Research Network, Frankfurt-am-Main, 23 June 2014.

VÍTOR CONSTÂNCIO, *Macroprudential policy in Europe: ensuring financial stability in a banking union,* Keynote speech at the Financial Stability Conference, Berlin, 28 October 2015

VÍTOR CONSTÂNCIO, *The European Crisis and the Role of the Financial System,*Journal of Macroeconomics, Vol. 39, 2015.

VÍTOR CONSTÂNCIO, *Assessing the new phase of unconventional monetary policy at the ECB*, Remarks at the Annual Congress of the European Economic Association, University of Mannheim, 25 August 2015.

VIRAL V. ACHARYA, THOMAS COOLEY, MATTHEW RICHARDSON, INGO WALTER, *Market Failures and Regulatory Failures: Lessons from Past and Present Financial Crises*, ADBI Working Paper Series, No. 264, February 2011.

VIRAL V. ACHARYA, TIM EISERT, CHRISTIAN EUFINGER, CHRISTIAN HIRSCH, *Whatever it takes: The Real Effects of Unconventional Monetary Policy*, The 16th Jacques Polak Annual Research Conference, International Monetary Fund, November 5–6, 2015.

WILLEM H. BUITER, *Regulating the new financial sector*, Willem Buiter's Maverecon Blogs, 25th February 2009, available at http://blogs.ft.com/maverecon/2009/02/regulating-the-new-financial-sector/#axzz4G5qtGY8i

WILLIAM A. ALLEN & GEOFFREY WOOD, *Defining and Achieving Financial Stability,* LSE Financial Markets Group, Special Paper Series, No.160, April 2005.

WOLF WAGNER, *Unintended consequences of macro-prudential policies*, in DIRK SCHOENMAKER (ed.), *Macroprudentialism.*

World Trade Organization, available at:
https://www.wto.org/english/thewto_e/whatis_e/inbrief_e/inbr00_e.htm

XAVIER FREIXAS, LUC LAEVEN, JOSE-LUIS PEYDRO, *Systemic risk, crises, and macro-*

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

prudential regulation, VOX CEPR's Policy Portal, 05 August 2015, available at http://voxeu.org/article/systemic-risk-crises-and-macroprudential-regulation

"Essentially, all models are wrong, but some are useful."; George E. P. Box (1919 – 2013).

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.

ACKNOWLEDGEMENTS

In writing this doctoral thesis, I owe much to many of my professors, colleagues and friends.

First and foremost, I would like to express my sincere gratitude to Professor Donato Masciandaro, my supervisor, whom I admire and who has always encouraged me and provided me with valuable advices and materials.

I am grateful to Professor Claudio Dordi for hiscontinuous guidance and support from when I first sketched the ideas for proposal.

I wish to thank members of the Ph.D faculty, in particular Professor Giorgio Sacerdoti, Professor Giovanna Adinolfi, Professor Yane Svetiev, Professor Carlo Altomonte, Professor Leonardo Borlini, Professor Anna De Luca; and Paola Mascia of the Ph.D School for having helped me in many ways during my Ph.D studies. I also wish to thank two external reviewers, Professor Emilios Avgouleas and Professor Fabian Amtenbrink, for their constructive comments.

Parts of this thesis were conducted during the research stay at the Center for Banking and Finance Law at the National University of Singapore (NUS), Singapore and during the short visit to the European Central Bank (ECB) in Frankfurt, Germany. I am indebted to Professor Dora Neo, Leanne Hwee at the NUS; Antonio Luca Riso, Daniel Gluch at the ECB for their kind help in sharing time and expertise for discussions and providing me with the most updated materials.

I would also like to thank my colleagues at Foreign Trade University Hanoi, and all my friends in Italy, Vietnam and Switzerland for their profound support.

Any error or omission in this thesis remains my own.

This thesis is dedicated to my family for their unconditional and lasting love and trust in me.

Tesi di dottorato "Legal and Economic Foundations of Macro-prudential Policy"
di VU KIM NGAN
discussa presso Università Commerciale Luigi Bocconi-Milano nell'anno 2018
La tesi è tutelata dalla normativa sul diritto d'autore(Legge 22 aprile 1941, n.633 e successive integrazioni e modifiche).
Sono comunque fatti salvi i diritti dell'università Commerciale Luigi Bocconi di riproduzione per scopi di ricerca e didattici, con citazione della fonte.