

CHARLES UNIVERSITY

Faculty of Law

Vít Kropjok

**Ideal Crisis Management Mechanism for
Credit Institutions and Investment Firms in
the European Union**

Dissertation

Supervisor: doc. JUDr. Michael Kohajda Ph.D.

Study Programme: Theoretical Legal Studies – Financial Law and
Financial Science

Dissertation completed on February 28, 2021

Declaration

I hereby declare that I have written the enclosed dissertation completely by myself, have dully acknowledged and marked all the sources of information used herein and that the dissertation has not been used and submitted in the same or in a similar version to achieve any academic degree elsewhere.

I further declare that this dissertation, including footnotes, has 1,069,658 characters with spaces.

Vít Kropjok

In Prague on February 28, 2021

Acknowledgement

At this point I would like to give immense thanks to my supervisor and my family since all of them were true inspiration for me during writing this dissertation and without their patience it would have never been possible to finish it.

Table of Content

- 1 HAS IT HAPPENED BEFORE? 12**
 - 1.1 The Panic of 1907 12
 - 1.1.1 *The Creation of the Federal Reserve System*..... 14
 - 1.2 Banking Crises of 1930’ and the Great Depression..... 17
 - 1.2.1 *The Roaring Twenties and the 1929 Stock Market Crash*..... 17
 - 1.2.2 *Banking Crises of the 1930s*..... 19
 - 1.2.3 *Parallels between the Crises and Key Takeaways* 23
 - 1.2.4 *Regulatory Responses to the Crises of the 1930s*..... 26

- 2 HOW DID WE GET THERE?..... 34**
 - 2.1 Setting the Stage for the Collapse of the Global Financial System 34
 - 2.1.1 *The Rise of Shadow Banking* 35
 - 2.1.2 *Planting the Seeds for Implosion of the American Housing Sector* 39
 - 2.1.3 *Incentivizing the Originate-to-distribute Model*..... 43
 - 2.1.4 *Fueling the Housing Bubble with Government-mandated Rating Oligopoly* 48
 - 2.1.5 *“Invasion” of Commercial Banks into Derivative Business* 52
 - 2.1.6 *Bringing-down the Glass-Steagall Wall*..... 57
 - 2.2 What Was This Time Different?..... 62

- 3 WHAT WAS DONE? 66**
 - 3.1 The Unraveling..... 66
 - 3.2 Central Banks as Crisis Managers of Last Resort 70
 - 3.2.1 *Lender of Last Resort in Historical Context*..... 73
 - 3.3 The Federal Reserve System..... 75
 - 3.3.1 *The Run on Bear Stearns*..... 80
 - 3.3.2 *The “Lehman Weekend”*..... 85
 - 3.3.3 *The Fallout* 90
 - 3.3.4 *Takeover of the American International Group* 92
 - 3.3.5 *The Unbridled Power of the Federal Reserve System* 100

3.4	The European Central Bank as Investor of Last Resort.....	104
3.4.1	<i>The Financial Crisis Phase</i>	108
3.4.2	<i>The Sovereign Debt Crisis Phase</i>	111
3.4.3	<i>Expanded Asset Purchase Programme</i>	118
3.4.4	<i>Bagehot, the Eurozone Sovereign Debt Crisis and the ECB</i>	123
4	IS SOVEREIGN DEBT RISKY? FROM FINANCIAL TO SOVEREIGN DEBT CRISIS	128
4.1	The Eurozone Sovereign-bank Doom-loop.....	129
4.1.1	<i>Lessons from the Greek Bailout</i>	131
4.1.2	<i>The Irish Banking Sector Restructuring</i>	148
4.2	Financial Assistance Mechanisms as a Firewall to Save the Euro.....	156
4.2.1	<i>European Financial Stabilization Mechanism</i>	156
4.2.2	<i>European Financial Stability Facility</i>	157
4.2.3	<i>The European Stability Mechanism</i>	159
4.3	Breaking the Sovereign-bank Doom-loop.....	167
4.3.1	<i>The Old Pains of the New Basel Rules</i>	167
4.3.2	<i>Eurozone Safe Asset as the Way Forward</i>	168
5	WHAT HAS CHANGED? BANKING UNION AND BEYOND	173
5.1	Early Calls for a Quasi-federative Financial Architecture	174
5.1.1	<i>The Need for Supervisory Repair</i>	175
5.1.2	<i>Establishment of the European System of Financial Supervision</i>	176
5.2	Roots of the Banking Union.....	189
5.2.1	<i>Creation of Centralized European Supervision</i>	192
5.3	From Centralized Supervision to Centralized Resolution.....	204
5.3.1	<i>Single Resolution Mechanism</i>	208
5.3.2	<i>Resolution Funding</i>	225
5.3.3	<i>Living Wills and Early Intervention</i>	239
5.3.4	<i>Resolution Process</i>	256

5.3.5	<i>Resolution Process and the Case of Banco Espírito Santo</i>	269
5.4	Addressing Moral Hazard with New Forms of Debt	274
5.4.1	<i>Contingent Convertibles or “CoCos” in EU Law</i>	276
5.4.2	<i>Other Forms of Loss-absorbing Debt at EU and International Level</i>	280
5.4.3	<i>The Good and the Bad about Convertible Capital</i>	284
6	EUROPEAN CRISIS MANAGEMENT MECHANISM – GOOD START, BUT FAR FROM IDEAL	289
	Abbreviations	308
	Abstract:	339
	Key words:	340

FOREWORD

The 2007-8 financial crisis brought about the most severe economic contraction since the Great Depression. Similar to the Great Depression, the crisis mushroomed in the American financial system and rippled through-out financial markets across the globe. The word crisis and in particular the phrase financial crisis became ubiquitous. Astonishingly, google search offers almost **nine hundred million** results (and counting) to the phrase financial crisis. Thus, with a bit exaggeration, the transition from the 20th to the 21st century may be viewed as the time when the internet came along, and the 2007-8 financial crisis came about, quite ironically, with the former laying foundations for the latter. Surprisingly, the crisis came unheeded and but for a few exception almost everybody was taken aback despite the various red flags. Nevertheless, and as briefly described on the following pages, the crisis was really not nothing new under the sun, although consequences thereof were not unlike anything our generation has come up against. There has been a widespread anger about what has unfolded and, in many instances, rightly so. Although economic ramifications of the crisis have been overwhelming, the collateral damage might have been, at least from a long-term point of view, even greater. Millions of ordinary citizens were laid off and found themselves unable to make ends meet and serious concerns not only about capitalism and the western financial system but also about the society we live in emerged. Like in the 1930s and during the Great Depression, the brunt of the pains and austerity that followed the recent financial crisis were born out by those who were not the culprits, which further deepened inequality, the wealth gap and uncertainty about their future prospects. Both the Great Depression and the recent financial crisis also transpired into massive debt surge, populism and a call for more nationalistic leaders and policies. In an effort to alleviate the immediate pains, central banks around the globe set out to undertake unorthodox actions, including monetary policies with zero or even negative interest rates and massive asset purchases. As a result, economics books had to be rewritten since the tenet of capitalism that borrowers pay interest to lenders and not the other way around no longer applies. Once feared inflation became unattainable. Although the global financial system and order has been largely restored in the last decade, with equity markets reaching all-time highs, it has been achieved at huge costs, massive government bailouts and surging indebtedness. Some of the pains brought about by the recent financial crisis are palpable until today. In particular, according to the latest issue of the IMF's Global Financial Stability Report, global debt reached **\$258 trillion, or 331% of the global GDP**, at the beginning of 2020 – the highest ever on record. This also means that the global financial system is much more fragile and vulnerable to withstand crises to come. Although there are not that many certainties in life, one can be sure that another financial crisis will

sooner or later come, though probably in forms and at times least expected. Before it happens, a credible crisis management framework should be put in place to reduce moral hazard and ensure that crises to come are handled without resort to taxpayer money. To find out how such crisis management framework should (or should not) look like is the primary goal of this dissertation. In particular, it aims at studying the 2007-8 financial crisis that hit the global financial system and world economies and analyzing measures adopted to ward it off and prevent its repetition.

Although the dissertation is primarily centered around the current European framework, its scope is broader since financial markets are increasingly global in nature and can hardly be contained within national (or regional) borders. Historically, almost all major shifts in financial regulation were responses to some market failures that had materialized into deep financial and economic crises. But had anything like the word went through in 2008 happened before? Since the recent financial crisis mushroomed in the United States as the country with the most developed financial sector in the world, **the first chapter** starts out with a description and analysis of the major financial crises in the United States in the first half of the 20th. Not only can it help to understand the design of the pre-crisis financial market architecture, what foundations it was built upon and why it did not prevent the recent financial crisis from coming about, it can also serve as a useful tool for comparison of the differences and similarities in both their root-causes and measures employed to address them. Leaving aside less severe crises that come from time to time, the recent financial crisis is the only one comparable in magnitude with the one that helped to bring about the Great Depression. On the other hand, the crisis of the 1930s was not the only financial crisis in the 20th century that could be compared with the most recent one. Although financial crises are seldom alike there are similarities among the panic of 1907, the collapse of the American banking system in the 1930s and the almost meltdown of the global financial system in 2008. These painful episodes can furnish a useful guidance of how the current financial market architecture might stand out when facing crises to come. As Winston Churchill said, the farther back you can look, the farther forward you are likely to see. In 2007 regulators were once again caught off guard despite the fact that similarities in the past could be found. The so-called this-time is different phenomenon probably played a role. Specifically, people usually hold a firm belief that financial crises are things that happen to other people, in other countries, at other times since they are doing things better, are smarter and have learnt from the past mistakes. But have we? By looking at past experiences, the first chapter aims at spotting some common characteristics that could serve as red flags and harbingers for financial crises to come. Prior to the 1930s the American financial system had for a long time been relatively low-regulated since financial markets were particularized and not complex. Also, the first major crisis in the United States in 1907 was

resolved relatively fast and although it revealed weaknesses of the American financial system, the creation of the Federal Reserve System as the central bank of the United States and the lender of last resort was thought to be sufficient to forestall bank runs and protect the financial system. That perception began to fade away with the stock market crash in 1929 and increasing bank runs and was eventually abandoned altogether with the nation-wide banking holiday in 1933. What happened? What lessons could be drawn?

The banking crises of the 1930s and the ensuing Great Depression transpired into a far-reaching expansion of financial regulation and creation of numerous new governmental agencies in the United States tasked to guard the financial system against excesses. Expansion of powers of the Federal Reserve System along with introduction of deposit insurance and creation of the Federal Deposit Insurance Corporation as a receiver of failing banks was seen as a major success capable of restoring trust in the banking system. At the same time, by preventing commercial banks from being exposed to the risks of the investment banking industry, which moreover got its own new regulator, the Glass-Steagall Act and the creation of the Securities and Exchange Commission was seen as a major step towards ensuring a long-term stability. The reforms made in response to the banking crises of the 1930s are very often credited with achieving the more than 50-years long era of soundness and safety of the American financial system, but **in the second chapter**, it will be shown that the soundness and safety was hardly tenable since it was achieved by, simply put, dividing markets and price fixing. The second chapter therefore provides a brief overview of the structural changes that took place in the American financial sector in the decades prior to the 2007-8 financial crisis. Although the technology-based developments coupled with advent of securitization planted the seeds for the future implosion of the sub-prime mortgage market, the ill-designed government policies were a major contributor and one of the reasons that made the crisis so widespread and severe. The purpose of the short excursion is to point out that more regulation does not mean better protection and indeed it often times means the exact opposite. Often times, the heavy regulatory burden takes toll only on the small and mid-sized firms that often do not have resources to pay lawyers and accountant firms to come up with gimmicks like Lehman Brothers' Repo 105. Indeed, high regulatory burden often creates a vicious circle when barring smaller players from entering the market but at the same time effectively forcing the big ones to merge to earn more to foot compliance bills. That in turn makes them too-big-to-fail and creates further incentives to come up with highly profitable but often risky "innovations" bearing in mind that when push comes to shove, they will be bailed out since their failure could pose threat to the whole financial system. These (now) historical implications can be useful for the current policy considerations, and most notably to see the limits of what regulation can achieve.

The third chapter starts out with a short description of the immediate responses to the 2007-8 financial crisis from both sides of the Atlantic. It will be shown that central banks of in particular the United States and the Eurozone became the most important actors in the fight against the unfolding crisis and *de facto* the only “governmental agencies” capable of swift and decisive measures. Their timely and vigorous reaction most likely warded off the collapse of the global financial system, though it was not without controversies. While the role of central banks in financial crises has a long history, this time was different. The unique task of central banks to act as lender of last resort dates back to the late 19th century and the now classic Bagehot theory, which in simple terms mandates central banks to provide emergency liquidity to illiquid but solvent banks in times of panic and system wide-crises. In this chapter, it will be demonstrated how far from the original concept both the American and the Eurozone lender of last resort had gone. Rather than lenders of last resort, it would be more accurate to describe their role as investors and crisis managers of last resort. At the same time, although there is a relatively broad consensus that the American, the European and consequently the global financial system would have been far worse off if the central banks had not gone great lengths to come up with innovative and creative ways to provide assistance basically to the whole financial system, some of these actions brought forward serious concerns about potential moral hazard they may entail. In this respect, it will be argued that despite on the balance positive effects for the financial system as a whole, both central banks materially expanded or even surpassed their legal mandates. This brings an important public policy consideration. Is the traditional concept of lender of last resort antiquated since modern times require modern tools to deal with crises in fast-paced and rapidly changing financial markets? Should central banks remain the crisis managers of last resort? If not, what role should they, the European in particular, play in crises to come?

While initial responses to the 2007-08 financial crisis were similar on both sides of the Atlantic, their form and intensity, however, evolved over the time as the crisis morphed from a sub-prime mortgage crisis into a full-blown financial crisis, which transpired into sovereign debt crisis. While financial markets in the United States were largely stabilized in 2010, Europe and the euro area in particular was facing an unprecedented degree of financial stress in both private and public sector. With no unified legislation or a blueprint how to resolve systemically important banks, European sovereigns resorted to unprecedented and largely uncoordinated taxpayer-funded bailouts. In other words, instead of letting banks fail and let their shareholders and bondholders bear the losses, fearing a domino like effect with the potential threat to financial stability of individual Member States or even Eurozone as a whole, national governments stepped in and moved the losses from the private to the public sector. In turn, the publicly-funded rescues brought about sharp deterioration to already weak public finances

of many Member States. This very tight link between banks and sovereigns in Europe, often referred to as a “doom-loop”, which is a very unique feature of Eurozone will be described in the **fourth chapter**. The cases of Greece and Ireland are included since they can demonstrate an opposite causality of this “special relationship”. Also, while the brunt of the Greek crisis was dealt with before the new crisis management framework became effective, the way of tackling the crisis could provide some lessons since the Greek experience shaped the contours of the framework that is currently being phased-in. Finally, it will be assessed whether the underlying causes have been addressed and proper corrections made.

Similarly to the crises of the 1930s, the Eurozone sovereign debt crisis transpired into a far-reaching expansion of financial regulation and creation of numerous governmental agencies similar to those created in the United States during the Great Depression era. In this respect, it is quite remarkable to look at the speeches of W. Churchill and Barack Obama who were both just sworn in and had to handle one of the most severe financial crisis of their times. In short, greedy and selfish bankers speculating with other people’s money that resulted in massive taxpayer-funded bailouts, although at the times the speeches were delivered, hardly anybody could be sure what happened. European representatives came with a similar proclamation later on. The severity of the crisis in Eurozone and only a limited success in taming it despite massive *ad hoc* government and central bank interventions highlighted the need to accelerate integration at the institutional level, which was still, in contrast with financial market integration, fragmented along national borders. More efficient, integrated and sustainable European system of financial supervision was seen as necessary for safeguarding systemic stability and ensuring regulatory consistency across the bloc. The result was a broad new quasi-federative institutional framework, the European System of Financial Supervision introduced in 2011. Although the creation of the new pan-European financial market infrastructure was a significant step towards a quasi-federative Europe, the subsequent “voluntary” Greek debt restructuring showed that the new framework did nothing to sever the link between sovereign debt and bank solvency, which made markets largely unconvinced about Eurozone’s future prospects. As a result, the debate about structural reforms of the European financial system accelerated and ensued in a roadmap towards a Banking Union. The Banking Union is a new pan-European institutional framework that has been developing exuberantly in the last decade and even though some aspects are still going concern, clear contours can be discerned. Since regulation within the single market is harmonized, having an EU-level institutional framework ensuring also a unified enforcement is a logical consequence. The **fifth chapter** therefore describes in more detail the pillars of this new institutional framework. Will it be enough to finally address the pains of the “old framework”?

1 HAS IT HAPPENED BEFORE?

1.1 The Panic of 1907

The panic of 1907 was the first worldwide financial crisis of the twentieth century. It transformed from what was initially seen as a mild contraction into a severe recession, which had spurred the monetary reform and led to the creation of the Federal Reserve System, a cornerstone of the current American financial architecture and one of the most powerful central bank in the world. The crisis was centered around New York City trust companies, low-regulated highly leveraged state-chartered financial intermediaries that competed with banks for deposits. Originally created as fiduciaries, trust companies enjoyed broad powers, including the ability to underwrite and distribute securities, to act as financial agents for corporations or to provide financing for corporate investments and acquisitions.¹ Since trusts were not chartered as banks, they were not subject to federal banking laws despite their significant engagement in bank-like activities.² In particular, trust accounts were immediately demandable in cash like bank account deposits, however, since not formally banks, trusts were much more lightly regulated and thus even more susceptible to runs than banks.³ Moreover, trusts were not members of the New York Clearing House Association, a consortium of New York City banks that facilitated transaction settlement between its members, but also a *de-facto* lender of last resort, which provided emergency lending to its members in times of crises.

The first impetus to the panic was a failed attempt of just a few speculators to corner the market in shares of United Copper Company in October 1907, which was funded by trust companies.⁴ The collapse of the United Copper share stemming from the failed cornering

¹ See Carola Frydman, Eric Hilt, and Lily Y. Zhou, *Economic Effects of Runs on Early "Shadow Banks: Trust Companies and the Impact of the Panic of 1907*, *Journal of Political Economy* 123, University of Chicago Press, No. 4, August 2015, at p. 8, [Accessed on September 15, 2015], available at: <https://www.journals.uchicago.edu/doi/abs/10.1086/681575>

² Trust also specialized in providing large non-collateralized overnight loans directly to New York equity markets, including New York Stock Exchange brokers. In turn, brokers used these loans to purchase securities for themselves or for their clients and then used these securities as collateral for bank loans. The money received from the bank loans was then used to repay the initial loan from the trust company. Trusts were a necessary part of this process, because the law prohibited nationally chartered commercial banks from making uncollateralized loans or to brokers. See Moen Jon R., Tallman Ellis W., *Federal Reserve History, The panic of 1907*, December 4, 2015, [Accessed on February 15, 2016], available at: <https://www.federalreservehistory.org/essays/panic-of-1907>

³ For example trusts were required to held cash reserves of about 5 % of their deposits, compared with 25 % required to be held by national banks. See *Id.*

⁴ Basically, they calculated that approx. 25,000 shares were trading in excess of those outstanding and concluded that brokers must have been secretly short-selling them, i.e. they loaned the shares to traders who wanted to speculate in their decline. They wanted to use that opportunity and started aggressively purchasing the shares to effectuate a short-squeeze by forcing the short sellers to settle with them at inflated prices. Since they did not have enough funds themselves, they had to borrow to be able to start purchasing the shares. But they had misread the market and the short-sellers were able to cover their short positions from other sources. As a result, they were not able to honor the share purchases they had made and the market in United Copper shares collapsed. Trusts but

resulted not only in significant losses for the speculators, but also in failures of companies that had financed them.⁵ Banks and trusts with closed connection to the speculators soon succumbed to runs. Eight banks, three of which were not members of the New York Clearing House, found themselves unable to satisfy the deposit withdrawal demands and had to turn for financial assistance to member banks that had access to liquidity. The Mercantile National bank, which did not finance the speculators and was considered solvent, followed similar footsteps two days later. Although the liquidity assistance from the New York Clearing House was successful in fending off runs on its member banks, it was too late, as the contagion of fear had started spreading.⁶ Only a few days later, the Knickerbocker Trust Company, the third largest trust company in New York City suspended deposit withdrawals due depositor runs brought about by rumors about its close-ties to the banks involved in the cornering. The second largest trust company soon followed similar footsteps. As runs intensified the problems of a few clearing houses transpired into a fully-fledged financial crisis. While New York Clearing House banks eventually help to address the liquidity shortages in the sector of trust companies, the initial hesitations and lack of swift action did not help to prevent the panic from spreading. In an attempt to stabilize the financial system, the federal government decided to provide a one-off liquidity injection of about \$25 million to support major New York City banks. These efforts proved to be insufficient and futile. Stock market collapsed and interest rates on overnight loans to brokers offered at the New York Stock Exchange rose from approx. 9.5 % to 100 %. Liquidity became scarce, bank runs intensified, and people started hoarding cash, which led to a contraction of the already weak economy.⁷

To stem the severe liquidity strain stemming from the heavy withdrawals, the New York Clearing House decided to start issuing clearing house loan certificates, the predecessors of Fed discount window loans. It was too late as member banks had already started suspending deposits withdrawals. The panic spread quickly and forced some states to declare „bank holiday“, a euphemistic moniker for governmental moratorium on bank deposit repayment.⁸

also banks that had financed the margin purchases collapsed. See Carr D., Sean, Bruner F., Robert, *The panic of 1907: Lessons Learned from the Market's Perfect Storm*, 1st Edition, August 31, 2007, ISBN: 047015263X, at pp. 44 to 47.

⁵ Friedman Milton, Anna J. Schwarz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, September 2, 2008, ISBN-13: 987-0691003542, at p. 155.

⁶ See Carr D., Sean, Bruner F., Robert, *The panic of 1907: Lessons Learned from the Market's Perfect Storm*, 1st Edition, August 31, 2007, ISBN: 047015263X, at p. 61.

⁷ See Friedman Milton, Anna J. Schwarz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, September 2, 2008, ISBN-13: 987-0691003542, at p. 158 and 159.

⁸ See Shaw W. Christopher, *Money, Power, and the People: The American Struggle to Make Banking Democratic*, the University of Chicago Press, Chicago 2019, ISBN-13: 978-0-226-63633-7.

The ability to withdraw deposits was not fully restored until early 1908.⁹ However, since there was no central bank in the United States in 1907, the crisis was effectively handled by a few influential financiers and bankers, most notably by J.P.Morgan.¹⁰ Morgan is said to have prevented collapse of several trust companies, broker-dealers, banks but also the New York City by persuading the most powerful financiers in the country to supply liquidity and to underwrite \$30 million worth New York City bonds.¹¹

1.1.1 The Creation of the Federal Reserve System

The prevailing interpretation of the 1907 panic is that rather a mild contraction was converted into a severe recession by the banking panic and associated deposit withdrawal restrictions.¹² Despite its severity, the crisis was rather short and was over in less than a year.¹³ On the other hand, the handling of the crisis made the public and politicians increasingly nervous about dependence of the financial system on only a few wealthy individuals. The political representation recognized the need for some governmental agency tasked to prevent or at least to contain negative effects of such crises in the future. The support grew across political spectrum and eventually led to the adoption of the Federal Reserve Act of 1913 (the “**Federal Reserve Act**”) establishing the Federal Reserve System as the central banks of the United States.¹⁴

The Federal Reserve Act represented a patchwork of competing interests, namely the general opposition to sweeping federal government and the call for private ownership with some form of government oversight. The fear of sweeping centralized government control of the private sector transpired into the original design of the system. In particular, the system

⁹ See Friedman Milton, Anna J. Schwarz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, September 2, 2008, ISBN-13: 987-0691003542, at p. 166.

¹¹ It is said that the New York Stock Exchange remained open during the crisis primarily because of Morgan, who solicited cash from large financial and industrial institutions and provided it to the exchange to support brokers. See Markham W, Jerry, *A Financial history of the United States, Volume II: From J.P. Morgan to the institutional investor (1900-1970)*, ISBN 0-7656-0730-1, at p. 32.

¹² See Friedman Milton, Anna J. Schwarz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, September 2, 2008, ISBN-13: 987-0691003542, at p. 161.

¹³ The contraction occurred between May 1907 and June 1908. Industrial production fell by 11 %, imports by 26%, while unemployment rose to 8% from under 3%. Immigration dropped to 750,000 people in 1909, from 1.2 million two years earlier. See Bruner, Robert F.; Carr, Sean D., *The Panic of 1907: Lessons Learned from the Market's Perfect Storm*, Hoboken, 2007, New Jersey: John Wiley & Sons, ISBN 978-0-470-15263-8, at p.142 and 161.

¹⁴ See Federal Reserve Act [December 23, 1913] An Act to provide for the establishment of Federal reserve banks, to furnish an elastic currency, to afford means of rediscounting commercial paper, to establish a more effective supervision of banking in the United States, and for other purposes. 12 U.S.C. § 226.

comprised twelve regional Federal Reserve Banks with only temporary charters modeled as private clearinghouses with the authority to provide emergency loans to its member banks via the so-called “discount window”.¹⁵ The fear that a strongly centralized system would be easily overtaken by big New York banks and influential financiers led to a high degree of independence of individual reserve banks.¹⁶ Each of the Reserve Banks was tasked to act as a lender of last resort and regulator of credit conditions within its own district. The so-called member banks, that is banks that joined the new created system and had their headquarters in a particular Reserve Bank’s geographical district became their shareholders with the power to elect majority of its directors.¹⁷ In order to establish a centralized governmental control, a body with the power to adopt a centralized monetary policy and oversee and coordinate activities of the reserve banks - the Board of Governors of the Federal Reserve System (the “**Fed**”) - was established.¹⁸

At the time, the Fed and the Reserve Banks were, however, not tasked to control the amount of money in circulation by buying and selling US Treasuries, the principal instrument for implementing monetary policy today, since the framers did not believe that excessive expansion of money supply was inflationary.¹⁹ Instead, each of the Reserve Banks was empowered to purchase, or loan money against real bills, that is short-term commercial paper arising out of commercial transactions. The foundation for this design was based on the so-called Real Bill doctrine, which commanded that money supply should conform to the needs of business and expand during boom and decrease during bust cycles. The theory was pivoted around the belief that money supply can never be excessive when issued against short term

¹⁵ The charters were issued for twenty years similarly to the charters of the first and second Bank of the United States established in 1791 and 1816, respectively, which ceased to exist after expiration of their charters.

¹⁶ As the republican Senator Glass, leader of the subcommittee responsible for the monetary system reform put it: “In the United States, with its immense area, numerous natural divisions, still more numerous competing divisions, and abundant outlets to foreign countries, there is no argument, either of banking theory or of expediency, which dictates the creation of a single central banking institution, no matter how skillfully managed, how carefully controlled, or how patriotically conducted.” It was President Wilson who pushed for, and eventually carry through, a centralized body responsible for overseeing the regional banks. See Todd, T. et al., *The Balance of Power: The Political Fight for an Independent Central Bank, 1790 – Present*, Federal Reserve Bank of Kansas City, Second Edition, June 2012, at p. 12. [Accessed on October 15, 2015], available at: <https://fedinprint.org/item/fedkmo/9318>

¹⁷ See Carnell Richard Scott, Macey Jonathan R., Miller Geoffrey P., *The Law of Financial Institutions*, Fifth Edition (Aspen Casebook) 5th Edition, November 2014, at p. 17 ISBN-13: 978-1454809944.

¹⁸ The board was to be comprised of seven Governors appointed by the President for 8 years with the advice and consent of the Senate. Also, staggering terms were introduced to ensure that no president could appoint all governors during a two-term presidency. See Todd, T. et al, *The Balance of Power: The Political Fight for an Independent Central Bank, 1790 – Present*, The Federal Reserve Bank of Kansas City, Second Edition, June 2012, at p. 15.

¹⁹ See Hetzel, Robert L. Richardson, Gary, *Money, Banking, and Monetary Policy from the Formation of the Federal Reserve Until Today*, Working Paper No. 16-01, January 2016, at p. 2, [Accessed on October 15, 2015], available at: <https://ideas.repec.org/p/fip/fedrwp/16-01.html>

commercial bill arising from transactions in “real” goods and services. More precisely, as long as banks lent only against short-term-commercial paper backed by claims to real goods and services, the loans would be just enough to finance the production of goods and services and match the economic output.²⁰ In this system, supply of money and credit was regulated by market forces, while the Federal Reserve System had to ensure that credit was not provided for speculative purposes, which would lead to asset bubbles and financial crises.²¹ All banks supervised and regulated by the Office of the Comptroller of the Currency (the “OCC”), a federal banking regulator were required to join the Federal Reserve System.²² State-chartered banks and trust companies were allowed but not required to participate. While it was expected that they would do so voluntarily to get access to the discount window, not many did, mainly due to higher regulatory scrutiny and the requirement for member banks to keep cash reserves at their regional Reserve Banks.²³

²⁰ See Friedman Milton, Anna J. Schwarz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, September 2, 2008, ISBN-13: 987-0691003542, at p. 169.

²¹ Consequently, the Federal Reserve System’s responsibility was not to prevent inflation. See Hetzel, Robert L. Richardson, Gary, *Money, Banking, and Monetary Policy from the Formation of the Federal Reserve Until Today*, Working Paper No. 16-01, January 2016, at p. 3., [Accessed on October 15, 2015], available at: <https://ideas.repec.org/p/fip/fedrwp/16-01.html>

²² The OCC was created as a bureau of the US Department of the Treasury in 1863 as a response to the patchwork of local banks, local money, and conflicting regulatory standards. Banking systems varied from state to state. Some states required a special act of the legislature before prospective bankers could obtain a bank charter with other having “free banking,” under which charters were granted to all applicants that met established conditions. Each of the thousands of individual banks issued notes, which, at least in theory, could be exchanged for precious metal. However, given the weak or non-existing supervision, banks often issued notes beyond their redemption capabilities, leading to bank runs and failures. In addition, the system discouraged the development of a single and integrated nation-wide market (and nation-wide identity), as each traveler had to exchange his banknotes into local money, which significantly hampered interstate commerce. After the creation of the Federal Reserve System, the currency issued by national banks was identical except for the name of the issuing bank and the signatures of its officers. For more details, see Office of the Comptroller of the Currency, *1863 – 1865 Founding of the National Banking System*, May 5, 2013 [Accessed on March 12, 2016], available at: <https://www.occ.treas.gov/about/who-we-are/history/1863-1865/index-occ-history-1863-1865.html>

²³ See Carnell Richard Scott, Macey Jonathan R., Miller Geoffrey P., *The Law of Financial Institutions*, Fifth Edition (Aspen Casebook) 5th Edition, November 2014, ISBN-13: 978-1454809944, at p. 22.

1.2 Banking Crises of 1930' and the Great Depression

The two decades following the establishment of the Federal Reserve System saw increasing pressure for consolidation in the US banking sector but remained largely fragmented due to a profound opposition from small state-chartered banks claiming to be serving local communities far better than large national banks.²⁴ As a result, the banking sector comprised of thousands small state-chartered banks with largely undiversified portfolios and no access to the Federal Reserve System discount window, which made the system fragile.²⁵ On the other hand, failures remained largely isolated since the fragmentation and low complexity insulated the banking sector from systemic crises and most problems came from local banks not participating in the Federal Reserve System. The Federal Reserve System was thought to have accomplished its purpose. Apart from the crisis of 1920-21, which was however followed by a vigorous expansion, economic growth had been rapid, interest rates stable and financial crises short with abrupt recoveries.²⁶

1.2.1 The Roaring Twenties and the 1929 Stock Market Crash

The “Roaring Twenties” was an era of enormous technological change, urbanization, economic and wealth growth with strong preference for the laissez-faire and economic liberty, tax reductions and weakening of labor, antitrust and any laws interfering with free markets.²⁷ The booming economy also brought about shift in consumer confidence and attitudes, which led to a massive consumer credit expansion. Everyone became an investor thanks to easy access to credit. Automobiles, telephones, refrigerators and other new technologies were becoming part of every household. Developments in the industry and finance modified the role of commercial banks as many of them started to engage in underwriting and distributing

²⁴ The opposition was also the reason why banks with national charters were prohibited from branching out in individual states up until 1933. See *Id.* at p. 17.

²⁵ By 1929 there is said to be just around thousand state banks out of over twenty thousand participating in the Federal Reserve System. For example, just in 1926, 956 banks failed See Carnell Richard Scott, Macey Jonathan R., Miller Geoffrey P., *The Law of Financial Institutions*, Fifth Edition (Aspen Casebook), November 2014, ISBN-13: 978-1454809944, at p. 17 and 18.

²⁶ See Hetzel, Robert L. Richardson, Gary, *Money, Banking, and Monetary Policy from the Formation of the Federal Reserve Until Today*, Working Paper No. 16-01, January 2016, at p. 5.

²⁷ It was the period at the heights of the so-called Lochner era, i.e. the era of judicially activist US Supreme Court keen to invalidate any legislation that inhibited businesses and free markets, including laws spanning from banking to minimum wage, child labor and safety. The Lochner era came to an end when the US Supreme Court upheld the constitutionality of state minimum wage legislation in *West Coast Hotel Co. v. Parrish* in 1937 and paved the way for the introduction of the New Deal legislation, which would not have been possible if the court had not dropped its philosophy of unfettered free markets. For details see Phillips J. Michael, *The Lochner Court, Myth and Reality: Substantive Due Process from the 1890s to the 1930s*, ISBN 0-275-96930-4, November 30, 2000, at p. 224.

securities. The growing use of automobiles, the declining importance of agriculture and increasing size of firms diminished the position of local state-chartered banks and furthered the rate of their failures.²⁸

At the same time, ordinary households were becoming increasingly exposed to the stock market, especially since brokers for the first time started allowing to buy stocks with on margin.²⁹ The stock market soared. The Dow Jones Industrial Average jumped almost six-fold from a value of approx. 70 points at the end of 1920 to more than 380 points before the market crashed in October 1929.³⁰ The increasing economic expansion and easy access to financing had not resulted just in soaring stock market, but also in housing construction boom. Home mortgage debt outstanding rose rapidly due to increasing leniency in respect of the need for borrowers to provide mortgage down payments.³¹ Stock market alike, the housing market became increasingly leveraged.

The soaring share prices produced general optimism among sophisticated investors but also ordinary people. Not everybody was optimistic though. The Fed was among the sceptics due to the prevailing view that it was its role to tame speculative behavior and prevent creation of asset bubbles. Although majority of the Fed's governors believed that stock-market speculation was bad as it diverted funds away from productive uses, differences emerged over the techniques of appropriate response. The Fed preferred a direct action and urged the Reserve Banks to decline any requests for credit that could be used for speculative purposes. On the other hand, the Federal Reserve Bank of New York was of the view that raising interest rates to discourage borrowing and speculating in the stock market was a better policy choice. After repeated requests and initial hesitations, the Fed assent to the increase of interest rates in August of 1929. This, however, had unintended consequences. In particular, due to the international gold standard, the Fed's actions forced foreign central banks to raise their own interest rates. Tight-money policies tipped economies around the world into recession,

²⁸ Friedman Milton, Anna J. Schwarz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, September 2, 2008, ISBN-13: 987-0691003542, at p. 240.

²⁹ See Kyvig, E. David, *Daily Life in the United States, 1920-1939: Decades of Promise and Pain*, November 30, 2001, ASIN : B000PY3HBK, at p. 181.

³⁰ See Measuring Worth, *Daily Closing Value of the Dow Jones Average*, May 20, 2016, [Accessed May 30, 2018], available at: <https://www.measuringworth.com/datasets/DJA/result.php>

³¹ The nominal residential mortgage debt rose by more than 268 % in the decade between 1919 and 1929, Also, the ratio of new house purchases with loan-to-value ratio of 85 % or higher increased every year during the same period, a stark contrast when with the 50 % ratio common at the beginning of the 20th century. See White Eugene N., Snowden Kenneth, Fishback Price V., *Housing and Mortgage Markets in Historical Perspective*, National Bureau of Economic Research, The University of Chicago Press, ISBN: 13-978-0-226-07384-2, at p. 89 and 90.

international commerce contracted and global economy contracted.³² The epic boom ended in a cataclysmic bust on October 28-29, 1929, where the Standard and Poor's composite and Dow Jones indexes dropped almost 37 and 25 %, respectively.³³ By mid-November 1929, the Dow Jones index had lost almost half of its value.³⁴ To mitigate the fallout, the Federal Reserve Bank of New York increased its open market purchases, expedited lending through its discount window, and lowered interest rates. Largely due to this prompt and effective action, the stock market collapse did not transpire into and national-wide bank runs.³⁵

1.2.2 Banking Crises of the 1930s

Despite the fact that the stock market crash did not transpire into a fully-fledged financial crisis and its direct financial effects were contained in the stock market, the crash coupled with the tightening monetary policy took its toll on the housing market. Construction stalled and home prices fell sharply. Uncertainty started spreading and affected both consumer behavior and business plans who reduced their willingness to spend and invest, which had a knock-on effect on the already underway economic contraction. Although the contraction was not expected to last long given the previous three contractions in 1920, 1923 and 1926 that had lasted over a year on average, these anticipations turned out to be false.³⁶ Monetary character of the contraction changed in the late 1930 as the contagion of fear started spreading among depositors and consumers who increasingly shied away from securities and deposits towards cash.³⁷ The sharp reduction of money available to be loaned out to the real economy soon transpired into the real economy. Ensuing bankruptcies further reduced investment and consumption and increased unemployment. The number of banks suspending their operations

³² See Richardson Gary, Komai Alejandro, Gou Michael and Par Daniel, *Federal Reserve History: Stock Market Crash of 1929*, November 22, 2013, at p. 2, [Accessed on May 5, 2015], available at: <https://www.federalreservehistory.org/essays/stock-market-crash-of-1929>

³³ See Friedman Milton, Anna J. Schwarz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, September 2, 2008, ISBN-13: 987-0691003542, at p. 305.

³⁴ The index did not return to its pre-crash heights until November 1954. See Richardson Gary, Komai Alejandro, Gou Michael and Par Daniel, *Federal Reserve History: Stock Market Crash of 1929*, November 22, 2013, [Accessed on May 5, 2015], available at: <https://www.federalreservehistory.org/essays/stock-market-crash-of-1929>

³⁵ See Friedman Milton, Anna J. Schwarz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, September 2, 2008, ISBN-13: 987-0691003542, at p. 306.

³⁶ See Richardson Gary, *Federal Reserve History: Banking Panics of 1930-31*, Federal Reserve Bank of Richmond, November 22, 2013, at p. 3, [Accessed on May 5, 2015], available at: <https://www.federalreservehistory.org/essays/banking-panics-1930-31>

³⁷ See Friedman Milton, Schwartz A. Jacobson, *The Great Contraction, 1929-1933*, Princeton Classic Editions, Princeton University Press 1965, at. p. 25.

(and deposit withdrawals) more than doubled in comparison with the previous year.³⁸ Although majority of the failed banks were eventually liquidated, these events were rather local and did not bring about a nationwide panic. That changed in December 1930 when the Bank of the United States, the fourth-largest bank in the New York City with over \$238 million worth of deposits ceased its operation. Not only was this not a small local bank, but it was also a member of the Federal Reserve System. The suspension meant a severe blow to the public confidence, as this was not expected to happen to banks with the access to the lender of last resort discount window.³⁹ Insufficient liquidity is said to have been a major cause of the suspension.⁴⁰ One of the problems was the inability of banks to mobilize liquidity in times of crisis since banks outside the Federal Reserve System kept a portion of their reserves as deposits in correspondent banks and not all of them belonged to the Federal Reserve System. Therefore, when a bank needed liquidity because its depositors were panicking, it had to turn to its correspondent banks, which might have been facing calls from many banks simultaneously or might have been beset by its own depositors. At the end of the day, the system was like a house of cards, so even if just a few of the banks in the chain did not have access to the Fed's discount window and refused to respond to the liquidity requests, the whole chain of banks was prone to collapse. The lack of liquidity and the increasing unwillingness of private sector to lend forced banks to liquidate large portion of their bond portfolios.⁴¹ As the sell-off intensified and yields on the bonds rose, banks had to mark down

³⁸ In particular, 1350 banks suspended deposit withdrawals in 1930 in comparison with 659 in 1929. The suspensions peaked in 1933 when it reached 4000 banks, with 3,400 suspensions alone being declared in March. See Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*, September 1937, at p. 909, [Accessed on May 5, 2015], available at: <https://fraser.stlouisfed.org/title/federal-reserve-bulletin-62/september-1937-20993>

³⁹ Interestingly, it was argued that although an ordinary commercial bank, its name had led many believe that it was a US government-owned bank and thus its potential failure was a severe blow to confidence that would have otherwise been brought about by a failure of a bank with less distinctive name. See Friedman Milton, Schwartz A. Jacobson, *The Great Contraction, 1929-1933*, Princeton Classic Editions, Princeton University Press 1965, at. p. 309.

⁴⁰ See Richardson Gary, *Federal Reserve History: Banking Panics of 1930-31*, Federal Reserve Bank of Richmond, November 22, 2013, at p. 3, [Accessed on May 5, 2015], available at: <https://www.federalreservehistory.org/essays/banking-panics-1930-31>

⁴¹ Although banks held also large portion of US government debt, these securities were eligible collateral for loans from the Federal Reserve System, which made the corporate bonds (especially low grade) first choice. At the same time, the existence of the Federal Reserve System prevented concerted suspensions of deposit withdrawals since banks in reliance on the lender of last resort activity were less concerned about their inability to respond to en masse deposit withdrawals. Friedman and Schwartz argued that in the pre-Federal Reserve System banks would have probably imposed concerted restrictions on deposit withdrawals as was the case during the panic of 1907, which would have probably prevented subsequent bank failures that came in 1931, 1932 and 1933. See Friedman Milton, Anna J. Schwarz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, September 2, 2008, ISBN-13: 987-0691003542, at. p. 344.

their value in portfolios, which in turn led to reduction of their capital. Despite the unprecedented asset liquidation by commercial banks, Fed did not step in.

The international situation did not help. The economic decline in the US reduced market for goods, services and also securities from abroad and created a negative feedback loop, which ended by a one-year intergovernmental debt moratorium in July 1931. In addition, a standstill agreement among commercial banks not to press for repayment of short-term international credits was put in place. Although it provided temporary relief as large amount of short-term external obligations in the US were frozen, it also intensified fear and led to an increase deposit withdrawals.⁴² The foreign difficulties peaked when the Great Britain left the gold standard in September 1931. Anticipating similar action in the US, central banks and private individuals converted substantial amount of their dollar denominated assets, large amount of which had the form of on-demand deposits with US banks, and exchanged them for gold.⁴³ Thus, the drain on bank reserves was driven both internally, by deposits withdrawals due to the concerns about safety of the banking sector, and externally, by export of gold brought about by the fear that the US would leave the gold standard.

Contrary to the previous liquidity drains, the Federal Reserve Bank of New York stepped in forcefully and responded to the external shock by raising its interest rates to encourage investors to deposit money in the US by providing a relatively higher yield on US financial assets.⁴⁴ Although the action provided relief from the external drain, it had the exact opposite effect in respect of the internal drain.⁴⁵ It was argued that it was exactly the right time for extensive open market asset purchases to offset the external sell-off of dollar denominated assets and the domestic run on deposits. To the contrary, in the worst six-week period from mid-September to the end of October 1931, the Federal Reserve System sold large portion of US Treasuries. The banks were therefore left with only two options, namely, to sell assets or to borrow from Federal Reserve System. Neither of the two options would solve the problem since the former would lead to decline in asset prices, which would take its toll on their balance

⁴² See Friedman Milton, Schwartz A. Jacobson, Friedman Milton, Anna J. Schwarz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, September 2, 2008, ISBN-13: 987-0691003542, at. p. 269.

⁴³ Just between September and October 1931, the US gold stock declined by approx. \$ 750 million. See Friedman Milton, Anna J. Schwarz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, September 2, 2008, ISBN-13: 987-0691003542, at. p. 315.

⁴⁴ See Engemann M. Kristie, *Federal Reserve History: Banking Panics of 1931-33*, Federal Reserve Bank of St. Louis, November 22, 2013, [Accessed on May 5, 2015], available at: <https://www.federalreservehistory.org/essays/banking-panics-1930-31>

⁴⁵ In October alone, 522 banks failed, with additional 875 in the following three months. \$ 750 million See Friedman Milton, Anna J. Schwarz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, September 2, 2008, ISBN-13: 987-0691003542, at. p. 316.

sheets and eroded their capital, while the latter signaling fragility and in consequence spurring run on deposits.⁴⁶

Leaving aside other measures attempted to provide relief, which were not sufficient to solve the underlying problems, at the urging of the US government, the banking community established the National Credit Corporation with aim to pool resources and provide credit to banks against collateral not ordinarily accepted. However, this private sector solution to the pains of the banking sector proved to provide relief given the fear of sound banks that they would have to eventually pay for losses of the weak ones. Given the lukewarm interest of the banking community to provide credit to its weak members, the US government created the Reconstruction Finance Corporation for these purposes. However, since the corporation was required to publicly disclose identification of the banks that tapped these funds, the fear of stigma limited banks' willingness to participate. The US Congress also passed an act that widened the pool of eligible collateral for the discount window lending and exerted considerable pressure on the Federal Reserve Banks to provide liquidity to the system., which eventually propelled the Federal Reserve System to carry out large-scale asset purchases in April 1932.⁴⁷ The relief was, however, only short-lived and bank failures soon resumed.

The reasons for the renewed failures are not entirely clear, but the whole system was extremely fragile and prone to collapse. As pointed out, banks had weak balance sheets given the massive asset selloffs and deposit withdrawals, which made them vulnerable to even minor deposit withdrawals. Access to liquidity was also hamstrung since a significant part of the banking system did not have access to the discount window and banks that did feared stigmatization and the effects it could have on depositor confidence. In addition, the uncertainty over the economic policies of President Roosevelt might have had an impact given the rumors that he would devalue the dollar, which would bring about further external drain on gold reserves.⁴⁸ Once the panic started, in an environment of protracted contraction and bank failures, it easily fed on itself. The public confidence in the banking system was spiraling downwards, which prompted individual states to declare bank holidays. Even though these efforts provided some relief to the banks in the states that had declared them, they put even more pressure on banks in the states that had not, especially in the New York City. By the time President Roosevelt took office on March 4, 1933, the gold reserve requirement was

⁴⁶ *Id.* at p. 326.

⁴⁷ The Federal Reserve System's government debt holdings went up by almost \$ 1billion. See Friedman Milton, Anna J. Schwarz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, September 2, 2008, ISBN-13: 987-0691003542, at. p. 348.

⁴⁸ See *Id.* , at. p. 328.

suspended, the Federal Reserve Banks were closed and the whole banking system collapsed. Two days later, Roosevelt declared nationwide bank holidays for the first time in US history.⁴⁹

1.2.3 Parallels between the Crises and Key Takeaways

To start out with the panic of 1907, like the 2007-8 financial crisis, it was also centered around thinly regulated New York-based credit intermediaries which had grown rapidly prior to the crisis but were not chartered as banks and as such did not have access to the lender of last resort liquidity.⁵⁰ Specifically, the panic of 1907 also started off outside the commercial banking system but transpired there due to the close relationship between banks and these highly leveraged intermediaries. Once the contagion of fear started spreading, banks could not insulate themselves from the negative consequences. The trust companies in 1907 engaged in maturity transformation like commercial banks but remained in the “shadows” of regulatory oversight. Similarly, in the run-up to the recent financial crisis, investment banks heavily engaged in maturity transformation and financed their long-term assets, primarily asset backed securities, by short-term (usually overnight) funding they obtained from hedge funds and money market funds, shadow banks themselves. Accordingly, as key liquidity providers in the short-term credit markets, mostly overnight repos, hedge funds and money market funds were to investment banks what ordinary depositors were to commercial banks. Thus, both brokers in 1907 and investment banks in 2008 faced serious difficulties when their respective “depositors” started to run to withdraw their “deposits”.⁵¹

The 2008 rescue of Bear Stearns, which had faced a run by its shadow bank lenders before it “agreed” to be acquired by J.P. Morgan Chase with a financial assistance from the Fed, was analogous to the support received by Mercantile National Bank from the New York Clearing House in October 1907. Both events were a resolute of a sudden deposit withdrawals stemming from mistrust of its counterparties.⁵² All in all, both crises evidence how essential the

⁴⁹ The nationwide holidays extended from March 6 to March 13, 1933. See Friedman Milton, Schwartz A. Jacobson, *The Great Contraction, 1929-1933*, Princeton Classic Editions, Princeton University Press 1965, ISBN-13: 978-0691137940, at p. 11.

⁵⁰ In the decade before the panic of 1907, trusts' assets had grown by almost 244 %, while the size of the shadow banking sector almost quadrupled in the decade prior to 2007. See Moen R., Jon, Tallman W., Ellis, *The Bank Panic of 1907: The Role of Trust Companies*, The Journal of Economic History, Volume 2, Issue, 3, September 1992, at p. 612 and Pozsar, Zoltan, Tobias Adrian, Adam Ashcraft, and Hayley Boesky, *Shadow Banking*, Staff Report 458, Federal Reserve Bank of New York, July 2010, at pp. 8 *et seq.*

⁵¹ See Moen Jon R., Tallman Ellis W., *Federal Reserve History, The panic of 1907*, December 4, 2015, [Accessed on February 15, 2016], available at: <https://www.federalreservehistory.org/essays/panic-of-1907>

⁵² While the origins of the panic were different, as the Mercantile National Bank rescue stemmed from the loss of confidence brought about by the failed attempt to corner the market in shares of United copper Company and not from implosion of the residential housing market, once fear and mistrust starts spreading through the financial

trust in the financial system is and how a widespread panic related withdrawals from intermediaries can bring about a systemic crisis. As the former Federal Reserve Chair Ben Bernanke put it in his 2010 congressional testimony: “*Should the safety of their investments come into question, it is easier and safer to withdraw funds—‘run on the bank’—than to invest time and resources to evaluate in detail whether their investment is, in fact, safe.*”⁵³ The important lesson stemming from comparison of both crises is that any part of the financial system which heavily relies on maturity transformation is a potential source of risk, no matter what form or license market participants in such sector have.

Discussions regarding the root causes of the 1930s banking crises and the ensuing Great Depression run rampant even today. On the other hand, there is a wider agreement that one of the main causes was the failure of Federal Reserve System and its the monetary policy. In particular, although the Keynesians blame primarily the widespread loss of confidence and demand which should have been addressed by government spending and tax cuts - and was not, they did not entirely leave out the central bank which they say should have “printed” new money to allow the government to borrow and spend. Monetarist, leading with Friedman and Schwarz, pointed out that it was primarily the Federal Reserve System that caused the crisis by setting out to burst the stock market bubble and which furthermore perpetuated it by the continuous increases in interest rates during the recurring panics and liquidity drains. Moreover, when fear and panic in the banking sector started spreading, the Federal Reserve System was actually declining credit calls from banks, even though most of them were illiquid and not insolvent. Although it is not entirely clear why, some explained that the Federal Reserve Banks did not fully comprehend the connection between bank failures, bank runs, deposits withdrawals and bond markets. The bank failures were thought to be a result of poor management and in particular of speculative behavior, bad practices and excesses. Bank failures were not linked to the lack of credit. In addition, other explanation for the inaction often mentioned is that at the beginning, most failed banks were not members of the Federal Reserve System and the Federal Reserve Banks felt no responsibility to rescue them. The few failures of member banks were seen as misfortunate exemptions resulting from poor management and not subject to corrective actions by the system.⁵⁴ Although the Federal

system, it does not really matter where it came from. For details see Shaw W. Christopher, *Money, Power, and the People: The American Struggle to Make Banking Democratic*, the University of Chicago Press, Chicago 2019, ISBN-13: 978-0-226-63633-7.

⁵³ See Bernanke, Ben, *Causes of the Recent Financial and Economic Crisis*, Statement by Ben S. Bernanke, Chairman, Board of Governors of the Federal Reserve System, before the Financial Crisis Inquiry Commission, Washington D.C., September 2, 2010.

⁵⁴ See Friedman Milton, Anna J. Schwarz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, September 2, 2008, ISBN-13: 987-0691003542, at. p. 407 *et seq.*

Reserve Banks eventually stepped in, it was “too little too late”. These efforts could not have stopped the contagion of fear from spreading. Had the Federal Reserve System stepped in vigorously and provided enough liquidity, banks would not have had to sell their assets, prices would have not declined, and their capital would not have been impaired. The failure of a few would not have caused failure of thousands.

The fractional reserve system makes all banks fragile and susceptible to runs when confidence and trust in the system evaporates no matter what the lending or underwriting standards are. It is therefore crucial to have proper safeguards and tools at hand to address sudden liquidity drains and panics when they come. Since there was no deposit insurance in the 1930s, the role of central bank as an emergency liquidity provider, was arguably even more important than it is today, especially since majority of the banks in need of liquidity were not insolvent but rather illiquid and the declining asset value was not brought about by poor underwriting standards.⁵⁵

Arguably, the Federal Reserve System was the only authority capable of addressing the intense liquidity outflows through its discount window and large-scale open market asset purchases. Without such assistance banks facing runs had no other option than to turn to asset fire sales, which put downward pressure on their price and spurred further selloff. This impaired capital quickly. Paradoxically, publicly traded bonds prevailing in banks’ portfolios, generally regarded as more liquid and thus valuable, turned out to bring a greater threat to banks’ solvency than non-quoted bonds that would not have to be marked to market and would be kept at face value until maturity. Thus, the crisis also evidenced how pro-cyclical mark-to-market accounting is, since banks have to swiftly react to sudden market upheavals by writing off losses market is pricing, which may however never occur. In this respect it is also question whether the mark-to-market accounting, which essentially force banks to take artificial hits to capital without reference to the actual performance of their assets is the proper regulatory approach. As Keynes famously said, markets can remain irrational longer than you can stay solvent.

⁵⁵ Most notable evidence was the sharp decline in prices of the US Treasuries and corporate bonds by 10% and 20%, respectively, when the UK left the gold standard in the fall of 1930, which had nothing to do with deteriorating quality of these assets or their issuers. See Friedman Milton, Anna J. Schwarz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, September 2, 2008, ISBN-13: 987-0691003542, at. p. 360.

1.2.4 Regulatory Responses to the Crises of the 1930s

Contemporary public opinion about the root causes of the financial meltdown was unequivocal – greedy Wall Street. The following passages from the inaugural speech of President Roosevelt evidences that the American administration was of the same view:

*„[...] **Yet our distress comes from no failure of substance.** We are stricken by no plague of locusts. Compared with the perils, which our ancestors conquered, because they believed and were not afraid, we have still much to be thankful for. Nature still offers her bounty and human efforts have multiplied it. Plenty is at our doorstep, but a generous use of it languishes in the very sight of the supply. **Primarily this is because the rulers of the exchange of mankind's goods have failed, through their own stubbornness and their own incompetence, have admitted their failure, and abdicated. Practices of the unscrupulous moneychangers stand indicted in the court of public opinion, rejected by the hearts and minds of men.**”*

*„[...] Recognition of the falsity of material wealth as the standard of success goes hand in hand with the abandonment of the false belief that public office and high political position are to be valued only by the standards of pride of place and personal profit; **and there must be an end to a conduct in banking and in business which too often has given to a sacred trust the likeness of callous and selfish wrongdoing.** Small wonder that confidence languishes, for it thrives only on honesty, on honor, on the sacredness of obligations, on faithful protection, on unselfish performance; without them it cannot live.”*

*„[...] Finally, in our progress toward a resumption of work we require two safeguards against a return of the evils of the old order; **there must be a strict supervision of all banking and credits and investments; there must be an end to speculation with other people's money, and there must be provision for an adequate but sound currency.**”⁵⁶*

President Roosevelt not only pointed at the culprits behind the banking system collapse in his speech, he also laid out the foundations for the future banking and financial reform. On the other hand, one must keep in mind that it was a political speech, not an economic or legal analysis of what the root causes of the crisis were. In any event, it was an explanation the American people wanted to hear and could easily understand, even though, at the time the speech was delivered, hardly anybody might have known what exactly happened.⁵⁷

⁵⁶ See First Inaugural Address of Franklin D. Roosevelt, Saturday, March 4, 1933, Yale Law School, Lilian Goldman Law Library, [Accessed on July 22, 2016], available at: https://avalon.law.yale.edu/20th_century/froos1.asp

⁵⁷ Although it is highly likely that the speech was greatly influenced by leaked findings from the so-called Pecora Committee established in 1932 to reveal the culprits of the stock market crash in 1929. See further below.

1.2.4.1 The Banking Acts of 1933 and 1935

Only a few days after his inauguration, President Roosevelt had passed and signed into law the Emergency Banking Act of 1933,⁵⁸ which was meant as a quick fix to the most imminent concerns. In essence the act allowed a simplified process of bank restructuring with the power to restrict operations of a bank with impaired assets and to appoint a conservator to take any action necessary for asset conservation and protection of depositors and other creditors. Also, a newly created Reconstruction Finance Corporation was authorized to directly recapitalize banks and trusts.⁵⁹

Although the emergency legislation was an important step to restart the banking system and restore confidence, there was a need for more substantial reform of the banking system. Only three months after the adoption of the emergency legislation, the Banking Act of 1933, often colloquially referred to as the Glass-Steagall, was signed into law.⁶⁰ While the Act was intended to correct “*manifest immediate abuses and to bring the American banking system back to its strong position*”, it brought about changes that altered the American financial system for decades to come.⁶¹

The creation of national deposit insurance is often regarded as the most significant change in the design of the American financial system. Indeed, the establishment of the Federal Deposit Insurance Corporation (the “**FDIC**”) in 1933 made the US the first country in the world to officially provide for insurance of bank deposits.⁶² Most other countries followed later on.⁶³ There had been numerous attempts to introduce deposit insurance before the crisis

⁵⁸ See Emergency Banking Act [March 9, 1933]. An Act to provide relief in the existing national emergency in banking and for other purposes.

⁵⁹ The corporation would be required to subscribe for preferred shares bearing cumulative dividend not exceeding 6 % issued by such bank or trust.

⁶⁰ See the Banking Act of 1933 [June 16, 1933]. An Act to provide for the safer and more effective use of the assets of banks, to regulate interbank control, to prevent the undue diversion of funds into speculative operations, and for other purposes. The term Glass–Steagall Act, however, is most often used to refer to four provisions of the Banking Act of 1933 that limited commercial bank securities activities and affiliations between commercial banks and securities firms.

⁶¹ See Senate Committee on Banking and Currency, Operation of the National and Federal Reserve Banking Systems, the US Senate Report No 77 of May 15, 73rd Congress 1st Session, 1933, available at: https://fraser.stlouisfed.org/files/docs/historical/congressional/1933_bankingact_senrep77.pdf.

⁶² The earliest state sponsored insurance scheme is said to go back to 1829 when New York created a safety fund for banks operated in New York to insure major bank liabilities, which however failed to provide protection during the panic of 1837. For details see Berger N. Allen, Molyneux Phillip, Wilson O.S. John, *The Oxford Handbook of Banking*, Third Edition, Oxford University Press, 2019, ISBN: 978-0-19-882463-3, at p. 688.

⁶³ As of 2019 there was over 107 countries in the world that have some form of explicit deposit insurance, up from 93 in 2013, some of them such as Australia or Singapore for the first time as a response to the 2008 financial crisis. Over 80% of the countries in the high-income group have some form explicit deposit insurance in place. See Berger N. Allen, Molyneux Phillip, Wilson O.S. John, *The Oxford Handbook of Banking*, Third Edition, Oxford University Press, 2019, ISBN: 978-0-19-882463-3, at p.

of 1933 in the US; however, none of them was successful, with the latest being killed off by Senator Glass in 1932. Despite the heavy bank runs in the 1930s, there was a strong opposition to deposit insurance from leading bankers but also from the Federal Reserve System as they all believed that it would create moral hazard especially on the side of small banks, which would be implicitly subsidized by big banks far less likely to fail. The act specifically provided that all banks that were members of the Federal Reserve System were required to become shareholders of the FDIC, have their deposits insured and pay premiums to deposit insurance fund calculated as a percentage of their deposits.

The other important measure of the Banking Act of 1933 aiming at eliminating the speculative and risky behavior of banks with customer deposits was the **separation of commercial and investment banking**. Namely, the act prohibited commercial banks from underwriting and distributing securities and from purchasing and selling securities except for a customers' account.⁶⁴ In addition, Section 20 of the act prohibited any commercial banks from being affiliated with a company that "engaged principally" in "the issue, flotation, underwriting, public sale, or distribution" of securities. Conversely, investment banks, i.e. "any company or person engaging in the business of issuing, underwriting, selling, or distributing securities", were prohibited from taking deposits.⁶⁵ In addition, commercial banks were prohibited from having any officer or director in common with investment banks.⁶⁶

The other important measures in the Banking Act of 1933 that shaped the industry for decades to come was the **regulation of interest payable on deposits**. The prevalent view was that payment of interest on deposits led to excessive competition among banks and force them to engage in risky stock market activities to earn enough to pay interest. Therefore, paying interest on on-demand deposits was prohibited. In respect of on-time deposits, the Fed was empowered to set a maximum interest banks could offer.

Finally, the falling outs between the Federal Reserve Banks and the Fed when handling the crises in 1930s led to the **creation of the Federal Open Market Committee** (the "**FOMC**"), a body consisted of representatives of the Federal Reserve Banks responsible for setting the time, character and volume of open market purchases of the Federal Reserve Banks with a view to "accommodating commerce and business with regard to general credit situation of the country".

⁶⁴ Securities issued by the US government and state and local municipalities were exempted from these prohibitions. See Section 16 of the Banking Act of 1933.

⁶⁵ See Section 21 of the Banking Act of 1933.

⁶⁶ See Section 32 of the of the Banking Act of 1933.

Representatives from the Federal Reserve System viewed these changes as inadequate and pushed for a greater expansion of powers since the failures of 1930s were, in their view, a result of inadequate powers of the system.

These demands came into fruition two years later with the Banking Act of 1935, which amended the FOMC design and shifted powers within the system from the Federal Reserve banks towards the Fed.⁶⁷ The FOMC became authorized to direct a uniform conduct of open market operations on behalf of the Federal Reserve System as a whole to be implemented through the trading facilities at the Federal Reserve Bank of New York. Within this structure, the Federal Reserve banks participated in the creation of a coordinated, national monetary policy, rather than pursuing independent policies in their own districts. The act also centralized the other tools of monetary policy within the Fed, namely, to set reserve requirements and interest rates for deposits at member banks.

Moreover, the Banking Act of 1935 also eliminated double liability of national banks introduced with the creation of national banking system in 1863. In practical terms, the double liability meant that if a bank failed, the stockholders – who typically included the directors and officers of the bank – lost the amount they had invested in the stock of the bank and an additional amount as a proportion of bank liabilities, typically hundred dollars per share. This additional liability was to incentivize bank shareholders and managers to ensure safe operation and averse taking too much risk with other depositors' money. However, in the post 1933 era, the double liability was seen as a major impediment to recovery of the financial system since it deterred investments in commercial banks and made bank shares difficult to issue and trade on stock exchanges.⁶⁸ Moreover, the experience of 1930s led to the conviction that the regime had failed to accomplish its regulatory objectives, namely protecting bank depositors, maintaining public confidence and preventing bank runs. The newly established deposit insurance was seen as a far preferable means for accomplishing these regulatory objectives.

⁶⁷ See Banking Act of 1935 [August 23, 1935]. An act to provide for the sound, effective and uninterrupted operation of the banking system and for other purposes. 12 U.S.C. § 228

⁶⁸ See Caprio Gerard, Vittas Dimitri, *Reforming Financial Systems: Historical Implications for Policy*, Cambridge University Press, January 25, 2007, at p. 105, [Accessed on May 10, 2015], available at: <https://www.nlb.gov.sg/biblio/7980113>

1.2.4.2 The Creation of the Securities and Exchange Commission

Another important change in the American financial architecture resulting from the stock market crash of 1929 and the ensuing panic and contraction was the creation of a specialized securities firms regulator to restore confidence in the public markets. The stock market crash of 1929 severely shook trust in integrity of public markets. Just between September 1929 and July 1932, the total value of shares listed on the New York stock Exchange declined from almost \$90 billion to less than \$16 billion.⁶⁹ To stop the negative trend, the US Senate created a committee tasked to investigate and analyze variety of stock market and banking practices that had led to the stock market crash of 1929 and the sharp declines in value of listed securities. Although the committee concluded its investigation in July 1934, some of the most egregious abuses uncovered by F. Pecora who spearheaded the committee is said to have propelled the adoption of the Glass-Steagall Act and the Securities Act of 1933.⁷⁰ As one journalist of that time expressed the sentiment of the public "*the only difference between a bank burglar and a bank president is that one works at night.*"⁷¹ No wonder, the Pecora hearings vividly portrayed bank managers' insider dealings, market manipulation, concealing material non-public information from investor during securities offerings, payouts of excessive bonuses to encourage aggressive stock selling, abusive practices between banks and their affiliated securities firms, transactions with affiliated persons and family members or even tax avoidance and other various schemes employed by bankers to go around the then existing laws.⁷²

Often referred to as the "truth in securities" law, **the Securities Act of 1933** aimed at securing that investors receive financial and other significant information concerning securities being offered for public sale and prohibit deceit, misrepresentations, and other fraud in the sale of securities. A primary means of accomplishing these aims was set to be the disclosure of important financial information via the registration process. It was a major shift in the legislative philosophy of regulating public securities markets. Not because investors had not been

⁶⁹ See Seligman Joes, *The Transformation of Wall Street: A History of the Securities and Exchange Commission and Modern Corporate Finance*, 3rd Edition, ISBN: 0735544352, Wolter Kluwers Law and Business 2012, at p. 34.

⁷⁰ Securities Act of 1933 [May 27, 1933]. An act to provide full and fair disclosure of the character of securities sold in interstate and foreign commerce and through the mails, and to prevent frauds in the sale thereof, and for other purposes. 15 U.S.C. § 77a

⁷¹ See the United States Senate, *Subcommittee on Senate Resolutions 84 and 234* [Accessed on May 13, 2016], available at www.senate.gov

⁷² See Stock Exchange Practices: *Report of the Committee on Banking and Currency pursuant to Senate Resolution 84, June 16, 1934*, Unites States Government Printing Office, Washington 1934, available at: <https://fraser.stlouisfed.org/title/stock-exchange-practices-87/report-pursuant-s-res-84-s-res-56-s-res-97-33979>

protected before the act, but because the so-called blue-sky laws that had been in place prior to 1933 would require merit reviews of securities listings, i.e. a process of state agents determining whether an offering is balanced and fair for a buyer.⁷³ In contrast, the Securities Act of 1933 embraced a philosophy whereunder it was not illegal to sell a bad investment, as long as all the facts were accurately disclosed. The Federal Trade Commission, a body created in 1914 to prevent unfair methods in competition and commerce was originally tasked with the enforcement of the Securities Act of 1933. However, upon conclusion of the Pecora hearings and the adoption of the Securities and Exchange Act of 1934, the responsibility was shifted to the newly established Securities and Exchange Commission (the “**SEC**”).⁷⁴ The act was a wide-ranging legislation and a direct consequence of the Pecora 402 pages’ long report depicting stock market abuses.⁷⁵ In contrast with the Securities Act of 1933, which regulates primary share issues, the Securities Exchange Act of 1934 was to deal with secondary trading of already issued securities between persons often unrelated to the issuer. The act gave the SEC a broad authority over all aspects of the securities industry, including registering, regulating, and overseeing investment banks, stock exchanges, clearing agencies as well as securities self-regulatory organizations. In addition, the act granted the SEC the authority to require periodic reporting from issuers with publicly traded securities and to promulgated rules targeting securities fraud. Despite its succinct wording, section 10(b) of the Securities and Exchange Act of 1934 Act and corresponding SEC Rule 10b-5 have become one of most important rules for dealing with securities fraud and remain a catch-all provision for manipulative and deceptive practices in securities litigation spanning from price fixing to insider dealing until today.⁷⁶

⁷³ Blue sky laws were set of securities laws and regulations of individual states. The origin of the term is often associated with the opinion of the Supreme Court justice Joseph McKenna, in *Hall v. Geiger Jones Co.*, 242 U.S. 539 (1917) when referring to an Ohio statute that sought to prohibit the sale of shares in companies engaged in illegitimate dealings when he wrote that “[t]he name that is given to the law indicates the evil at which it is aimed; that is ‘speculative schemes which have no more basis than so many feet of ‘blue sky[.]’” The decision rejected the notion of an arbitrary and capricious power accruing to state securities commissioners since evaluating securities was seen as a complex problem and required skill and expertise often not available to the individual investor.

⁷⁴ See Securities and Exchange Act of 1934 [July 6, 1934]. An Act to provide for the regulation of securities exchanges and of over-the-counter markets operating in interstate and foreign commerce and through the mails, to prevent inequitable and unfair practices on such exchanges and markets, and for other purposes. 15 U.S.C. §78a *et seq.*

⁷⁵ See Stock Exchange Practices: *Report of the Committee on Banking and Currency pursuant to Senate Resolution 84, June 16, 1934*, United States Government Printing Office, Washington 1934, available at: <https://fraser.stlouisfed.org/title/stock-exchange-practices-87/report-pursuant-s-res-84-s-res-56-s-res-97-33979>

⁷⁶ The rule stresses that it shall be unlawful for any person, directly or indirectly, by the use of any means or instrumentality of interstate commerce, or of the mails or of any facility of any national securities exchange, (i) to employ any device, scheme, or artifice to defraud, (ii) to make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading, or (iii) to engage in any act, practice, or course of business which operates or

Speculation however was not intrinsic only to stock but also to commodity markets with rampant efforts to manipulate or corner grain markets given their known and limited quantities. The Commodity Exchange Act of 1936,⁷⁷ which introduced commodity futures trading and clearing requirements was primarily designed to discourage these forms of speculation that were seen as exacerbating price volatility and hurting farmers. It in particular required that all commodity future contracts had to be traded only on regulated exchange licensed and supervised by the newly created Commodity Exchange Commission (later transformed into the Commodity Futures Trading Commission or CFTC in the early 1970s).⁷⁸ Mirroring the Securities Acts of 1933 and 1934, futures contracts were required to be cleared through well-capitalized intermediaries ensuring that contractual commitments would be met. Unlike in the case of the securities industry, however, the Commodity Exchange Commission had no authority to control the level of margin requirements in the futures industry though it was authorized to limit the size of speculative positions by individual traders.

1.2.4.3 The Beginning of the Era of Government Sponsored Entities

Prior to the 1930s, the federal government did not play a direct role in financing the American housing sector. Mortgage market was highly fragmented and local, with regional disparities in interest rates, underwriting standards and general availability of credit. The stock market crash of 1929 and the ensuing period of economic contraction and recurring banking crises brought about failures of thousands mortgage lenders and impelled the federal government to become a direct participant in financing the housing sector. The rapid increases in construction activity coupled with easy credit and weakening lending standards had made both housing prices and mortgage debt soaring during the 1920s.⁷⁹ With the increasing loan-

would operate as a fraud or deceit upon any person, in connection with the purchase or sale of any security. See 17 CFR § 240.10b-5.

⁷⁷ The Commodity Exchange Act of 1936 [June 15, 1936]. An Act to amend the Grain Futures Act to prevent and remove obstructions and burdens upon interstate commerce in grains and other commodities by regulating transactions therein on commodity futures exchanges, to limit or abolish short-selling, to curb manipulation, and for other purposes.

⁷⁸ See the Commodity Futures Trading Commission Act of 1974 [October 23, 1974]. Although the Act did not make any material changes in the principles of derivative industry regulation, it expanded the CFTC purview significantly by defining commodity as to include “all other goods and articles [...] and all services, rights, and interests in which contracts for future delivery are presently or in the future dealt in.”

⁷⁹ Mortgages at that time were typically short-term, i.e. 3 to 6 years, with a relatively high 50 % loan-to-value- ratio and required the borrower to pay only interest with no gradual amortization of the principal commonly used today. The entire principal was due at the end of the mortgage term. Since only few borrowers could repay the entire principal after only a few years, in most cases, banks would allow rolling over the taken-out loans. For details see Fetter Daniel, Rose Jonathan, and Snowden Kenneth, in *the Oxford Handbook of American Economic History, Housing in American Economic History*, vol. 2, Oxford University Press, 2018, at p. 101 *et seq.*

to-value ratios frequent use of high interest rates and balloon mortgages, the housing sector was fragile and homeowners were not well positioned to weather the substantial decline in both income and house prices that ensued after the 1929 stock market crash.⁸⁰ On top of that, deflation brought about by the economic contraction in the 1930s meant that outstanding loan amounts to be repaid, in real terms, increased.⁸¹

In line with the primary canons of the New Deal legislation to propel private home ownership and make housing and mortgages more affordable to the working class, an era of the so-called government sponsored entities (“**GSE**”) set out to make home-ownership a tenet of the American dream. The National Housing Act of 1934 was intended to attain these goals by creating the Federal Housing Administration (“**FHA**”) with the primary purpose to insure eligible mortgages against default in order to encourage originators to mortgage lending.⁸² At the same time, the newly created Federal National Mortgage Association, commonly known as Fannie Mae, was authorized to purchase and hold FHA-insured mortgages, thereby providing liquidity to the mortgage market.⁸³ Specifically, Fannie issued bonds in areas where savings were high relative to mortgage demand and then deployed these funds to purchase FHA-insured mortgages from originators located in areas where savings were low.⁸⁴ Although bonds issued by Fannie Mae were guaranteed by the US government, there was an implicit guarantee since proceeds from the bonds sales were almost entirely invested in FHA-insured mortgages.

⁸⁰ From 1929 to 1932, personal disposable income fell by 41 %. Although data in respect of house price movements are fragmentary, a comparison of appraisal value for homeowners who were refinancing their homes between 1925 and 1934 suggests median decline hovering around 25-30 %. See Wheelock C. David, *The Federal Response to Home Mortgage Distress: Lessons from the Great Depression*, Federal Reserve Bank of St. Louis Review, May/June 2008, 90 (Part 1), p. 138 and White Eugene N., Snowden Kenneth, Fishback Price V., *Housing and Mortgage Markets in Historical Perspective*, National Bureau of Economic Research, The University of Chicago Press, ISBN: 13-978-0-226-07384-2, p. 95.

⁸¹ On average prices dropped approx. 10 % every year between 1930 and 1933. For details see Inflation and CPI Consumer Price Index 1930-1939, [Accessed on May 24, 2016], available at www.inflationdata.com

⁸² The National Housing Act of 1934 [July 27, 1934]. An act to encourage improvement in housing standards and conditions, to provide a system of mutual mortgage insurance, and for other purposes.

⁸³ See Wheelock C. David, *The Federal Response to Home Mortgage Distress: Lessons from the Great Depression*, Federal Reserve Bank of St. Louis Review, May/June 2008, 90 (Part 1), p. 144.

⁸⁴ See Colton, Kent, *Housing Finance in the United States: The Transformation of the U.S. Housing Finance System*, Joint Center for Housing Studies, Harvard University W02-5, 2002, [accessed on May 20, 2016] available at: www.jchs.harvard.edu/publications/finance/W02-5_Colton.pdf, at p. 6.

2 HOW DID WE GET THERE?

2.1 Setting the Stage for the Collapse of the Global Financial System

The New Deal legislation and the creation of new federal regulators is often credited with the years of relative stability of the American financial sector. With a few exceptions, neither of which was however comparable to the Great Depression in respect of severity, the system proved to have been working well. Three key factors are often mentioned to explain this long stability.

First, the political accommodation of the New Deal legislation proved durable. In particular, the restrictions, namely the regulation of interest payable on deposits and separation of commercial and investment banking benefited the whole industry as it led to lower funding costs for commercial banks and higher returns for securities firms. Second, the Great depression is said to have deeply traumatized bankers and instilled culture of risk aversion. Finally, the massive bank failures of the 1930s had weeded out troubled and not efficient banks while the sound ones surviving the crisis became “protected” by the deposit insurance.⁸⁵

Despite the relative stability, the post-Great Depression era was also characterized by a constant battle between the various regulatory agencies trying to maintain the regulatory status quo and market forces trying to come around them. Non-banking institutions, especially investment banks enjoyed very lenient regulatory approach, which also led to structural changes of the American financial sector and increasing significance of the capital market as a source of corporate funding. The technology-based developments coupled with securitization underpinned the creation of national mortgage-market and laid the foundations for by far the largest and most developed capital markets in the world.⁸⁶ While, the policy of divided markets was formally abandoned in 1999, it was practically gone years earlier.⁸⁷ With hindsight knowledge, some of the New Deal regulatory changes and government policies were doomed to fail. This all set the stage for the worst financial crisis of modern times.

⁸⁵ See CARNELL, Richard Scott, MACEY Jonathan R., MILLER Geoffrey P. *The Law of Financial Institutions*, Fifth Edition (Aspen Casebook) 5th Edition, 2014 ISBN-13: 978-1454809944

⁸⁶ As of the end of 2018, the US capital markets were said to account for more than 44% of capital markets activity across 25 sectors and 50 economies analyzed, i.e. more than twice the size of markets in the EU and nearly three times the size of markets in China. Also, in the US the split between bank lending and corporate bonds was said to be 26% bank lending and 74% bonds. Economies in Asia and Europe were nearly three times more dependent on bank lending. For details see Wright William, Asimakopoulos Panagiotis and Hamre Eivind Friis, *Report: The New Financial Global Capital Markets Growth Index*, Unlocking Capital Markets, January 2019, at p. 12.

⁸⁷ Financial Services Modernization Act of 1999 [November 12, 1999]. An Act to enhance competition in the financial services industry by providing a prudential framework for the affiliation of banks, securities firms, and other financial service providers, and for other purposes.

2.1.1 The Rise of Shadow Banking

The Glass-Steagall Act and in particular the creation of federal deposit insurance of bank deposits and the separation of commercial and investment banking was long credited with the soundness and safety of the US financial system. With the exception of the savings and loan crisis in the 1980s, bank failures became increasingly rare. There have been only single digit bank failures per year, a major improvement in comparison with the more than four thousand bank failures just in March of 1933.⁸⁸ The legislation was thought to have achieved its goals.

On the other hand, the increasing soundness and safety of the banking system was traded-off with decreasing competitiveness. In particular, under the new architecture, the market was divided into two segments, the first for deposit taking institutions making short-term commercial loans to corporations and individuals for non-speculative purposes and the other for financial institutions responsible for long term-financing of underwriting, distributing and dealing in securities. As a result, bank deposits were shield from risky dealings in securities and unregulated investment banks were afforded a monopoly over securities market business. However, investment banks and other financial institutions were not prevented from taking short-term retail funds other than deposits insured by the FDIC, which meant that commercial banks were facing increasing competition decreasing market share.⁸⁹ Despite the strong pressure from the industry to dismantle or at least ease up the tight separation of investment and commercial banking functions, an OCC report put out in 1962 stressed that “*Any liberalization in this area would not appear to be in the best interest of the banking system as a whole.*”⁹⁰ Also, the spiraling inflation in the late 1960s and throughout the 1970s coupled with rising interest rates made the prohibition of banks to pay interest on deposits made securing new or even retaining the existing depositors extremely difficult.⁹¹

Given the deposit outflows, the ability of commercial banks to provide credit to its clients significantly decreased. As a result, corporations started increasingly turning for credit to

⁸⁸ Friedman Milton, Schwartz A. Jacobson, *The Monetary History of the United States, 1929-1933*, Princeton Classic Editions, Princeton University Press 1965, at. p. 436.

⁸⁹ The commercial banks' share of assets as a percentage of assets held by all financial institutions had fallen from 52% to 38 % between 1950 to 1960. See White N. Eugene, *Comptroller and the Transformation of American Banking, 1960-1990*, Washington, DC: Comptroller of the Currency, June 1, 1992, at p. 7.

⁹⁰ See Office of the Comptroller of the Currency, *National Banks and the Future: Report of the Advisory Committee on Banking to the Comptroller of the Currency*, U.S. Treasury Department, 1962, at p. 189.

⁹¹ Moreover, national banks were facing competition also from non-financial firms like General Motors or Sears, which began offering consumer credit. By 1972, the nation's three largest banking companies provided less credit than either the three biggest manufacturers of retailers. See White N. Eugene, *Comptroller and the Transformation of American Banking, 1960-1990*, Washington, DC: Comptroller of the Currency, June 1, 1992, at p. 10.

commercial paper market. While banks were initially able to service clients whose rating prevented them to capital markets, the technological developments, increasing size of capital markets and securitization boom in the 1970s provided access to capital markets to even low-credit rating corporations and low credit score customers. During this era, commercial banks were being increasingly by-passed in credit intermediation by capital markets and broker-dealers that were able to offer wide range of products substituting deposit accounts with return surpassing inflation such as money market funds.

Regulators tried to elevate the funding problems and keep national banks competitive by lenient approach towards bank chartering and merger approvals. Along the same lines, the OCC started construing the Glass-Steagall Act as permitting banks to establish and market to their customers “commingled accounts”, de facto open-ended collective investment funds.⁹² The efforts to make commercial banks competitive were, however, rejected by the Supreme Court. First by a very narrow definition of the relevant market for the purposes of bank mergers.⁹³ Later also by the refusing the OCC’s interpretation of the Glass-Steagall Act regarding the ability of commercial banks to offer open-ended collective investment funds to their customers.⁹⁴ Frustrated by the Glass-Steagall limitations reinvigorated by the courts and facing high competitive pressure from non-bank financial institutions, commercial banks were highly incentivized to find a way to expand their activities. Soon they found it within a bank holding structure. Specifically, banks organized under the bank holding company structure were allowed to establish subsidiaries, which could carry out activities of financial, fiduciary, or insurance nature, provided they were closely related to the business of banking. By this “loophole”, commercial banks “invaded” into businesses other than pure commercial banking. On top of that, the parent company could raise funds by selling commercial papers at rates unconstrained by the limits applicable to deposits. These advantages propelled enormous boom in formation of bank holding companies in the late 1960s and imprinted the bank holding

⁹² Banks would solicit customers to purchase a commingled account, representing an interest in a fund comprised of securities bought by the bank with the pooled money and held for the benefit of the customers. The bank would earn a considerable fee for the services rendered. For details see Langevoort C. Donald, *Statutory Obsolescence and the Judicial Process: The Revisionist Role of the Courts in Federal Banking Regulation*, Michigan Law Review 672, Volume 85, issue 4, 1987 at p. 688.

⁹³ The Supreme Court also established a presumption that mergers covering at least 30 % of the relevant market were per se unlawful. The final blow to any consolidation efforts was the issuance of guidelines by the Justice Department in 1968 assuring a legal challenge to any bank merger where each of the merging banks have market share of 5 % or more. See *United States v. Philadelphia National Bank*, 374 U.S. 321 (1963) and U.S. Justice Department, *1968 Merger Guidelines*, [Accessed on July 26, 2016] available at: <https://www.justice.gov/sites/default/files/atr/legacy/2007/07/11/11247.pdf>

⁹⁴ In particular, the Supreme Court was unlawful, because the potential hazards and abuses that flow from a bank's entry into the mutual investment business are the same basic hazards and abuses that Congress intended to eliminate when prohibiting commercial banks from entering into securities business See *Investment Company Institute v. Camp*, 401 U.S. 617 (1971).

company structure into a distinctive feature of the American banking system.⁹⁵ Whereas there were 53 bank holding companies between 1956 and 1959, the number stood at 891 approximately ten years later.⁹⁶

Unlike their commercial counterparts, investment banks enjoyed unfettered opportunity for growth in the post Great Depression era. Since the primary purpose of the Glass-Steagall Act was to promote safety and soundness of deposit taking institutions and to prevent their failure, the vigorous regulatory approach exerted towards commercial banks was not employed in respect of investment banks and other institutions that were not taking deposits. Moreover, although the Glass-Steagall Act prevented investment banks from taking deposits, they were not restricted from acquiring savings associations and state-chartered banks, both of which were allowed to take deposits.⁹⁷ Lehmann Brothers was among the first to exploit this “loophole” in 1955, with others following in the 1960s.

At the same time, rising inflation in the 1970s and 1980s, which was crippling commercial banks’ business due to the ceiling on deposit rates, actually helped the investment banking industry since investment banks were free to come up with own innovative deposit-like products with yields surpassing inflation commercial banks could not compete with. As a result, investment banks were increasingly encroaching upon the commercial banking turf with new products, such as money market mutual funds (“**MMMFs**”). Very much like current accounts, MMMF allowed investors to withdraw their funds instantaneously. Although funds in MMMFs were not insured like bank deposits, they were considered very safe since they had to be invested in safe short-term securities, such as US Treasuries or highly-rated commercial

⁹⁵ Given their fierce growth, small banks and multibank-holding companies strongly campaigned against one-bank holding companies arguing that the increasing interconnectedness between banks and non-banking businesses would reshape the banking sector into Japanese style zaibatsu of large banking-industry conglomerates. As a result, an amendment to the Bank Holding Company Act in 1970 closed this loophole. On the other hand the amendment gave the Fed discretionary powers to determine permissible non-banking activities. See Carnell Richard Scott, Macey Jonathan R., Miller Geoffrey P., *The Law of Financial Institutions*, Fifth Edition (Aspen Casebook) 5th Edition, 2014, ISBN-13: 978-1454809944, at p. 22

⁹⁶ See White N. Eugene, *Comptroller and the Transformation of American Banking*, 1960-1990, Washington, DC: Comptroller of the Currency, June 1, 1992, at p. 14.

⁹⁷ See Carnell Richard Scott, Macey Jonathan R., Miller Geoffrey P., *The Law of Financial Institutions*, Fifth Edition (Aspen Casebook) 5th Edition, November 2014, ISBN-13: 978-1454809944, at p. 22.

papers.⁹⁸ These features coupled with the drastic cut of trading costs in 1975 fueled the growth of MMMFs, which grew from \$3.7 billion to \$206 billion just between 1977 and 1982.⁹⁹

In 1977, Merrill Lynch introduced something even more like a bank account - cash management accounts, which allowed investors to withdraw funds by writing checks or by paying for purchases with credit and debit cards. The account also allowed customers rapid and easy electronic transfer of funds held with the account among variety of investments, including purchasing stocks on margin, but also cashing out back in times of liquidity needs.¹⁰⁰ In other words, although commercial banks were prevented from dealing in securities, their less regulated counterparts could in practice fund their operations by short-term deposit-like products but without any limitations as to the offered return. Although the ceilings on deposit rates were phased out by 1986, MMMFs and investment banks facing significantly lower regulatory costs than banks could offer higher returns than bank accounts. As a result, a key player in the shadow banking industry was born. The widespread investor enthusiasm for MMMFs also ignited the growth of the commercial paper and repo markets, which became the most important source of MMMFs' investments given their large denominations, relative safety and short maturities.¹⁰¹ As a result, the MMMFs industry, measured by assets, grew rapidly and peaked at \$ 3.8 trillion in the US alone in 2008.¹⁰²

⁹⁸ Also MMMFs would have "sponsors" promising financial support to maintain the full one dollar per share net asset value. Before 2007, MMMFs did not "break the buck" in 30 years, with one exception in 1994 and sponsors had always provided financial support when the market value of a share threatened to fall substantially below one dollar. While there was no legal obligation to provide support, fund sponsors had done so to preserve their business franchise. See Baba Naohiko, McCaouley N. Robert, Ramaswamy Srichander, *US dollar money market funds and non-US banks*, BIS Quarterly Review, March 2009, [Accessed on September 16, 2015], at p. 68, available at: https://www.researchgate.net/publication/227346844_US_dollar_money_market_funds_and_non-US_banks

⁹⁹ Effective from May 1, 1975, the SEC' order abolished the more than 180 years old rule requiring all brokerage firms to charge fixed trading fee. For details see e.g. Zweig Jason, *Lessons of May Day 1975 Ring True Today: The Intelligent Investor*, the Wall Street Journal, April 30, 2015, [Accessed on August 7, 2015], available at: <https://www.wsj.com/articles/lessons-of-may-day-1975-ring-true-today-the-intelligent-investor-1430450405> and White N. Eugene, *Comptroller and the Transformation of American Banking, 1960-1990*, Washington, DC: Comptroller of the Currency, June 1, 1992, at p. 51.

¹⁰⁰ For details see Langevoort C. Donald, *Statutory Obsolescence and the Judicial Process: The Revisionist Role of the Courts in Federal Banking Regulation*, Michigan Law Review 672, Volume 85, issue 4, 1987.

¹⁰¹ The outstanding volume of commercial papers rose from about \$50 billion in 1970 to over \$2 trillion by the beginning of 2007. Although the lack of granular statistics precludes an accurate estimation, data reported by 19 primary dealers and around thousand bank holding companies suggests that by mid-2008 the gross market capitalization of the US repo market alone exceeded \$10 trillion (although this number may be overstated since it includes double-counting of repos and reverse repos), corresponding to around 70 % of US GDP. For details see Anderson G., Richard, Gascon S. Charles, *The Commercial Paper Market, the Fed, and the 2007-2009 Financial Crisis*, Federal Reserve Bank of St. Louis Review, November/December 2009, 91(6), at p. 596. [Accessed online on September 2, 2016], available at: <https://files.stlouisfed.org/files/htdocs/publications/review/09/11/Anderson.pdf> and King R., Michael, Hordahl Peter, *Developments in repo markets during the financial turmoil*, BIS Quarterly Review, December 2008, at p. 39, [Accessed online on September 2, 2016], available at: https://www.bis.org/publ/qtrpdf/r_qt0812e.htm

¹⁰² At end-2008, MMFs managed more than \$ 5 trillion in assets globally. See Baba Naohiko, McCaouley N. Robert, Ramaswamy Srichander, *US dollar money market funds and non-US banks*, BIS Quarterly Review, March 2009,

2.1.2 Planting the Seeds for Implosion of the American Housing Sector

The first major impetus for the development of the American housing bubble was the adoption of the Housing and Urban Development Act of 1968 which pronounced a national policy of “*a decent and suitable living environment for every American family*” and provided for federal interest-rate subsidies for family properties.¹⁰³ Also, Fannie Mae was split into two publicly traded corporations with only a limited government oversight - Fannie Mae and the Government National Mortgage Association, colloquially referred to as Ginnie Mae. The former was authorized to issue securities backed by pools of its mortgages portfolios, while another newly created agency, the Department of Housing and Urban Development (“**HUD**”) was to set a percentage of Fannie’s mortgage purchases that had to originate from low- and moderate-income families.¹⁰⁴ Importantly, Fannie Mae was empowered to purchase also other than FHA-insured or “private label” mortgages, so long as the mortgages met certain criteria.¹⁰⁵ Ginnie Mae on the other hand was designed as a government owned corporation guaranteeing, with the full faith and credit of the federal government, payment of principal and interest on mortgage backed securities (“**MBS**”) issued by Fannie.

Despite the changes it was extremely difficult time for the mortgage industry. Increasing government spending and budget deficits, associated especially with the Vietnam war but also the rising aggregate demand stemming from tight labor market, increasing wage demands, loose monetary policy and sweeping tax cuts, among other things, were transpiring into rising

at p. 68, [Accessed on September 2, 2016], available at: https://www.researchgate.net/publication/227346844_US_dollar_money_market_funds_and_non-US_banks

¹⁰³ See Housing and Urban Development Act of 1968 [August 1, 1968]. An act to assist in the provision of housing for low- and moderate-income families, and to extend and amend laws relating to housing and urban development.

¹⁰⁴ The idea of selling the rights relating to mortgages by their originators was not entirely new. Since at least the 1850s, mortgage bankers in the US would typically originate mortgage loans and sold the rights to receive principal and interest payments on the loans to investors, however, they would not pass on the credit risk associated with the loans they originated because they also guaranteed the payment of interest and principal such loans. Thus such originators were also called mortgage guarantee houses. Also, the HUD subsequently established numeric housing goals for Fannie Mae that essentially required that at least 30 percent of its purchases serve low- and moderate-income families, and at least 30 % serve families living in central cities. See U.S. Government Accountability Office, *Fannie Mae and Freddie Mac: Analysis of Options for Revising the Housing Enterprises’ Long-term Structures*, September 2009, at p. 19, [accessed on July 28, 2016], available at: www.gao.gov/new.items/d09782.pdf and See McConnell J. John, Buser A. Stephen, *The Origins and Evolution of the Market for Mortgage-Backed Securities*, *The Annual Review of Financial Economics*, 2011, [Accessed on July 24, 2016], at p. 4, available at: www.financialannualreviews.org

¹⁰⁵ Although both Fannie Mae and Freddie Mac provided originators a secondary market for mortgage loans, they pursued different business strategies during the 1970s and 1980s. In particular, Freddie Mac focused on purchasing conventional mortgages from savings associations and issuing MBS rather than holding them in its portfolio, thus passing the interest rate risk on to investors in MBS. By contrast, Fannie Mae would typically hold the mortgage loans it had purchased in its portfolio. See U.S. Government Accountability Office, *Fannie Mae and Freddie Mac: Analysis of Options for Revising the Housing Enterprises’ Long-term Structures*, September 2009, at p. 14, [accessed on July 28, 2016], available at: www.gao.gov/new.items/d09782.pdf

prices. Despite its initial hesitation stemming primarily from the dual mandate and the prevailing belief that full employment can be traded off with moderately higher level of inflation, the Fed eventually had to step in and raise interest rates to combat the double-digit inflation.¹⁰⁶ Especially, saving associations, which were financing their long-term fixed rate mortgages via short short-term certificates of deposit suffered extensive losses and many of them failed. However, since the insurance fund did not have adequate resources to liquidate them and make payout on their insured deposits, the response to the problem was regulatory forbearance. In particular, regulatory requirements were eased and were intended to remain so until interest rates returned to normal levels, so that they would then be able to restructure their portfolios.¹⁰⁷ As a result, many insolvent savings associations were allowed to remain open and operate.¹⁰⁸ To facilitate the continuance of the industry a new agency was created - the Federal Home Loan Mortgage Corporation, now known as Freddie Mac, the first ever corporation to issue a private MBS in 1971 in the form of a so-called pass-through certificates.¹⁰⁹ At the same time, Freddie Mae was the first to issue collateralized mortgage obligations (“**CMOs**”) in the early 1980s. Specifically, CMOs were designed as multiclass securities collateralized by mortgages or already securitized pools of mortgages, which allowed cash flows from the underlying pools to be structured into tranches with different maturities, coupons and seniority.¹¹⁰ Moreover, since the early MBS and CMOs were usually

¹⁰⁶ The federal funds rate approached to 20% in 1981 and remained as high as 15% until 1983. See Sablik Tim, *Federal Reserve History: Recession of 1981-82*, Federal Reserve Bank of Richmond, at p. 1.

¹⁰⁷ In 1983 it was estimated that it would cost roughly \$ 25 billion to pay off the insured depositors while the FSLIC's insurance fund had reserves of only \$ 6 billion. See Kenneth J. Robinson, *Federal Reserve History: Savings and Loan Crisis*, Federal Reserve Bank of Dallas, November 22, 2013 [accessed on July 6, 2016], available at: https://www.federalreservehistory.org/essays/savings_and_loan_crisis

¹⁰⁸ For example, capital requirements were lowered, FSLIC started purchasing certificates issued by troubled institutions or losses on assets resulting from adverse change in interest rates were allowed to be amortized over a ten-year period while the unamortized portion of the loss was carried as an asset. For details see Federal Deposit Insurance Corporation, *History of the Eighties, lessons for the future*, Volume I: An Examination of the Banking Crises of the 1980s and Early 1990s, Washington, DC, 1997.

¹⁰⁹ Specifically, it was issued as a “pass-through” participation certificate. A pass-through because the interest and principal payments were being periodically passed through to investors from debtors after service fees deductions. Although successful, the pass-through certificates had its limitations given that some investors were reluctant to invest in long maturities subject to an increased credit risk. In particular, given long (usually 30-year) maturities and fixed rate interests of the underlying mortgages, investors in MBS faced the risk that if interest rates rose, mortgages could be paid-off without any penalty to be refinanced into lower rate mortgage. See Fabozzi J. Frank, Modigliani Franco, *Mortgage and Mortgage-Backed Securities Markets*, Harvard Business School Press Series in Financial Services Management, May 1, 1992, Boston, MA, ISBN-10: 0875843220, at p. 20

¹¹⁰ The initial multiclass CMOs were structured such that the first tranche received all principal payments (plus appropriate interest) from the underlying mortgages until the principal amount of the tranche was fully retired. Once the first tranche was retired, all of the principal payments were paid to the second tranche until that tranche was fully retired etc. During the period in which the tranches were being retired in order of priority, each of the tranches received its pro rata share of the monthly interest payments based on the remaining amount of principal outstanding in the tranche and the tranche's stated coupon interest rate. See *Id.* At p. 177.

referencing GSE insured or guaranteed mortgages, there were little concerns about the underlying credit risk.¹¹¹

Despite the fact that the deregulation and innovative securitization products led to material asset growth of the savings associations industry, the underlying solvency problem remained unresolved. To the contrary, it grew bigger as the industry had to engage in riskier projects to secure returns high enough to be able to pay interest offsetting inflation and enticing depositors. On the other hand, since many savings associations were in effect insolvent, they had nothing to lose, since if these returns didn't materialize, the taxpayers would ultimately foot the bill.¹¹² To address the national housing difficulties president Reagan created a commission to find out where the money to finance America's housing needs in the future would come from.¹¹³ In its 1982 report, the commission concluded that "***The nation can no longer rely so completely on a system of highly regulated and specialized mortgage investors and a single type of mortgage instrument if the strong underlying demand for housing credit is to be met. A new legal and regulatory structure should be developed, and a broader based, more resilient system of housing finance is essential. In the future, resources to finance housing should be provided by unrestricted access to of all mortgage lenders and borrowers to the money and capital markets, mortgage market participants should have reliable methods to manage interest rate risk. Sweeping policy measures to change the structure of housing finance system are essential. [...] Thrift institutions also could continue to hold mortgages that they originate while absorbing or shifting interest rate risk in various ways. [...] Thus, it is likely that the thrift industry increasingly would seek to perform a mortgage-banking function – originating and servicing mortgages that meet the needs of borrowers, while packaging and reselling these loans on secondary markets to institutions that would hold them as investments.***"¹¹⁴

¹¹¹ This however begun to change in the 1990s with the emergence of MBS and CMOs referencing mortgages that did not meet the GSE criteria of prime loans, i.e. that were non-prime sub-prime. See McConnel J., John, Busher A. Stephen, *The Origins and Evolution of the Market for Mortgage-Backed Securities, Annual Review of Financial Economics*, August 19, 2011, [Accessed on May 12, 2016] at p. 178, available at <https://doi.org/10.1146/annurev-financial-102710-144901>

¹¹² See Kenneth J. Robinson, *Federal Reserve History: Savings and Loan Crisis*, Federal Reserve Bank of Dallas, November 22, 2013 [accessed on July 6, 2016], available at: https://www.federalreservehistory.org/essays/savings_and_loan_crisis

¹¹³ See Colton, Kent, *Housing Finance in the United States: The Transformation of the U.S. Housing Finance System*, Joint Center for Housing Studies, Harvard University W02-5, 2002, [accessed on May 20, 2016] available at: www.jchs.harvard.edu/publications/finance/W02-5_Colton.pdf, at p. 14.

¹¹⁴ McKenna F. William, Hills A. Carla et al, *The Report of the President's Commission on Housing*, Washington D.C., April 29, 1982.

To implement the new policy, the committee recommended a sweeping deregulation of the mortgage securitization market. Specifically, it introduced, *inter alia*, tax incentives to purchase securitized products, lifted restrictions of commercial banks' ability to invest in MBS, allowed purchases privately issued MBS on margin, promulgated streamlined SEC registration process for MBS, provided incentives to encourage the private sector to develop new instruments with minimum down-payments and removing various restrictions regarding terms of mortgage loans.¹¹⁵ Many of the recommendations of the commission were implemented via the Secondary Mortgage Market Enhancement Act of 1984, which planted seeds for the creation of a \$ 5trillion national MBS market, the largest fixed-income market in the world.¹¹⁶ Most importantly, the act allowed commercial banks, other depository institutions and insurance companies to invest in "mortgage related securities" that had high credit ratings from at least one nationally recognized credit rating agency ("**CRA**").¹¹⁷

The connecting of the American housing market to global financial markets resulted in doubling the percentage of mortgages funded through the secondary market MBS issuances between in 1984 and 2001.¹¹⁸ Over the years, both Fannie Mae and Freddie Mac had become large and complex organizations with potential material impact on financial stability. As briefly described above, however, it was not a coincidence and the private sector would not have been able to create such massive source of systemic risk without the ill-designed government policies.

¹¹⁵ E.g. to permit payment of interest on interest and negative amortization or to dismantle floors on adjustable-rate-mortgages. *Id* at p. 155.

¹¹⁶ The market peaked in March 2003, when it reached \$4.9 trillion in the US alone. For details see Secondary Mortgage Market Enhancement Act of 1984 [October 3, 1984]. An Act To amend the Securities Exchange Act of 1934 with respect to the treatment of mortgage backed securities, to increase the authority of the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation, and for other purposes and Packer Frank, Wooldridge D. Philip, *International banking and financial market developments*, BIS Quarterly Review, September 2003, [accessed on July 15, 2016] at. p. 6, available at: https://www.bis.org/publ/qtrpdf/r_qt0309.pdf

¹¹⁷ The thriving MBS secondary market was in sharp contrast to the stumbling S&Ls industry. The forbearance approach coupled with deregulation did not work and by 1989, the FSLIC, which was meant to protect savers from S&Ls' insolvency became itself insolvent. During the 1986 to 1995, over thousand S&Ls' had been closed holding approx. \$ 519 billion in assets, which cost American taxpayers approximately \$ 124 billion or 81 % of the total costs, with the rest being footed by the S&Ls industry. See Curry Timoty, Shibutt Lyn, *The Cost of the Savings and Loan Crisis: Truth and Consequences*, Federal Deposit Insurance Corporation Banking Review, [accessed on July 16, 2016], at p. 26 and 33, available at: <http://www.workingre.com/wp-content/uploads/2013/08/cost-of-SL.pdf>

¹¹⁸ The MBS share of funding of the mortgage market reached almost 70% in 2001. See Colton, Kent, *Housing Finance in the United States: The Transformation of the U.S. Housing Finance System*, Joint Center for Housing Studies, Harvard University W02-5, 2002, at p. 14. [accessed on May 20, 2016] available at: www.jchs.harvard.edu/publications/finance/W02-5_Colton.pdf

2.1.3 Incentivizing the Originate-to-distribute Model

Prior to 1980s, banks and other mortgage originators had strong incentive to maintain prudent underwriting standards and required high enough down-payment, typically 20 %, good credit history, job with steady income and gradual amortization. This was a common sense since originators would hold mortgages they had originated on their books for a long period, typically 30 years. This common practice however begun to change in the 1980s with the increasing importance of Fannie Mae and Freddie Mac, both mandated by the US Congress to encourage home ownership by first purchasing and selling mortgages in the secondary market but later also securitizing them into MBS or later on collateral debt obligations (“CDOs”), In essence, CDOs bundled a diversified portfolio of mortgages or other cash generating assets, revenue streams of which are then “sliced” into tranches and designed as waterfall delivering in sequential order an income stream to holders of securities linked to individual tranches according to their seniority. Investors around the world were keen on purchasing MBS or CDOs given the widespread perception that there was an implicit guarantee of the federal government in respect of the GSEs. The growing volumes of loans purchased by the GSE and increasing liquidity in the secondary market encouraged lenders to originate more loans, since they could easily sell them to the GSEs and make a quick profit. Mortgage originators began to make profit not from holding mortgages they had originated and collecting interest payments, but from short-term fees associated with originating and selling them. This business model was further reinforced by the advent of private-labeled securitization in the 1990s, as originators could sell them off to other financial institutions, primarily investment banks that would either hold them or pass them along further in the securitization chain. The strong demand from investors searching for yield propelled lenders to originate increasing volumes of risky mortgages to less creditworthy or sub-prime borrowers. They had nothing to lose since they knew that their balance sheets would be cleaned, and the entire credit risk would be transferred off to either GSEs or to private investors via MBS or CDOs while still generating fees. With this new originate-to-distribute business model, they had no incentive to maintain high lending standards.¹¹⁹ To the contrary, to satisfy the growing appetite from investors they were incentivized to expand the number of borrowers who could qualify for mortgages. Once originators began to sell or securitize most of their mortgages, volume and speed, as opposed

¹¹⁹ Although the emergence of the originate-to-distribute model has been widely cited as a key contributor to the 2008 financial crisis, financial sectors of countries other than the US, which did not employ this model, such as Spain also suffered materially from the burst of their real estate sector bubbles. This could imply that poor loan origination standards were more critical than the originate-to-distribute model. See Segoviano Miguel, Jones Bradley, Lindner Peter, and Blankenheim Johannes, *Securitization: Lessons Learned and the Road Ahead*, IMF Working Paper WP/13/225, November 2013, [Accessed on September 16, 2016], at p. 9, available at: <https://www.imf.org/external/pubs/ft/wp/2013/wp13255.pdf>

to affordability, became the keys to a profitable business not only for originators but for all entities participating in any of the subsequent steps in the securitization process. To ensure a steady supply of loans, vast majority of originators introduced a compensation scheme that incentivized origination of high volume of loans and risky lending practices.

The host of imprudent lending practices are well-documented and included negative amortization, no-down payments, hybrid adjustable rate mortgages with initial “teaser interest rates” that would be increased or reset to floating rate over the time. Some lenders ignored or even participated in loan fraud and originated and securitized mortgages containing fraudulent borrower information.¹²⁰ There was no downside of extending the so-called NINJA loans, i.e. loans to no income, no job, no assets individuals and families since higher risk loans meant higher fees and thus higher profits. Accordingly, higher rates of interest generated, at least at the beginning, higher returns for investors into MBS and CDOs.

Given that the US mortgages are in practice largely non-recourse and foreclosure of property collateral results in the complete cancellation of mortgage obligations, borrowers also did not have much incentive to properly assess whether they could afford a new home as they could just “walk away” when falling property prices transpired into negative equity, especially in case with little or no-down payments.¹²¹ In effect, this meant that borrowers had in the money put option, i.e. a right to sell the property collateral back to lenders in exchange for cancellation of their debt greater than the property value, which any rational borrower would exercise.¹²²

As a result, the number of high-risk loans increased rapidly, from about \$125 billion in 2000, to about \$1 trillion or 34 % of all loan originations in 2006.¹²³

¹²⁰ The increasing reliance on insufficient loan information and lack of proper borrower documentation was further amplified by the introduction of FICO credit scores, an innovative underwriting tool based on mathematical models used by lenders to predict the likelihood that a particular borrower would repay his debts, which in some cases completely replaced the process of prudent affordability assessment. See United States Senate Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs, *WALL STREET and THE FINANCIAL CRISIS: Anatomy of a Financial Collapse*, Majority and Minority Report, February 25, 2011, Washington D.C., at p. 20 [Accessed on August 17, 2016], available at: <https://www.govinfo.gov/app/details/GPO-FCIC>

¹²¹ Some also argue that the non-recourse system was the reason why US economy recovered faster from the 2008 financial crisis than the Eurozone. For details see Getey, Pedro, Zecchetto, Franco, *Mortgage Design and Slow Recoveries. The Role of Recourse and Default*, October 2018.

¹²² As of 2010, almost 25 % of mortgage borrowers owed more on their mortgages than their home was worth, with Nevada approaching 70 %. See *The Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States*, January 2011, U.S. Government Printing Office, Washington D.C., ISBN: 978-0-16-087983-8, at p. 23.

¹²³ See U.S. Government Accountability Office, *NONPRIME MORTGAGES: Analysis of Loan Performance, Factors Associated with Defaults, and Data Sources*, Report No. GAO-10-805, August 24, 2010, [Accessed on September 16, 2016], at p. 1, available at: <https://www.gao.gov/assets/310/308845.pdf>

This aggressive business model seemed to have been working well, as long as home prices kept rising since borrowers who could not afford to pay their mortgages were able to refinance and roll over their debt burden. On the other hand, since most of these loans concerned deferred principal repayments and initial low teaser fixed rate mortgages to be reset to floating rates after two to three years, it had led to a massive build-up of systemic risk, which made the mortgage market ripe for implosion given that borrowers were heavily exposed to interest rate risk, principal payment shocks and any corrections and declines in mortgage property valuations.¹²⁴

While the overflow of liquidity, stiff competition for borrowers and aggressive lending practices undoubtedly played a critical role in the development of the bubble in the US residential housing sector, it would be impossible to inflate the bubble to such an extent without the existence of the GSEs and the political pressure exerted over them to promote homeownership. Although the promotion of homeownership had been the goal of US administrations since the 1970s, a major policy shift came with the Clinton administration and the Housing and Community Development Act of 1992, which introduced “affordable housing” loan purchase goals for Fannie Mae and Freddie Mac. In practice, this meant that at least 30 % of all the GSEs’ mortgage purchases had to concern low and-moderate income mortgages, a target which would be increased over the time.¹²⁵ Also, a new government strategy named “National Homeownership Strategy: Partners in the American Dream” was adopted to secure “ [...] *an all-time high level of homeownership in America within the next 6 years through an unprecedented collaboration of public and private housing industry organizations.*”¹²⁶ The aim was to be achieved through a number of initiatives, including streamlining regulations, reducing down payments and making loan terms more flexible, providing subsidies and increasing availability of alternative housing product financing options.

To fulfil this mandate, Fannie Mae and Freddie Mac started announcing “commitments” by which they specified targets for purchases of mortgages originated from low-and middle-income families. In 1994 Fannie first committed to \$1 trillion, a goal it also fulfilled by 2000.¹²⁷

¹²⁴ See Segoviano Miguel, Jones Bradley, Lindner Peter, and Blankenheim Johannes, *Securitization: Lessons Learned and the Road Ahead*, IMF Working Paper WP/13/225, November 2013, [Accessed on September 16, 2016], at p. 9, available at: <https://www.imf.org/external/pubs/ft/wp/2013/wp13255.pdf>

¹²⁵ See Section 1331 et seq. of Housing and Community Development Act of 1992 [October 28, 1992] An Act to amend and extend certain laws relating to housing and community development, and for other purposes.

¹²⁶ See U.S. Department of Housing and Development, *The National Homeownership Strategy: Partners in the American Dream*, May 2, 1995, Washington D.C., at p. 1., available at: https://www.globalurban.org/National_Homeownership_Strategy.pdf

¹²⁷ See Annual Information Statement of the Federal National Mortgage Association for the year ended December 31, 1994 and Annual Information Statement of the Federal National Mortgage Association for the year ended December 31, 2000, available at: <https://www.fanniemae.com>

In that year Fannie announced the “American Dream Commitment”, a pledge to invest an additional \$2 trillion into purchases of low-and middle-income mortgages.¹²⁸ Freddie followed similar suit.¹²⁹

The following statement of the HUD demonstrates that its mission was thought to have been achieved by 2004:

“Over the past ten years, there has been a “revolution in affordable lending” that has extended homeownership opportunities to historically underserved households. Fannie Mae and Freddie Mac have been a substantial part of this “revolution in affordable lending.” During the mid-to-late 1990s, they added flexibility to their underwriting guidelines, introduced new low down-payment products, and worked to expand the use of automated underwriting in evaluating the creditworthiness of loan applicants. Data suggests that the industry and GSE initiatives are increasing the flow of credit to underserved borrowers. Between 1993 and 2003, conventional loans to low-income and minority families increased at much faster rates than loans to upper-income and nonminority families.”¹³⁰

Despite the proclamation, the mortgage lending standards continued to be eased and affordable housing goals increased also under the following republican administration, which, among other things, introduced “Zero Down Payment Initiative” or directed the GSE to increase their low-and middle income mortgage purchases to at least 56 % by 2008.¹³¹ The result of these the ill-designed government programs was an unprecedented number of subprime and other high risk mortgages in the US financial system by 2008. In particular, GSE either held or had guaranteed almost 77 % of the total 27 million subprime and other high risk mortgages outstanding in the US in 2008 with aggregate unpaid principal amounting to approx. \$2.7

¹²⁸ See Annual Information Statement of the Federal National Mortgage Association for the year ended December 31, 2000, available at: <https://www.fanniemae.com/media/27136/display>

¹²⁹ While Fannie Mae and Freddie Mac traditionally held or guaranteed prime conforming mortgages with low historical default risk, this changes during the 2000s with the rapid growth in the higher-risk “subprime” mortgage market. Although pools of subprime mortgages were generally turned into securities by investment banks rather than by Fannie Mae and Freddie Mac, they invested into these “non-agency” MBS, which were viewed as very profitable investments, which could also help to satisfy affordable housing goals. By the end of 2007, Fannie Mae and Freddie Mac held over \$ 300 billion of non-agency MBS. For details see Frame, W. Scott, Fuster Andreas Joseph, Vickery, Tracy James, *The Rescue of Fannie Mae and Freddie Mac*, Federal Reserve Bank of New York Staff Reports Staff Report No. 719 March 2015, , [Accessed on September 20, 2016], available at: https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr719.pdf

¹³⁰ See Federal Register, Vol. 69, No. 211, November 2, 2004, Rules and Regulations, Office of the Federal Register, National Archives and Records Administration, Washington, D.C., at p. 63645, [Accessed on September 18, 2016], available at: <https://www.govinfo.gov/content/pkg/FR-2004-11-02/pdf/FR-2004-11-02.pdf>

¹³¹ The initiative eliminated the statutory requirement of a minimum 3% down payment for FHA-insured mortgages for first-time homebuyers in exchange for a ‘modestly higher insurance premium’ which would be phased down over several years. See U.S Department of Housing and Urban Development, Press Release, January 19, 2004, available at: <https://archives.hud.gov/news/2004/pr04-006.cfm>

trillion.¹³² At the same time, by extraordinarily leveraging their approx. \$70 billion capital into a portfolio worth \$ 5.4 trillion of home mortgage loans and guarantees, more than half of the whole US mortgage market by 2008, Fannie Mae and Freddie Mac became the most leveraged institutions in the US with systemic importance for the whole financial system.¹³³

It has been argued that Fannie Mae and Freddie Mac, once turned into a private publicly traded corporations, eased their underwriting standards primarily to chase profit and compete with Wall Street firms for market share. Although these were important factors, the ill-designed governmental policy implemented via the GSEs played a critical role and the deterioration of lending standards was largely the product of the failed policy, with originators and Wall Street firms only taking the bait and enjoying the ride.¹³⁴

¹³² See Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States, January 2011, U.S. Government Printing Office, Washington D.C., ISBN: 978-0-16-087983-8, at. p. 456.

¹³³ See The role of Fannie Mae and Freddie Mac in the financial crisis: Hearing before the Committee on Oversight and Government Reform, House of Representatives, One Hundred Tenth Congress, second session, December 9, 2008, at p. 166, available at: <https://www.govinfo.gov/content/pkg/CHRG-110hhrg50808/pdf/CHRG-110hhrg50808.pdf>

¹³⁴ It has been in particular argued that the GSEs' acquisition of subprime loans and other risky mortgages began in the 1990s, when they first became subject to the affordable housing goals and that by 2001 - before the private labeled MBS market reached \$ 100 billion annually, the GSEs had already acquired at least \$ 700 billion in non-traditional mortgages, including over \$ 400 billion in subprime. See The Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States, January 2011, U.S. Government Printing Office, Washington D.C., ISBN: 978-0-16-087983-8, at. p. 456.

2.1.4 Fueling the Housing Bubble with Government-mandated Rating Oligopoly

In the backdrop of accommodative monetary policies, the self-reinforcing securitization cycle, which comprised of poor underwriting practices, complex and opaque structure finance products and CRAs had played a significant role in amplifying systemic risk by facilitating excessive leverage and risk concentration across the financial sector. From its early developments in the 1970s, securitization and structured finance products had become an immensely important source of credit and financing in the American financial system in the decades before the 2007-8 financial crisis.¹³⁵

By the turn of the century, the issuance of US private-label securitizations stood at \$1 trillion, around five times that of Europe. More importantly, dramatic changes in the composition of the industry unfolded in the years immediately preceding the financial crisis, with surge of very complex, risky, and opaque market segments that had previously played only peripheral role, such as re-securitization and the development of synthetic CDOs or CDOs-squared.¹³⁶

In particular, synthetic CDO had similar traits as plain vanilla CDOs, however, their value and income streams were not derived from cash generating assets, like mortgages but from derivative contracts referencing such assets, usually credit default swaps (“CDS”), which allowed to transfer of credit risk without having to transfer legal ownership of assets they were referencing. Through a synthetic CDO vehicle, the individual counterparties of the CDS contracts in the asset pool essentially bought a credit protection. In exchange for this protection, the vehicle received a stream of premium payments, analogous to the interest payments it would have received on a cash CDO and passed them through to the tranche

¹³⁵ The securitization industry in the US had preceded that across the Atlantic by 15 years and 20 years in the UK and continental Europe, respectively. The UK’s first mortgage securitization was launched in 1985, with France being the first on the continent to issue residential MBS in 1991. Thereafter, securitization became popular in Spain, Belgium, the Netherlands, but also other countries. In the Dutch case, ABS amounted to almost € 270 billion at end-2007, or 50 % of Dutch GDP. Distinct legal, tax, and accounting frameworks were generally speaking, the main reason behind the differences in the development of continental European securitization markets relative to the US. Although many European countries started providing regulatory relief to securitization, the necessary changes had been introduced only a short time before the 2008 financial crisis, which prevented the European securitization market to mature and grow to a size comparable to that of the US. On the other hand, many European banks were exposed to the US securitization market via structured investment vehicles, many of which had later be bailed out when the US sub-prime mortgage market collapsed. See Segoviano Miguel, Jones Bradley, Lindner Peter, and Blankenheim Johannes, *Securitization: Lessons Learned and the Road Ahead*, IMF Working Paper WP/13/225, November 2013, [Accessed on September 16, 2016], at p. 59, available at: <https://www.imf.org/external/pubs/ft/wp/2013/wp13255.pdf>

¹³⁶ At the global level, between 2000 and 2007, issuance of CDOs increased more than six times to \$ 1 trillion, while issuance of CDO-squared increased eleven-fold to around \$ 300 billion. See Segoviano Miguel, Jones Bradley, Lindner Peter, and Blankenheim Johannes, *Securitization: Lessons Learned and the Road Ahead*, IMF Working Paper WP/13/225, November 2013, [Accessed on September 16, 2016], at p. 8, available at: <https://www.imf.org/external/pubs/ft/wp/2013/wp13255.pdf>

investors in the synthetic CDOs.¹³⁷ In addition, each tranche of a synthetic CDO may could be either funded or unfunded. In case of the former, the investors in the synthetic CDO had to put up certain amount of money up-front in case of a “credit event,” such as a default or rating downgrade, with respect to one or more assets in the reference portfolio. In case of the latter, investors simply promised to pay notional amounts of the protection, they in effect sold when a credit event occurred. To make things more complex, MBS and other asset backed securities (“**ABS**”) or even CDOs could and indeed would often be re-securitized into CDOs or CDO-squared, respectively, income streams of which would be derived from, and backed by, tranches of pools of already securitized products. In many instances, re-securitization would be used to restructure a downgraded tranche of a securitized product such as MBS. Specifically, the downgraded tranche would typically be subdivided into a new AAA senior tranche and a lower-rated mezzanine tranche, which would usually absorb the first 30 % of losses and be sold off to hedge funds or other investors searching for a higher yield. Re-securitization gained traction especially after 2005 when senior AAA rated tranches of MBS and CDOs started being downgraded as many investors wanted to maintain AAA status of their securities holdings.¹³⁸ Re-securitization of already securitized products allowed the creation of high-yielding securities generating even greater fees for investment banks. At the same time, their complexity made their proper assessment challenging even for sophisticated investors. Therefore, CRAs became essential to keep the securitization engine running. By giving AAA ratings even to senior tranches of MBS or CDOs, the same rating as to government bonds, CRAs played a pivotal role in the massive mispricing of credit risk. Without investment grade ratings, MBS and CDOs would have been more difficult to sell since investors would often have had to perform their own due diligence. The more complex and opaquer the securitized products became, the more reliant investors were on high credit ratings for the instruments to be marketable. At the same time, since institutional investors like pension funds, insurance companies were in many instances prohibited from investing in non-investment grade securities, CRAs were incentivize to issue high instead of accurate ratings to secure steady flow of business.¹³⁹ Given the prevalent issuer-pays business model and the global

¹³⁷ For more see Armstrong Jim and Kiff John, *Understanding the Benefits and Risks of Synthetic Collateralized Debt Obligations*, Bank of Canada Financial System Review 53–61 June 2005, [Accessed on September 15, 2016], available at: <https://www.bankofcanada.ca/2005/06/fsr-june-2005/>

¹³⁸ Institutional investors were primarily concerned that holding downgraded securities would ensue in the need to post a substantial amount of new capital. For example, under Basel II standardized approach, the risk-weight on a BB-rated tranche was 350 %, whereas 40 % on an AAA-rated resecuritization.

¹³⁹ Since the late 1930s, the OCC’s prohibited commercial banks from investing in speculative or non-investment grade securities, as determined by recognized rating manuals issued by the three main CRAs. In the following decades, insurance regulators and then pension fund regulators followed with similar path. See Lawrence J. White, *A Brief History of Credit Rating Agencies: How Financial Regulation Entrenched this Industry’s Role in the Subprime Mortgage Debacle of 2007–2008*, George Mason University, Mercatus on Policy, No. 59, October 2009, [Accessed

oligopolistic credit ratings market,¹⁴⁰ CRAs incentives were misaligned with those of investors as issuers but also investment banks often “shopped” for the highest ratings.¹⁴¹

The result was a record soaring of both number of credit ratings issued but also of structure products rating-related revenues. Just between 2004 to 2007, Moody’s and S&P issued almost ten thousand structured finance products’ ratings.¹⁴² Accordingly, between 2002 and 2006, the residential MBS and CDOs rating-related revenues of Moody’s and S&P increased three and four times, respectively. Altogether, revenues from the three dominant CRAs more than doubled from nearly \$3 billion in 2002 to over \$6 billion in 2007.¹⁴³

Surprisingly, despite the increasing necessity of credit ratings for regulatory purpose but also for tapping both public and private markets and the concomitant rising power of only a handful of CRAs, there were no efforts to regulate the industry and attach any responsibility to, or standardize methodologies for, credit ratings issuances. This was even more striking after the massive corporate and accounting scandals revelations ensuing from the failures of Enron and WorldCom and the role CRAs had played in it, most notably evidenced by Enron’s

on September 16, 2016], at p. 3, available at: https://www.mercatus.org/system/files/59_CRA_history_%28web%29.pdf

¹⁴⁰ Prior to 1970, the CRAs provided ratings free of charge to issuers and sold their publications to investors for a fee. The subscribers-pay model however, turned out to be unsustainable since it guaranteed the CRAs independence from the issuer being rated, but did not provide sufficient revenue to support their operations, as the publications could be easily copied. During the US recession of early 1970s, the dynamics of the industry changed as issuers became willing to pay for a rating in order to demonstrate to the market that they were of sound credit. In 2010 there was only one marginal CRA employing the „investor pays“ model in the US. See Organization for Economic Co-operation and Development, *Hearings of Competition Committee: Competition and Credit Rating Agencies*, DAF/COMP(2010)(29), October 5, 2010, [Accessed on September 16, 2016], at p. 7, available at: <http://www.oecd.org/daf/competition/sectors/46825342.pdf>

¹⁴¹ Although there were ten CRAs officially registered and recognized by the SEC in the US in 2007, the American but also the global market was and still is dominated by just three, namely Moody’s, Standard & Poor’s and Fitch. As of 2019, the three CRAs accounted for approx. 98% and 92 % of the total credit ratings in the US and EU, respectively. The issue is said to have been reinforced by the fact that only a few issuers were responsible for most of the structure products issuance, so the gain or loss of a single issuer could have a significant impact on a CRA’s revenue base. For more details see the SEC’s 2019 Annual Report on Nationally Recognized Statistical Rating Organizations available at: www.sec.gov, and the ESMA’s 2019 Report on Annual Market Share Calculation for EU Registered Credit Rating Agencies available at: www.esma.europa.eu and Herring, J., Richard, *Policy Issues Concerning the Reform of the Credit Rating Agencies*, Pew Financial Reform Project, Briefing Paper No. 14, 2009, [Accessed on September 16, 2016], at p. 7, available at: <https://www.pewtrusts.org/-/media/assets/2008/11/19/frpherringcrareform.pdf>

¹⁴² Not surprisingly, a typical tranche of a subprime or Alt-A MBS assigned with AAA rating would account for approx. 80 to 95 % of the MBS. For details see Federal Reserve Bank of New York, *MBS Ratings and the Mortgage Credit Boom*, Staff Report No. 449, May 2010, [Accessed on September 16, 2016], at p. 50, available at: https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr449.pdf

¹⁴³ For example, Moody’s gross revenues from residential MBS and CDO ratings reached \$ 260 million in 2006, almost half its overall revenue. See United States Senate Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs, *WALL STREET and THE FINANCIAL CRISIS: Anatomy of a Financial Collapse*, Majority and Minority Report, February 25, 2011, Washington D.C., at p. 31 [Accessed on August 17, 2016], available at: <https://www.govinfo.gov/app/details/GPO-FCIC>

investment grade rating only four days before it declared bankruptcy.¹⁴⁴ Although the SEC had no statutory basis to exercise regulatory authority over CRAs, it had indirectly regulated the entry into the rating industry since 1975 via the requirement of investment banks to have their assets rated for the purposes of calculation capital requirements. In this respect, the SEC only recognized ratings from the “big three” CRAs. Although the US Congress responded to the Enron scandal by the adoption of the Sarbanes-Oxley Act in 2002, the act did little to nothing to provide more transparency into the CRAs designation process or to open up the industry to new entrants.¹⁴⁵

Changes came with the enactment of the Credit Rating Agency Reform Act in September 2006, which introduced, among other things, a registration requirement for CRAs.¹⁴⁶ However, by the time implementing regulations to the act took effect at the end of June 2007, the meltdown of the American financial sector had already begun.

In sum, the barrier entry into the industry effectively created by the SEC and the regulatory forbearance coupled with an increasing regulatory reliance on credit ratings led to the creation of a government-mandated oligopolistic market with no liability for CRAs whatsoever for flawed or inflated ratings.

¹⁴⁴ Even after the SEC’s public inquiries into Enron’s ties to outside investment partnerships, its CFO resignation and steadily share price declines, S&P’s analyst were predicting that Enron’s ability to retain investment grade rating was excellent in the long term. Although Enron’s share price continued to fall after having disclosed it had overstated earnings by over half a billion dollars since 1997, both Moody’s and Standard & Poor’s kept Enron’s investment grade status. When Moody’s and Standard & Poor’s downgraded Enron to junk bond status, the company’s stock was trading at just over one dollar, only to declare bankruptcy four days later. For details see *Rating the Raters: Enron and the Credit Rating Agencies*, Hearings Before the Senate Committee on Governmental Affairs, 107th Congress 471, March 20, 2002, [Accessed on September 16, 2016], available at: <https://www.sec.gov/news/studies/credratingreport0103.pdf>

¹⁴⁵ The act only required the SEC to conduct a series of studies and to prepare a report on the credit rating industry and the NRSRO system. For details see Section 702 of the Sarbanes-Oxley Act of 2002 [July 30, 2002]. An Act to protect investors by improving the accuracy and reliability of corporate disclosures made pursuant to the securities laws, and for other purposes.

¹⁴⁶ See *The Credit Rating Agency Reform Act of 2006* [September 29, 2006]. An Act To improve ratings quality for the protection of investors and in the public interest by fostering accountability, transparency, and competition in the credit rating agency industry. In practice, if a broker-dealer wanted to use the ratings from a particular CRA for regulatory purposes, the SEC staff would research the market to determine whether ratings from such CRA were widely used and thus deemed reliable and credible. If so, the SEC staff would send a letter to the CRA indicating that if a broker dealer was to rely on the CRA’s ratings, they would not recommend enforcement action against such entity. Moreover, no-action letters were made public and could be relied upon by other broker dealers, not just the one upon which request the letter was issued. For details see Securities and Exchange Commission, *Report on the Role and Function of Credit Rating Agencies in the Operation of the Securities Markets: As Required by Section 702(b) of the Sarbanes-Oxley Act of 2002*, W. S. Hein & Co. Publishing, April 1, 2004, ISBN-13: 978-1575888217, at p. 10.

2.1.5 “Invasion” of Commercial Banks into Derivative Business

The tight regulatory restrictions imposed on commercial banks brought about significant decrease of their market share and profitability. The sector was thus highly incentivized to find new profit generating businesses and exert pressure on its main regulator, the OCC, to espouse a lenient regulatory approach. The industry efforts started yielding fruit in the late 1980s through the so-called interpretative administrative actions. In particular, the OCC started issuing letters concerning the interpretation of a clause that empowered banks to exercise “*all such incidental powers as shall be necessary to carry on the business of banking.*”¹⁴⁷ Thorough the history of US banking there have been debates about whether the scope of permissible bank activities was enumerated or whether banks could carry on financial activities deemed incidental to banking.¹⁴⁸ In 1989, the OCC sided with the broad open-ended interpretation when stipulating that the business of banking “*comprised of all those powers which are recognized features of that business*”. The recognized features of banking business were, *inter alia*, of financial nature, similar to, or useful in carrying out, the enumerated powers or customary practices of banks and could concern execution and clearance of customer transactions in financial instruments, such as securities, futures and options.¹⁴⁹

The OCC’s very broad interpretation of bank powers was later on confirmed by the Supreme Court, which stressed that it was within the OCC’s discretion to authorize permissible bank activities beyond those specifically enumerated in law. The court, however, also emphasize that the exercise of the agency’s discretion had to be kept within reasonable bounds and that ventures distant from dealing in financial investment instruments, as for example, operating a general travel agency, would exceed those bounds.¹⁵⁰ The court specifically explained that the business of banking concerns any activity functionally equivalent to, or a logical outgrowth of, a traditional banking activity that would benefit the bank or its customers and involves risks similar to those already assumed by banks.¹⁵¹ The court’s interpretation was largely seen as an endorsement of a sweeping regulatory discretion of the agency.

¹⁴⁷ See 12 U.S.C. § 24.

¹⁴⁸ See Omarova T. Saule, *the Quiet Metamorphosis: How Derivatives Changed the “Business of Banking”*, July 2009, Cornell Law Faculty Publications, at p. 1050.

¹⁴⁹ See OCC Interpretive Letter No. 494, December 20, 1989.

¹⁵⁰ See *Nations Bank of North Carolina N.A. et al v. Variable Annuity Life Insurance Co. et al*, 513 U.S. 2251 (1995).

¹⁵¹ See OCC Interpretive Letter No. 684, August 4, 1995.

Despite the broad interpretation of bank powers, the agency had to overcome two separate issues in order to let banks enter the derivative business. Specifically, it had to conclude that the bank had legal authority to enter into a derivative transaction, but also to purchase the underlying securities to be able to deliver the asset at settlement or to manage such derivative exposure. The initial approach to the first hurdle applied by the OCC was to “look through” the nature of the activity and assess whether the bank was permitted to own and deal in the underlying asset.¹⁵² This approach was not controversial as it would be difficult to argue that, if a commercial bank could own asset, such as gold, and accept all risks inherent in such ownership, it could not gain exposure to the same risks indirectly through a derivative contract. This line of reasoning allowed commercial banks to broaden the range of their financial activities to include trading and dealing in options, futures, forward contracts, and swaps, as long as they were linked to interest rates, currency exchange rates, and certain precious metals, which they could own. However, the look-through approach, would not allow banks to deal in derivative contracts referencing securities or commodities as they were not permitted to own and deal in such assets.

Under an increasing pressure from the industry, a concept “functional equivalency” replaced the insufficient standard. Contrary to the look-through approach, the new concept disregarded the referenced asset and focused entirely on the nature of the financial activity associated with the derivative transaction. In other words, financial activities functionally equivalent to the express powers of commercial banks were deemed to be, as a form of bank intermediation, under the scope of the general business of banking. By applying this new concept, the OCC, allowed commercial banks to participate in commodity and equity swaps.

Bank dealings in commodity swaps were first authorized in 1987, following a proposal by Chase Manhattan Bank. Simply put, Chase was to take opposite positions in two separate swap contracts with the same terms referencing commodity prices, which it argued eliminated market risk and any potential for speculation, as any potential loss (or gain) on one contract would be offset by the other and *vice versa*. In a no-action letter, the agency expressed its view that the transaction was incidental to the express power of banks to lend money and as such constituted part of the general business of banking. Specifically, since market risk was eliminated the bank was exposed only to the risk that its swap parties would not honor their commitments, which was however functionally equivalent to other bank activities such as lending.

¹⁵² See Omarova T. Saule, *the Quiet Metamorphosis: How Derivatives Changed the “Business of Banking”*, July 2009, Cornell Law Faculty Publications, at p. 1056.

A year later and under a similar line of argumentation, the OCC permitted the same bank to offer time deposits bearing interest pursuant to the performance of the S&P 500 index.¹⁵³ Not only were commercial banks now allowed to offer products with embedded derivatives, they started offering a broad variety of interest-bearing deposit-like products, despite the explicit ceilings on interest they could pay on time deposits.

Additional loosening came in 1990 when Chase sought to implement its swap program. Under the program Chase would not have to enter simultaneously into two offsetting commodity index swap transactions like in the earlier case but could hedge its swap exposure by purchasing exchange-traded futures on the underlying commodity instead. The reasoning of the approval, *inter alia*, stressed that: „*A commodity price swap contract involves the same type of payments that a bank makes and receives in connection with its deposit and loan contracts. However, unlike a deposit or loan, no principal is received or disbursed by the bank with a swap. Instead, payments are made based on a notational amount of the commodity and changes in an agreed upon commodity price index. Moreover, the purchase and sale of futures to hedge unmatched swaps is equivalent to using futures to hedge exposure on deposits or loans with interest rates linked to movements in the price of a commodity.*”¹⁵⁴

In other words, Chase could deal in the sought-out derivatives since it concerned financial intermediation, that is exchange (or swap) of payments between banks and their customers, similarly to other banking transactions. Importantly, by concluding that the purchase and sale of futures for hedging purposes was permissible not because it was (directly) equivalent to an express banking power, but because of its equivalency to an activity which was equivalent to an express banking power, the agency opened the floodgates for *de facto* unlimited expansion of bank permissible activities.

After this sweeping interpretation of bank powers, it was only a matter of time before bank ask for “permission” to deal in derivatives referencing securities or related indexes. This was a higher bar to overcome since unlike the other already permitted derivative transactions, dealing in securities was explicitly prohibited by the Glass Steagall Act. In going around these limitations, the OCC first concluded that equity swaps were no different than previously approved commodity swaps, since all swaps were essentially [...] “*payments that [were] analogous to those made and received in connection with a national bank’s express powers*

¹⁵³ In addition, the OCC concluded that Chase could buy and sell exchange-traded futures contracts to hedge its exposure from the use of indices as the basis for deposit interest rates. It was argued that futures for risk management purposes in connection with an expressly authorized banking activity, such as deposit-taking, was an activity incidental to the business of banking and therefore permissible for commercial banks. See *Id.* at p. 1064.

¹⁵⁴ See OCC No-Objection Letter No. 90–1, February 16, 1990.

to accept deposits and loan money.”¹⁵⁵ Moreover, since equity swap and exchange of payments between a bank and its counterparty did not imply actual ownership of the referenced securities, the only risk to which the bank was directly exposed was the counterparty credit risk, management of which was the core of banking activity. By allowing banks to enter into these transactions, the OCC did not see any new or different risk than the bank was not already exposed to.¹⁵⁶ Although commercial banks were not permitted to hedge equity swaps by buying or selling the underlying securities, they were allowed to do so by entering into cash settled exchange-traded or over-the-counter („OTC”) derivative transactions.

In sum, by a broad and creative interpretation of statutory powers, the federal agency permitted commercial banks to engage in trading and dealing in complex OTC derivatives and further blurred the division between banking, securities but also insurance industries. Moreover, since the credit risk associated with commodity and equity derivatives is a function of movements in market prices or rates of the underlying assets, and as such may vary over time, the increased uncertainty what commercial banks’ net derivative exposure was made their business far opaquer.¹⁵⁷

The other important change in the derivative industry, which came from the federal government was the purpose derivative contracts were used for. Although derivative contracts had had long history and were not the product of financial innovation in the late 1980s and 1990,¹⁵⁸ they were originally designed and used primarily for hedging purposes and not for speculation on the future.¹⁵⁹ Through-out the history derivatives, with some differences in civil

¹⁵⁵ See OCC Interpretive Letter No. 652, September 13, 1994.

¹⁵⁶ Interestingly, while the OCC’s interpretative letters placed only a little emphasis on the risks associated with derivatives, its own 1997 derivative handbook spelled out a list of derivatives-associated risks See Comptroller of the Currency, Risk Management of Financial Derivatives, Comptroller’s Handbook, January 1997, at p. 2.

¹⁵⁷ The regulatory „race to the bottom“ however continued. In 1993, the OCC authorized commercial banks’ power to hedge their commodity linked derivatives by entering into physically settled commodity derivative contracts. Accordingly, in 2000, the OCC authorized commercial banks to purchase and hold securities to hedge their exposures to „customer-driven, bank permissible equity derivative transactions”. Although the authorization to purchase and hold securities for hedging purposes brought about political controversies echoing the Glass-Steagall limitations, the US General Accounting Office Equity Hedging Report in 2001 endorsed the agency’s interpretations. See Omarova T. Saule, *the Quiet Metamorphosis: How Derivatives Changed the “Business of Banking”*, July 2009, Cornell Law Faculty Publications, at p. 1081.

¹⁵⁸ Written evidence of derivative contracts use dates 2400 years back in Aristotle’s Politics and the story of the ancient philosopher Thales, who with only a small amount of money cornered olive market by using his knowledge of astrology and reserving all olive presses used for converting olives into oil for his exclusive use during the harvest time. For details see Crawford, George; Sen, Bidyut, *Derivatives for Decision Makers: Strategic Management Issues*, Wiley, 22nd edition, August 10, 1996, ISBN 978-0471129943, at p. 7.

¹⁵⁹ Most commercial derivatives were originally bets on the future prices of agricultural commodities, like the rice derivatives traded in Osaka Japan in the 17th century or the corn and wheat futures traded on the Chicago

and common-law countries, had been subject to rules against wager and bets. The principle was rather simple and ordered courts of law, generally speaking, not to enforce wagering or gaming contracts. In particular, the US common-law rule against difference contracts required that at least one party to a derivative (originally termed difference) contract had to have a real economic interest in the underlying commodity or asset and had to be able to prove in a court that it used the derivative to hedge against the risk to that interest and not as a mere speculative tool.¹⁶⁰ These types of derivative contracts were akin to insurance, which also requires the policy holder to have an insurable interest. To overcome these limitations, market participants developed private “gambling clubs” or exchanges based on membership principle with capital and collateral posting requirements to ensure that derivative “gamblers” actually could, and would, perform on their otherwise unenforceable contracts. Given their increasing role in the financial world, the old common-law rule against difference contracts eventually succumbed to innovative regulatory schemes, which made even purely speculative derivative commitments legally enforceable. The US soon followed the trend of lenient approach towards derivatives industry by exempting some derivative transactions from the scope of the trading and clearing obligation on regulated exchanges.¹⁶¹ The new “modern” era for the derivative industry came with the Commodity Futures Modernization Act of 2000, which not only declared all derivative contracts, including those of purely speculative nature, legally enforceable but also allowed banks and other institutional investors to deal in complex OTC derivatives with almost no regulatory oversight.¹⁶² As a result, dealing in derivatives became one of the fastest growing industries, which banks dominated in part due to their almost thirty-year long expertise in this area. The number speaks for themselves - the total notional value of outstanding OTC

Mercantile Exchange. See Stout, Lynn A., *How Deregulating Derivatives Led to Disaster, and Why Re-Regulating Them Can Prevent Another*, Cornell Law Faculty Publications 2009, Paper 723, at p. 3.

¹⁶⁰ As the US Supreme Court opined in the well-known case *Irwin v Williar*: “If, under guise of a contract to deliver goods at a future day, the real intent be to speculate in the rise or fall of prices, and the goods are not to be delivered, but one party is to pay to the other the difference between the contract price and the market price of the goods at the date fixed for executing the contract, the whole transaction is nothing more than a wager, and is null and void. See *Irwin v. Williar*, 110 U.S. 499 (1884).

¹⁶¹ Although this power of the CFTC was formally established by the Futures Trading Practices Act of 1992, it only confirmed the practice that had been established since the late 1980s. Swaps were probably the most important exemption. Although swaps had all features of future contracts, the CFTC recognized that swap contracts required counterparty credit assessment and tailoring through private negotiations involving not only financial terms but also representations, covenants, collateral and other requirements, which made their terms hard to standardize and unfit to trading and clearing obligations. See CFTC Swap Transaction Policy Statement Federal Register Vol. 54, No. 139, 30694 (July 21, 1989). On the other hand, this reasoning became soon obsolete with the swap standardization via the ISDA Master Agreement in 1992.

¹⁶² The Commodity Futures Modernization Act of 2000. [December 21, 2000]. An Act To reauthorize and amend the Commodity Exchange Act to promote legal certainty, enhance competition, and reduce systemic risk in markets for futures and over-the-counter derivatives, and for other purposes. In particular the CFMA clarified that most OTC derivatives between institutional investors and other sophisticated parties would not be regulated as either futures or securities thus removing them from the oversight of both the SEC and CFTC.

derivatives had grown almost tenfold between 1998 and 2008, when it reached almost \$700 trillion.¹⁶³

2.1.6 Bringing-down the Glass-Steagall Wall

The opposition against the separation of investment and commercial banking had gained momentum during the 1980s and 1990s with increasing number of scholars arguing that commercial banks affiliated with investment banks in the 1920s and 1930s fared no worse than their peers without such affiliations.¹⁶⁴ It was also clear that major foreign countries that had for a long time had universal banking did not face any of the threats the Glass-Steagall Act had sought to eliminate. As a result, US commercial banks could underwrite and deal in securities in Europe but could not in their home jurisdiction. The result was a steady decline of American banks in international rankings.¹⁶⁵ This changed the tone of the political debate as it was no longer about banks' profitability but rather about their competitiveness. In face of these challenges, both the OCC and the Fed, the primary regulators of commercial banks set out for a "regulatory race to the bottom" by extremely broad interpretation of contemporary laws. In fact, the two regulatory agencies *de facto* re-wrote the law so that when the prohibition of investment and commercial banking was formally repealed with the passage of the Gramm-Leach-Bliley Act of 1999, the separation was in fact long gone.¹⁶⁶ Arguably, had the Glass-Steagall Act not been passed and the market divided, credit intermediation might not have

¹⁶³ See and Bank for International Settlements, *The global OTC derivatives market at end-June 1998*, December 23, 1998, [Accessed on September 2017], at p. 3, available at <https://www.bis.org/press/p981223.htm> and Bank for International Settlements, *OTC derivatives market activity in the first half of 2008*, November 2008, Basel Switzerland, [Accessed on September 2017], at p. 5, available at: https://www.bis.org/publ/otc_hy0811.pdf

¹⁶⁴ For example Kroszner and Rajan argued that in the period prior to 1933 securities affiliates of commercial banks generally underwritten higher-quality securities than standalone investment banks and that securities underwritten by such affiliates had performed better than comparable issues underwritten by independent investment banks. They also concluded that allowing commercial and investment banking to be placed under one roof had not resulted in widespread defrauding of investors stemming from conflicts of interests. See Kroszner S. Randall and Rajan G. Raghuram, *Is the Glass-Steagall Act Justified? A Study of the U.S. Experience with Universal Banking Before 1933*, the American Economic Review, Vol. 84, No. 4, September 1994, at p. 829. Accordingly, White's analysis concluded that banks engaged in both commercial and investment banking had lower failure rate than banks without securities affiliates between 1930 and 1933, which he explains that banks with securities affiliates were usually larger than average-size and small banks thus had opportunities for diversification and economies of scale the smaller banks lacked. See Eugene N. White, *Before the Glass-Steagall Act: An Analysis of the Investment Banking Activities of National Banks*, Explorations in Economic History 23, no. 1, 1986, at p. 40.

¹⁶⁵ In 1960, six of the ten largest banks were established in the US; however, there was none in the top 25 list by 1989. See Wolfgang H. Reinicke, *Banking, Politics and Global Finance: American Commercial Banks and Regulatory Change, 1980-1990*, Edward Elgar Publishing, 1995, ISBN: 978 1 85898 176 5 at p. 91.

¹⁶⁶ See Gramm-Leach-Bliley Act. [November 12, 1999]. An Act To enhance competition in the financial services industry by providing a prudential framework for the affiliation of banks, securities firms, insurance companies, and other financial service providers, and for other purposes. 12 § U.S.C 1811.

moved so extensively to the shadows of regulatory oversight, the thinly regulated shadow banks might not have grown so much and the 2007-08 financial crisis might not have been so severe. As it will be showed, the effort to divide the market was futile anyway.

The era of “progressive” interpretation gained traction in the late 1980s. First, the Fed could expand activities of commercial banks that were organized under bank holding company by its discretionary power to determine permissible non-banking activities closely related to banking.¹⁶⁷ By utilizing this discretion, the Fed for example allowed bank holding companies to form subsidiaries engaging in investment advisory or selling insurance products.¹⁶⁸ However, the most important “loophole” was the wording of Section 20 of the Glass-Steagall Act prohibiting commercial banks from being affiliated only with companies that “engaged principally” in the securities business.

The creative interpretation of Section 20 of the Glass-Steagall Act started with the application by Citicorp and J.P.Morgan to form subsidiaries that would engage in underwriting and dealing in commercial papers, mortgage backed securities and municipal revenue bonds.¹⁶⁹ In the reasoning, the Fed concluded that the applicants’ underwriting subsidiaries would not be engaged principally in underwriting or dealing in securities within the meaning of section 20 of the Glass-Steagall Act, provided they derived no more than 5 % of their total gross revenues from that business and underwriting and dealing activities did not exceed 5 % of the market for each particular type of security involved. At the same time, the Fed stressed that the appropriate limit for “engaged principally” was to be somewhere between 5 % to 10

¹⁶⁷ See 12 U.S.C. § 1843, (c)(8) and the Fed’s Regulation Y (12 C.F.R. 225).

¹⁶⁸ Although the lenient approach from the Fed prompted a wave of lawsuits from industry competitors, unlike in the 1960s and 1970s, courts started employing significantly more deference to agencies’ discretionary powers. For example, in 1981, the Supreme court fortified the Fed’s discretionary powers when approving its decision to allow non-bank subsidiaries to advise closed-end investment companies in selling, distributing and underwriting securities. See *Board of Governors of Federal Reserve System v. Investment Company Institute*, 450 U.S. 46 (1981).

¹⁶⁹ Interestingly, prior to this decision, the Fed had tried to allow commercial banks to underwrite and deal in commercial papers based on argumentation that commercial paper was not a security within the meaning of the Glass-Steagall Act because commercial papers are functionally closer to loans rather than investment securities. This rationale was however rejected by the Supreme Court, which stressed that the Fed’s functional analysis misapprehended Congress’ concerns about commercial-bank underwriting activities derived from the perception that the role of a bank as a promoter of securities was fundamentally incompatible with its role as a disinterested lender and adviser. See *Securities Industry Association v. Board of Governors of the Federal Reserve System*, 468 U.S. 137 (1984). The Fed however later “survived” with its argumentation that “underwriting” within the meaning of Section 16 and 21 of the Glass-Steagall Act applied only to public offerings and commercial banks were thus allowed to underwrite commercial papers in private placements involving sophisticated investors. See *Securities Industry Association v. Board of Governors of the Federal Reserve System*, 807 F.2d 1052 (D.C. Circuit 1986).

% in the future. The decision was a major victory for the banks and the beginning of the end of the Glass-Steagall separation of investment and commercial banking.¹⁷⁰

Ironically, in successfully pursuing the permission, the then vice-chairman of Citicorp argued that the strict separation was not appropriate since three new external checks on corporate misbehavior had been formed after adoption of the Glass-Steagall Act, namely, oversight from the SEC, sophistication of investors, and very sophisticated credit rating agencies.¹⁷¹ As this chapter shows in more detail, none of these checks existed.

At the same time, it was not just the Fed who tried to open the gates of securities business to commercial banks. What the Fed permitted bank holding companies to do indirectly via their subsidiary affiliates, the OCC pushed for directly. In particular, by the late 1980s, the OCC started interpreting Glass-Steagall Act as allowing commercial banks to securitize residential mortgages they had originated and sell them directly to investors. Despite challenges from the securities industry arguing that the Glass-Steagall Act prohibited commercial banks from underwriting MBS, courts were of the view that selling MBS to investors was no different than selling mortgage loans directly to investors, which banks were already allowed to under the Glass-Steagall Act. Moreover, courts did not see underwriting MBS from loans banks had originated to implicate the "subtle hazards" legislated against by the Glass-Steagall Act.¹⁷² Courts found it unlikely that a bank would engage in unsafe mortgage lending practices simply because of the possibility that the resulting mortgage loans might thereafter be placed in a pool and sold in a certificate form. Banks would have difficulty marketing MBS if the underlying mortgages were bad investments given the securities law requirement to disclose all material facts prior to any offering. In sum, courts did not see how banks would be able to make profit by underwriting poor mortgages, a remarkably short-sided conclusion given what ensued.

¹⁷⁰ While the securities industry tried to reverse this trend and challenged the Fed's determination, the US Court of Appeals for the Second Circuit upheld the Fed's decision, thought it invalidated the market share test as not adequately substantiated. Interestingly, in its decision, the court acknowledged that the decision of the Fed "[...] allow commercial and investment banking to compete in a narrow market, and to that extent dismantle the wall of separation installed between them by the Glass-Steagall Act." However, in approving the Fed's decision, the court concluded that "*Whether Santayana's notion that those who will not learn from the past are condemned to repeat it fairly characterizes the consequences of the Board's action is not for us to say. Our task is to review the Glass-Steagall Act, the legislative history that surrounded its enactment, and its prior judicial construction to determine whether the Board reasonably interpreted the Act's often ambiguous terms.*" See *Securities Industry Association v. Board of Governors of the Federal Reserve System*, 839 F.2d 47 (1988).

¹⁷¹ See *Citicorp, J.P. Morgan & Co. Incorporated and Bankers Trust New York Corporation*, 73 Federal Reserve Bulletin 473 (1987) .

¹⁷² See *Securities Industry Association v. Clarke*, 885 F.2d 1034 (2nd Cir. 1989).

It did not take long before proposals for further loosening of Section 20 affiliates restriction came in. In 1989, the expanded the “engaged principally” revenue limit to 10 % of the total revenues, but also permitted commercial bank affiliates to underwrite and deal in any securities that were rated by CRAs or issued or guaranteed by the GSE. In its reasoning, the Fed emphasized that allowing bank holding companies to participate in the various steps of the securitization process, from loan origination to underwriting of MBS would result in public benefits in the form of increased efficiency, reduced financial costs, increased availability of services to issuers and investors, and market innovation.¹⁷³

Fed’s decisions that followed during 1996 and 1997 rendered Section 20 of the Glass-Steagall Act *de facto* obsolete. In particular, in 1996, the “engaged principally” revenue limit was raised to 25 %, only to allow an outright acquisition by Bankers Trust New York Corporation of the investment bank Alex Brown & Co., a few months later.¹⁷⁴ In approving the first acquisition by US commercial bank of a securities firm since the Great Depression, the Fed in particular emphasized that the risks of underwriting and dealing in securities by commercial banks had been proved manageable.¹⁷⁵ This favorable stance ignited further consolidation efforts. Most notably, after the acquisition by the insurance conglomerate Travelers of the investment bank Salomon Inc. in the late 1997,¹⁷⁶ less than a year later, Travelers, agreed to a \$83 billion merger with Citicorp, the largest US commercial bank. This created Citigroup, the largest financial services firm in the world by assets and a fully-fledged universal bank combining insurance companies, banks and securities firms.¹⁷⁷

While the merger was not against various prohibitions of both the Glass-Steagall Act and the Bank Holding Company Act, given the Fed’s previous loose interpretations of “engaged principally”, Section 20 of the Glass-Act was not a major obstacle to consummation of the merger since it was not uncommon to have multiple subsidiaries, each of which would be within the revenue threshold. On September 23, 1998, the Fed announced its approval of

¹⁷³ See Modifications Regarding Securities Underwriting and Dealing Under Section 20 of the Glass-Steagall Act, Federal Reserve Bank of New York Circular No. 10314, October 24, 1989, at p. 14.

¹⁷⁴ By the time this decision was delivered, the Fed authorized in total 41 Section 20 subsidiaries. See Board of Governors of the Federal Reserve System, *Notice: Revenue Limit on Bank-Ineligible Activities of Subsidiaries of Bank Holding Companies Engaged in Underwriting and Dealing in Securities*, Docket No. R-0841 (1996).

¹⁷⁵ See Bankers Trust New York Corporation, 83 Federal Reserve Bulletin 780 (1997).

¹⁷⁶ See Lipin Steven, *Travelers Agrees to Acquire Salomon for \$9 Billion in Stock*, the Wall Street Journal, September 25, 1997, [Accessed on September 3, 2015], available at: <https://www.wsj.com/articles/SB875135981983573000>

¹⁷⁷ See Siconolfi Michael, *Travelers and Citicorp to Merge In Megadeal Valued at \$83 Billion*, the Wall Street Journal, September 25, 1997, [Accessed on September 3, 2015], available at: <https://www.wsj.com/articles/SB891818705198998500>

the merger subject to the conditions that Travelers and the combined entity, Citigroup, take actions necessary to comply with the Bank Holding Company Act and the Glass-Steagall within two years of consummation of the merger.¹⁷⁸ However, by the time the period run out “An Act to enhance competition in the financial services industry by providing a prudential framework for the affiliation of banks, securities firms, and other financial service providers, and for other purposes” was adopted.

¹⁷⁸ See Board of Governors of the Federal Reserve System, Federal Reserve press Release, September 23, 1998.

2.2 What Was This Time Different?

While financial crises can take various shapes and forms, the recent one is considered to have been, or at least to have started off as, a banking crisis.¹⁷⁹ Not because it centered around banks, but because financial institutions that were at the heart of the crisis in most cases carried out bank-like activities but in the “shadows” of banking regulation and regulatory oversight.¹⁸⁰ The term “shadow banking” can be in simple terms described as credit intermediation involving entities and activities outside the regular banking system. Such intermediation, if appropriately conducted, provides a valuable alternative to bank funding that supports real economic activity. On the other hand, the experience from the 2007-8 financial crisis evidences that even non-bank entities operating on a global scale can and indeed often do create bank-like risks to financial stability.¹⁸¹ This is not to say that banks did not play a role in the recent financial crisis since if they had not originated and securitized sub-prime mortgages and other bad loans, the crisis would probably not have been so severe, widespread and contagious. However, the mere fact that banks passed the toxic assets on to special purpose vehicles and financial institutions does not change the nature of the crisis.

Despite the uniqueness of the 2007-8 financial crisis, the development of the housing market bubble was nothing new under the sun, though the regulatory impetus for affordable housing for everybody was probably nothing like before. As evidenced by many cases in history, financial crisis is usually closely tied to an asset price bubble, even though asset classes or sectors that are hit often differ. Indeed, speculative purchases of assets such as properties, equities or precious metals aiming at creating a quick profit often transpire into prices that do not correlate or, more often, strongly surpass intrinsic value of such assets. Animal spirit and irrational exuberance do play a role.¹⁸² Like a snowball, an asset bubble feeds

¹⁷⁹ Such as currency crises, debt, sudden stop or bank crises. See Stijn Claessens and M. Ayhan Kose, *Financial Crises: Explanations, Types, and Implications*, IMF Working Paper, Research Department, January 2013, at p. 11, [Accessed on May 12, 2017] available at: <https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Financial-Crises-Explanations-Types-and-Implications-40283>

¹⁸⁰ Although there is not a single definition of a banking crisis, it typically, involves large number of defaults in corporate and financial sector, sharp increase in non-performing loans, decline in liquidity and capital position of financial intermediaries and bank runs. This is often accompanied by sharp decrease in asset prices (such as equity and real estate) on the heels, increases in real interest rates, and a slowdown or reversal in capital flows. For more see e.g. Luc Laeven and Fabián Valencia, *Systemic Banking Crises*, IMF Working Paper, Research Department, September 2012, at p. 5, [Accessed on September 1, 2017], available at: <https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Systemic-Banking-Crises-Database-An-Update-26015>

¹⁸¹ The Financial Stability Board, *Strengthening Oversight and Regulation of Shadow Banking, An Overview of Policy Recommendations*, August 29, 2013, [Accessed on September 15, 2016] available at: http://www.fsb.org/wp-content/uploads/r_130829a.pdf

¹⁸² Specifically, as the economist J. M. Keynes explained: “*Even apart from the instability due to speculation, there is the instability due to the characteristic of human nature that a large proportion of our positive activities depend on spontaneous optimism rather than mathematical expectations, whether moral or hedonistic or economic. Most,*

on itself since the higher demand itself aggregates the bubble due to supply shortages and woos speculators to jump in and ride on the raising wave. However, these are recurring phenomena intrinsic to periods of economic expansion in general and not something new or unseen. So the question is what made the 2007-8 financial crisis so severe and different from economic downturns that come from time to time and do not take experts and academics aback. Although the answer is subject to ongoing debates that have not ensued into a definitive conclusion, there is a broader consensus that financial liberalization, protracted period of loose monetary policies, globalization and technological changes were among the key changes the world had gone through during the two or three decades before the financial crisis.¹⁸³

On the other hand, as was outlined in the preceding paragraphs, ill-designed regulatory policies in the US and a very broad discretion from the patchwork of agencies with overlapping mandates did play a major role. The case of the US was not depicted because the trends would be different than in the rest of the world but due to the size and development of the financial sector which is often front-running the rest of the world. Driven by globalization, financial liberalization was a global phenomenon in an effort of national financial sectors to remain globally competitive in the wake of massive technological shifts.

The other important change was the adoption of anti-inflationary monetary policy regimes, starting in the US in the 1980s and following in the rest of the world during the 1990s. On the other hand, success of the new monetary policy regimes evidenced by the prolonged period of low and relatively stable inflation should also be credited to globalization in general and more specifically to the advent of internet and technological innovation, the entry of China and India into the world trading system and the break-up of the Soviet Union. By adding more than 1.7 billion workers and customers to global labor force and demand, the globalization

probably, of our decisions to do something positive, the full consequences of which will be drawn out over many days to come, can only be taken as the result of animal spirits—a spontaneous urge to action rather than inaction, and not as the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities.” See Keynes J. M., *The General Theory of Employment, Interest, Steller Classics*, May 5, 2016, ISBN-10: 198781780X, at p. 161. Also, the Nobel Prize in Economics laureate Robert Shiller describes irrational exuberance as the psychological basis of a speculative bubble, i.e. a situation in which news of price increases spur investor enthusiasm, which spreads by psychological contagion from person to person, in the process amplifying stories that might justify the price increases, and bringing in a larger and larger class of investors who, despite doubts about the real value of an investment, are drawn to it partly by envy of others' successes and partly through a gamblers' excitement. See Shiller, Robert, J., *Irrational Exuberance*, Princeton University Press March 2000, ISBN 0691050627.

¹⁸³ See e.g. Borio Claudio, Bank for International Settlement Speech: *Low Inflation And Rising Global Debt: Just A Coincidence?* August 1, 2018, Basel Switzerland, [Accessed on September 10, 2018], available at: <https://www.bis.org/speeches/sp180802.pdf>

unleashed growth potential but at the same time helped to keep inflation relatively low as supply chains expanded, labor costs decreased, and competition increased.

Although these mutually reinforcing forces propelled strong economic growth and rise in income and wealth, it was done so at the expense of rapid credit expansion, rising leverage, soaring asset prices, deepening inequality and prolonged economic cycles. In the environment of prolonged low and stable inflation, central banks saw no need to taper the rapid credit expansion and the buildup of massive leverage in both public and private sector. Countering inflation was a major achievement, but the new regime had not prevented the creation of global financial imbalances as the disinflationary pressures ensued in the period of protracted and unorthodox easing of monetary policies and ultra-low interest rates, which provided for a powerful tailwind to economic growth but also fueled buildup of global financial imbalances and concomitant systemic risk.

The developments in the American financial system in the decades prior to the 2007-8 financial crisis can be useful to exhibit both the positive and negative sides of the changes the world had gone through between the 1980s and early 2000s. Specifically, the rapid credit expansion, skyrocketing leverage, soaring asset prices and build-up of systemic risk may most profoundly be manifested in the changes in the US residential housing sector, which reflected many of the trends affecting also the rest of the American financial system.

The US housing sector and mortgage financing was particularly affected by the series of interest rates cuts by the central bank following the burst of the dot.com bubble and the 2001 terrorist attacks, which sent shockwaves throughout the just recovering economy. In the past, this fast-tracked monetary easing, credit expansion and leveraging of the economy would only be temporary as it would transpire into rising prices of goods and services, which would eventually force the central bank to step in. However, globalization, deregulation and financial innovation coupled with political pressure channeled the excess of liquidity and cheap credit towards the housing sector and kept inflation in check. Technological changes had transformed the complexity of financial instruments and increased the speed and volume of financial transactions around the globe. Financial markets became highly interconnected and globalized. This environment in turn created an illusion that permanent high level of growth with low inflation, but cheap credit was sustainable. At the same time, the unfettered access to cheap credit and low returns propelled investors searching for yield to take on more risk, which in turn incentivized the financial sector to compete aggressively by loosening lending standards and coming up with new, innovative but also more risky products.¹⁸⁴ Moreover,

¹⁸⁴ Since the credit expansion in the US was chiefly financed by China and other emerging market countries with large external surpluses and current account surpluses, the loose monetary policy of the Fed was "passport" to

loosening lending standards and increasing role of securitization in the residential housing market was in line with the longstanding political effort to create liquid national secondary mortgage market and to promote affordable housing to low- and moderate-income households.

However, if there was one distinct winner that came out of globalization, it was the financial services industry, which grew and was transformed immensely between the 1980s and 2007. The corporate structure of Wall Street firms changed as well. The initially small private partnerships transformed into highly complex and interconnected publicly traded corporations of systemic importance with particularized ownership structures and huge off-balance sheet exposures. As a result of these changes, profits but also financial leverage soared. By 2006, financial sector profits almost doubled during this era and accounted for almost third of all corporate profits in the US. At the same time, the stock of debt held by the sector increased twelvefold and reached \$36 trillion in 2007.¹⁸⁵ Corrections must have come. In the “old” not-globalized world, however, they would have probably come sooner, which would probably have made them less painful.

the rest of the world, which fueled search for yield globally. See High-Level Group on Financial Supervision in the EU, Report, Brussels, February 25, 2009, at p. 7, [Accessed on May 12, 2015] available at: https://ec.europa.eu/info/system/files/de_larosiere_report_en.pdf

¹⁸⁵ See The Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States, January 2011, U.S. Government Printing Office, Washington D.C., ISBN: 978-0-16-087983-8.

3 WHAT WAS DONE?

Even more than a decade after the financial crisis, different views still remain as to what was the turning point from which it was clear that the world was going to face the worst financial crisis since the Great Depression. Although the filing of the venerable investment bank Lehman Brothers for bankruptcy on September 15, 2008 is often marked so, panic started rippling throughout the American financial system much earlier. In particular, three events in the summer of 2007 are often seen as harbingers of the scale of the crisis on the horizon, namely, the collapse of two hedge funds heavily exposed to the subprime mortgages of the investment bank Bear Stearns, the bailout of the German commercial bank IKB Deutsche Industriebank AG and the announcement of BNP Paribas, one of the world's largest lenders and France's biggest listed bank that it would suspend redemptions from three of its investment funds.

3.1 The Unraveling

Although housing prices had been steadily declining and mortgage delinquencies rising since the late 2006, the ticking bomb was in the shadow-banking sector, where highly leveraged investment banks through their off-balance sheet hedge funds invested in opaque and illiquid mortgage-related securities, primarily MBS and CDOs and used them as a funding collateral for short term-loans with other shadow banks. The High-Grade Enhanced Leverage funds of the investment bank Bear Stearns provide a good example. In essence these funds issued securities to investors backed by \$18 billion worth of MBS and CDOs, out of which approx. 90 % was financed through short-term (often overnight) borrowings in the commercial paper and repo markets. Although the short-term nature of these borrowings carried an inherent risk that the borrowings would not be rolled over the next day, or that the lenders would require more collateral if the value of these MBS or CDOs declined, given the environment of low interest rates and abundance of liquidity, the common perception was that the underlying highly-rated collateral could be sold easily at any time to either repay the borrowings or redeemed the securities of investors wishing to cash out. Since investors were hungry for yield and these funds gave returns as high as 17% (after fee deductions), it worked well at the beginning. However, this perception started faded away with the declining ABX Index – in essence a benchmark of the whole market for lower-rated tranches of MBS – as shadow bank lenders started requiring more collateral and increasingly nervous hedge fund investors wanted cash out. With almost no capital reserves, the funds had no other option but to sell the MBS/CDO collateral at distressed prices to raise cash, which however spurred a negative feedback loop and further accelerated collateral calls and redemptions requests. As

a result, in June 2007, Bear Stearns was forced to freeze redemption requests and prevent investors from exiting their investment. The fact that the investment bank committed about \$3.2 billion in liquidity support to help stabilize the two hedge funds did not help. Investors and the shadow bank lenders became so jittered about the funds' future prospects that both had to be liquidated by the end of July 2007.

The panic surrounding the teetering Bear Stearns' hedge funds had another important consequence – the CRAs could no longer defend their AAA credit ratings of MBS and commenced *en masse* downgrades. In particular, in the first half of July 2007, Moody's and S&P's issued hundreds downgrades of MBS and CDOs and although they concerned a relatively small fraction of credit ratings outstanding, they had a chilling effect on investor confidence and the entire market. The repo market was particularly affected, since the declining prices of MBS and CDOs put as collateral transpired into increasing margin calls, which not all borrowers were able to meet given their thin capitalization and increasing fear of investors about their sub-prime mortgage exposures. The almost \$2 trillion asset-backed commercial paper market ("**ABCP**"), then the largest US short-term debt market, was hit particularly hard.¹⁸⁶ Generally speaking, before July 2007, investors saw commercial papers as a high liquid short-term asset, which offered higher returns than US treasuries with relatively low risk. Over the time however, ABCPs begun to be increasingly used by shadow banks to fund large, highly-leveraged positions in mortgage-related securities. In essence large amounts of mortgage-related MBS and/or CDOs were parked at special purpose vehicles (often owned by commercial and investment banks), which issued short-term ABCP backed by the mortgage-related portfolios. Since the SPV's were often "sponsored" by commercial and investment banks, which pledged to provide necessary liquidity for potential redemption requests, the perception of risk was distorted despite the significant maturity mismatch of the SPV's business models. Two issues were overlooked. First, the liquidity lines in most cases could not be drawn against deflated assets, which they did. Second, give the size of the ABCP market and of the subprime exposure of these SPVs, heavy investor redemption requests were capable of endangering liquidity or even solvency of the sponsors themselves.

First practical evidence of these vulnerabilities but also of the global outreach of the unfolding crisis was the failure of the German commercial bank IKB Deutsche Industriebank, which was heavily exposed to US mortgage-related CDOs through its off-balance sheet SPV called Rhineland. In late July 2007, Rhineland had approx. €19 billion worth ABCP outstanding, with over half covered by liquidity facility from IKB and the rest through syndication of other

¹⁸⁶ See Kacperczyk Marcin, Schnabl Philipp, *When Safe Proved Risky: Commercial Paper during the Financial Crisis of 2007–2009*, Journal of Economic Perspectives, Volume 24, Number 1, 2010, at p. 30.

banks.¹⁸⁷ In late July and almost two weeks after the massive downgrades by CRAs, IKB was still reassuring investors that it would reach its annual profit forecast of € 280 million, despite the increasing market volatility, especially in the US mortgage market. It did not help. Only a week later, all major banks, including Deutsche, ABN Amro, RBS and Wachovia recognizing the looming crisis decided not to roll over their financing to Rhineland. To control the effects of the crisis in Germany, IKB's largest shareholder – KfW, a German state-owned development bank had to step in and create a bailout fund and guarantee IKB's obligations towards Rhineland.¹⁸⁸

The final blow to investor confidence came only a few days later when BNP Paribas, shocked European markets by suspending withdrawals from its three investment funds worth over \$2.2 billion citing inability to assess the value of the mortgages and other investment held by these funds. BNP also announced that it would also stop calculating a fair market value for these funds because *“the complete evaporation of liquidity in certain market segments of the US securitization market has made it impossible to value certain assets fairly regardless of their quality.”*¹⁸⁹

Arguably, the primary issue with mortgage-related instruments used as funding collateral or held by issuers of ABCP was the complexity of their design and the way in which they repackaged risky subprime mortgages, since it made it impossible for investors to distinguish between “good” and “bad” securities, so they had to rely on credit ratings. As a result, until the mid-2007, the highest-quality tranches of CDOs traded with little premium to US treasuries.¹⁹⁰ When house prices began to fall, the value of instruments in the securitization chain began to decrease, which investors could see for the first time in an aggregated form in the new ABX indices. However, given the multi-layered structures of various CDOs, probably

¹⁸⁷ See Thomas Matthew, Dammers Chris, Durand Helene, *Fire brigade called to IKB but losses hidden in smoke*, Global Capital, August 2, 2007, [Accessed on May 12, 2016], available at: <https://www.globalcapital.com/article/k51wqxts5c/fire-brigade-called-to-ikb-but-losses-hidden-in-smoke>

¹⁸⁸ Interestingly, the IKB's CEO was subsequently found guilty of market manipulation for issuing the €280 million profit forecast, one of only a few convictions in connection with the financial crisis. See Wilson James, *Ex-IKB chief guilty of market manipulation*, the Financial Times, July 14, 2010, [Accessed on May 12, 2016], available at: <https://www.ft.com/content/f332dba0-8f24-11df-a4de-00144feab49a>

¹⁸⁹ See Press Release: BNP Paribas Investment Partners temporarily suspends the calculation of the Net Asset Value of the following funds : Parvest Dynamic ABS, BNP Paribas ABS €IBOR and BNP Paribas ABS EONIA, August 9, 2007, [Accessed on May 12, 2016], available at: <https://group.bnpparibas/en/press-release/bnp-paribas-investment-partners-temporarily-suspends-calculation-net-asset-funds-parvest-dynamic-abs-bnp-paribas-abs-euribor-bnp-paribas-abs-eonia>

¹⁹⁰ See Cecchetti G. Stephen, *Looking Back: The Financial Crisis Began 10 Years Ago This Week*, Money and Banking August 7, 2017, [Accessed on May 1, 2018], available at: <https://www.moneyandbanking.com/commentary/2017/8/6/looking-back-the-financial-crisis-began-10-years-ago-this-week>

nobody was able to recognize, which securities were in particular affected. Thus, the information about the risks together with the lack of information about location of the risks led to a “complete evaporation of liquidity” within the markets that used mortgage-related assets as collateral. An apt analogy compared the issue to a situation where news broadcasted that some part of the meat supply is contaminated with a dangerous form of the bacteria E.coli. Since most people are not able to run safety tests on the meat they purchase, natural reaction is to shift to eating something else for a while. In the same way that news about E.coli leads away from buying meat, investors who were unprepared to do a detailed examination of structured financial products would stop buying them, accepting them as collateral, or lending to inadequately capitalized entities that hold them. Having failed to screen the ultimate borrowers in advance, the BNP’s withdrawal suspensions undermined a range of financing mechanisms that relied on the collateral value of structured credit.¹⁹¹

Thus, the shadow banking system, which was beyond the regulatory reach, soon transpired into the banking sector given the pledges of many banks to provide backstop financing. Moreover, not only shadow but also “regular” banks invested into the mortgage-related structured finance products. Absent reliable market prices, these assets had to be mark to market, which resulted into massive write-downs and erosion of capital. In an environment of scarce liquidity, firms had often no other option than to sell assets, which further reinforced the negative feedback loop.¹⁹² The lack of reliable pricing and collapse of market liquidity soon transpired into a systemic risk since banks were holding large securitization exposures on their books for which no reliable valuation was available and which they could not sell. Also, as will be shown in the following paragraphs, in a systemic crisis when trust and confidence of market participants evaporate, markets are not able to stabilize themselves and the only crisis manager with enough credit is the central bank and in some cases the government, or more precisely, the taxpayer.

¹⁹¹ Gary B. Gorton, *The Panic of 2007*, NBER Working Paper No. 14358, September 2008, at p. 3 [Accessed on May 1, 2018], available at: <http://www.nber.org/papers/w14358>

¹⁹² *Id.* at p. 4

3.2 Central Banks as Crisis Managers of Last Resort

The BNP announcement was the tipping point of the already fragile global financial system and while it was not evident to the financial industry, which saw the problem largely as liquidity crisis solvable by infusion of central bank money, it was the beginning of the most far-reaching financial crisis since the Great Depression. It was becoming evident that the problems in the subprime market would not “be contained with little spillover to the real economy” as the Fed Chairman, Ben Bernanke had predicted just a few months earlier.¹⁹³

To ease the liquidity strain, central banks around the world moved aggressively and injected billions of liquidity into the financial system. The European Central Bank (“**ECB**”) took the lead with exceptional measures and on the same day the BNP announced the funds freezes pumped almost €95 billion into the interbank lending market to address the sharp increase in overnight money-market lending rates. The injection was then the biggest in the ECB’s history, exceeding the €69 billion provided the day after the terrorist attacks of September 11, 2001.¹⁹⁴ The next day another €61 billion was injected, followed by € 48 billion on August 13, 2007.¹⁹⁵ The concerns swiftly spilled over into the US and forced the Fed to inject an unusually large \$ 24 billion into US markets through its scheduled open market operations. The Canadian central bank, meanwhile, issued a rare statement in which it pledged to provide liquidity to support the stability of the Canadian financial system and the continued functioning of financial markets.¹⁹⁶ The Bank of Japan followed its peers only a day later with almost \$ 9 billion liquidity injection.¹⁹⁷

While these responses were unprecedented as regards their size, they were not as to their form. The form of the support however evolved over the time as the crisis morphed from a sub-prime mortgage crisis into a full-blown systemic crisis, which transpired into the

¹⁹³ See Ben S. Bernanke, *The Economic Outlook*, testimony before the Joint Economic Committee, US Congress, 110th, March 28, 2007.

¹⁹⁴ See Gillian Tett, Richard Milne, Krishna Guha, *ECB injects €95bn to help markets*, the Financial Times, August 10, 2007, [Accessed on May 1, 2018], available at: <https://www.ft.com/content/a8c5829a-466e-11dc-a3be-0000779fd2ac>

¹⁹⁵ See European Central Bank, *the ECB's additional open market operations in the period from August 8, 2007 to September 5, 2007*, Monetary and monetary developments, at p. 3, [Accessed on May 1, 2018], available at: <https://www.ecb.europa.eu/mopo/devel/html/index.en.html>

¹⁹⁶ See Bank of Canada, Press Release: Bank of Canada issues statement on provision of liquidity to support the stability and efficient function of financial markets, August 9, 2007, [Accessed on May 1, 2018], available at: <https://www.bankofcanada.ca/2007/08/bank-canada-issues-statement-provision-liquidity-support-stability/>

¹⁹⁷ See Gillian Tett, Richard Milne, Krishna Guha, *ECB injects €95bn to help markets*, the Financial Times, August 10, 2007, [Accessed on May 1, 2018], available at: <https://www.ft.com/content/a8c5829a-466e-11dc-a3be-0000779fd2ac>

European sovereign debt crisis.¹⁹⁸ Generally speaking, the initial support focused on provision of liquidity in order to stabilize financial markets and shore up confidence, but as the crisis subsided, policies placed a greater emphasis on lowering borrowing costs and easing credit conditions. During the first and second phase of the crisis, both the Fed and the ECB responded by massively expanding the provision of liquidity via the already existing facilities but also by designing new ones tailored to address specific problems of the financial system. With respect to the form, three categories of assistance are often mentioned, namely liquidity support to the malfunctioning banking system, secured lending to teetering too-big-to-fail financial firms and liquidity injection into specific segments of the financial markets.¹⁹⁹ While the policy responses were in many instances similar, the Fed was much more assertive in implementation of various unconventional measures and policies, which was most notably evidenced by the bailout of Bear Stearns, the takeover of the American International Group (“**AIG**”) or the large scale asset purchases colloquially referred to as quantitative easing (“**QE**”) announced in November 2008.

However, given the different economic, financial and political structures, the subsequent phase of the crisis spanning from 2010 to 2013 required different responses from both sides of the Atlantic. In particular, the main concern in the US was economic contraction, which the Fed set out to fend off by expansion of its balance sheet through an increase of the asset purchase programme announced in November 2008 by adding \$600 billion of longer-term Treasuries on its balance sheet by the mid-2011 at pace of about \$75 billion per month.²⁰⁰ By the end of the “second wave” of QE, the Fed’s balance sheet had grown by about \$2 trillion from the time of announcement of the “first wave” at the height of the crisis.²⁰¹

While financial markets in US were largely stabilized in 2010, Europe and the euro area in particular was facing unprecedented degree of financial stress in both private and public sector due to the unfolding sovereign debt crisis. In particular, in May 2010, as markets jittered about a possible Greek insolvency, the ECB announced the establishment of the Securities

¹⁹⁸ See, Liikanen; et al., *High-Level Expert Group on Reforming the Structure of the EU Banking Sector*, October 2, 2012, at p. 4, [Accessed on December 2, 2015], available at: http://www.ec.europa.eu/internal_market/bank/docs/high-level_expert_group/report_en.pdf

¹⁹⁹ See Bank for International Settlement, *Re-thinking the lender of last resort*, BIS Papers No 79, September 15, 2014, at p. 3, [Accessed on May 1, 2018], available at: <https://www.bis.org/publ/bppdf/bispap79.htm>

²⁰⁰ See Board of Governors of the Federal Reserve System, *Press Release: FOMC Statement*, November 3, 2010, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20101103a.htm>

²⁰¹ In the mid-2011, the Fed’s balance sheet stood at almost \$2.9 trillion See Board of Governors of the Federal Reserve System, *Recent Balance sheet trends*, as at November 17, 2020, [Accessed on November 7, 2020], available at: https://www.federalreserve.gov/monetarypolicy/bst_recenttrends.htm

Market Programme (“**SMP**”) to “ensure depth and liquidity in malfunctioning segments of the debt securities markets and to restore an appropriate functioning of the monetary policy transmission mechanism.”²⁰² In other words, the ECB took the lead and set out to purchase Greek bonds in the secondary markets to give the euro area governments some time to come up with a rescue plan. Although the SMP was terminated in September 2012, it was replaced with a similar programme, the so-called Outright Monetary Transactions (“**OMT**”).²⁰³ The OMT in particular reacted to bailouts of Greece, Ireland, Portugal and Spain by making the ECB’s sovereign bond purchases conditional on observance of macroeconomic adjustment or precautionary programmes. While both the SMP and OMT proved to be highly controversial and ensued in numerous lawsuits, each of them changed only composition and not the size of the ECB’s balance sheet, so technically neither of them constituted QE. In reality, however, the ECB’s balance sheet also grew rapidly due to its robust intervention into the disintegrating European banking sector by means of what the former Fed chairman Ben Bernanke called “credit easing”.²⁰⁴ In other words, although liquidity was absorbed to offset sovereign-bond purchases, unlimited credit was provided to banks through standard and unconventional refinancing operations. Although much later than the Fed, the ECB also introduced QE with the public sector asset purchase programme in March 2015. While the ECB has not gone as far as the Fed given more narrowly tailored powers, it certainly stretched them to the extent possible. The numerous lawsuits, especially in Germany evidence that many believe the ECB, the Fed alike, overstepped its legal mandate provided for in the TFEU. As it will be in more detail shown in the following paragraphs, both central banks in effect took over the crisis management.²⁰⁵ While they helped, to an extent, stabilize the crisis, serious concerns about their unprecedented powers emerged. At the same time, validity of the traditional central bank

²⁰² See Decision of the European Central Bank of 14 May 2010 establishing a securities markets programme (ECB/2010/5).

²⁰³ See European Central Bank, Press release, *Technical features of Outright Monetary Transactions*, September 6, 2012, [Accessed on May 1, 2018], available at: https://www.ecb.europa.eu/press/pr/date/2012/html/pr120906_1.en.html

²⁰⁴ Unlike quantitative easing which concerns purchases of government debt, credit easing refers exclusively to central bank credit extension to banks and other private sector participants. Bernanke divides credit easing into three groups, namely lending to financial institutions, providing liquidity to key credit markets, and purchasing longer-term privately issued securities. See Federal Reserve Bank of Cleveland, *Credit Easing: A Policy for a Time of Financial Crises*, February 12, 2019, [Accessed on May 1, 2018], available at <https://www.clevelandfed.org/en/newsroom-and-events/publications/economic-trends/economic-trends-archives/2009-economic-trends/et-20090212-credit-easing-a-policy-for-a-time-of-financial-crisis.aspx>

²⁰⁵ See Mehra Alexander, *Legal Authority in Exigent and Unusual Circumstances: The Federal Reserve and the Financial Crisis*, University of Pennsylvania Business Law Review, March 2, 2011, Accessed on May 1, 2016], available at: www.upenn.law.edu

concept was challenged as antiquated and not being suitable to crises of 21st century. What role should central banks play in crises to come thus remain an important policy question.

3.2.1 Lender of Last Resort in Historical Context

The role of central banks in financial crises has a long history and dates back to the late 19th century. Henry Thornton and Walter Bagehot are often mentioned as the first to articulate the classical theory of lender of last resort, pursuant to which, put bluntly, it was the central bank's job to avert banking panics and crisis.²⁰⁶ Since then, central banks around the globe have been entrusted with the lender of last resort authority. However, the perception of what being lender of last resort actually means has evolved over the time. According to the original and widely accepted concept, lender of last resort was to (i) **protect the aggregate money stock**, not individual institutions, (ii) provide **assistance only to sound institutions**, (iii) let **insolvent institutions fail**, (iii) (iv) **charge penalty rates** for last resort funding to limit moral hazard, (v) **require good collateral**, and (vi) **preannounce these conditions** well in advance of any crisis so that the market would know exactly what to expect.²⁰⁷ The Bagehot's reading can be summarized by his famous rule: "*lend "it most freely... to merchants, to minor bankers, to 'this and that man', whenever the security is good"*".²⁰⁸ Thus, the lender of last resort authority traditionally concerned making emergency loans to solvent but temporarily illiquid banks at penalty rates against high-quality collateral. Often times, even an announcement of central bank's commitment to provide emergency funding would be sufficient to calm panic without the need for providing assistance. On the other hand, central banks were urged to not to do anything that could create up-front complacency or expectations of the banking sector that assistance would be provided, the so-called constructive ambiguity. After nearly 150 years and regardless of whether on Lombard Street – the birthplace of London's financial sector or on today's Wall Street, the issue of bailing out failing banks and the concomitant moral hazard remains pressing. Thornton's and Bagehot's solution was strong opposition against bailouts for banks whose distress arises from improvidence, or misconduct since subsidizing the risk-taking of poorly managed encourages other banks to take excessive risks without fear of any

²⁰⁶ Although the US Secretary of the Treasury Alexander Hamilton is thought as the first policymaker to explicate and implement a lender of last resort policy, the classical theory of the lender of last resort was mostly developed by the two Englishmen.

²⁰⁷ See Humphrey Thomas, *Lender of Last Resort: The Concept in History*, the Federal Reserve Bank of Richmond Economic Review, March/April 1999, at p. 1.

²⁰⁸ See Bagehot, Walter, *Lombard Street: A Description of the Money Market 1873*, Wiley 1st edition, April 1999, ISBN-13 : 978-0471345367 at p. 329.

consequences. The public interest is better served by the demise of inefficient banks, because the resulting improvements in resource allocation may well outweigh any adverse spillover side effects of their failure. Accordingly, it was not the lender of last resort's task to prevent shocks to the financial system, such as bank failures, but rather to insulate the economy from the repercussions of that events by injecting liquidity into the market and preventing a subsequent wave of failures spreading throughout the sound banks. In other words, in times of market turmoil lender of last resort should provide liquidity to the whole system rather than to individual distressed banks even if their failure was capable of shattering public confidence and starting a domino-like sequence of financial collapse.²⁰⁹ It was seen as the only possibility of how to contain the inherent moral hazard of the banking industry.

Given the above principles, primarily the Fed but also the ECB and other major central bank around the world seem to have gone beyond the contours of the original concept of the lender of last resort. Rather than lenders of last resort, today, it would be more accurate to describe their role as investors and crisis managers of last resort. Arguably, during the last century, central banks, especially the Fed, have become, for better or worse, quintessential in managing, containing, and curtailing crises of all sorts. Indeed, the Fed has played a critical, but also very controversial role in the two most prominent financial crises of the last century. As already pointed out, while the panic of 1907 was seen aggravated by the fact that there was no lender of last resort, Friedman and Schwarz presented a compelling argument that the Fed's actions contributed immensely to the stock market crash of 1929 and the banking crises of the 1930s, which led to the worst economic contraction in the 20th century and the Great Depression.²¹⁰ The 2007-08 financial crisis was no different, although this time, the Fed's swift and vigorous reaction is commonly believed to have warded off the collapse of the American and global financial system and helped to mitigate the ensuing economic fallout, though some have argued at the expense of overstepping its legal mandate. While the ECB has not gone as far as the Fed given more narrowly tailored powers, it certainly stretched them to the extent possible. The numerous lawsuits, especially in Germany evidence that many believe the ECB, the Fed alike, overstepped its legal mandate too. The following paragraphs elaborate on these thoughts in more detail.

²⁰⁹ See Humphrey Thomas, *Lender of Last Resort: The Concept in History*, the Federal Reserve Bank of Richmond Economic Review, March/April 1999, at p. 4.

²¹⁰ See Friedman Milton, Anna J. Schwarz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, September 2, 2008, ISBN-13: 987-0691003542, at p. 404 *et seq.*

3.3 The Federal Reserve System

The Fed's actions as lender of last resort during the 2007-08 financial crisis were based on three different statutory authorities. First, the Fed could buy, either outright or via a repurchase agreement US Treasuries, securities issued by GSE, including by the two systematically important mortgage lenders Fannie Mae and Freddie Mac, and foreign exchange in order to implement the FOMC's monetary policy decisions.²¹¹ Second, the Fed had the authority to provide credit to any depository institutions against sufficient collateral under the so-called "discount window".²¹² The discount window facility could be utilized during both normal and crisis times against a broad range of collateral. Last but not least, under Section 13(3) of the Federal Reserve Act, the Fed had the authority to, in "unusual and exigent circumstances", provide secured lending to any "individual, partnership, or corporation", provided that such persons were unable to obtain credit from other banking institutions. Interestingly, although Section 13(3) of the Federal Reserve Act authority was added to the Fed's toolkit during the Great Depression, until 2008, it had not been invoked.

It is interesting to see that the statutory basis for all nontraditional lending programs and initiatives introduced by the Fed in order to avert the collapse of the American and inevitably also the global financial system were based on Section 13(3) of the of the Federal Reserve Act, which generally speaking authorizes the Fed to inject unlimited amount of liquidity to the American financial system. This is not to say that the federal government did not play an important role in handling of the crisis, especially when taking over Fannie Mac and Freddie Mae in the summer of 2008 or purchasing troubled assets from and injecting capital into teetering financial institutions, however, the programs implemented by the Fed under Section 13(3) of the Federal Reserve Act were arguably the most far-reaching.²¹³

²¹¹ See Section 14 of the Federal Reserve Act. 12 U.S.C. §226.

²¹² The term refers to a practice in the financial world, when a bank discounts financial instrument, it takes the instrument as collateral and extends to the collateral provider a sum of money that is less than the face value of the instrument, thus discounting interest in advance.

²¹³ Fed's balance sheet more than doubled from August 2007 to December 2008 when it reached more than \$ 2 trillion. See Willardson Niel, *Actions to Restore Financial Stability, A summary of recent Federal Reserve initiatives* the Federal Reserve Bank of Minneapolis, December 1, 2008, [Accessed on September 14, 2015], available at: <https://www.minneapolisfed.org/article/2008/actions-to-restore-financial-stability>

In particular, prior to, and at the time of, the recent financial crisis, Section 13(3) of the Federal Reserve Act read as follows:

“In unusual and exigent circumstances, the Board of Governors of the Federal Reserve System, by the affirmative vote of not less than five members, may authorize any Federal reserve bank, during such periods as the said board may determine, at rates established in accordance with the provisions of section 357 of this title, to discount for any individual, partnership, or corporation, notes, drafts, and bills of exchange when such notes, drafts, and bills of exchange are indorsed or otherwise secured to the satisfaction of the Federal reserve bank: Provided, that before discounting any such note, draft, or bill of exchange for an individual or a partnership or corporation the Federal reserve bank shall obtain evidence that such individual, partnership, or corporation is unable to secure adequate credit accommodations from other banking institutions. All such discounts for individuals, partnerships, or corporations shall be subject to such limitations, restrictions, and regulations as the Board of Governors of the Federal Reserve System may prescribe.”²¹⁴

Discount lending authority of the Fed has been part of the Federal Reserve Act since the creation of the Federal Reserve System in order to address liquidity strains in the banking sector by discounting financial instruments (usually overnight) to persons unable to secure credit in the market.²¹⁵ Section 13(3) authority was added to the Fed’s toolkit during the banking crises of the 1930s along with the power of the Reconstruction Finance Corporation (controlled by the Treasury) to directly recapitalize troubled banks and trust corporations.²¹⁶ The important difference between credit extension under the “plain vanilla” discounting and section 13(3) of the Federal Reserve Act, however, is that under the latter authority, credit may be extended to any “individual, partnership or corporation” and not only to banks and depository institutions as under the former. Importantly, Section 13(3) of the Federal Reserve Act explicitly enumerates only three negotiable instruments - notes, drafts and bills of exchange – as eligible collateral, although an argument could be made that the provision was intended to allow discounting against any written form of credit available at the time the Federal Reserve Act was adopted and should thus be interpreted more broadly, taking into account

²¹⁴ See 12 U.S.C. § 226.

²¹⁵ When a bank discounts financial instruments, it takes such instruments as collateral in exchange for a sum of money that is less than the face value of the collateral, thus discounting interest in advance. Importantly discounting a financial instrument does not concern any title transfer, and the collateral taker receives only security interest. That said, there is a fundamental difference between collateralized lending under the discount window and asset purchases since the former creates only the right to have a recourse if the collateral provider defaults, while the later refers to an outright title transfers of the asset at the time the agreement is concluded

²¹⁶ The Reconstruction Finance Corporation was dissolved in 1957 and since then the Treasury needed express statutory authority for acquisition of shares in any corporation.

new forms of credit.²¹⁷ In addition, wording of section 13(3) Federal Reserve Act leaves no doubt that only secured lending was allowed. Finally, the requirement for existence of unusual and exigent circumstances for utilization of section 13(3) of Federal Reserve Act makes it *ultima ratio* tool, though the fact that the determination is within the sole discretion of the Fed, which furthermore need not be made public, makes such argument less compelling.

At the outset of the financial crisis after the BNP announcement in August 2007, the Fed started off with a consecutive discount window rate cuts, a more traditional lender of last resort activity.²¹⁸ However, ability of these actions to address the liquidity strains in the financial system were severely limited. First, discount window lending can only address liquidity shortage if banks or other financial institutions are willing to borrow, which they are often not, especially not during a widespread panic or unfolding financial crisis. Tapping central bank's credit bears stigma of potential weakness and may further exacerbate bank's liquidity position even if it has no real foundations. Second, central bank secured lending may fall short of attaining its primary goal - preventing or halting a bank run - when such run is propelled by concerns about the riskiness or valuation of bank's assets. Chiefly due to these two reasons the discount window rate cuts in the late summer and fall of 2007 did not help to ease the market conditions. With many segments of capital markets becoming dysfunctional and a severe financial crisis on the horizon, the Fed had to employ much less-conventional tools and measures. To support the markets increasing liquidity shortages, in the first phase of the crisis between December 2007 and March 2008, the Fed had introduced new lending facilities, namely, the Term Auction Facility ("**TAF**"), the Term Securities Lending Facility ("**TSLF**") and the Primary Dealer Credit Facility ("**PDCF**").²¹⁹

Under the TAF introduced in December 2007, the Fed set out to auction term funds in the amount of \$20 billion to depository institutions judged to be in generally sound financial condition against collateral acceptable in discount window lending.²²⁰ The announcement of

²¹⁷ It should be noted that prior to the Federal Deposit Insurance Corporation Improvement Act of 1991 adopted to deal with the savings association crisis, the said provision narrowly tailored maturity and forms of instruments eligible for discount lending. Such instruments had to have a maturity period of no more than 90 days and instruments - issued or drawn for the purpose of carrying or trading in stocks, bonds or other securities, other than US Treasuries, were expressly made ineligible for discount. See Section 473 of the Federal Deposit Insurance Corporation Improvement Act of 1991, Public Law No: 102-242.

²¹⁸ Between August 2007 and March, the Fed lowered the discount rate from 6.25% to 2.5%. See Marc Labonte, Gail E. Makinen, Federal Reserve Interest Rate Changes: 2000-2008, SCR Report for Congress, March 19, 2008, [Accessed on September 1, 2015], available at: www.hsdl.org

²¹⁹ See Basel Committee on Banking Supervision, *Re-thinking the lender of last resort*, May 2014, [Accessed on May 15, 2015], available at: <https://www.bis.org/publ/bppdf/bispap79.htm>

²²⁰ The size of the TAF was further increased to \$100 billion in March 2008. See Board of Governors of the Federal Reserve System, *Press Release: Federal Reserve announces two initiatives to address heightened liquidity*

the TAF was primarily driven by the fact that banks remained unwilling to take out loans from the Fed given the concomitant negative stigma. The TAF, designed as an auction, removed such stigma and allowed the Fed to inject term funds through a broader range of counterparties and against a broader range of collateral than via standard open market operations.²²¹ Since foreign banks were in need of dollar funding as much as their US counterparts, but generally speaking were not eligible to borrow under the TAF, currency swap-lines in the size of \$20 billion and \$4 billion with the ECB and the Swiss National Bank were opened, respectively.²²² Using the currency swap lines turned out to be an important mitigator of liquidity distress in global short-term dollar funding markets even during the subsequent market upheavals.²²³

However, the increasing “flight to safety” and rising scarcity of US Treasuries made TAF insufficient, so in March 2008, the Fed invoked Section 13(3) of the Federal Reserve Act and introduced the Term Securities Lending Facility (“TSLF”). The TSLF modified the Fed’s then existing securities lending programme in two important ways. First, it stretched out the lending period from overnight to 28 days. Second, it allowed primary dealers²²⁴ to borrow US Treasuries against a broader range of collateral than in conventional open market operations, including debt and residential MBS of Fannie Mae and Freddie Mac but also AAA/Aaa-rated private-label residential MBS.²²⁵ Under the programme, the Federal Reserve Bank of New

pressures in term funding markets, March 7, 2008, [Accessed on September 1, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080307a.htm>

²²¹ The design of the auction procedures of the TAF, including the choice of a single-price auction, the restriction that no bidder could receive more than 10% of the total being auctioned, and the fact that settlement occurred two days after the date of the auction helped to ensure anonymity for the bidders, which would not be branded as being in desperate need of immediate funds. For details see Olivier Armantier, Sandy Krieger, James McAndrews, *The Federal Reserve's Term Auction Facility*, Current Issues in Economics and Finance, Volume 14, No. 5, July 2008, at p. 5., [Accessed on September 14, 2015], available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1169282

²²² While US branches of foreign banks that held reserves with the Fed could borrow under the TAP, other foreign banks could only tap central bank funding in their home jurisdictions where they had collateral.

²²³ The Fed opened currency swap lines by with all major central banks after the Lehman Brother’s collapse. See Board of Governors of the Federal Reserve System, *Press Release: Federal Reserve and other central banks announce measures designed to address elevated pressures in short-term funding markets*, December 12, 2007, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/monetarypolicy/20071212a.htm>

²²⁴ Primary dealers are trading counterparties of the Federal Reserve Bank of New York through which the Fed implements its monetary policy and include major financial institutions such as JPMorgan, Goldman Sachs, Citigroup, Bank of America or Morgan Stanley. For the whole list of currently 18 financial institutions see <https://www.newyorkfed.org/markets/primarydealers>

²²⁵ The list of eligible collateral was expanded to include also agency collateralized-mortgage obligations and AAA/Aaa-rated commercial mortgage-backed securities less than two weeks later after the initial programme announcement. On September 14, 2008, eligible collateral was extended to include all investment grade debt securities. At its peak in October 2008, the lent-out US Treasuries amounted to over \$230 billion. See Federal Reserve Bank of New York, *Press Release: New York Fed Announces Modifications to Terms and Conditions of Term Securities Lending Facility*, March 20, 2008, [Accessed on September 14, 2015], available at: <https://www.newyorkfed.org/newsevents/news/markets/2008/rp080320> and Federal Reserve Bank of New York, *Press Release: Federal Reserve Board announces several initiatives to provide additional support to financial*

York (“**FRBNY**”) was authorized to lend up to \$200 billion worth Treasuries.²²⁶ Unlike the TAF, which aimed at reducing the gap between term and overnight interbank lending rates, the TSLF was designed to provide primary dealers with access to highly liquid and secure US Treasuries in exchange for far less liquid and much more risky (primarily mortgage-backed) securities and as a result to increase liquidity in the credit market for these securities.²²⁷ Equally importantly, since the program authorized the Fed to provide assistance to non-bank primary dealers, it in effect expanded the lender of last resort authority beyond the traditional segment of commercial banks. Even though the programme did not provide authorization to provide emergency lending directly to the non-bank sector, it had comparable effect as it was though that market participants would lend to any borrower against risk-free US Treasuries. The positive impact of the program was, however, limited due to the fact that it did not deal with the underlying issue of large amounts of mortgage related assets of questionable quality sitting on primary dealers’ balance sheets. Having been aware that the programme amounted to indirect lending to investment banks and other non-bank institutions, an unusual central bank operation, the Fed later disclosed that the programme had been established under Section 13(3) of the Federal Reserve Act authority.²²⁸ Although Section 13(3) authority have long been part of the central bank toolkit, it was the first time since the Great Depression it was invoked.²²⁹

markets, including enhancements to its existing liquidity facilities, September 14, 2008, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080914a.htm>

²²⁶ Similarly to the TSA, TSLF was designed as an auction where primary dealers would bid for Treasuries with an interest rate willing to pay.

²²⁷ In addition, the Fed increased the size of the swap lines with the ECB and the Swiss National Bank to \$30 billion and \$6 billion, respectively, and extended the term of these swap lines through September 30, 2008. See Board of Governors of the Federal Reserve System, *Press Release: Federal Reserve and other central banks announce specific measures designed to address liquidity pressures in funding markets*, March 11, 2008, [Accessed on September 1, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080311a.htm>

²²⁸ See Periodic Report Pursuant to Section 129(b) of the Emergency Economic Stabilization Act of 2008: *Update on Outstanding Lending Facilities Authorized by the Board Under Section 13(3) of the Federal Reserve Act*, December 29, 2008, [Accessed on September 14, 2015], available at: www.federalreserve.gov

²²⁹ Although the Fed assisted in the rescue of Long-Term Capital Management in 1998 (“**LTCM**”), a too-tig-to-fail US-based hedge fund, failure of which was though capable of setting off a global financial crisis, its involvement was limited to brokering a restructuring deal with LTCM. Fed officials were instrumental in convincing a group of US and European financial institutions to inject several billion dollars into LTCM in exchange for a majority stake in LTCM. The Fed was particularly concerned that LTCM’s large holdings of OTC derivatives, which are generally exempted from automatic stay provisions of bankruptcy law would have resulted in termination of thousands derivative contracts and liquidation of very large number of securities put as collateral, which would most likely have been very disruptive to markets. While the Fed did not commit any funds to the rescue, its actions were not without controversies as some argued that the intervention helped LTCM shareholders to get a better deal than they would have otherwise obtained and implied a major open-ended extension of the Fed’s responsibilities without any legal mandate. It was seen as a return to the discredited doctrine that the Fed should prevent failure of too-big-to-fail firms, which encourages moral hazard. See Haubrich G. Joseph, *Some Lessons on the Rescue of Long-Term Capital Management*, Federal Reserve Bank of Cleveland Policy Discussion Papers, Number 19, April 2007, [Accessed on September 14, 2015], available at: <https://www.clevelandfed.org/newsroom-and-events/publications/discontinued-publications/policy-discussion-papers/pdp-0719-some-lessons-on-the-rescue-of-long-term.aspx>

3.3.1 The Run on Bear Stearns

Paradoxically, the announcement of the TSLF intended to restore investor confidence and stabilize markets had the exact opposite on Bear Stearns, a leading globally operating financial institution, the fifth largest investment bank and the third largest private-label MBS underwriter in the US.²³⁰

Bearn Stearns, like many of its Wall Street peers, was heavily exposed to opaque mortgage-related structure finance products and faced increasing challenges since the summer of 2007. However, the overall composition of its balance sheet, high leverage and over-reliance on short-term, mostly overnight wholesale funding, made it extremely fragile and its demise much more likely to materialize. In particular, after the short-term credit market had already started seizing up in late summer of 2007, Bearn Sterns had approximately \$400 billion assets, but only about \$11 billion capital and approx. \$68 billion of long-term debt, with the rest of its assets funded by short-term borrowings, of which approx. \$70 billion borrowed over-night in the repo market.²³¹ Moreover, Bear Stearns held more than \$28 billion worth of illiquid and difficult to value and sell assets – almost three times its capital, which meant that about 40% decline in the value of these assets would fully deplete the its capital and render it insolvent.²³² Interestingly, to forestall rating downgrades and to “make sure that creditors and rating agencies were happy”, at the end of each quarter Bear Stearns would lower its leverage ratio by selling its assets, only to buy them back at the beginning of the next quarter. Bear Stearns booked these transactions as sales even though they were in fact much like repos, which would however have not achieved the same results.²³³

Bearn Stearns finances started to be increasingly scrutinized by its counterparties after pouring almost \$1.6 billion in an unsuccessful attempt to prevent failure of its hedge funds filled with mortgage-related assets in July 2007. By various accounts, the funds’ failures marked the

²³⁰ See Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States, January 2011, U.S. Government Printing Office, Washington D.C., ISBN: 978-0-16-087983-8, at. p. 280.

²³¹ As of November 2007. See Form 10-K of Bear Stearns Companies Inc., [Accessed on September 14, 2015], available at: <https://www.sec.gov/edgar/searchedgar/companysearch.html>

²³² As of November 2007, See Form 10-K of Bear Stearns Companies Inc., [Accessed on September 14, 2015], available at: <https://www.sec.gov/edgar/searchedgar/companysearch.html>

²³³ Although Bearn Stearns’ leverage reported in the 2007 Form 10-K was approx. 28:1, Bearn Stearns’ former treasurer admitted in an interview that if it were not for this practice, it would have probably been around 35:1. The interview also revealed that all the three major CRAs knew and actively discussed this practice with Bearn Stearns. See FCIC memo of staff interview with Robert Upton, Bear Stearns, United States: Financial Crisis Inquiry Commission, April 13, 2010, [Accessed on September 14, 2015], available at: <https://ypfs.som.yale.edu/library/fcic-memo-staff-interview-robert-upton-bear-stearns>

start of a collapse in trust between Bear Stearns and its shadow bank lenders.²³⁴ In mortgage securitization, which was the biggest piece of Bear Stearns's most-business generating around 45 % of its revenues, it followed a vertically integrated model that made money at every step, from loan origination through securitization and sale. It both acquired and created its own originators to generate mortgages it could bundle into securities and either sell to investors or retain for itself. Moreover, unlike its Wall Street competitors, even after the mortgage market had begun to falter due to rising delinquencies in early 2007, Bear Stearns was still scaling up its mortgage-related business.²³⁵

As pointed out, aside from being highly leveraged, Bear Stearns also faced substantial roll-over liquidity risk given its over-night repo borrowings worth over \$100 billion. Surprisingly, despite the high leverage, massive reliance on short-term funding and mounting reported losses, the SEC was still of the view that "*Bear Stearns' liquidity pool remains stable*".²³⁶ The increasing reliance on the so-called tri-party repo market by Bear Stearns, however, posed risk not only to its shadow bank counterparties (mostly hedge funds), but also to the banking system. In the tri-party repo transaction, a third party - clearing bank - acts as an agent to the other two parties and facilitates the settlement of the trade by a balance sheet transaction concerning transferring securities and cash within accounts opened by the counterparties with the clearing bank. In particular, the clearing bank settles the opening leg of the trade during late afternoon or evening by crediting securities to the lender's account and cash to the borrower's account and unwinds it with movements of cash and securities to the opposite directions in the morning of the next day. Thus, the morning's return of cash to the lender creates a need for the borrower to secure a new source of financing until new repos are settled in the evening. This financing is provided by clearing banks in the form of repos until the lender roll-overs the repo and its cash settles in the evening.²³⁷ Before the onset of the financial crisis, the tri-party repo market was considered a very safe market, because transactions were over

²³⁴ See Shorter Gary Bear Stearns: Crisis and "Rescue" for a Major Provider of Mortgage-Related Products, CRS Report for Congress, March 19, 2008, at p. 5, [Accessed on September 14, 2015], available at: <https://digital.library.unt.edu/ark:/67531/metadc815502/>

²³⁵ In February 2007, the bank acquired Encore Credit's sub-prime mortgage business, the third largest in the US. See Jackson Paul, Bear Stearns Completes Acquisition of ECC Capital, the Housingwire, February 12, 2007, [Accessed on September 14, 2015], available at: <https://www.housingwire.com/articles/bear-stearns-completes-acquisition-ecc-capital/>

²³⁶ See The Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States, January 2011, U.S. Government Printing Office, Washington D.C., ISBN: 978-0-16-087983-8, at p. 284.

²³⁷ See Adam Copeland, Darrell Duffie, Antoine Martin, Susan McLaughlin, *Key Mechanics of Tri-Party Repo Markets*, June 2011, Economic Policy Review, Federal Reserve Bank of New York, at p. 11, [Accessed on September 14, 2015], available at: <https://www.newyorkfed.org/research/epr/2012/1210cope.html>

collateralized and a risk that the clearing bank could face losses if the borrower defaulted during the day was little appreciated. However, the financial strains experienced by Bear Stearns in early 2008 highlighted the fact that clearing banks involved in the tri-party repo transactions are not only agents but also large creditors during each business day. This was a serious potential problem due to the fact that only two clearing banks, namely Bank of New York Mellon and J.P. Morgan handled all tri-party repos in the US. Thus, the problems of even a single investment bank like Bear Stearns could have severe negative impact on the two systemic important clearing banks concentrating counterparty credit risk worth hundreds billions dollars and in consequence on the entire banking and financial system. As a result, Bear Stearns' failure alone could bring down the entire \$2.5 trillion-dollar tri-party repo market, which was the source of financing for all the other investment banks and the financial system in general.²³⁸ Despite the mounting liquidity problems, the SEC's early March inspection of Bear Stearns identified "no significant issues" with Bear Stearns' liquidity position.²³⁹ As the fear about Bear Stearns' prospects increased in early 2008 and the shadow banks began to demand larger collateral haircuts and premiums, it was becoming more difficult for Bear Stearns to finance.

While TSLF could have relieved Bear Stearns' severe liquidity strains, the programme was not to going to be launched until late March and the bank Bear Stearns' shadow bank lenders were not willing to roll-over their commitments for that long. They simply did not believe the investment bank would make it to the end of March.²⁴⁰ Therefore, the TSLF announcement spurred a classic bank-like run of Bear Stearns' "depositors", mostly hedge funds and other investment banks. However, as investment bank, Bear Stearns could not obtain liquidity from the Fed's lender of last resort discount window reserved for commercial banks. On the other hand, an unexpected and disorderly bankruptcy of Bear Stearns was not only capable of disrupting the more than \$2.5 trillion-dollar repo market, but also bringing about run on the two

²³⁸ At the same time, like many of its peers, it was also part of a complex and highly interconnected network of financial arrangements, which concerned *inter alia* about \$ 14.2 trillion of notional value in derivative contracts - futures, options, and swaps - outstanding with thousands of counterparties. See

²³⁹ See Kate Kelly, Greg Ip, Robin Sidel, *Fed Races to Rescue Bear Stearns In Bid to Steady Financial System, the Wall Street Journal*, March 15, 2008, [Accessed on September 14, 2015], available at: <https://www.wsj.com/articles/SB120550108028136579>

²⁴⁰ As the fear about Bear Stearns' prospects increased in early 2008 and the lenders, via the tri-party repo market and other short-term lending markets, began to demand larger and larger collateral haircuts and premiums, it was becoming more and more difficult for Bear Stearns to finance itself and creating more and more liquidity pressure. Notably, rumors began to spread on Wall street that European banks had stopped trading with Bear Stearns and some traders started pulling their cash from the bank fearing their funds might have become frozen if it had filed for bankruptcy protection. See Kate Kelly, Greg Ip, Robin Sidel, *Fed Races to Rescue Bear Stearns In Bid to Steady Financial System, the Wall Street Journal*, March 15, 2008, [Accessed on September 14, 2015], available at: <https://www.wsj.com/articles/SB120550108028136579>

systemically important clearing banks. As a result, the Fed concluded that the circumstances were unusual and exigent and on March 14, 2008 decided to resort to Section 13(3) of the Federal Reserve Act. In particular, it authorized the FRBNY to provide an overnight \$12.9 billion discount window loan to J.P. Morgan on a non-recourse basis in exchange for Bear Stearns' assets worth \$13.8 billion as collateral. J.P. Morgan got a hold of Bear Stearns' assets via a simultaneous back-to-back secured financing transaction to Bear Stearns. Importantly, the non-recourse basis meant that the loan was collateralized by Bear Stearns' MBS only and that the FRBNY could not seize J.P. Morgan's assets in case the collateral became insufficient to repay the loan.²⁴¹ The FRBNY received no warrants or any other equity of either J.P. Morgan or Bear Stearns in exchange for the loan.

The emergency loan was not intended to solve Bear Stearns's problems but rather help the investment bank to survive to the upcoming weekend and buy some time to find a suitable acquirer.²⁴² While J.P. Morgan was an obvious choice, after conducting fast-tracked due diligence, it saw taking on the illiquid MBS portfolio too risky. To avoid Bear Stearns bankruptcy filing on Monday March 18, the Fed decided to step in and absorb these risks. To go around the fact that it could not legally purchase assets of investment bank, the assistance had to look like, and be formally structured as, a secured loan. In particular, the Fed authorized the FRBNY to make a \$30 billion secured loan to a special purpose vehicle incorporated by the Fed, Maiden Lane LLC, which would purchase Bear Stearns's illiquid assets instead. To finance the purchase, Maiden Lane LLC took out a \$29 billion loan from the FRBNY secured by the to be acquired MBS portfolio and about \$1 billion subordinated loan from JPMorgan, which was to ensure that J.P. Morgan would bear 100 % of the first \$1 billion of losses.²⁴³ With the subsidy from the Fed, on Monday March 17, J.P. Morgan agreed to acquire the teetering investment bank.²⁴⁴

²⁴¹ In fact, the collateral taken by the FRBNY as a security for the loan was the very MBSs no one in the repo market had been willing take.

²⁴² The aim was to find a willing buyer before the open of Asian markets on Monday morning, March 17, which was Sunday evening, March 16, 2008 in New York. See Wessel David, *In FED We Trust: Ben Bernanke's War on the Great Panic*, August 3, 2010, ISBN-13:978-0307459695, at p. 166.

²⁴³ See Federal Reserve Bank of New York, *Press Release: Summary of Terms and Conditions Regarding the JPMorgan Chase Facility*, March 24, 2008, [Accessed on September 14, 2015], available at: <https://www.newyorkfed.org/aboutthefed/annual/annual08/MaidenLanefinstmt2009.pdf>

²⁴⁴ For about \$236 million in JPMorgan's shares with an exchange ratio implying Bear Stearns' share value of approx. two dollars, compared with the \$169 high in less than a year ago See Ailing Firm Sold, *J.P. Morgan Buys Bear in Fire Sale, As Fed Widens Credit to Avert Crisis*, the Wall Street Journal, March 17, 2008, [Accessed on September 14, 2015], available at: <https://www.wsj.com/articles/SB120569598608739825>

The latest from the three above-mentioned programmes, the PDCF was a direct consequence of the Bear Stearns' rescue, which revealed that investment banks were prone to runs very much like their commercial peers. It also made apparent how the task of intermediating between investors and borrowers had shifted over the time from banks to other markets, especially markets for securitized products. In essence, the PDCF was intended to put investment banks on equal footing with commercial banks in respect of their ability to obtain overnight secured lending from the Fed. By accepting a broad range of investment-grade debt securities as collateral, such as corporate shares and MBS, the PDCF provided financing to all major participants in securitization markets.²⁴⁵ Charging discount rate and adding additional fees was to ensure that the PDCF would only be utilized as an instrument of last resort.²⁴⁶

Although the JPMorgan's subsidized purchase of Bear Stearns and the newly implemented lending programmes by the Fed helped to stabilize, at least for the time being, the US financial system, the speed of Bear Stearns's demise and the fact that the implementation of the PDCF marked the third use of Section 13(3) of the Federal Reserve Act in just one week, made markets jittered. There was a widespread belief that the problems in the shadow banking sector were also pertinent to Bear Stearns' peers.²⁴⁷ And the word on the street was that Lehman Brothers was next to come despite the assurances of its CEO that *"the worst of the impact of the financial markets is behind us"* in April 2008.²⁴⁸ It clearly was not.

²⁴⁵ In the wake of the Lehman Brothers bankruptcy on September 15, 2008, the collateral eligibility was broadened to include all securities eligible for pledging in the tri-party repo market, which included also below-investment-grade or even unrated securities. The broad loosening of the collateral standards was primarily to provide liquidity to Goldman Sachs and Morgan Stanley that were both waiting for bank holding company license approvals. See Board of Governors of the Federal Reserve System, *Press Release: Federal Reserve announces two initiatives designed to bolster market liquidity and promote orderly market functioning*, March 16, 2008, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080316a.htm> and Federal Reserve Bank of New York, *Press Release: Federal Reserve Board announces several initiatives to provide additional support to financial markets, including enhancements to its existing liquidity facilities*, September 14, 2008, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080914a.htm>

²⁴⁶ Notwithstanding the "penalty" interest rate, the PDCF became heavily relied on. In the first week of its operation, over \$340 billion had been drawn-down just by Bear Stearns (as a bridge financing until the JPMorgan merger was closed), Lehman Brothers, and Citigroup's investment banking arm. See Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States, January 2011, U.S. Government Printing Office, Washington D.C., ISBN: 978-0-16-087983-8, at p. 294.

²⁴⁷ The reliance on short-term funding seemed to have been the biggest headache for both the SEC and the Fed. While the SEC had conducted liquidity stress tests even before the run on Bear Stearns, they had not taken account of the possibility that an investment bank would lose access to secured funding since they never thought that a situation would arise where it couldn't access a repo market with a high-quality collateral such as Treasuries.

²⁴⁸ See Horowitz Jed, *Lehman's Fuld: 'Worst is behind us;' markets still difficult*, Dow Jones Newswires, April 15, 2008, [Accessed on September 20, 2015], available at: <https://www.marketwatch.com/story/lehmans-fuld-worst-is-behind-us-markets-still-difficult>

3.3.2 The “Lehman Weekend”

The failure of Lehman Brothers Holdings Inc. (“**Lehman Brothers**”) and the takeover of the American International Group Inc. (“**AIG**”) provide interesting case studies, though each for a different reason. While it was a general perception that Lehman Brothers was the weakest of the major US investment banks after the collapse of Bear Stearns, its prompt demise shook the financial world and had ramifications way surpassing Wall Street and the US financial system. The failure of Lehman Brothers also marked the first time since the insertion of Section 13(3) into the Federal Reserve Act in 1936 when the Fed allowed financial services firm of systemic importance to fail. The rescue of AIG on the other hand marked the first time ever the Section 13(3) authority was used to rescue insurance company. Moreover, to avoid AIG’s failure, the Fed not only provided the insurance company emergency credit but also purchased its assets, neither of which was used in the case of Lehman Brothers. The official reason according to the Fed Chairman Ben Bernanke was that no buyer for Lehman was forthcoming, and its available collateral fell well short of the amount needed for secured lending. All in all, given the lack of legal authority, the Fed and the Treasury had no choice than to let Lehman Brothers fail and focus efforts on mitigating the fallout ensuing from that event.²⁴⁹ While this reasoning seems to be in comport with the confines of the traditional lender of last resort concept, it will be shown that the true reasons might have been different.

Lehman Brothers, a venerable global financial services firm and before filing Chapter 11 protection and initiating the largest bankruptcy proceedings in the US history, the fourth-largest investment bank in the US. Prior to the crisis, the banks had seen rapid growth achieved by aggressive business model based on excessive risks and high leverage. On the other hand, Lehman’s business model was not unique as its investment bank peers pursued similar strategies.²⁵⁰ The uniqueness of the bank was its “counter cyclical” model, focused on investing in the residential mortgage market at the time when it had already peaked, and its peers had started scaling their mortgage-relate exposures back.

Historically, Lehman did not use its balance sheet to acquire mortgage-related assets for its own account, but rather to move them via securitization or syndication and distribution to third parties. However, in 2006, the company made the conscious decision to expand its proprietary business and use its balance sheet to acquire risky and opaque mortgage-related

²⁴⁹ See Bernanke S. Ben, *Remarks before the Committee on Banking, Housing, and Urban Affairs*, U.S. Senate, September 23, 2008, [Accessed on September 20, 2016], available at: <http://www.federalreserve.gov/newsevents/testimony/bernanke20080923a1.htm>

assets for longer-term investment, hoping to profit from their increasing returns.²⁵¹ These investments consumed more capital, entailed more risk, and were less liquid. With the near collapse of Bear Stearns in March 2008, it became clear that Lehman's growth strategy had been flawed, although the data Lehman reported did not indicate much to worry about. For the year ending November 30, 2007, Lehman reported record revenues of almost \$60 billion, earnings in excess of \$4 billion and return on average common tangible equity (ROTE) reaching almost 26%.²⁵² At the same time, Lehman's shares traded in the ballpark of 55 to 65 dollars implying a market capitalization somewhere between approx. \$30 to 36 billion.²⁵³ Only one reported metric did not look so good - leverage ratio of almost 31.²⁵⁴ In particular, Lehman had over \$600 billion in assets but just \$25 billion, thus a downward correction of Lehman's asset value in the amount of slightly above 3 % would lead to the company's insolvency. Moreover, majority of these assets were funded by a short-term repo market operations, ensuing in the need to borrow billions of dollars a day. In 2008, it was more than \$200 billion a day, therefore willingness of Lehman's counterparties to give up of liquidity was critical for the investment bank to keep its business going for another day.²⁵⁵

It was sure the bank needed to show itself in good light to secure critically important favorable ratings from the CRAs and to maintain confidence of its counterparties especially after the demise of Bear Stearns and the announcement almost \$3 billion second quarter 2008 loss.²⁵⁶ To water down the bad news, the bank simultaneously announced significant reduction of its assets and leverage ratio.²⁵⁷ What the firm did not disclose though was the fact

²⁵¹ Lehman also focused on aggressive expansion in areas of commercial real estate, leveraged loans and private equity. See Report of Anton R. Valukas, Examiner, Lehman Brothers Holdings, Inc. et al. Debtors. March 11, 2010, Volume 1 of 9 Sections I & II: Introduction, Executive Summary & Procedural Background, at p. 58, [Accessed on September 20, 2016], available at: <https://web.stanford.edu/~jbulow/Lehmandocs/origIndex.html>

²⁵² See Lehman Brothers Holdings Inc., Form 10-K 2007 Report, at p. 29, [Accessed on September 20, 2016], available at: https://www.sec.gov/Archives/edgar/data/806085/000110465908005476/a08-3530_110k.htm#Item6_SelectedFinancialData_003911

²⁵³ See Eoddata, Historical Data, Lehman Brothers Holdings Inc., available at: <http://www.eoddata.com/StockQuote/NYSE/LEH.htm>

²⁵⁴ See Lehman Brothers Holdings Inc., Form 10-K 2007 Report, at p. 29, [Accessed on September 20, 2016], available at: https://www.sec.gov/Archives/edgar/data/806085/000110465908005476/a08-3530_110k.htm#Item6_SelectedFinancialData_003911

²⁵⁵ See Report of Anton R. Valukas, Examiner, Lehman Brothers Holdings, Inc. et al. Debtors. March 11, 2010, Volume 1 of 9 Sections I & II: Introduction, Executive Summary & Procedural Background, at p. 3, [Accessed on September 20, 2016], available at: <https://web.stanford.edu/~jbulow/Lehmandocs/origIndex.html>

²⁵⁶ In particular, assets were reduced by almost \$150 billion and leverage decreased to 24. See Lehman Brothers Holdings Inc., Form 10-Q for the quarterly period ended May 31, 2008, at p. 4, [Accessed on September 20, 2016], available at: https://www.sec.gov/Archives/edgar/data/806085/000110465908045115/a08-18147_110q.htm

²⁵⁷ See Lehman Brothers Holdings Inc. Q2 2008 Earnings Conference Call, June 16, 2008, at p. 7, available at: https://web.stanford.edu/~jbulow/Lehmandocs/docs/DEBTORS/LBHI_SEC07940_1139550-1139578.pdf

that the improved balance sheet was a result of “Repo 105”, an accounting gimmick enabling the firm to classify short-term loans as sales rather than financing. In particular, the firm would temporarily transfer securities from its balance sheet to raise cash identically like in case of standard repo transaction but accounted for it as a sale. The important difference between a plain vanilla repo and Repo 105 was that the latter transaction was overcollateralized (e.g. 105 dollar worth securities were exchanged for 100 dollars in cash). Lehman then used the borrowed cash to pay off its short-term debt. As a result, unlike in case of a standard repo transaction, Repo 105 not only reduced the firm’s assets but also its liabilities and leverage.²⁵⁸ After announcing results, the firm then borrowed short-term funds to “buy” back the sold securities.²⁵⁹

The announcement of projected 2008 third quarter write-downs of \$5.6 billion and expected loss of over \$3.9 billion on September 10, 2008 was the last nail in the Lehman’s coffin that took its shares to a closing price of less than four dollars on Friday, September 12, a 94% freefall from the beginning of the year.²⁶⁰

Over the weekend of September 12-14, 2008, the Fed tried to find a new investor for the bank since it was well-aware that failing to do so would mean Lehman’s filing for bankruptcy on the up-coming Monday. However, finding a buyer willing to acquire Lehman without a government assistance would prove to be extremely challenging since there were less than two days to get a true picture of Lehman’s financial health and to conclude whether it was insolvent or not. Answering this question would also have important implications for the

²⁵⁸ Since securities in a standard repo transaction are put up as a form of collateralization (as a lien or a charge) and are returned after the term of the repo, the transaction is accounted for as financing and the collateral remains in the borrower’s inventory and thus on its balance sheet. As a result, repo transactions increasing assets, liabilities and leverage of the borrower.

²⁵⁹ Interestingly, when Lehman came up with Repo 105, it reportedly could not get any American law firm to sign off on a legal opinion concluding that transactions under Repo 105 are true sales, therefore it sought out legal opinion from London based law firm Linklaters. In its opinion Linklaters inter alia stated: *“...the essential characteristics of a charge is that, despite any transfer of assets between the parties, they intend the person creating the charge to retain a proprietary interest in the property which is the subject of the charge, so that on the discharge of his obligations he is entitled to the return of that property from the charge. However, if, in such a situation, the transferor is merely entitled to the delivery of equivalent assets (such as securities of the same series and nominal value) rather than the very assets that were originally delivered, this is, in our opinion, inconsistent with the existence of a charge because the transferor does not intend to retain a proprietary interest in the assets originally delivered.”* Relying on this opinion, Lehman did all its Repo 105 transactions through its London based Lehman Brothers International (Europe) See Lehman Brothers Holdings Inc., Form 10-K 2007 Report, at p. 98, [Accessed on September 20, 2016], available at: https://www.sec.gov/Archives/edgar/data/806085/000110465908005476/a08-3530_110k.htm#Item6_SelectedFinancialData_003911 and Dan Wilchins, *Lehman may have to raise capital if sells assets*, August 4, 2008, [Accessed on September 20, 2016], available at: <https://www.reuters.com/article/us-lehman-assets/lehman-may-have-to-raise-capital-if-sells-assets-idUSN0144737620080804>

²⁶⁰ See Report of Anton R. Valukas, Examiner, Lehman Brothers Holdings, Inc. et al. Debtors. March 11, 2010, Volume 1 of 9 Sections I & II: Introduction, Executive Summary & Procedural Background, at p. 11, [Accessed on September 20, 2016], available at: <https://web.stanford.edu/~jbulow/Lehmandocs/origIndex.html>

possible intervention from the Fed given the shared belief that the lender of last resort authority should be reserved to illiquid but solvent institutions.

While solvency should be a fairly simple concept designating as insolvent any firm assets of which are worth less than its liabilities, distinguishing liquidity and solvency crisis in practice may not be an easy thing to do. The crisis Lehman Brothers was facing at the beginning of September 2008 is a good example. When executives of top Wall Street financial firms met with the representatives from the Fed and the Treasury on Friday afternoon September 12, they could not agree whether Lehman was solvent or not.²⁶¹ Arguably, illiquidity and insolvency are not as distinct phenomena as often portrayed.

Although a bank run (irrespective of whether in respect of commercial or investment bank) is the classic example of a liquidity crisis since banks cannot possibly pay all its depositors at once even if their assets are worth more than their liabilities, some prominent thinkers have argued that the 2008 run on shadow banks was largely caused by the realization of their wholesale “depositors” that the stockpiles of mortgage-related securities they held were in fact worth a lot less than officially reported. In other words, the real issue was not shortage of liquidity but the uncertainty that the balance sheets of financial firms were credible. This was arguably very different situation from the liquidity crisis banks faced during 1930s, where failures of individual banks spurred *en masse* deposit withdrawals also from otherwise sound banks in a self-reinforcing cycle. In contrast, in the fall of 2008, the real issue seem to have been the amount of toxic assets sitting on financial firms’ balance sheets that were hard to sell or value. Being unable to distinct the sound financial firms from the unsound and thus whom to lend, the whole market froze up.²⁶²

The questionable credibility of Lehman’s reported balance sheet was also the primary reason why neither of the two initially interested purchasers - Barclays Bank and Bank of America - followed through. In particular, by Friday night September 12, Bank of America's team had concluded that Lehman's real-estate portfolio was worth much less than reported, and as a result, the firm's liabilities likely exceeded its assets.²⁶³ Reportedly, the only thing that

²⁶¹ Lehman’s CEO Richard Fuld was convinced his firm was solvent while JPMorgan CEO Jamie Dimon was unable to answer. On the other hand, Fed Chairman Ben Bernanke, FRBNY president Timothy Geithner, Treasury Secretary Henry Paulson and the SEC Chairman Christopher Cox saw Lehman not just illiquid but very likely insolvent. See Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States, January 2011, U.S. Government Printing Office, Washington D.C., ISBN: 978-0-16-087983-8, at p. 324.

²⁶² See Carney, Brian, *Bernanke Is Fighting the Last War*, the Wall Street Journal, October 18, 2008, [Accessed on September 20, 2016], available at: <https://www.wsj.com/articles/SB122428279231046053>

²⁶³ See Susanne Craig, Jeffrey McCracken, Aaron Lucchetti and Kate Kelly, *The Weekend That Wall Street Died*, the Wall Street Journal, September 19, 2008, [Accessed on September 20, 2016], available at: <https://www.wsj.com/articles/SB123051066413538349>

could get Bank of America to sign off on purchasing Lehman was an assistance from the Fed. However, the Fed and the Treasury remained adamant that it would not bail the firm out and tried to hammer out a private sector solution, which would not involve any support.

By Sunday September 14, Bank of America announced it would buy Merrill Lynch for about \$50 billion.²⁶⁴ The deal with Barclays, the only remaining bidder was close to materialize as Barclays agreed to buy Lehman on the condition that it would spin-off its toxic real-estate assets along with its asset-management division into a newly created SPV bankrolled by a bank syndicate.²⁶⁵ The only wrinkle to the deal was that the Treasury required Barclays to guarantee Lehman's trading obligations in the weeks between signing and closing in order to prevent Lehman's counterparties to stop transacting with it. However, the London Stock Exchange Listing rules demanded a shareholder vote to approve such guarantee, which was not possible to get done by Sunday evening when the Asian markets open and thus the only remaining option was either the US or the UK government to step in and make such guarantee itself, which, however, both refused with the former citing lack of legal authority and the latter unwillingness to entertain a deal capable of exposing the UK to unnecessary risk.²⁶⁶ As a result, on early Monday morning, September 15, Lehman filed for Chapter 11 bankruptcy protection.²⁶⁷

²⁶⁴ See Jonathan Stempel, Elinor Comlay, *Bank of America takeover to end independent Merrill*, September 15, 2008, [Accessed on September 2, 2016], available at: <https://www.reuters.com/article/us-merrill-bankofamerica/bank-of-america-takeover-to-end-independent-merrill-idUSN1445019920080915>

²⁶⁵ The structure resembled the rescue of Long-Term Capital management in 1998 or the efforts led by J.P.Morgan during the panic of 1907.

²⁶⁶ It was also suggested that the Financial Services Authority could waive the requirement for a shareholder vote, which however, after consulting with the U.K. government, it refused to do. See Craig Susanne, McCracken Jeffrey, Lucchetti Aaron, Kelly Kate, *The Weekend That Wall Street Died*, the Wall Street Journal, September 19, 2008, [Accessed on September 2, 2016], available at: <https://www.wsj.com/articles/SB123051066413538349>

²⁶⁷ Only two days later, Barclays agreed to acquire Lehman's North American investment banking and capital markets businesses and supporting infrastructure for about \$1.75 billion on the condition it would be completed in a week, which it eventually was. Although the second cherry-picking deal transpired into a long-lasting litigation, the UK Government's refusal to support the initial deal seems to have worked out well for Barclays, as it acquired one of the world's most powerful investment banking businesses while avoiding taking on Lehman's hundreds of billions dollar worth toxic assets. In particular, the Lehman's bankruptcy trustee alleged the deal included a secret discount to the true value of the sold assets in the amount of approx. five billion dollars, which when taken together with other terms of the final deal resulted in almost eleven billion dollars windfall for Barclays at the expense of Lehman's creditors. Although Barclays booked more than four billion dollars gain on the transaction, the case was eventually resolved in favor of Barclays in 2015 with the court stressing the exceptional circumstances of the sale. However, See *In re: Lehman Brothers Holdings Inc, U.S. Bankruptcy Court*, Southern District of New York, Case No. 08-13555.

3.3.3 The Fallout

Despite the unprecedented scale of the response, the filing for bankruptcy by Lehman Brothers on September 15, 2008 spurred panic of unseen magnitude. Assistance to individual financial institutions, such as Bear Stearns, and the entire interbank lending market would no longer be sufficient since Lehman Brothers but also most of its counterparties were shadow banks. The Reserve Primary Fund, the world's first MMMF established in 1971 was the first victim of the fallout and faced a wave of redemption requests, despite its relatively limited exposure to the failed investment bank.²⁶⁸ Public assurances from the fund's investment advisors that the fund was committed to maintaining a \$1 net asset value did not help as investors had pulled out in total about \$40 billion by the end of the following day. The fund had officially "broken the buck", the first to do so in the US since 1994. As a result, investors commenced a run, which in turn forced MMMF to fire sale its assets and reduce or stop altogether investing into money market instruments such as commercial papers. At the same time, the run on MMMF put severe pressure on the banking system since many MMMF began tapping back-up liquidity facilities they had open up banks to meet the rising redemption requests. The liquidity squeeze and asset fire sale in the MMMF sector thus had significant ramifications on the other shadow banks funded by commercial papers by also on the non-financial corporate sector since the almost \$2 trillion commercial paper market was an important source of their day-to-day funding. With frozen commercial paper market and severely distressed banking sector, corporations had no other option than to curtail their normal business operations.²⁶⁹

In order to help MMMF to meet increasing volumes of redemption requests and to address the liquidity strains in money markets, the Fed announced three new credit facilities, namely the Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility ("**AMLF**"), the Commercial Paper Funding Facility ("**CPFF**") and the Term Asset-Backed Securities Loan Facility ("**TALF**").

The AMLF announced on September 19, 2008 aimed to stop the run on the \$3.5 trillion dollar mutual fund industry by offering credit to US depository institutions and bank holding

²⁶⁸ When Lehman Brothers declared bankruptcy, the Primary Fund's exposure amounted to 1.2% of the fund's total assets of 62.4 billion. See Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States, January 2011, U.S. Government Printing Office, Washington D.C., ISBN: 978-0-16-087983-8, at p. 356.

²⁶⁹ The severity of the crisis evidences the fact that even General Electric, one of the biggest and most prestigious corporations in the US had difficulties selling its commercial papers for any term longer than overnight. See Paulson Hank, *On the Brink, Onside the Race to Stop the Collapse of the Global Financial System*, Business Pluss 2010, ISBN: 0446561932, at p. 228.

companies to finance purchases of highly-rated ABCP issued by MMMF experiencing significant redemption pressures.²⁷⁰ Since the secured lending was provided on a non-recourse basis with no haircut to the pledged ABCP, all credit risk associated with ABCPs was taken on by the Fed. Within two weeks after the program's announcement, the Fed had financed about \$150 billion worth of commercial papers.²⁷¹

The CFPP announced about two weeks later was intended to help commercial paper issuers to roll-over their short-term debt.²⁷² In particular, the Fed established, and through the FRBNY provided financing to, an SPV that would purchase three-month unsecured ABCP directly from their issuers. The lending was secured by all assets of the SPV and, in the case of unsecured commercial papers, by the retention of up-front 100 basis points "surcharge fee" paid by the issuers. The establishment of the CPFF was not only unconventional, as the Fed for the first time ever offered financial backstop to non-financial corporations, it was arguably also outside the scope of the Fed's most broadly defined statutory authority, Section 13(3) of the Federal Reserve Act. Similarly, to the Bear Stearns sale, through the SPV, the Fed in effect purchased assets directly from US commercial paper issuers, which it arguably did not have authority to do. Moreover, unlike in the case of Bear Stearns, some of the credit lines from the Fed to the SPV were not secured.

Finally, the TAFL created about a month later intended to assist in accommodating the credit needs of consumers and small businesses by facilitating the issuance of asset-backed securities ("**ABS**") collateralized by *inter alia*, by student loans, auto loans or credit card loans. Under the TALF, the Fed extended loans secured by highly-rated non-mortgage-backed ABS, and later also by commercial MBS, with a one-year term. Haircuts depending on the risk of the collateral and interest rates generally been below market rates.²⁷³ The Fed authorized the

²⁷⁰ See Board of Governors of the Federal Reserve System, *Press Release: Federal Reserve Board announces two enhancements to its programs to provide liquidity to markets*, September 19, 2008, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080919a.htm>

²⁷¹ On the same day the AMLF was announced, the Treasury announced a parallel guarantee program for the entire MMMF sector whereunder it would guarantee the share price of any publicly offered eligible money market mutual fund, both retail and institutional, that applies for and pays a fee to participate in the program. The guarantee would be triggered if a participating fund's net asset value falls below \$0.995, i.e. if it broke the buck. See Wessel David, *In FED We Trust: Ben Bernanke's War on the Great Panic*, August 3, 2010, ISBN-13:978-0307459695, at p. 207. And U.S. Department of the Treasury, *Press release: Treasury Announces Guaranty Program for Money Market Funds*, October 2010, [Accessed on September 14, 2016], available at: <https://www.treasury.gov/press-center/press-releases/Pages/hp1147.aspx>

²⁷² See Board of Governors of the Federal Reserve System, *Press Release: Board announces creation of the Commercial Paper Funding Facility (CPFF) to help provide liquidity to term funding markets*, October 7, 2008, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20081007c.htm>

²⁷³ See Board of Governors of the Federal Reserve System, *Press Release: Federal Reserve announces the creation of the Term Asset-Backed Securities Loan Facility (TALF)*, November 25, 2008, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20081125a.htm>

FRBNY to make up to \$200 billion of loans under the TALF, with embedded \$20 billion credit protection from the Treasury. Since loans under TAFL were non-recourse, which in effect gave borrowers put option to surrender the collateral instead of repaying the loan, the Fed concluded a risk-sharing agreement with the Treasury and the FRBNY. Under the arrangement, the FRBNY received put option to sell the surrendered collateral to TAFL LLC, an SPV incorporated specifically for managing such assets and funded by the Treasury and the FRBNY.²⁷⁴

3.3.4 Takeover of the American International Group

Only two days after refusing to provide financial assistance to Lehman Brothers, the Fed authorized the FRBNY to provide a revolving credit facility of up to \$85 billion to AIG under Section 13(3) of the Federal Reserve Act. The reason for invoking Section 13(3) was the determination that *“in current circumstances, a disorderly failure of AIG could add to already significant levels of financial market fragility and lead to substantially higher borrowing costs, reduced household wealth, and materially weaker economic performance.”*²⁷⁵

AIG was a multinational finance and insurance company with over 200 operations in more than 130 countries and almost \$1 trillion in assets. It was a large issuer of commercial paper, a mortgage lender and an important participant in the derivatives market.²⁷⁶ In the second and third quarter of 2008, AIG started experiencing an increasingly serious liquidity crunch following a downgrade in its credit ratings in May 2008 primarily due to a large CDS portfolio and its securities lending programme.

²⁷⁴ In particular, the Treasury and the FRBNY committed to purchase \$20 billion subordinated debt of, and extend a \$180 billion credit line to, the SPV, respectively. The Treasury’s Troubled Assets Relief Program (TARP) was to purchase subordinated debt issued by the SPV to finance the first \$20 billion of asset purchases. If more than \$20 billion in assets were to be purchased, the FRBNY was to provide additional funds to the SPV to finance such additional purchases. The FRBNY’s loan to the SPV was to be senior to the TARP subordinated loan, with recourse to the SPV, and secured by all the assets of the SPV. All cash flows from SPV assets had to be used first to repay principal and interest on the FRBNY senior loan until the loan is repaid in full. See Board of Governors of the Federal Reserve System, *TALF Terms and conditions*, November 25, 2008, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20081125a.htm>

²⁷⁵ See Board of Governors of the Federal Reserve System, Press Release: Federal Reserve Board, with full support of the Treasury Department, authorizes the Federal Reserve Bank of New York to lend up to \$85 billion to the American International Group (AIG), September 16, 2008, [Accessed on September 14, 2016], available at: <https://www.federalreserve.gov/newsevents/pressreleases/other20080916a.htm>

²⁷⁶ See United States Government Accountability Office, Report to Congressional Committee, *Troubled Asset Relief Programme, Status of Government Assistance Provided to AIG*, September 2009, at p. 5 [Accessed on September 2, 2016], available at: <https://www.gao.gov/new.items/d09975.pdf>

AIG Financial Products Corporation, a subsidiary through which it engaged in the CDS market, was the key source of AIG's financial difficulties. As of June 2008, it is estimated that it had written credit protection with almost \$450 billion gross notional exposure on CDOs.²⁷⁷ The issue was not writing the credit protection itself but rather the terms under which it had been sold and the fact that firm did not hedge these large positions except for its policy to "insure" only the senior tranches of CDOs. The terms of the CDSs carried substantial liquidity risks since they required AIG to post cash collateral also in cases when the referenced CDOs' market value declined, or if individual tranche of such CDO or AIG itself was downgraded. Therefore, when CRAs downgraded AIG's credit rating in May 2008 and the market value of residential mortgage CDOs underlying the CDS AIG had written started to decline, the firm was legally obliged to put up more cash as additional collateral.²⁷⁸

The other source of problems, the securities lending program, was designed to pool securities across all AIG's insurance subsidiaries and to lend them out to investors for cash collateral. The fund raised were then invested by the holding company primarily in residential MBS. Similarly to other shadow-banking institutions, the problem was that the borrowed securities could be recalled within a few days, whereas the average maturity of residential MBS was about four to five years. While the markets, but also the regulators perceived AIG primarily as an insurance company insuring wide array of products from retirement accounts to mortgage-related assets across the globe, as pointed out by the Fed Chairman at the heights of the crisis, AIG was in fact an unregulated holding company acting like a hedge fund sitting on top of many highly regulated insurance subsidiaries.²⁷⁹ When the value of residential MBS started to decline and confidence in the market started fading away, both the rating downgrades and unwillingness of AIG's security lending counterparties to roll-over their positions put enormous pressure on AIG's liquidity position.

Notwithstanding some capital raisings, after Lehman Brothers' failure, it was clear AIG was not going to survive without a government aid.²⁸⁰ Although AIG made some serious missteps in respect of its liquidity risk management, its problems were also caused by the fact

²⁷⁷ *Id.* at p. 8.

²⁷⁸ See Moody's Research: *Moody's downgrades AIG (Senior to Aa3) and certain subsidiaries*, May 22, 2008, [Accessed on September 2, 2016], available at: https://www.moody's.com/research/Moodys-downgrades-AIG-senior-to-Aa3-and-certain-subsidiaries--PR_156099

²⁷⁹ See Paulson, Henry, *On the Brink: Inside the Race to Stop the Collapse of the Global Financial System*, Business Plus 1st Edition, New York, February 1, 2010, at p. 237.

²⁸⁰ In May 2008, AIG raised \$ 20 billion in new capital by issuing a mix of common stock, equity units, and junior subordinated debentures, which was the largest private capital raise in history at that time and another \$ 3.25 billion in capital in August 2008.

that there was no real price discovery to derive fair market value of the securities it held, especially CDOs and MBS. In effect, AIG was forced to post cash collateral that exceeded any reasonable estimate of the actual risk of nonpayment on the CDS it had written. Accordingly, as those collateral calls drained AIG's liquidity, its stock price plummeted, which in turn put pressure on CRAs to downgrade AIG's rating, which they eventually did.²⁸¹

Importantly, the \$85 billion facility came with severe strings attached designed to protect "the Federal Reserve and the taxpayer."²⁸² As a further consideration for the loan, AIG consented to issue a new series of preferred shares convertible into 79.9% common shares in AIG to a trust established for the benefit of the Treasury.²⁸³ However, funds under the initial \$85 billion facility had been soon depleted, so the Fed had to soon authorize the FRBNY to borrow \$38 billion worth investment-grade securities from AIG's securities lending program in exchange for cash collateral.²⁸⁴

To facilitate AIG's efforts to restructure and prevent further credit downgrades, in November 2008 the Treasury joined the Fed in restructuring of the existing facility under the newly established Troubled Asset Relief Program ("TARP") authorizing the Treasury to purchase or guarantee \$700 billion in troubled assets to restore the liquidity and stability of the

²⁸¹ In particular, the credit downgrading on September 15, 2008 alone, resulted in the need for an additional \$20 billion. As Standard & Poor's explained, "The main reason for the rating actions [in respect of AIG] is the combination of reduced flexibility in meeting additional collateral needs and concerns over increasing residential mortgage-related losses." See S&P Downgrades AIG, Citing 'Reduced Flexibility', the Wall Street Journal, [Accessed on September 2, 2016], September 15, 2008, available at: <https://blogs.wsj.com/wallstreetcrisis/2008/09/15/sp-downgrades-aig-citing-reduced-flexibility/>

²⁸² Also, all drawdowns under the facility were to be collateralized by all assets of AIG and of its primary non-regulated subsidiaries. AIG had also agreed to an initial gross commitment fee equal to 2% of the aggregate amount available, or \$1.7 billion and 3-month LIBOR plus 8.5% interest on all drawdowns utilized. The agreement also obligated AIG to pay an ongoing commitment fee each quarter equal to 8.5% of the average undrawn amount available. The FRBNY representatives would attend all AIG board meetings as observers and carry out on-site monitoring of AIG's funding, cash flows, use of proceeds and progress in a global divestiture plan. See Report Pursuant to Section 129 of the Emergency Economic Stabilization Act of 2008: *Securities Borrowing Facility for American International Group, Inc.*, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/monetarypolicy/files/129aigsecborrowfacility.pdf>

²⁸³ In addition, the terms of the facility, among other things, required AIG and its board to work in good faith with the Trust to ensure satisfactory corporate governance arrangements and prohibited AIG from issuing capital stock without the approval of the trust. The FRBNY also obtained the power to appoint and remove (with the Treasury's consent) the trustees, which were in turn obliged to, while exercising their discretion, maximize AIG's ability to repay all amounts owed to the FRBNY and/or the Treasury. Finally, the Treasury was entitled to veto payment of dividends to common and preferred shareholders. See Board of Governors of the Federal Reserve System, Report Pursuant to Section 129 of the Emergency Economic Stabilization Act of 2008: Secured Credit Facility Authorized for American International Group, Inc. on September 16, 2008, September 16, 2008, [Accessed on September 14, 2016], available at: <https://fraser.stlouisfed.org/title/reports-pursuant-section-129-emergency-economic-stabilization-act-2008-5295/secured-credit-facility-authorized-american-international-group-inc-september-16-2008-533970>

²⁸⁴ See Board of Governors of the Federal Reserve System, Press Release: Board authorizes Federal Reserve Bank of New York to borrow securities from certain regulated U.S. insurance subsidiaries of AIG, October 8, 2008, [Accessed on September 14, 2016], available at: <https://www.federalreserve.gov/newsevents/pressreleases/other20081008a.htm>

financial system.²⁸⁵ While the TARP was primarily intended to enable the Treasury to purchase or guarantee trouble assets, the aid to the financial sector took also the form of equity investments.²⁸⁶ In particular, the TARP authorized the Treasury to purchase up to \$250 billion of senior preferred shares from qualifying US financial institutions. Three capital injection programmes were created to help stabilizing the financial sector, namely the Capital Purchase Program – providing capital injections worth approx. \$205 billion to 707 banks of all sizes throughout the nation,²⁸⁷ the Targeted Investment Program, whereunder the Treasury invested \$20 billion in each of Citigroup and Bank of America by purchasing their preferred shares,²⁸⁸ and the Significant Failing Institutions Program.²⁸⁹ The last-mentioned programme was created

²⁸⁵ The TARP was established under the Emergency Economic Stabilization Act of 2008, adopted on October 3, 2008. For details see U.S. Department of the Treasury, Office of Financial Stability, *Troubled Asset Relief Program (TARP): Two Year Retrospective*, October 2010, [Accessed on September 14, 2016], available at: www.treasury.gov

²⁸⁶ However, Citigroup and Bank of America were also benefited from the Asset Guarantee Program announced along with the equity investments program. Under the Asset Guarantee Program, the US government agreed to share losses with respect to a pool of \$301 billion in assets of Citigroup. Under the agreement, the assets remained on Citigroup's books but were ring-fenced with Citigroup absorbing the first \$39.5 billion losses and the FRBNY, the Treasury and the FDIC sharing any additional losses with Citigroup in 9:1 ratio. In exchange for the guarantee, Citigroup issued additional preferred shares worth approx. \$7 billion to the Treasury and the FDIC and, to Treasury, and a warrant for purchase of Citigroup's common shares to the Treasury. While the US government agreed to the terms of a similar program with Bank of America with respect to a pool of \$118 billion of assets, the program was never materialized and on September 21, 2009, the bank announced that it had reached an agreement with the regulators to pay a \$425 million fee to terminate the term sheet. For details see U.S. Department of the Treasury, Office of Financial Stability, *Asset Guarantee Program*, [Accessed on September 14, 2016], available at: <https://www.treasury.gov/initiatives/financial-stability/TARP-Programs/bank-investment-programs/agp/Pages/contracts.aspx>

²⁸⁷ The senior preferred shares paid cumulative dividends at a rate of 5% p. a. until the fifth anniversary of the date of the purchase and thereafter at a rate of 9% p.a. The shares were nonvoting except for consents to make changes affecting the shares and the right to elect two directors if dividends are not paid for six quarters and contained a dividend stopper in respect to common shares. Moreover, institutions were not permitted to increase their common stock dividends or buy back their common or junior or pari passu preferred shares for a period of three years unless the preferred shares were redeemed, or the Treasury transferred the shares to a third party prior to the increase or buy back. Quite unusually, the Treasury was given the right to unilaterally amend the terms of the securities purchase agreements to account for later changes made through legislation. In order to ensure that the taxpayers would share any upside of the government aid, the program also required the participating institutions to issue 10-year warrants for purchase of common stocks with a value of about 15% of the Treasury's initial investment exercisable for the common shares market price at the date of the investment, which the Treasury consented not to vote. For details see U.S. Department of the Treasury, Office of Financial Stability, *Capital Purchase Program*, [Accessed on September 14, 2016], available at: <https://www.treasury.gov/initiatives/financial-stability/TARP-Programs/bank-investment-programs/cap/Pages/default.aspx>

²⁸⁸ The preferred shares paid cumulative quarterly dividends of 8% p.a. and were redeemable in stock or cash with the consent of the Treasury. The beneficiaries were not allowed to pay dividends on their common shares exceeding 0.1 per share per quarter for three years. While the preferred shares carried no voting rights (with the exception of major transactions such as mergers or asset disposals or share issues), they entitled the Treasury to elect two board members. . For details see U.S. Department of the Treasury, Office of Financial Stability, *Targeted Investment Program*, [Accessed on September 14, 2016], available at: <https://www.treasury.gov/initiatives/financial-stability/TARP-Programs/bank-investment-programs/tip/Pages/default.aspx>

²⁸⁹ The three programmes had drained the largest portion of the TARP funds. See Congressional Oversight Panel, *January Oversight Report: Exiting TARP and Unwinding Its Impact on the Financial Markets*, January 13, 2010, at p. 20 [Accessed on September 14, 2016], available at: <https://fraser.stlouisfed.org/title/exiting-tarp-unwinding-impact-financial-markets-5020>

to provide capital to too-big-to-fail institutions on a case-by-case basis, but the only beneficiary was AIG. Specifically, the Treasury purchased \$40 billion worth of AIG's preferred stock in exchange for cash AIG was required to use to cover a \$25 billion credit balance at the Fed.²⁹⁰ The restructuring also contemplated modifications to the terms of the initial aid from the Fed, including a reduction in interest rates and the creation of two new SPV's, Maiden Lane II LLC and Maiden Lane III LLC for the sole purpose of purchasing assets from AIG's subsidiaries and counterparties.²⁹¹ In particular, Maiden Lane II LLC was funded with a \$19.5 billion credit line from the FRBNY collateralized by the Maiden Lane II LLC assets. The proceeds from the assets held by Maiden Lane II LLC were to be used to buy-back the \$37.8 billion worth securities the FRBNY had borrowed from AIG for cash collateral.²⁹² Maiden Lane III LLC was to purchase multi-sector CDOs, which AIG had written CDS credit protection on in return for the counterparties agreeing to terminate the CDS contracts with AIG. It was funded with a \$24.3 billion credit line from the FRBNY collateralized by the Maiden Lane III LLC assets and a \$5 billion equity contribution from AIG.²⁹³

On June 30, 2009, the AIG's shareholder meeting approved a reverse stock split at a ratio of twenty-to-one on June 30, 2009, a move which made almost five billion, or 79.9% of AIG's authorized common shares available for future issuances.²⁹⁴ This enabled the

²⁹⁰ See Board of Governors of the Federal Reserve System, *Regulatory Reform, American International Group (AIG), Maiden Lane II and III*, Transaction Data, December 1, 2010, [Accessed on September 14, 2016], available at: <https://www.federalreserve.gov/regreform/reform-aig.htm>

²⁹¹ On the other hand, the new terms required the shares to (i) qualify as Tier 1 capital and rank senior to common stock (ii) be callable at par after three years, (iii) pay a cumulative dividend rate of 5% p.a. for the first five years and a rate of 9% p.a. after year five, (iv) entitle to receive warrants to purchase common stock with an aggregate market price equal to 15% of the senior preferred investment. Moreover, AIG had ensure, among other things, that (i) incentive compensation for senior executives does not encourage unnecessary and excessive risks that threaten the value of the financial institution, (ii) any bonus or incentive compensation paid to a senior executive based on statements of earnings, gains can be clawed-back (iii) no golden parachute are granted, and (iv) not to gross-up executive compensation in excess of \$500,000 per senior executive. For further details see U.S. Department of the Treasury, *Press release: Treasury Announces TARP Capital Purchase Program Description*, October 14, 2008, [Accessed on September 14, 2016], available at: <https://www.treasury.gov/press-center/press-releases/Documents/document5hp1207.pdf>

²⁹² *Id.* at p. 38.

²⁹³ After AIG and the FRBNY executed the agreement, AIG began seeking concessions to unwind and terminate the CDS that were causing many of AIG's liquidity issues, yet these attempts were largely unsuccessful. As a result, the FRBNY representatives "negotiated" a deal with AIG's counterparties that involved 100% par, plus the releases in exchange for termination of those CDS. In this way, the FRBNY was able to assure that the major financial institutions would be made whole and would not suffer any losses from their transactions with AIG. See: *Starr Int'l Co. v. United States*, 121 Fed. Cl. 428, 430–31 (2015).

²⁹⁴ The government later argued that the move was to prevent AIG's delisting from the New York Stock Exchange. On October 14, 2008, the NYSE sent a letter to AIG warning that it was at risk of being delisted. Since the beginning of 2009, AIG's common shares were occasionally closing below one dollar per share, i.e. the minimum required by the New York Stock Exchange Listing Rules.

Treasury's trust to convert all the preferred shares it held into common shares with voting rights, which it did in 2011.

The restructuring of the original facility, and in particular, the incorporation of Maiden Lane II LLC and Maiden Lane III LLC by the Fed brings forth again the question of whether the Fed exceeded its Section 13(3) of the Federal Reserve Act authority when purchasing AIG's assets. Both, the initial facility from the Fed and the subsequent incorporation of the two SPV's that would purchase assets from AIG, or its counterparties proved to be very controversial. First, while the original facility clearly constituted lending and not asset purchases, which the Fed had the power to do under Section 13(3) of the Federal Reserve Act, the unorthodox feature of the transaction was the consideration in the form of AIG's equity. Second, the incorporation of the two SPV's was arguably just a window dressing trying to cover the true nature of the transactions, i.e. asset purchases. Indeed, the Fed's actions in respect of both Bear Stearns and AIG look indistinguishable from the Treasury's troubled asset purchases under the TARP.

Interestingly, in November 2011, one of AIG's largest shareholders, Starr International Co., Inc. ("**Starr**"), filed a suit alleging that the FRBNY's acquisition of AIG's equity in exchange for provision of the loan and the subsequent actions relating to the reverse stock split leading to dilution of shareholders' ownership and voting rights were unlawful.²⁹⁵ According to Starr, the Fed's demand for AIG's 79.9% equity amounted to illegal taking because the Federal Reserve Act did not allow the Fed to take equity in a private company as a consideration for a loan and that even if it allowed, Starr should be afforded just compensation. Starr also contended that the Treasury, having been aware that an increase in the total amount of authorized AIG common shares would not pass a separate common shareholder vote, engineered the reverse stock split to guarantee there was sufficient amount of authorized unissued common shares to enable the government to exchange its preferred shares for common shares without a separate class vote of the common shareholders.

The government addressed the contentions by stressing that even though Section 13(3) of the Federal Reserve Act did not authorize the Fed to acquire a borrower's equity as consideration for a loan, Section 4 thereof empowered the Fed to exercise "*all powers specifically granted by the provisions of this chapter and **such incidental powers as shall be necessary to carry on the business of banking** within the limitations prescribed by this chapter [...]*"²⁹⁶ In other words, the government argued that taking equity as a consideration

²⁹⁵ See *Starr Int'l Co. v. United States* (2015).

²⁹⁶ See 12 U.S.C. § 341.

for the loan to AIG was incidental to its power to secured lending under Section 13(3) of the Federal Reserve Act. In addition, the government contended that there was no illegal exaction or taking since AIG's Board voluntarily accepted the terms of the transaction. Finally, in the view of the government, the reverse share split, and additional share issue caused no economic loss to AIG's shareholders since AIG's share price had increased thereafter when compared to the share price quoted when the facility was signed in September 2008.

In sum, the litigation boiled down to the questions of whether (i) the FRBNY possessed the legal authority to acquire a borrower's equity when making a loan under Section 13(3) of the Federal Reserve Act, and (ii) there could legally be a taking without just compensation of AIG's equity under the Fifth Amendment, where AIG's Board voted on September 16, 2008 to accept the government's proposed terms.

When addressing the first contention, the court opined that while Section 13(3) of the Federal Reserve Act empowered the FRBNY to act as a lender of last resort, the section did not authorize it to acquire a borrower's equity as a consideration for the loan. In addition, taking of equity as a consideration for the loan could not be deemed incidental to the powers specifically granted to the Fed in the Federal Reserve Act since an incidental power may not in fact be of stronger nature than the power specifically granted.²⁹⁷ Although, it was common in corporate lending for a borrower to pledge assets as collateral, the 79.9% equity of AIG was to be retained by the (trust) Treasury even after the loan was repaid. Additionally, even if taking equity were within the scope Section 13(3) of the Federal Reserve Act authority, the taking of AIG's equity would still be discriminatory given that no other institution was stripped of equity in exchange for liquidity. Since other financial institutions experiencing liquidity strains were counterparties to AIG, by taking over AIG, the Treasury was able to ensure such counterparties' claims are paid.

Turning to the second query, the court also rejected the government's defense that AIG had voluntarily accepted the three terms of the transaction by pointing out that AIG was "*at the government's mercy*".²⁹⁸ While the court cited a number of cases stressing that the law was divided on whether the threat of bankruptcy represented a real board of director's choice in such circumstance, voluntary acceptance was however not a valid defense to an illegal

²⁹⁷ See *Federal Reserve Bank of Richmond v. Malloy* (1924) concluding that "[...] authority to do a specific thing carries with it by implication the power to do whatever is necessary to effectuate the thing authorized — not to do another and separate thing, since that would be, not to carry the authority granted into effect, but to add an authority beyond the terms of the grant."

²⁹⁸ See *Starr Int'l Co. v. United States*, (2015), para 435.

exaction claim.²⁹⁹ Moreover, the court reminded that federal courts had repeatedly emphasized that if the government wanted to confer a discretionary benefit (such as Section 13(3) of the Federal Reserve Act loans), it may not withhold such benefit solely because someone refuses to give up his constitutional rights as no statute should be read as subjecting citizens to the uncontrolled caprice of officials.³⁰⁰

At the same time, the creation of the trust in an attempt to circumvent the legal restriction on holding corporate equity by the Fed was, in the view of the court, a classic elevation of form over substance. Specifically, given the fact that the three appointed trustees had had lengthy historical ties to the Fed, the FRBNY was to appoint and/or remove the trustees in consultation with the Treasury and that the FRBNY in fact controlled AIG by selecting its CEO and board members and by having hundreds of on-premises advisers, prevents any conclusion to the effect that the operations of the trust were independent. As the court emphasized “[...] **there is nothing in the Federal Reserve Act or in any other federal statute that would permit a Federal Reserve Bank to take over a private corporation and run its business as if the Government were the owner.** Yet, that is precisely what FRBNY did. It is one thing for FRBNY to have made an \$85 billion loan to AIG at exorbitant interest rates under Section 13(3), but it is quite another to direct the replacement of AIG’s Chief Executive Officer, and to take control of AIG’s business operations. A Federal Reserve Bank has no right to control and run a company to whom it has made a sizable loan.”³⁰¹

Having declared the government’s actions illegal exaction under the Fifth Amendment to the US Constitution, the court then moved on to question of damages. While starting off by pointing out that common sense would suggest that the government should return to AIG’s shareholders the \$22.7 billion it had received from selling the common shares it had illegally exacted for virtually nothing, the court stressed that settled case law required to look at the property owner’s loss, not to the government’s gain as the gain to the taker may be wholly unrelated to the deprivation imposed upon the property owner. Therefore, applying the above standard, the proper question was what the value of AIG’s shares would have been if the government had done nothing. In the end, that was the Achilles’ heel of the case since the

²⁹⁹ See e.g. Compare *Swift & Courtney & Beecher Co. v. United States* (1884) stressing that “*The parties were not on equal terms [...] The only alternative was to submit to an illegal exaction or discontinue its business.*”, *Starr Int’l Co. v. Fed. Reserve Bank of N.Y.* (2012) pointing out that “*Even a choice between a rock and a hard place is still a choice.*” or *FDIC v. Linn*, (1987) emphasizing that “*Threatened bankruptcy is insufficient to create economic duress.*”

³⁰⁰ See e.g. *Koontz v. St. Johns River Water Mgmt.* (2013) and *Suwannee S.S. Co. v. United States* (1960).

³⁰¹ See *Starr Int’l Co. v. United States*, 121 Fed. Cl. 428, 430–31 (2015), para 434.

court concluded that, if not for the government's intervention, AIG would have filed for bankruptcy. Since the court concluded that if it had not been for the government's intervention, AIG would have most likely gone bankrupt where AIG's shareholders would most likely have ended up having nothing, AIG's shareholders were entitled to no damages.

The decision and in particular the reasoning seems persuasive. First, it emphasizes that the government may not expand the expressly enumerated powers by a very broad reading of law by simply pointing to a higher good. At the same time, government officials should not have unfettered discretion when setting out terms under which they would be willing to hand out discretionary benefits. Second, while the government's preferred shares demand in conjunction with the reverse stock split and their subsequent conversion into common equity diluted AIG's shareholders and strip them off their control over AIG, 20% of something was better than 100% of nothing. The concerning outcome of this ruling, however, is that it provides the government with a blank check to do whatever it wishes in respect of distressed companies, including nationalizing them, while avoiding paying any damages notwithstanding plain violations the law.³⁰² Especially in cases of system-wide financial crisis, it can almost always, be claimed that a government's action was necessary to avoid a firm's failure.

3.3.5 The Unbridled Power of the Federal Reserve System

The 2007-08 financial crisis and the measures adopted by the Fed in response thereto, is as a reminder of the critical importance of the lender of last resort role of central banks in modern times. On the other hand, if measured against the original Bagehot's principles governing the provision of central bank emergency financial assistance, the Fed's action clearly surpassed the contours of the traditional lender of last resort concept. While, the basic principles to lend freely to sound but temporarily illiquid banks at penalty rates against high-quality collateral were adhered to at the beginning of the crisis, their observance became increasingly challenging as the crisis intensified and gained a systemic dimension. To avert a collapse of the global financial system, the Fed had to resort to financial assistance of unprecedented scale and scope, which however brought about a number of challenges.

³⁰² The trial court's decision was however remanded by the appellate court on procedural grounds. In particular, the U.S. Court of Appeals for the Federal Circuit concluded that Starr and the shareholders represented by Starr lack standing to pursue the claims directly, as those claims belonged exclusively to AIG. Moreover, since the lack of standing disposed the claimants of the equity-acquisition claims, the other issues regarding the merits of those claims were rendered moot. Strangely enough, the court seems to have implied that the US government that had taken over AIG was the only one with standing to challenge the takeover. For details see *Starr International Co. v. U.S.*, Federal Circuit Court of Appeals, No. 2015-5103 (Fed. Cir. 2017).

First, by providing assistance to a broad range of non-bank institutions and later on even to entities outside the financial sector, the Fed showed its readiness to become the lender of last resort to a much wider pool of counterparties, spanning from investment banks to money market mutual funds. This, however, run the risk of significantly increasing moral hazard, exposes the central bank to large financial risks and blurs the line between fiscal and monetary policy. Specifically, while the creation of the PCDF was widely perceived as being successful in helping to meet liquidity needs of the key non-bank market participants, it entailed a message with potentially severe public policy ramifications - if things would go bad, the Fed was ready to become the lender of last resort not only to commercial banks, but also to the thin-regulated shadow banking sector it did not even supervise.

Second, the Fed in some cases provided liquidity against illiquid and risky assets. Specifically, the establishment of the CPFF was not only unconventional, as the Fed for the first time ever offered financial backstop to non-financial corporations, it was arguably also outside the scope of the Fed's most broadly defined statutory authority. Accordingly, even if the subsidy to the Bearn Stearns' sale or the creation of the CPFF were deemed to constitute lending and not asset purchases, by accepting an illiquid MBS portfolio, which investors did not want to lend against or the "credit enhancement" in the form of a 100 points fee as sufficient collateral, the Fed took on a significant credit risk. Arguably, the Bagehot's rule "to lend freely whenever the security is good" was meant to ensure that central banks are only liquidity providers and not investors of last resort taking on credit risk the private sector is not willing to take. This principle thus was clearly not observed.

Also, with the exception of credit extension to AIG, the Fed did not follow the principle that central bank emergency liquidity should be provided at penalty rates. On the other hand, it would have probably been counterproductive as many of its initiatives aimed at providing an alternative to market funding that had evaporated and charging penalty rates could have further decreased institution's willingness to borrow from the Fed given the fear of being stigmatized. Indeed, the 2007-08 financial crisis highlighted the fact that central bank lending may only be capable of addressing severe liquidity strains if utilizing central bank money is not seen as a signal of weakness. However, in the midst of a looming financial crisis, widespread doubts about counterparty liquidity and creditworthiness are by definition almost ubiquitous. Unwillingness to borrow for the fear of such stigma was also the primary reason for the creation of the TAF and the other various programmes based on auction of terms funds.

In addition, in a number of cases, the Fed did not provided liquidity to the whole financial system but rather singled out and protected individual systematically important financial firms, such as Bearn Stearns or AIG. At the same time, the inconsistent handling of major financial

institutions during the crisis, in particular, the decision not to save Lehman Brothers after having rescued Bear Stearns and before saving AIG brought about significant increase in uncertainty and panic in the markets.

When asked why so much effort and money was put into averting the collapse of Bear Stearns and AIG, while Lehman Brothers was left to fail, the Fed officials explained that the concerted government attempts to find a buyer for the company like in the case of Bear Stearns proved unavailing, and the company's available collateral fell well short of the amount needed to secure a loan under Section 13(3) of the Federal Reserve Act of sufficient size to meet its funding needs and continue its operations. Moreover, the failure of Lehman Brothers posed risk that had been well known for some time, and investors clearly recognized, as evidenced, for example, by the high cost of insuring its debt in the market for CDS that the failure of the firm was a significant possibility. Thus, investors and counterparties had had time to take precautionary measures. In contrast, in the case of AIG, the Fed judged that its financial and business assets were adequate to secure the \$85 billion line of credit, enough to avert its imminent failure. Because AIG was counterparty to many of the world's largest financial firms, a significant borrower in the commercial paper market and other public debt markets, and a provider of insurance products to tens of millions of customers, its abrupt collapse likely would have intensified the crisis. Fed officials were also skeptical that a sale process could be successfully completed for AIG, which was larger than Bear Stearns and Lehman Brothers and which would have required involvement of multiple regulatory bodies.³⁰³

While the Fed officials insisted, they had no choice but to stand by and let Lehman Brothers go under, other views emerged. First, the Fed was not able to provide any written analysis to illustrate that Lehman Brothers had lacked sufficient collateral to secure a loan under Section 13(3) of the Federal Reserve Act. Second, some members of the FOMC expressly stated that the government should not have prevented the investment bank's failure because doing so would only strengthen the perception that some firms were too big to fail and erode market discipline. Letting Lehman Brothers fail was the only way to provide credibility to the assertion that no firm was too big to fail.³⁰⁴ While it is true that the potential bidders all questioned accuracy of the investment bank's financial reports, nobody, including Fed officials, was probably able to properly assess value of the institution's assets in the midst

³⁰³ See Bernanke S. Ben, *Remarks before the Committee on Banking, Housing, and Urban Affairs*, U.S. Senate, September 23, 2008, [Accessed on September 20, 2016], available at: <http://www.federalreserve.gov/newsevents/testimony/bernanke20080923a1.htm>

³⁰⁴ See Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States, January 2011, U.S. Government Printing Office, Washington D.C., ISBN: 978-0-16-087983-8, at. p. 341.

of the most severe crisis of our times. Neither the markets nor the government officials could decisively conclude whether Lehman Brothers was illiquid or insolvent.

Although the Fed had reasons to question the value of the investment bank's assets pledgeable for secured lending under Section 13(3) of the Federal Reserve Act, the previous loans extended to Bear Stearns seem to prove that it would have been within the Fed's discretion to lend against such assets. Indeed this seems even more true when compared with the subsequent establishment of the CPFF, where under the Fed provided liquidity on a *de facto* unsecured basis, i.e. for a 100-basis points fee. As a result, three important points can be made. First, the Bagehot's principle that central banks should only provide liquidity to solvent, but illiquid firms, may as a practical matter be hard to observe in the midst of a severe crisis. Distinguishing between insolvency and illiquidity boils down to asset valuation as bank's assets might be worth much less if sold during a financial turmoil with frozen markets and scarce liquidity. Moreover, for many structured finance products, such as CDOs or CDSs, there was *de facto* no price discovery, which made it even harder to properly accurately assess financial health of many institutions, including, Bear Stearns, Lehman Brothers or AIG.

Second, while central banks should be having enough discretion to provide lending to institutions, solvency of which might be questionable, they should do so in a predictable and non-discriminatory manner. Specifically, while one could express doubts about legality of the various lending facilities established by the Fed during the 2007-08 financial crisis, the decision to let Lehman Brothers fail, while bailing out other Wall Street firms, seems to be the most controversial one. Arguably, the Fed could have anticipated what was going to ensue from the failure of a firm with over 8,000 subsidiaries and affiliates, over \$700 billion in assets and hundreds of thousands counterparties. The fact that the Fed provided Goldman Sachs and Morgan Stanley with unlimited access to liquidity by granting them bank holding company licenses less than a week thereafter, suggest that the Fed indeed afforded some financial firms with better treatment than others.

Finally, in respect of *ex ante* uncertainty about whether liquidity would be provided, the crisis casted doubts on the widely held view that constructive ambiguity can contain moral hazard. It did not prevent the buildup of massive tail risk in the run-up to the financial crisis. Second, the turmoil following the Fed's decision to let Lehman Brothers fail, shows that expressing readiness to withhold emergency assistance to a major financial institution in the midst of a crisis can lead to a serious erosion of confidence overshadowing any potential benefits stemming from containment of moral hazard. Accordingly, the refusal by the Fed to provide liquidity assistance to Lehman Brothers seems to have been a wrong policy decision and consequently, Lehman Brothers should have been saved, even though it is most likely

that the crisis would have still unfolded given the looming problems of other financial firms, most notably of AIG.

3.4 The European Central Bank as Investor of Last Resort

In order to properly assess measures taken by the ECB in response to the 2007-8 financial crisis, it is worth first going over the original design, and historical context in which the European and Monetary Union (the “**EMU**”) was established.

The initial steps towards the creation of the EMU and the ECB begun as early as in 1988 when a committee chaired by Jacques Delors, President of the European Commission laid out three concrete stages leading towards the EMU.³⁰⁵ The first stage focused on completing the internal market, reducing disparities between Member States’ economic policies, removing all obstacles to financial integration and intensifying monetary cooperation. Once completed, the next stage served as a transition period to set up bodies and organizational structure of the EMU and to strengthen economic convergence before entering the final stage. The third and final stage of the EMU was to be a period of irrevocably locked currency exchange rates with assignment of full monetary and economic responsibilities to the EU (Communities) institutions.³⁰⁶

Importantly, entering the second and third stage of the EMU called for changes to the then existing institutional framework of the EU. The necessary adjustments came along with the Treaty on the European Union of 1993, often referred to as the Maastricht Treaty, which besides establishing the EU also laid down the foundations for the EMU, including a method and timeline for its realization.³⁰⁷ The Maastricht Treaty in particular provided for the Statute of the European System of Central Banks and of the European Central Bank (the “**ESCB Statute**”) and the Statute of the European Monetary Institute.³⁰⁸

³⁰⁵ Some argue that the EMU begun to be shaped even earlier, in particular with the European Commission document known as the Marjolin Memorandum published in 1962, which initiated the first discussion on monetary integration at the Community level and prompted the first, albeit very limited, measures in the field of monetary cooperation. See Hanspeter K. Scheller, *The European Central Bank, History, Role and Functions*, Second Revised Edition, 2006, ISBN 92-899-0027-9, at p. 15.

³⁰⁶ See Hanspeter K. Scheller, *The European Central Bank, History, Role and Functions*, Second Revised Edition, 2006, ISBN 92-899-0027-9, at p. 22.

³⁰⁷ See Treaty on European Union (OJ C 191, 29.7.1992, pp. 1-112).

³⁰⁸ These statutes were attached to the Treaty establishing the European Community, often referred to as the Treaty of Rome, as its protocols (the “**EC Treaty**”).

The creation of the European Monetary Institute in 1994 marked the beginning of the second stage of the EMU. The institute was a quasi-federative monetary body and forerunner of the ECB tasked to carry out preparations for the third stage, primarily for the conduct of single monetary policy by the ECB and for creation of the single currency.³⁰⁹ On June 1, 1998, the ECB took over the European Monetary Institute's infrastructure and became the only central bank in the world carrying out monetary policy tasks for more than one sovereign.³¹⁰ The third stage of the EMU was marked on January 1, 1999 when eleven Member States fulfilled, the so-called Maastricht criteria necessary for adoption of the single currency.³¹¹

Equally importantly, since many argued that functioning monetary union could not be created without parallel adequate fiscal coordination or control, the Council introduced the Stability and Growth Pact in June 1997 with the aim of ensuring budgetary discipline within the EMU.³¹² In contrast to the single monetary policy however, neither the Stability and Growth Pact, nor the Maastricht Treaty or the EC Treaty contemplated creation of a single fiscal policy. Having been aware that significant divergence in fiscal policies and in particular excessive public deficits could threaten the existence of the EMU, the Maastricht Treaty introduced some important safeguards, the most notable of which were the explicit prohibition of any Member State, or the EU itself, from being liable for, assuming, or guaranteeing debt of other Member States, the so-called "no bailout clause" and of monetizing Member States' public deficits by the ECB.³¹³ In addition, the treaties stipulated that Member States shall avoid excessive government deficits and shall coordinate their economic policies within the Council.³¹⁴ The Stability and Growth Pact was to help implement the above-described fiscal rules by excessive

³⁰⁹ Unlike the Committee of Governors before, the institute had legal personality. Its main focus was to establish the European System of Central Banks, including the ECB and the new currency. However, the conduct of monetary and exchange rate policy in the European Union remained within the purview of national authorities.

³¹⁰ See Hanspeter K. Scheller, *The European Central Bank, History, Role and Functions*, Second Revised Edition, 2006, ISBN 92-899-0027, at p. 23.

³¹¹ I.e. Belgium, Germany, Spain, France, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal and Finland. Also, Denmark and the United Kingdom opted out from the third stage of the EMU, and Greece and Sweden were not deemed to have met the conditions for adopting the single currency. The criteria are currently provided for in Art. 140 TFEU by way of setting macroeconomic targets to be achieved by the Member States, in particular, (i) price stability, (ii) sound public finances (both a short and long term) (iii) exchange-rate stability, and (iv) long-term interest rates.

³¹² See e.g. Jonung, Eoin Drea, *The euro: It can't happen, It's a bad idea, It won't last. US economists on the EMU, 1989-2002*, European Economy - Economic Papers 2008 - 201, Directorate General Economic and Financial Affairs, European Commission, 2009, 20 [Accessed on September 2, 2016], available at: https://www.researchgate.net/publication/46447646_The_euro_It_can%27t_happen_It%27s_a_bad_idea_It_won%27t_last_US_economists_on_the_EMU_1989-2002

³¹³ See Arts. 103 and 101 of the EC Treaty.

³¹⁴ See Arts. 104 and 99 of the EC Treaty.

deficits by requiring each Member State to implement a fiscal policy aiming for the country's government deficit and public debt not to surpass 3% and 60% of GDP, respectively. Second, the "corrective arm" of the pact took the form of the excessive deficit procedure to encourage governments to quickly correct non-compliance with the limits through a sequence of graduated steps involving tighter surveillance and ultimately sanctions.³¹⁵ Even though the fiscal discipline was clearly an important element of the EMU from the outset, it was a matter of only coordination and not a very successful one.³¹⁶ Indeed, the sovereign debt crisis in the Eurozone was the most notable symptom of failures and deficiencies in fiscal policy coordination. While the 2007 Treaty of Lisbon brought about prominent changes in to both the EC Treaty and the Maastricht Treaty, in the updated form known as the Treaty on European Union ("TEU") and the TFEU, respectively, it did not alter either the setup of the EMU or the powers and restraints of the Eurosystem, in particular, the "no bailout" clause and prohibition of monetary financing provided for in Arts. 123 and 125 TFEU, respectively.³¹⁷

Exclusive competence in the field of monetary policy is conferred on the European System of Central Banks ("**ESCB**") or shortly Eurosystem, which comprises of the ECB and the national central banks of the Member States whose currency is the euro.³¹⁸ In contrast, the ECB together with the national central banks of all Member States constitute the ESCB. The primary objective of the ESCB is to maintain price stability and without prejudice thereto also to support the general economic policies in the EU.³¹⁹ Specifically, price stability is defined

³¹⁵ The problem in particular was that the corrective arm had a weak enforcement provisions. First, the EC was the institution initiating proceedings, so there was always a risk of negative stance or incentive to water-down the proceedings by the Commissioners from the states with weak public finances. Second, a qualified majority was then required in the ECOFIN Council in order to approve further procedural steps and Member States subject to the proceedings retained the right to vote and needed only a few additional other Member States to block the steps. The subsequent reforms in 2003-05 and 2010-11 did not result in any significant improvement, which reflected the Member States' unwillingness to give up the necessary degree of sovereignty in their respective fiscal policies. See Ludger Schuknecht, Philippe Moutot, Philipp Rother and Jürgen Stark, *The Stability and Growth Pact Crisis and Reform*, Occasional Paper Series No 129, September 2011, at p. 10 available at: <http://www.ecb.europa.eu>

³¹⁶ The inception of EMU in the early 1990s followed a period characterized by buoyant public expenditure, chronic budget deficits and rapidly rising public debt ratios in many of the future euro area countries. By 1991, public debt averaged almost 60% of GDP in the first twelve-euro area countries, approaching or exceeding 100% of GDP in three of them. By 1998 and 2010 seven and twelve out of the first twelve-euro area countries, respectively, were in breach of the limit on overall public debt. See Ludger Schuknecht, Philippe Moutot, Philipp Rother and Jürgen Stark, *The Stability and Growth Pact Crisis and Reform*, Occasional Paper Series No 129, September 2011, at p. 19 available at: <http://www.ecb.europa.eu>

³¹⁷ The only change was that the ECB gained the official status of being an EU institution. See Art. 13 TEU.

³¹⁸ See Art. 282 TFEU.

³¹⁹ Notwithstanding the fact that the article, as well as many other provisions in the treaties refer to the ESCB, Art. 139(2) TFEU makes them inapplicable only to "Member States with a derogation", i.e. those who are not part of the Eurosystem. Also, while the treaties confer various tasks on the ESCB and Eurosystem, they are both organization structures that have neither legal personality nor any competence.

through an inflation target of below, but close to, 2 % over the medium term.³²⁰ By setting key policy rates, the ECB directly influence short-term interest rates in the money market, which financial markets transmit along the maturity spectrum, since term rates reflect current and expected future short-term rates as well as risk premia. These rates, in turn, affect the costs of funding for households, corporations and governments. The resulting financing conditions affect economic activity and, in the end, price level. Prior to the 2007-08 financial crisis, the ECB used three regular channels to conduct its monetary policy, namely, open market operations, standing facilities and minimum reserve requirements. All three channels aim to manage the amount of liquidity provided to the banking system by steering short-term interest rates and transmitting them into the real economy.

While the ECB's legal mandate is narrowly defined, Art. 282 TFEU empowers the ECB to adopt any measure necessary to carry out its tasks subject to the conditions laid down in the ESCB Statute. In this respect, the ECB has three decision-making bodies, namely the Executive Board,³²¹ the Governing Council,³²² and the General Council.³²³ However, only the two former may adopt decisions of behalf of the ECB that produce legal effects *vis-à-vis* third parties.³²⁴ The Governing Council in particular formulates ECB's monetary policy through regulations, guidelines and decisions, most notably by setting interest rates, with the Executive Board being responsible for implementation of the adopted monetary policy, either itself or through the national central banks through instructions and guidelines.³²⁵ However, save for this exception, neither the ECB, nor any national central bank or any member of their decision-making bodies shall seek or take instructions from EU's institutions or bodies, from any government of a Member State or from any other body.³²⁶

³²⁰ The inflation target was defined by the ECB in 2003 and has not changed since.

³²¹ It comprises of the President, the Vice-President and four other members. See Art. 44 of the ESCB Statute.

³²² It comprises of members of the Executive Board and the governors of the NCBs of the Member States whose currency is the euro. See Art. 283(1) TFEU.

³²³ It comprises of members of the Executive Board and the governors of all EU NCBs and ensures an institutional link between the Eurosystem and the NCBs of the non-euro area Member States. The tasks of the General Council are rather limited and focus primarily on advising non-Eurozone countries on preparations to enter the third stage of the EMU. See Art. 283(2) TFEU.

³²⁴ See Art. 129(1) TFEU and Arts. 9 and 45 of the ESCB Statute.

³²⁵ The Governing Council may also choose to authorize the Executive Board to a direct action in lieu of the national central banks. See Art. 12(1) of the ESCB Statute.

³²⁶ In this respect it is important to distinguish roles conferred on national central banks by national laws such as financial supervision, consumer protection, resolution, or deposit guarantee protection in case of which safeguards provided for in Art. 130 TFEU and Art. 7 of the ESCB Statute do not apply. However performance of such functions may not interfere with the objectives and tasks of the ESCB. See Art. 14(4) of the ESCB Statute.

While, the decentralized quasi-federative design resembles the structure of the Federal Reserve System, which also sets monetary policy centrally but implements it through district banks with greater geographical proximity and knowledge of local affairs, the legal mandate of the ECB is much more narrowly defined when compared with the Fed. In particular, the so-called dual mandate makes price stability and maximum employment the Fed's main monetary policy objectives.³²⁷ As a result, unlike the ECB, the Fed is not prohibited from monetary financing and may act as a lender of last resort to the US government.

3.4.1 The Financial Crisis Phase

Traditionally, the ECB's primary channel through which it implemented its monetary policy was a collateralized reverse purchase transactions in the open market, in which banks received funds in exchange for high quality collateral for an agreed time, mostly one week. As a response to the 2007-8 financial crisis, the ECB first adjusted the then existing channels, primarily by extending the list of eligible collateral for its refinancing operations and by stretching out their maturities. However, as the crisis intensified in late 2008 and early 2009, it started employing also less-conventional channels for its monetary policy implementation, such as asset purchases. Contrary to the Fed, which had to introduce a variety of collateralized lending facilities to get central bank credit to broad types of financial intermediaries, the ECB's operational and collateral framework prior to the crisis offered more flexibility, so the ECB need not introduce new facilities or programmes. Namely, wide range of institutions, small savings banks and co-operative banks, as well as investment banks with a limited deposit base, could access the ECB's liquidity directly by pledging a wide range of collateral even before the crisis. Also, in contrast with the Fed, which injected liquidity into the financial system primarily via outright securities purchases, the ECB's primary liquidity providing tool was short-term refinancing operations, or in other words, repos. This is also the reason why the Fed's numerous securities purchase programmes dwarfed similar initiatives from the ECB. The structural differences in the European financial system, in particular the fragmentation of the euro area sovereign bond market, lack of deep and liquid capital markets and much greater reliance of the private sector on bank funding was the main reason for the profound differences

³²⁷ In particular, the 1977 amendment to the Federal Reserve Act mandated the Fed and the FOMC to "maintain long run growth of the monetary and credit aggregates commensurate with the economy's long run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices and moderate long-term interest rates." See Section 2A of the Federal Reserve Act.

between in responses on both sides of the Atlantic.³²⁸ Accordingly, the ECB focused its efforts almost entirely on the banking sector.

At the beginning, the ECB responded with two more conventional central bank measures, namely increasing availability of overnight funds and main policy interest rates cuts. While the massive injection of overnight funds into the market in reaction to the BNP announcement addressed the sudden increase in short-term money market rates, tensions continued to be observed at longer maturities. Therefore, the ECB took also a number of other less conventional measures to support the flow of credit beyond what interest rate cuts could have achieved.³²⁹ The ECB itself referred to these non-standard policies as the “enhanced credit support”.³³⁰ Some of them, such as the introduction of three months supplementary longer-term refinancing operations were announced within days or weeks after the BNP announcement.³³¹ However, when the crisis intensified in September 2008, and interbank lending came to a virtual halt, the ECB started providing refinancing well above the levels that banks had absorbed to fulfil their reserve requirements in normal times. In particular, the support was built upon the following “building blocks”.

First, the ECB introduced a “fixed rate full allotment” tender procedure for its refinancing operations and significantly expanded their maturities, which provided eligible euro area financial institutions with unlimited access to credit at the ECB’s main refinancing rate and maturities of, initially, up to six, and later also twelve and thirty-six months.³³² This was an exceptional move compared to the standard auction process, which limits the amount of central bank credit and let competition between the bidding institutions determine the interest rate. In

³²⁸ On average, bank financing in the euro area accounted for roughly 70% of firm’s total external financing in contrast with the US where market financing made up about 80% of total external financing in the years before the crisis. See Trichet Jean-Claude, *The ECB’s enhanced credit support*, Keynote speech at the University of Munich, July 13, 2009, [Accessed on May 1, 2018], available at: <https://www.ecb.europa.eu/press/key/date/2009/html/sp090713.en.html>

³²⁹ Between October 2008 and May 2009, the ECB lowered its main policy interest rate, the rate on the main refinancing operations, by 325 basis points. The September 2009’ rate of 1% was the lowest since the launch of the euro in 1999 and reflected the deflationary pressures unfolding since the summer of 2008. See Tumpel-Gugerell, *The European response to the financial crisis*, Speech at Bank of New York Mellon Headquarter, New York, October 16, 2009, [Accessed on May 1, 2018], available at: https://www.ecb.europa.eu/press/key/date/2009/html/sp091016_1.en.html

³³⁰ See Trichet Jean-Claude, *The ECB’s enhanced credit support*, Keynote speech at the University of Munich, July 13, 2009, [Accessed on May 1, 2018], available at: <https://www.ecb.europa.eu/press/key/date/2009/html/sp090713.en.html>

³³¹ See European Central Bank, *Press Release: Supplementary longer-term refinancing operation*, August 22, 2007, [Accessed on May 1, 2018], available at: <https://www.ecb.europa.eu/press/pr/date/2007/html/pr070822.en.html>

³³² See European Central bank, *Press Release: ECB announces measures to support bank lending and money market activity*, December 8, 2011, [Accessed on May 1, 2018], available at: https://www.ecb.europa.eu/press/pr/date/2011/html/pr11208_1.en.html

practice, this unconventional setup meant that the ECB surrogated the market in both credit intermediation and price-setting.

Second, the list of assets eligible as collateral in refinancing operations was significantly expanded. It follows from the fact that in general, the larger the volume of central bank repo operations relative to the size of the domestic government bond market, the greater the need to expand the eligibility of collateral to private sector securities or other assets to inject more liquidity into the financial system.³³³ Since the ECB fulfilled its mandate primarily by temporary repo-operations, its efforts to address the liquidity strains in the financial system were directed mainly towards stretching out maturities and volumes of its liquidity-providing operations and loosening collateral policy by accepting also less-liquid or temporary illiquid assets, especially ABS.³³⁴

The first two building blocks offered unlimited funding against a wide range of collateral, but it was also important that the funding was available to a large number of counterparties. This number, however, was high even before the financial crisis when compared to other major central banks and in particular the Fed, which conducted its open market operations with only a narrow group of the primary dealers. Moreover, the ECB also decided to add the European Investment Bank on the list of eligible counterparties to monetary policy operations to facilitate the accommodation of additional demand for the European Investment Bank's lending programmes.³³⁵

Third, in May 2009, the ECB went a step beyond trying to alleviate strains in wholesale interbank markets via temporary operations by announcing the Covered Bond Purchase

³³³ The ratio of repo operations to the size of the US government bond market of 1:200 was much lower before to the crisis as compared to the ECB ratio of 1:10, which meant that the ECB were much likely to significantly loose collateral standards in order to expand its balance sheet. Another factor with impact on the Eurosystem collateral framework was the fact that the European financial system is much more bank-based and capital markets are much less developed as oppose to the US. See Cheun, Samuel, von Köppen-Mertes, Isabel, Weller, Benedict, *The collateral frameworks of the Eurosystem, the Federal Reserve System and the Bank of England and the financial market turmoil*, European Central Bank, Occasional Paper Series 107, December 2009, at p. 11, [Accessed on May 1, 2018], available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1325248

³³⁴ The expansion related to bank bonds traded on accepted non-regulated markets, subordinated debt instruments when protected by an acceptable guarantee, securities with a credit rating threshold lowered from A- to BBB-, except for ABSs, and foreign-exchange denominated collateral (yen, pound sterling, US dollar) which fulfil all the other normal eligibility criteria. In total, as a result of the measures, the increase in collateral amounted to €870 billion at the end of 2008. See Cheun, Samuel, von Köppen-Mertes, Isabel, Weller, Benedict, *The collateral frameworks of the Eurosystem, the Federal Reserve System and the Bank of England and the financial market turmoil*, European Central Bank, Occasional Paper Series 107, December 2009, at p. 3, [Accessed on May 1, 2018], available at:

³³⁵ See Trichet Jean-Claude, *The financial crisis and the response of the ECB*, Speech at the Ceremony conferring the honorary title of Doctor Honoris Causa at the University of National and World Economy, Bulgaria Sofia June 12, 2009, [Accessed on May 1, 2018], available at: <https://www.ecb.europa.eu/press/key/date/2009/html/sp090713.en.html>

Programme. Specifically, the programme concerned outright purchases of eligible covered bonds with a targeted nominal amount of €60 billion and aimed at directly improving functioning and liquidity of the covered bond market, an important source of funding for EU banks.³³⁶

3.4.2 The Sovereign Debt Crisis Phase

While forms differed, initial responses to the 2007-08 financial crisis were largely similar on both sides of the Atlantic. The “second phase” of the crisis on the other hand took a unique form in Europe and propelled the ECB to shift its response. Although the enhanced credit support fostered a considerable improvement in market liquidity and helped to alleviate funding risks, it was not capable of addressing the rising tension in a number of segments of the euro area’s debt securities markets.

At the same time, the announcement by the Member States of an agreement on measures intended to preserve financial stability in Europe, including the creation of the European Financial Stability mechanism (the “**EFSM**”) with a combined lending capacity of up to €500 billion on May 9, 2010 was not seen as capable to dispense concerns about the possible default of Greece, but also of other southern European countries, most notably Italy.³³⁷ First, implementation of the measures and provision of the assistance would in the best-case scenario take a few months, which some Member States might not have been able to wait given the sharply rising yields on their debt. Second, while the EFSM could address crises in smaller Member States such as Ireland or Portugal, its lending capacity was widely perceived as insufficient for larger Member States such as Italy or Spain.³³⁸

Therefore, on May 10, 2010, the ECB announced its willingness to intervene in the euro area’s public and private debt securities markets to tackle the excessive spreads between ten-year government bonds of Germany and other Eurozone countries. With serious doubts about Greek’s solvency, the ECB first introduced the SMP and later on the OMT. The ECB in particular argued that it was necessary to ensure proper functioning of the market for

³³⁶ The programme ended in June 2010. See Decision ECB/2009/16 of 2 July 2009 on the implementation of the covered bond purchase programme, [Accessed on May 1, 2018], available at: [https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32009D0016\(01\)&from=HR](https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32009D0016(01)&from=HR)

³³⁷ See Council of the European Union, Press Release: Extraordinary Council meeting Economic and Financial Affairs, Brussels, May 9, 2010, [Accessed on May 1, 2015], available at: https://ec.europa.eu/commission/presscorner/detail/en/PRES_10_108

³³⁸ For details, see Chapter 4.

government bonds because of its importance to the ECB's monetary policy.³³⁹ Specifically, the price of government bonds influence financing conditions within the economy by setting a floor for funding conditions in the private sector. Also, rising government bond yields would signal the markets' concern about the sustainability of fiscal policy of a particular state. Weak fiscal discipline and rising credit risk is then reflected in higher costs of borrowing of the government concerned compared to the benchmark, such as the German bunds of the US Treasuries. Second, government bonds are the primary collateral used in the secured interbank market in the Eurozone but also elsewhere. If government bond prices fall significantly, this hampers the functioning of the interbank market by reducing liquidity in this market. Finally, lower government bond prices imply losses in the assets held by banks and other non-financial institutions. This has two potential ramifications. First, it may bring about mistrust between counterparties in the interbank market and lead to a decrease in lending operation due to the fear that the other counterparty could become insolvent given a high exposure to risky government bonds. Second, losses in bank assets deteriorate their capital base and their overall solvency.³⁴⁰ Also, it was also continuously emphasized that the SMP was not akin to printing money or QE since the transactions thereunder were to be sterilized.³⁴¹

Moreover, it was argued that significant part of the surge in the spreads of the so-called PIIGS (Portugal, Ireland, Italy, Greece and Spain) countries in the Eurozone during 2010 to 2011 was disconnected from underlying increases in the debt-to-GDP ratios, and was the result of raising mistrust and negative sentiments in the market. In particular, it was argued that during the period between 2000 to 2008, the spreads were very close to zero, indicating that the default risks were perceived to be practically non-existing for all of the Eurozone countries despite the widely different underlying fundamentals among these countries. At the same time, from 2008, increases in the spreads had been significantly larger than the changes in the underlying fundamentals.³⁴²

³³⁹ See Trichet, Jean-Claude, *The ECB's response to the recent tensions in financial markets*, Speech and the 38th Economic Conference of the Oesterreichische Nationalbank, Vienna, May 31, 2010, [Accessed on May 1, 2018], available at: https://www.ecb.europa.eu/press/key/date/2010/html/sp100531_2.en.html

³⁴⁰ See Trichet, Jean-Claude, *The ECB's response to the recent tensions in financial markets*, Speech and the 38th Economic Conference of the Oesterreichische Nationalbank, Vienna, May 31, 2010, [Accessed on May 1, 2018], available at: https://www.ecb.europa.eu/press/key/date/2010/html/sp100531_2.en.html

³⁴¹ See Trichet, Jean-Claude, *The ECB's response to the recent tensions in financial markets*, Speech and the 38th Economic Conference of the Oesterreichische Nationalbank, Vienna, May 31, 2010, [Accessed on May 1, 2018], available at: https://www.ecb.europa.eu/press/key/date/2010/html/sp100531_2.en.html

³⁴² See Grauwe Paul, Ji Yuemei, *Mispricing of Sovereign Risk and Macroeconomic Stability in the Eurozone*, *Journal of Common Market Studies*, Volume 50, Number 6, 2012, at p. 866.

Despite the significant effort to defend its sovereign bond purchases, the ECB did not escape criticism. In particular, it was argued that given the timing of its announcement, the SMP's real objective was to "close the spreads" and lower borrowing costs for PIIGS, which would allow them to rollover their debt and give the EU representatives time to come up with a rescue. Moreover, it was pointed out that while there was no evidence that sovereign bond purchases had had any significant impact on their yields, it risked blurring the different responsibilities between fiscal and monetary policy and the overall risks associated therewith outweighed its benefits.³⁴³

The announcement of the OMT draw even more controversies given the Mario Draghi's famous pledge to do "whatever it takes to preserve the Euro" in July 2012 as it indicated, at least implicitly, a shift in ECB's main objective from price to financial stability.³⁴⁴ However, the headlines that ran throughout the world somewhat simplified the carefully tailored message the ECB president had delivered. In particular, in his speech, he, *inter alia*, stated that:

"When people talk about the fragility of the Euro and the increasing fragility of the Euro, and perhaps the crisis of the Euro, very often non-euro area member states or leaders, underestimate the amount of political capital that is being invested in the Euro. And so, we view this, and I do not think we are unbiased observers, we think the Euro is irreversible. And it's not an empty word now, because I preceded saying exactly what actions have been made, are being made to make it irreversible. But there is another message I want to tell you. **Within our mandate, the ECB is ready to do whatever it takes to preserve the Euro.** And believe me, it will be enough."³⁴⁵

Although the emphasize was added, it was indeed very important part of the speech as it emphatically rejected (at least formally) actions outside the ECB's remit. In this respect it is important to reiterate that according to Art. 127 TFEU, the ECB's primary mandate is to maintain price stability and not to safeguard financial stability, finance public deficits or manage sovereign debt crises. Indeed, monetary financing is expressly prohibited by Art. 123 TFEU.³⁴⁶

³⁴³ The criticism was particularly vocal from Axel Weber, the ECB's Governing Council member and at the time a default favorite to succeed Jean-Claude Trichet as the ECB president. See e.g. Axel A Weber: Monetary policy after the crisis – a European perspective, Keynote speech by Professor Axel A Weber, President of the Deutsche Bundesbank, at the Shadow Open Market Committee (SOMC) symposium, New York City, October 12, 2010, [Accessed on May 1, 2018], available at: https://www.bis.org/author/axel_a_weber.htm

³⁴⁴ See James Wilson in Frankfurt and Robin Wigglesworth and Brian Groom in London, *ECB ready to do whatever it takes*, the Financial Times, July 26, 2012, [Accessed on May 1, 2016], available at: <https://www.ft.com/content/6ce6b2c2-d713-11e1-8e7d-00144feabdc>

³⁴⁵ See European Central Bank, Verbatim of the remarks made by Mario Draghi, speech by Mario Draghi, President of the European Central Bank at the Global Investment Conference in London, July 26, 2012, [Accessed on May 1, 2016], available at: <https://www.ecb.europa.eu/press/key/date/2012/html/sp120726.en.html>

³⁴⁶ Art 123 TFEU.

On the other hand, without prejudice to the primary goal, the TFEU also empowers the ECB to support the general economic policies in the EU, such as economic, social and territorial cohesion, and solidarity among Member States.³⁴⁷ About two months after the speech, on September 6, 2012, the ECB announced that it had decided on a number of technical features regarding the Eurosystem's outright transactions in the secondary sovereign bond markets aiming at safeguarding an appropriate monetary policy transmission and the singleness of the monetary policy.³⁴⁸ The framework for conducting OMTs was outlined in a press release published by the ECB's on the same day and concerned five features, namely conditionality, limited coverage, *pari passu* creditor treatment, sterilization and transparency.³⁴⁹

Regarding the first two features, the bond buying programmer's coverage was limited to helping the Member States undergoing appropriate adjustment programmes and was conditional upon their observation. The bond purchases under the OMT focused on the shorter part of the yield curve, and in particular on sovereign bonds with a maturity of between one and three years with no *ex ante* quantitative limits. The *pari passu* creditor treatment meant that the ECB would be on equal footing with other private creditors in accordance with the terms of the respective bonds issue and would not enjoy any special treatment if any issuer defaulted despite its public status.³⁵⁰

Furthermore, in order to promote transparency, the ECB committed itself to publish aggregate OMT holdings and their value on a weekly basis and the average duration of OMT holdings with a break-down by countries on a monthly basis. Finally, the ECB stressed that the liquidity created by the OMTs would be fully sterilized. In other words, like in case of purchases under the SMP, the ECB would offset any purchases by taking equivalent amount of money out of the financial system. In the ECB's view, the sterilization element was what differentiated

³⁴⁷ Art. 127(1) TFEU and Art. 3 TEU.

³⁴⁸ See European Central Bank, Press Release: Technical Features of Outright Monetary transactions, September 12, 2012, [Accessed on May 1, 2016], available at: <https://www.ecb.europa.eu/press/govcdec/otherdec/2012/html/gc120921.en.html>

³⁴⁹ At the time the SMP was terminated in September 2012, the value of accumulated purchases under the programme reached almost € 209 billion. See European Central Bank, *Press Release: Consolidated financial statement of the Eurosystem as at 7 September 2012*, September 11, 2012, [Accessed on May 1, 2018], available at: <https://www.ecb.europa.eu/press/pr/wfs/2012/html/fs120911.en.html>

³⁵⁰ The express articulation of this feature was clearly a result of the 2012 Greek debt restructuring, which carved out the ECB and its Greece's sovereign bond holdings from its scope. For details on the Greek debt restructuring, see chapter 4.1.1. and Daniel Gros, Cinzia Alcidi and Alessandro Giovanni, *Central Banks in Times of Crisis: The FED vs. the ECB*, CEPS Policy Brief, No. 276, July 11, 2012, [Accessed on May 1, 2018], available at: www.ceps.eu

the OMTs from QE, which at that time had already been adopted by other central banks, such as the Fed, the Bank of England or the Bank of Japan. QE alike, the OMTs aimed at depressing yields and lowering main interest rates to support the real economy, however, unlike QE, the OMTs did not aim at increasing money supply. At that time the view (or fear), not just that of the ECB, was that increasing money supply would inevitably lead to high inflation, something the ECB was mandated to guard the Eurozone against. While the sterilization ensured that neither the SMP nor the OMT formally constituted QE, the unconventional full allotment tender procedure in the ECB's refinancing operations made the effort of distinguishing between QE and sterilized SMP or OMT transactions without much practical relevance. In other words, liquidity injected via the sovereign bond purchases was withdrawn by fixed-term deposits from commercial banks while unlimited liquidity was provided to banks via unconventional refinancing operations. Moreover, deposits, which commercial banks were holding at the ECB, were much larger than the amount required for sterilization operations.³⁵¹ At the same time, the concerns about spiraling inflation, seen in today's view, were misplaced.

It did not take long before the unconventional measures taken by the ECB came under scrutiny and were challenged in courts. In particular, a constitutional complaint was filed with the German Federal Constitutional Court stressing that the Federal Government and the German Bundestag were obliged to work towards a repeal of the OMT Decision, or at least to prevent its implementation, since the decision to establish the OMT was an *ultra vires* act. In particular, it was argued that the decision was incompatible with Arts. 119 and 127(1)(2) TFEU and with Arts. 17 to 24 of the ESCB Statute, because it exceeded the ECB's monetary policy mandate and violated the prohibition of monetary financing provided for in Art. 123 TFEU.³⁵² At the same time, linking OMT purchases to the adjustment programmes and to the conditionalities agreed to therein was argued to collide with the ECB's independence. The German Federal Constitutional Court referred these contentions to the Court of Justice of the European Union (the "**CJEU**") for preliminary ruling in January 2014.³⁵³

³⁵¹ See Daniel Gros, Cinzia Alcidi and Alessandro Giovanni, *Central Banks in Times of Crisis: The FED vs. the ECB*, CEPS Policy Brief, No. 276, July 11, 2012, [Accessed on May 1, 2018], available at: www.ceps.eu

³⁵² Interestingly, the ban on monetary financing in the Czech Republic was not always as strict as it is today. Even though some form of limitation of monetary financing has been part of the law since the early 90', until January 1, 2001, the CNB was allowed to finance the Czech Government by purchasing a short-term debt with up to a three-month tenor with the volume not exceeding five percent of the state budget in the previous fiscal year. See also Czech Act No. 442/2000 Coll. Also, in the recent history, the financing of the functioning of the Financial Arbitrator of the Czech Republic, a Czech consumer protection bureau, by the CNB was criticized by the ECB and the EC as being in contravention with the prohibition of monetary financing. This was however changed in July 2011 by an amendment to the law, which stipulated that the functioning of the Arbitrator shall be financed from the budget of the Czech Ministry of Finance.

³⁵³ See Bundesverfassungsgericht, Order of the Second Senate of 14 January 2014 - 2 BvR 2728/13 -, July 11, 2012, [Accessed on May 1, 2018], available at: http://www.bverfg.de/e/rs20140114_2bvr272813en.html

At first, the court looked at the assertion that establishment of the OMT fell outside the ambit of the ECB as laid out in the treaties.³⁵⁴ In particular, it was summarized that the EU has exclusive competence in the area of monetary policy for the Member State whose currency is the euro, with the ECB having a great deal of independence and authority to adopt any measure necessary to carry out its tasks in that area. Since the treaties do not provide definition of what monetary policy is and rather define its objectives and list tool at the ECB's disposal to attain them, the court examined the OMT programme in light thereof.

As regards objectives of the programme, the court reiterated that these were to safeguard both "*an appropriate transmission and the singleness of the monetary policy*". The programme aimed at influencing sovereign bond prices by means of buying and selling outright marketable instruments. In short, the court found that the ability of the ECB to influence price developments by means of its monetary policy decisions, is in fact dependent, to a great extent, on the transmission of the 'impulses', which it sends out across the money market to the various sectors of the economy and if such mechanism is disrupted, that is likely to render the ECB's decisions ineffective and undermine the singleness of monetary policy. Consequently, measures intended to preserve that transmission mechanism may be regarded as pertaining to the primary objective laid down in Art. 127(1) TFEU notwithstanding the fact that such monetary policy decisions may also, indirectly, contribute to the financial stability of the euro area, which is clearly a matter of economic policy. According to the court, a monetary policy measure cannot be treated as equivalent to an economic policy. As regards the means employed to achieve objectives of the OMT, buying debt securities denominated in euro in the financial markets was in the court's view clearly within the ambit of the ECB's powers enumerated in the ESCB Statute.³⁵⁵

In respect of proportionality of the programme, the court observed, simplifying somewhat, that implementation of open market operations requires choices of a technical nature based on forecasts and complex assessments, which must be afforded a broad court deterrence, provided necessary procedural safeguards are observed. It was apparent from the press release that the programme was based on an analysis of the economic situation of the euro area. According to this analysis, at the date of the announcement, interest rates on the government bonds of various euro area countries were characterized by high volatility and extreme spreads caused not only by economic differences between the countries concerned, but also due to demand for excessive risk premium for covering the risk of the euro area break-

³⁵⁴ See Judgment of the Court (Grand Chamber) of 16 June 2015 *Peter Gauweiler and Others*, case C-62/14.

³⁵⁵ See Art. 18(1) of the ESCB Statute.

up. Having regard to the information presented, the court opined that the ECB's analysis concluding that purchases of bonds of sovereign bonds in secondary markets was an appropriate tool to bring their yields to a more natural level and dispel any unjustified fears about the Eurozone break-up was not vitiated by a manifest error of assessment. Moreover, since the purchases were permitted only in so far as necessary to achieve the objectives of that programme and only until their attainment, the court concluded that the means employed to implement the programme were not manifestly disproportionate to its objectives.

The court then moved on to the OMT's compatibility with the prohibition of monetary financing provided for in Art. 123(1) TFEU. Both the wording, as well as the objectives of the article were of vital importance for the court's assessment. It was clear from the wording of Art. 123(1) TFEU, the court emphasized, that the ECB is prohibited from granting overdraft facilities or any other type of credit facility to, and purchasing directly their debt instruments from, Member States. In contrast, the treaties do not preclude the ECB to purchase bonds previously issued by Member States, which was also supported by the recital of the Commission's Regulation (EC) No. 3603/93 explicitly stating that purchases in the secondary markets are not prohibited, provided they are not used to circumvent the objective of the monetary financing prohibition.³⁵⁶ As apparent from the preparatory works of the Treaty of Maastricht, the aim of Art. 123 TFEU is to encourage the Member States to follow a sound budgetary policy and prohibiting monetary financing of public deficits or privileged access to the financial markets, which would lead to excessively high deficits.³⁵⁷

Since it was evident that the treaties prohibit only direct purchases by the ECB of the public sector, the seminal question was whether the manner in which the secondary purchases were carried out made them equivalent to direct purchases, or in other words, equivalent to granting financial assistance to the Member States. That equivalence could, in practice, exist if the terms of such programmes ensured that the ECB would buy bonds on the secondary markets within a certain period and of a certain volume as to basically render private creditors who would buy such bonds on the primary market *de facto* intermediaries or agents of the ECB. In addition, any programme capable of lessen the impetus of the Member States concerned to follow a sound budgetary policy would circumvent objectives of Art. 123(1) TFEU.

With respect to the certainty element, the court summarized that the Governing Council was responsible for deciding on the scope, the start, the continuation and suspension of

³⁵⁶ See Council Regulation (EC) No 3603/93 of 13 December 1993 specifying definitions for the application of the prohibitions referred to in Articles 104 and 104b (1) of the Treaty establishing the European Community.

³⁵⁷ See Draft Treaty amending the Treaty establishing the European Economic Community with a view to achieving economic and monetary union, Bulletin of the European Communities, Supplement 2/91, at pp. 24 and 54.

interventions on the secondary markets and that the ECB made furthermore clear that there would be a delay (a minimum period) between issuance of securities in the primary markets and their purchase by the ECB in the secondary markets. In addition, the ECB would refrain from making any prior announcement regarding its decision to carry out such purchases and volume thereof. In conclusion, the Member States concerned could not be certain their debt would be bought by the ECB.

As regards the lessening of sound budgetary policies, the court stressed that the OMTs were accompanied by a series of guarantees intended to limit the impact in impetus to follow a sound budgetary policies, most notably by conditioning all ECB's purchases on observance of terms of adjustment structural programmes. Also, the ECB was not required to hold the purchased bonds until maturity and could sell them at any time. Moreover, by limiting the purchases to bonds of Member States that still have market access, the ECB in effect eliminated the possibility of participation in the OMT of Member States whose financial position deteriorated so far as to cutting them off from capital markets. Finally, although the court admitted that the ECB could face significant losses if Member States were to default on their debt, such risks in the court's opinion to purchases of securities on the secondary markets, an operation the ECB is expressly authorized by the ESCB Statute.

All in all, the court concluded that the OMTs were not adopted *ultra vires* of the ECB's powers and that they also did not contravene the prohibition of monetary financing.

3.4.3 Expanded Asset Purchase Programme

In early 2015, at a time when most indicators of actual and expected inflation in the euro area had drifted towards historic lows, the ECB announced an expanded asset purchase programme to address the risks of a too prolonged period of low inflation by further easing monetary and financial conditions to support investment and consumption, and ultimately to contribute to a return of inflation rates towards 2%.³⁵⁸ Specifically, the expanded programme consisted of monthly asset purchases worth €60 billion of which €10 billion was to be bought under the (third) covered bond and ABS purchase programmes, both launched in the late 2014,³⁵⁹ and €50 billion under the newly established public-sector purchases programme (the

³⁵⁸ The programme was intended to be carried out until the end of September 2016 and, in any case, until the ECB would see a sustained adjustment in the path of inflation consistent with its aim. See European Central Bank, *Press Release: ECB announces expanded asset purchase programme*, January 15, 2015, [Accessed on May 1, 2016], available at: https://www.ecb.europa.eu/press/pr/date/2015/html/pr150122_1.en.html

³⁵⁹ See Decision of the European Central Bank of 15 October 2014 on the implementation of the third covered bond purchase programme (ECB/2014/40) and Decision (EU) 2015/5 of the European Central Bank of 19 November 2014 on the implementation of the asset-backed securities purchase programme (ECB/2014/45).

“PSPP”) concerning purchases of bonds issued by euro area central governments, agencies and European institutions.³⁶⁰ Although all three asset purchase programmes constituted QE, the PSPP spurred most controversies due to its size and nature. In particular, out of the €50 billion directed towards the PSPP, €6 billion per month was allocated towards the purchase of the debt of supranational institutions located in the euro area, or the European Investment Bank with the remaining €44 billion being used mainly to purchase euro area sovereign debt securities according to the ECB capital key.³⁶¹ The sovereign debt securities had to have a remaining maturity of two to thirty years, be denominated in euros, and be of countries with either a sufficiently high credit rating or benefitting from assistance programmes.³⁶² Moreover, to preserve normal secondary market functioning, the purchases were subject to a security-specific limit of 25% and an issuer-specific limit of 33% in terms of nominal value.³⁶³ The security-specific limit was intended to prevent the ECB from forming a blocking minority in the event of a debt restructuring involving collective action clauses, since not blocking such a restructuring could be perceived as monetary financing of a member state.³⁶⁴ The second limit concerning an aggregate limit on holdings of eligible outstanding securities of any given issuer was put in place to prevent crowding out of private investors from the market and to safeguard normal price formation mechanism. At the same time, to avoid overly direct influence on primary market price formation and ensure compliance with the prohibition of monetary financing, the ECB announced that it would apply an appropriate blackout period, i.e. a period around the issuance of new securities on the primary market during which securities could not be bought. As regards the risk-sharing regime, a consensus was reached that 20% of the overall additional asset purchases under PSPP would be subject to sharing of hypothetical

³⁶⁰ See Decision (EU) 2015/774 of the European Central Bank of 4 March 2015 on a secondary markets public sector asset purchase programme.

³⁶¹ National central banks were allowed to use a part of the limit to buy bonds issued by eligible national agencies located in their home jurisdictions, such as the German KfW. See European Central Bank, *Implementation aspects of the public sector purchase programme (PSPP)*, March 17, 2015, [Accessed on May 1, 2016], available at: <https://www.ecb.europa.eu/mopo/implement/app/html/pspp.en.html>

³⁶² Bonds yielding less than the ECB’s deposit rate were to be excluded from the purchases. See Benoît Cœuré, *Embarking on public sector asset purchases*, Speech at the Second International Conference on Sovereign Bond Markets, March 10, 2015, [Accessed on May 1, 2016], available at: https://www.ecb.europa.eu/press/key/date/2015/html/sp150310_1.en.html

³⁶³ The specific issue limit was subsequently increased to 33% for specific cases. See Decision (EU) 2015/774 of the European Central Bank of 4 March 2015 on a secondary markets public sector asset purchase programme. The limit was primarily concern for Greece, since the Eurosystem held almost 35% of all Greek outstanding eligible debt under the SMP as of December 31, 2014. See Claeys, Grégory; Leandro, Álvaro; Mandra, Allison, *European Central Bank quantitative easing: The detailed manual* Bruegel Policy Contribution, No. 2015/02, March 2015, at p. 5, [Accessed on May 1, 2016], available at: <https://www.bruegel.org/publications/>

³⁶⁴ For details see chapter 4.

losses. In contrast, purchases of government bonds by national central banks would not be subject to any loss sharing.³⁶⁵

Like in the case of OMTs, a request for preliminary ruling was also made in the context of constitutional complaints brought forward in Germany in respect of the ECB's decision to establish the PSPP. The applicants specifically claimed that the PSPP were *ultra vires* acts outside the scope of the ECB's mandate failing to observe the division of competence between the EU and the Member States and the prohibition of monetary financing. In its 2017 order, the German Federal Constitutional Court referred several questions to the CJEU for a preliminary ruling. In particular, these concerned the question of whether the PSPP:

- (i) **exceeds the monetary policy mandate of the ECB** in particular as a result of its volume, implementation period of more than two years and the resulting material economic policy effects influencing the refinancing terms of the Member States;³⁶⁶
- (ii) **encroach upon the Members States' competences and sovereignty in budget matters** by potentially unlimited risk-sharing between the national central banks of the Eurosystem; and
- (iii) **violate the prohibition of monetary financing** in particular given the fact that the terms of the programme create *de facto* certainty on the markets that the ECB will purchase the sovereign bonds and do not specify a minimum blackout period, all purchased bonds would be held to maturity and some of them would have a negative yield; and in any event if, in particular as a result of a shortage of bonds available for purchase, its continued implementation would require a continual loosening of the original purchase terms.³⁶⁷

When addressing the first question, the court reiterated the view expressed in the OMT ruling that in order to determine whether a measure falls within the area of monetary policy it is appropriate to refer principally to the objectives of that measure. In this regards, the objective of the PSPP was to further enhance the transmission of monetary policy, facilitate credit provision to the euro area economy, ease borrowing conditions of households and firms and

³⁶⁵ Importantly, each national central bank was to purchase and hold exclusively its own country's debt and given the absence of risk sharing provisions for these holdings, also assume profits or losses stemming therefrom. See European Central Bank, *Account of the monetary policy meeting of the Governing Council of the European Central Bank*, January 21-22, [Accessed on May 1, 2016], available at: <https://www.ecb.europa.eu/press/accounts/2015/html/mg150219.en.html>

³⁶⁶ The PSPP amounted to €1,534.8 and €2,088.1 billion as of May 2017 and November 2019, respectively.

³⁶⁷ See Request for a preliminary ruling from the Bundesverfassungsgericht (Germany) lodged on 15 August 2017, Heinrich Weiss and Others.

contribute to returning inflation rates to levels closer to 2%, consistent with the primary objective of the ECB, which in the court's opinion was attachable to the ECB's primary objective as set out in Art. 127(1) TFEU. The mere fact that the PSPP allegedly had considerable effects on the balance sheets of commercial banks as well as on the refinancing terms of the Member States of the euro area did not call into question that conclusion, especially since the support of the general economic policies in the EU is, without prejudice to its primary objective, within the ECB's mandate. It follows from the fact that in order to exert an influence on inflation rates, the ECB necessarily has to adopt measures that have certain effects on the real economy, which might also be sought, to different ends, in the context of economic policy. In particular, when the maintenance of price stability requires the ECB to seek to raise inflation, the measures that it must adopt to ease monetary and financial conditions in the euro area for that purpose may entail an impact on the interest rates of government bonds because, *inter alia*, those interest rates play a decisive role in the setting of the interest rates applicable to the various economic actors.³⁶⁸

As to the volume of bonds that could be purchased under the PSPP, the court reviewed the various restrictions pertaining to the PSPP, such as the purchase limits *per* issuer and issue. While the court acknowledged that despite the various limits, the total volume of securities that could be purchased under the PSPP remained substantial, it pointed out that efficacy of such a programme depended on a large volume of government bonds being purchased and held. In such a case, not only that the volume of purchases must be sufficient, but it may also prove to be necessary, to hold the bonds purchased on to maturity or even to reinvest the sums realized at maturity back. Indeed, it was not apparent that a government-bonds purchase programme of either more limited volume or shorter duration would have been able to bring about changes in inflation comparable to those sought by the ECB.

In respect of the alleged unlimited risk-sharing between the national central banks under the PSPP, the court reviewed the preventive measures intended to limit the risk of losses, such as the eligibility of the purchased securities for ECB's open market operations, and concluded, that even if, despite those preventive measures, the purchase of securities under the PSPP were to result in, possibly significant, losses, the only losses to be shared were those generated by securities issued by eligible international organizations representing only a fraction of the total value of the PSPP.³⁶⁹

³⁶⁸ See Judgment of the Court (Grand Chamber) of 11 December 2018, *Weiss and Others*, case C-493/17.

³⁶⁹ See Art. 32(5) and 33 of the ESCB Statute.

Having answered the first two preliminary questions in the negative, the court then moved on to assess the PSPP's compliance with the prohibition of monetary financing as provided for in Art. 123 (1) TFEU. In particular, it was emphasized that the "framers" of the treaties expressed their concerns only with respect to direct purchases of debt instruments from public authorities, which was further supported by the recital of Regulation (EC) No. 3603/93 stipulating that sovereign bond purchases on the secondary markets are not prohibited, provided they are not used to circumvent the objective of the prohibition.³⁷⁰ In that regard, the court observed that the ECB's intervention would be incompatible with Article 123(1) TFEU if the potential purchasers of government bonds on the primary markets knew for certain that the ECB was going to purchase those bonds within a certain period and under conditions allowing those market operators to act, *de facto*, as intermediaries for the ECB for the direct purchase of those bonds from public authorities and bodies of the Member State concerned. While the announcement of the PSPP and related communication put out by the ECB was such as to enable market participants to foresee, to some extent, significant aspects of the ECB's future actions on the secondary markets, the court reasoned that ECB had put in place various safeguards to ensure that they were not able to act as if they were intermediaries of the ECB. In particular, the observance of the blackout period provided in the court's view ensured that bonds issued by a Member State cannot be purchased by the ECB immediately after they are issued. Moreover, the absence of any publication, either in advance or after the event, of information concerning the duration of the blackout period, and the fact that it is only a minimum period, on expiry of which the purchase of a security is permitted, avoid a situation in which a market participant is able to act, *de facto*, as an intermediary of the ECB, since those factors limit the foreseeability, in terms of timing, of the ECB's interventions on the secondary markets. The fact that a purchase may thus take place several months or several years after a bond has been issued increases the uncertainty of private operators all the more, given that the ECB has the option of reducing the monthly volume of bond purchases under the PSPP. In addition, the ECB introduced a number of safeguards specifically to prevent market participants from predicting with certainty whether particular bonds will in fact be purchased on the secondary markets under the PSPP, most notably the rule that the Eurosystem may not purchase more than 25% of a particular issue of government bonds or more than 33% of all outstanding bonds of a particular Member State. From the foregoing, it follows that, when bonds are purchased from a Member State, a private investor necessarily runs the risk of not being able to resell them to the ECB on the secondary markets, as a

³⁷⁰ See Council Regulation (EC) No 3603/93 of 13 December 1993 specifying definitions for the application of the prohibitions referred to in Articles 104 and 104b (1) of the Treaty establishing the European Community.

purchase of all the bonds issued is in all cases precluded.³⁷¹ At the same time, the purchase limits also provide an impetus to Member States to maintain sound budgetary policies since they had to chiefly rely on the markets to finance their deficits.

Finally, as to the question whether the purchase by the ECB of government bonds at a negative yield to maturity has an effect equivalent to that of a direct purchase of bonds from the public authorities and bodies of the Member States, the court pointed out that it did not make it easier for market participants to identify the bonds the ECB was going to buy. To the contrary, it is more likely to reduce the certainty of market participants by broadening the range of bonds eligible for purchase under the PSPP. Moreover, since bonds with a negative yield can be issued only by Member States whose financial situation is assessed positively in the sovereign debt markets, the purchase of such bonds cannot be considered to reduce the impetus of the Member States to follow a sound budgetary policy.

3.4.4 Bagehot, the Eurozone Sovereign Debt Crisis and the ECB

As described above, different economic and financial structures called for different responses to the 2007-08 financial crisis from both sides of the Atlantic. On the other hand, both the Fed and the ECB played a critical role in the initial phases of the crisis since unlike fiscal and other official authorities, they proved to be capable of swift and decisive actions. While the ECB did not take over any distressed financial firm, its “crisis management role” lasted much longer and over the time became maybe even more controversial than the role of Fed. Also, the crisis did not change the basic presumption that the ECB should provide a backstop emergency liquidity in cases of increased market stress and volatility which cannot be satisfied in the private sector, but an outreach of such assistance has since become much murkier. In particular, not only did the ECB provide unlimited liquidity to the banking sector and use its balance sheet to in effect replaced private markets, it also became lender of last resort to and crisis manager of to the Eurozone governments.³⁷²

³⁷¹ The other safeguards concern e.g. the rule that the ECB discloses the total volume of projected purchases under the expanded asset purchase programme but does not disclose the volume of bonds issued by public authorities which will in the normal course of events be purchased in a given month under the PSPP. In addition, the projected volume applies for the whole of the expanded asset purchase programme and PSPP purchases may be made only up to the residual amount. Similarly, those bonds can have a maturity of between 1 year and 30 years and 364 days and their yield may, where necessary, be negative, or even below the deposit facility rate.

³⁷² This was most notably demonstrated by the ECB’s involvement in the Irish and Greek sovereign debt restructurings. For details see chapter 4.1.

Even though the enhanced credit support and in particular, the fixed rate full allotment tender procedure at the ECB's main refinancing rate with significantly longer tenors and lower collateral requirements meant a significant shift away from the original concept of lender of last resort, these unorthodox measures could on the balance be considered as in comport with its mandate. In contrast, while the ECB's sovereign bond purchases provided an indirect relief to the European banking sector due to the "doom loop" between banks and sovereigns, it was a step outside the traditional central bank role in terms of both scope and purpose.³⁷³

Leaving aside the significant credit risk the ECB undertook, which would have moreover in the case of Greek sovereign bonds materialized, if the ECB had not been afforded a preferential status, the assistance was unsecured and directed outside the banking sector.³⁷⁴ At the same time, it is hard not to see these actions as trying to primarily solve solvency and not liquidity crisis with Greece and Ireland being the most notable examples. Arguably, sovereign bond purchases carried out by ECB, even if intended to depress elevated yields, should not be perceived as an extension of the traditional central bank lender of last resort role, but rather as an entirely new crisis management authority. Indeed, at the heights of the sovereign debt crisis, some have called for the ECB to take a more active role in the Eurozone sovereign debt crisis management by purchasing even greater quantities of troubled sovereign debt.³⁷⁵ The pledge to do "whatever it takes to preserve the euro" and in particular the sovereign bonds purchases, however, seem to be outside the ECB's monetary authority mandate. While the CJEU explained that this was not the case, some parts of its reasoning raise concerns.

First, the emphasize on the aim or objectives of the programmes and their alignment with the ECB's primary objective furnishes the ECB with almost unfettered authority to do "whatever it takes", as long as price stability, and in particular reaching an inflation target, is the official sought-out aim. Taken to extremes, there are basically no limits as to how many and for how long sovereign bonds could be bought or what other actions could be undertaken, as long as it is justified by monetary policy considerations. This need not, however, stop with

³⁷³ This was not a merely theoretical threat. If the ECB's Greek sovereign bond holdings had not been swapped, the ECB would have suffered approx. 75 % loss thereon. For details see chapter 4.1.1.1.

³⁷⁴ See chapter 4.1.1.

³⁷⁵ For example Graue argued that the ECB had to be appointed as a lender of last resort in the government bond markets was to prevent a self-fulfilling debt crisis brought about by a solvency crisis in one Member State, which propels a widespread loss of confidence and government bonds sell-off. Accordingly, Ortiz stressed that the ECB is the only institution able to resolve the Eurozone crisis. See e.g. Cohen-Setton Jérémie, *the ECB as a lender of last resort to sovereigns*, Bruegel Blog Post, November 25, 2011, [Accessed on May 1, 2018], available at: <https://www.bruegel.org/2011/11/the-ecb-as-a-lender-of-last-resort-to-sovereigns/>

sovereign bond purchases, as it opens floodgates of opportunities for the ECB for crises to come, at the expense of predictability and legal certainty. At the same time, the CJEU argued that mere fact that a monetary policy decision may also, indirectly, contribute to the financial stability of the euro area, which is clearly a matter of economic policy, cannot be treated as an equivalent to economic policy measure. While it is true that it may be impossible to completely “sterilize” monetary policy decisions of their broader economic effects, the ECB’s bond purchases seem to have had much greater impact on financial stability and financing conditions of the euro area Member States than on its monetary policy targets.

The other important consideration touched upon by the court, which would however, deserve much more attention in the reasoning is the temporary nature of the sovereign bond purchases. While it is true that the ECB is not legally required to hold the purchased bonds until maturity and is free to sell them at any time, whether it would be able to sell them in practice is an entirely different question. In particular, how to unwind the billions worth of government bonds sitting on the ECB’s balance sheet without pushing their yields sky-high is probably one of the most pressing but still unresolved issues. Accordingly, if the ECB’s bond holdings were in fact of permanent, or of a very long nature, or if all proceeds from maturing bonds were to be reinvested into new issuances, then the ECB’s support would arguably create moral hazard and amount to monetization of public debt. With the transfer of net profit of the ECB (including interest earned on its sovereign bond portfolio) back to its shareholders, that is the Eurozone central banks, which in turn hand it over back to their respective governments, long term holdings of sovereign bonds by the ECB would essentially mean that national governments may borrow and spend the central bank money for free. Also, Art. 123(1) TFEU read in conjunction with Art. 1 of Council Regulation 3603/93 prohibits “*financing of the public sector’s obligations vis-à-vis third parties*” could be interpreted as not permitting the ECB to make sovereign bond purchases on the secondary markets since they constitute financing of public sector’s debt *vis-à-vis* other market participants.³⁷⁶

The introduction by the ECB of its over €1.3 trillion Pandemic Emergency Purchase Programme as a response to the fallout from the COVID-19 pandemic is the latest evidence of the fact that when push comes to shove, it will not hesitate to do “whatever it takes” and come in aid to highly indebted Eurozone members.³⁷⁷ Not only did the new programme

³⁷⁶ See Council Regulation (EC) No 3603/93 of 13 December 1993 specifying definitions for the application of the prohibitions referred to in Articles 104 and 104b (1) of the Treaty.

³⁷⁷ In addition, the new programme also expanded corporate sector purchases to non-financial commercial paper, thus making all commercial papers of sufficient credit quality eligible. See Decision (EU) 2020/440 of the European Central Bank of 24 March 2020 on a temporary pandemic emergency purchase programme (ECB/2020/17) and Decision (EU) 2020/1143 of the European Central Bank of 28 July 2020 amending Decision (EU) 2020/440 on a temporary pandemic emergency purchase programme (ECB/2020/36).

increased direct sovereign bond purchases by the ECB, much of the aid provided to the banking sector at negative rates also ended up invested in government debt given its regulatory treatment as a “risk-free” investment.³⁷⁸ This has two important connotations. First, it questions the objectives of the asset purchase programmes and their attainability. In other words, what is the point in having central bank policies if the money doesn’t filter through into the real economy but ends up either financing government spending or sitting on bank balance sheets. At the same time, increasing money supply by buying long term securities is most likely also the reason what inflation has not picked up yet despite the unprecedented measures since liquidity flows away from corporations and households to sovereigns.³⁷⁹ This only reinvigorates the so-called government-bank doom-loop which puts the European banking sector at risk for crises to come. Concerns about the nexus between the Italian government and its banks are particularly relevant given that roughly 20% of the €2.1 trillion of outstanding government debt is held by Italian banks, which implicates that any sudden spike in yields would circle back to the banks’ balance sheets. While a recent yet to be published study suggest that the ECB’s large scale asset purchases had actually weakened the co-movement between CDS spreads for Eurozone banks and governments, these operations have left the ECB holding approx. a quarter of outstanding Italian government debt.³⁸⁰

Also, some of the important constraints imposed by the ECB on itself under the OMT have been removed or significantly loosened under the new programme.³⁸¹ The first lifted constraint was the consolidated sovereign bond holdings limit prohibiting to buy more than a third of any issue of a particular ISIN or of the total outstanding securities of any issuer.

³⁷⁸ See Stubbington Tommy, *European banks load up on government bonds, raising concerns over ‘doom loop*, the Financial Times, September 21, 2020, [Accessed on October 1, 2020], available at: <https://www.ft.com/content/0696b32b-936d-4d96-81db-c131d5bd8d9d>

³⁷⁹ Furthermore, there is an ongoing discussion regarding the influence of accommodating monetary policy on inequality. In particular, some argue that monetary policy is the wrong tool for economic recovery since given its bias towards supporting financial markets, on which only a few wealthy households depend, thus bringing about rising inequality. See e.g. Stiglitz E. Joseph (2016), *New Theoretical Perspectives on the Distribution of Income and Wealth Among Individuals*. In: Basu K., Stiglitz J.E., *Inequality and Growth: Patterns and Policy*. International Economic Association Series. Palgrave Macmillan, London, ISBN, 978-1-137-55453-6.

³⁸⁰ See Ranasinghe Dhara, *REFILE-Euro zone ‘doom loop’ between government bonds, banks has weakened, study shows*, Reuters, November 10, 2020, [Accessed on December 1, 2020], available at: <https://in.reuters.com/article/europe-bonds-ge/refile-euro-zone-doom-loop-between-government-bonds-banks-has-weakened-study-shows-idUKL8N2HW2E3>

³⁸¹ In particular, in the announcement of the new programme, the ECB inter alia stressed that “To the extent that some self-imposed limits might hamper action that the ECB is required to take in order to fulfil its mandate, the Governing Council will consider revising them to the extent necessary to make its action proportionate to the risks that we face. The ECB will not tolerate any risks to the smooth transmission of its monetary policy in all jurisdictions of the euro area.” . See The European Central Bank, Press Release: ECB announces €750 billion Pandemic Emergency Purchase Programme (PEPP), March 18, 2020, [Accessed on March 20, 2020], available at: https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200318_1~3949d6f266.en.html

While there could be a debate whether the ECB's role should not be refined in the treaties so that its lender of last resort function would expand also to the shadow banking sectors, there are significant impediments to consider the same extension also in respect to the Eurozone sovereigns. In particular, it could be beneficial if the ECB's mandate was expanded to cover emergency liquidity assistance to all sorts of financial intermediaries (or shadow banks) other than credit institutions, provided that this new mandate would come hand in hand with responsibility for ensuring, through regulation and supervision, stability and soundness of the of the newly supervised system to minimize the probability that support will be needed, and thus reduce moral hazard. This role of the ECB is, however, hardly conceivable in respect of euro area sovereigns. In fact, given the very close connection between the Eurozone banking sector and sovereigns, even the current ECB's involvement in the new crisis management mechanism might be unsettling as it creates conflict of interest that has the potential to outweigh any potential benefits. These concerns will be further laid out in the next chapter.

4 IS SOVEREIGN DEBT RISKY? FROM FINANCIAL TO SOVEREIGN DEBT CRISIS

The advantageous regulatory treatment of sovereign debt has for long been subject to ongoing discussion and controversies. Specifically, the first Basel Accord introduced the now well-known minimum ratio of capital to risk weighted assets in 1988, which basically ignored the possibility that a sovereign could default.³⁸² While there have been numerous cases of sovereign defaults such as Argentina and other Latin American countries, these cases concerned mostly “emerging” countries far away from Europe and were often caused by a significant external debt burden denominated in foreign currencies, something not likely in a currency union, such as the US or the EU. This perception and false complacency transpired also into the subsequent revisions of the accord, which came up with much more granularity in respect of risk-weighting and overall increased capital requirements, but with no impetus to change the basic principle that sovereign debt is risk free. While, it is true that only the first Basel accord provided an explicit exemption from the requirement to hold capital against exposures to OECS countries, the second Basel accord that came out in 2004 allowed to keep the zero-risk sovereign debt status quo.

Broadly speaking, in the second Basel accord, the procedure for determining the risk weight, and thereby the minimum capital requirement, of an asset was depended on two approaches quantifying credit risk, namely, the standardized and the internal risk based (IRB), depending on whether the risk weight is determined on the basis of external or internal ratings.³⁸³ Specifically, the former approach imply a risk weight of sovereign exposure of 100 %, unless there is a rating from CRA available, which can modify the default risk-weight ranging from 0 % to 150 %. The latter approach, used mostly by larger banks, assigns risk weights according to an internal rating system taking into account pre-determined risk parameters. However, the option to give higher risk weights was limited since one of the key factors, the probability of default was mostly inferred from historical data which most countries did not have. Also, since the large exposure regime, which broadly speaking limits the possibility to concentrate assets towards a particular person, did not apply to sovereign exposures, the accord did not take into account concentration risk arising from sovereign exposures and consequently did not require banks to hold capital against sovereign debt even if they had

³⁸² See Basel Committee on Banking Supervision, *International Convergence of Capital Measurement and Capital Standards*, Basel, July 1988, [Accessed on December 10, 2015], available at: <https://www.bis.org/publ/bcbs04a.pdf>

³⁸³ See Basel Committee on Banking Supervision, *International Convergence of Capital Measurement and Capital Standards - A Revised Framework*, June 2004, [Accessed on July 10, 2015], available at: <https://www.bis.org/publ/bcbs107.pdf>

significant exposures. Moreover, the second Basel accord left room for national discretion and allowed to apply a lower risk-weight to banks' exposures to their "home" sovereign denominated in domestic currency and funded in that currency. This regulatory environment was, *inter alia*, the reason that brought about the so-called "home bias", i.e. the tendency of banks to have large exposures to their "home" sovereigns. This has especially been the case of Greece, Italy and Spain, which were at the forefront of the sovereign-debt crisis.

This very tight link between banks and sovereigns in Europe, often referred to as "doom-loop", is a very unique feature of the Eurozone and more broadly European financial markets. This chapter will show that probably one of the most painful lessons of the recent financial crisis for Europe is the need to acknowledge that sovereign debt is not risk-free and that the sovereign-bank doom-loop must be severed to ensure stability of the European banking sector, the Eurozone as a whole and the proper management of crises to come. Accordingly, it will be shown that any European crisis management framework is likely to work if the doom-loop is not addressed. Finally, it will also be assessed whether proper corrections have been made to prevent its repetition.

4.1 The Eurozone Sovereign-bank Doom-loop

As described in detail in the previous chapter, the ECB was effectively the only EU-level body managing the unfolding crisis by providing unlimited liquidity to the entire banking sector and later on also to Eurozone sovereigns. Lacking a dual mandate and statutory powers that could be broadly defined, the ECB could not go as far as the Fed and take over and resolve failing banks and other financial firms, however, as the crisis intensified after the failure of Lehman Brothers, it was clear that provision of even *de facto* unlimited liquidity was not going to address the large capital losses suffered by the European banking sector. With no unified legislation or a toolkit providing a blueprint how to resolve a systemically important banks, some Member States resorted to uncoordinated *ad hoc* bailouts. In other words, instead of letting banks fail and let their shareholders and bondholders bear the losses, fearing a domino like effect with the potential threat to financial stability, Member States stepped in and moved the debt burden from the private to public sector.

In turn, the publicly funded bank rescues brought about sharp deterioration in already high debt-to-GDP ratios of many Member States.³⁸⁴ In a broader context, this was the result of

³⁸⁴ Many Eurozone countries had not complied with the debt limits provided for in the Stability and Growth Pact even before the crisis, making them and the banking sector with significant sovereign debt exposure extremely fragile. On the other hand, the weak fiscal discipline and large government deficits was not the only root cause of the Eurozone debt crisis. Weak actual and potential growth, competitive weakness and diverging economic

imbalance in, or asymmetry of, the EMU structure, in particular caused by the exclusive EU competence in the area of monetary policy but a lack thereof not in the area of fiscal or economic policy. Specifically, the adoption of the euro as the single currency brought about, among other things, convergence of yields on Euro area sovereign debt as Eurozone members' and the exchange rate risks were thought to have been eliminated. Financial markets treated all sovereign debt as risk free and priced in expectation of mutual assistance among the EMU members and irreversibility of the euro. The convergence of yields led to a sharp decrease in borrowing costs, which spurred borrowings, especially, of the Eurozone periphery leading to an increased spending and higher economic growth. The euro project seemed to have worked well, of course, until it did not. Two underlying causes of the Eurozone sovereign debt crisis should be particularly highlighted. Policy failures in individual Member States, such as lack of fiscal discipline, failure to carry out structural reforms and not productively invested external borrowings and the flawed Eurozone architecture, in particular the lack of fiscal, political and banking union.³⁸⁵ In addition, particularized and underdeveloped capital markets and extreme reliance on bank financing coupled with a very tight-link between banks and fiscal sovereigns also significantly exacerbated the depth and length of the Eurozone sovereign debt crisis.

The cases of Greece and Ireland were selected to demonstrate how daunting the sovereign-bank doom-loop issue can be during a financial crisis. In particular, the collapse of the Irish banking system caused the fiscal failure of the Irish sovereign and necessitated the sovereign bail-out programme. On the other hand, the opposite causality applied in the case of Greece, the crisis of which begun with a fiscal crisis, which then spread to the banking system. However, the common to both cases was the revelation of vicious interaction between banking and sovereign crises in Eurozone. These cases are also unique to the ECB's rather controversial involvement in each of them. It will be showed that the ECB was among the most important managers of the crisis. Since the sovereign debt crisis was primary impetus for the creation of the new EU crisis management framework, it will be valuable to understand the sovereign-debt link in Eurozone to see how the crisis management framework would stack up against crises to come.

behavior between the "core" and "peripheral" Eurozone countries were another significant contributors in the evolution of the crisis. While both peripheral and core Member States shared enjoyed a period of high growth and prosperity prior to the crisis as the former benefited from access to international capital markets, low borrowing levels and significant investment, while the latter experienced increased exports attributable to the rapid growth of peripheral countries, they also felt the same pain when the crisis unfolded. For details see Petrakis, Panagiotis E., Kostis, Pantelis C., Valsamis, Dionysis G., *European Economics and Politics in the Midst of the Crisis, From the Outbreak of the Crisis to Fragmented European Federation*, Springer, ISBN 978-3-642-41343-8, at p. 7 et seq.

³⁸⁵ *Id.* at p. 9.

4.1.1 Lessons from the Greek Bailout

Although the brunt of the Greek crisis was dealt with before the effectivity of the new European crisis management framework, the way the crisis was approached by the EU authorities can be useful to discern practical difficulties that may come with a major Eurozone sovereign and/or bank restructuring. Also, the Greek experience created a blueprint and shaped the contours of the nascent European crisis management framework. On the other hand, the Greek crisis was unique in some ways. First of all, it cannot be said that the Greek crisis was a result of the financial crisis that broke off in the US and subsequently spread all over the world. That is not to say that the negative spillovers therefrom did not exacerbate the Greek situation, but it would be more accurate to say that the problems that mushroomed elsewhere shed light on and expedited the deeply embedded problems in Greek public finances and financial system. However, although having faced liquidity problems as basically all banks around the world, the 2007-8 financial crisis did not have a major impact on Greek banks and their capital, as they had limited exposure to US subprime debt or other innovative structured products. The problem was the huge exposures to the Greek sovereign. Therefore, the Greek financial crisis was rather “homemade”.

The downward spiral started unraveling in the late 2009, the Greece’s new government disclosed that the projected country’s deficit needed to be revised upwards to 12.5% of GDP, far above from the estimate of 7% provided by the previous government.³⁸⁶ This was a turning point. With loss of confidence in the numbers, the markets spooked. The news also brought about swift downgrades of Greek debt, which in turn spurred sell-offs in country’s stocks and bonds and put pressure on the already elevated premiums investors were demanding for purchasing Greek’s debt. Fitch was the first to cut the ratings on Greek debt from A- to BBB plus with a negative outlook in December 2009, the first time in 10 years a leading rating agency had rated Greece below A.³⁸⁷ This was just the beginning of months abound of bad news that eroded market confidence in Greece and led to further downgrades. Standard & Poor’s cut the Greek’s debt rating to “junk” status in April 2010, which in effect cut Greece off from access to international capital markets.³⁸⁸ The only option Greece was left with was to

³⁸⁶ See Barber Tony, *Greece vows action to cut budget deficit*, the Financial Times, October 20, 2009, [Accessed on May 1, 2018], available at: <https://www.ft.com/content/3e7e0e46-bd47-11de-9f6a-00144feab49a>

³⁸⁷ As a result, shares on the Athens stock Exchange fell almost 8% and the premium investors demanded to hold 10-year Greek government bonds in relation to the benchmark German bunds widened to 230 basis points. See Melander Ingrid, Papadimas Lefteris *UPDATE 2-Fitch rating cut piles pain on troubled Greece*, Reuters, December 8, 2009, [Accessed on May 1, 2018], available at: <https://www.reuters.com/article/greece-fitch/update-1-fitch-rating-cut-piles-pain-on-troubled-greece-idUSGEE5B70TN20091208>

³⁸⁸ The surge in the yield led to a spread of 8.22%, compared with German bund yields. See Kell John, *S&P Downgrades Greece to Junk Status*, the Wall Street Journal, April 27, 2010, [Accessed on May 1, 2018], available at: <https://www.wsj.com/articles/SB10001424052748704471204575210063379043320> and Aaron Smith, *Greek*

turn for help to someone with sufficient credit to reassure the markets that it would be able to meet its obligations – the EU, the International Monetary Fund (“IMF”) and the ECB.³⁸⁹

As a result, on May 2, 2010, Greece reached an agreement with the IMF, the Commission and the ECB on a three-year €110 billion financing rescue package aimed at stabilizing the economy, ensuring competitiveness, and restoring market confidence, with a €80 billion commitment from the EU and a €30 billion commitment from the IMF.³⁹⁰ The aid was to be disbursed in tranches over three years subject to compliance with rigorous fiscal measures, far-reaching structural policies, and financial sector reforms.³⁹¹ Following the news, boosted by announcements of a political agreement on the creation of EFSM with €500 billion of credit available and the ECB’s pledge to waive collateral requirements for Greek bonds under its newly created SMP, tensions in the markets initially abated. However, it took just about a month before the situation started deteriorated again after Moody’s downgrade of Greek debt to “junk” status in July 2010 due to, *inter alia*, “substantial macroeconomic and implementation risks associated with the Eurozone/IMF support package”.

The rating agencies, were, however not alone in questioning the terms of the Greek bailout. Indeed, the Greek’s programme was by far the largest and most controversial both in Greece and elsewhere and its sustainability was repeatedly questioned especially due to political unwillingness to restructure private claims. It had taken almost a year and half before the Eurozone leaders came around and recognized the need to restructure Greek debt as a vital condition for sustainability of Greek public finances and the adjustment programme. At

crisis fears deepen, CNN Money, April 28, 2010, [Accessed on May 1, 2018], available at: https://money.cnn.com/2010/04/28/news/international/greek_bonds/

³⁸⁹ The official request by Greece was made on April 23, 2010, the same day Greece reported missing its 2010 budget deficit by 13.6%. See Eurostat, *Euro area and EU27 government deficit at 6.3% and 6.8% of GDP respectively*, News release 55/2010, April 22, 2010, the Economist, April 23, 2010, [Accessed on May 1, 2018], available at: <https://ec.europa.eu/eurostat/news/news-releases>

³⁹⁰ This amount was subsequently reduced by € 2.7 bn, because Slovakia decided not to participate in the Greek loan facility agreement while Ireland and Portugal stepped down from the facility as they requested financial assistance themselves. See International Monetary Fund, Press Release: *Joint Statement on Greece by EU Commissioner Olli Rehn and IMF Managing Director Dominique Strauss-Kahn*, May 2, 2010, [Accessed on May 1, 2018], available at: <https://www.imf.org/en/News/Articles/2015/09/14/01/49/pr10177> and European Commission, *Financial Assistance to Greece*, [Accessed on May 1, 2018], available at: https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/financial-assistance-eu/which-eu-countries-have-received-assistance/financial-assistance-greece_en#first-programme-for-greece

³⁹¹ Key elements of the reform package were (i) fiscal consolidation of 11% of GDP over the next three years (from 13.6% in 2009 to under 3%), (ii) savings in government spending by *inter alia* pension and wages freezes and bonus cancellation, (iii) increase in government revenues by raising of taxes (VAT and luxury taxes) and by strengthening tax collection, (iv) setting up of a financial stability funds funded from external financing to ensure sound banking system, (v) entitlement programs to be curtailed and social security benefits to be cut, (vi) comprehensive pension reform, (vii) modernization of public administration, strengthening labor markets and income policies, improving the business environment, and divesting state enterprises (viii) significant reduction in military expenditure.

the same time, however, Eurozone leaders were caught between rock and hard place since they knew that handing over more of taxpayers' money would hardly be justifiable to their home constituencies but being increasingly aware that Greece would probably "bankrupt" if financial assistance was not provided. Debt restructuring was the only option left. In particular, in October 2010, German Chancellor Merkel and French President Sarkozy announced agreement on the establishment of a permanent and robust framework to ensure orderly crisis management in the future, providing the necessary arrangements for an adequate participation of private creditors and allowing Member States to take appropriate coordinated measures to safeguard financial stability of Eurozone as a whole.³⁹² The announcement was seen as an official acknowledgment that the previously rejected possibility of sovereign debt restructuring was on the table and sent shockwaves across the world's bond markets, which had traditionally treated sovereign debt from developed countries as a risk-free investment.³⁹³

In July 2011, as Greece government bonds were further downgraded, the IMF concluded that a significant funding gap had to be closed at least in part through the so-called "Private Sector Involvement" ("PSI").³⁹⁴ About three months later, the Eurogroup, *inter alia*, stated:

"The Private Sector Involvement (PSI) has a vital role in establishing the sustainability of the Greek debt. Therefore, we welcome the current discussion between Greece and its private investors to find a solution for a deeper PSI. Together with an ambitious reform programme for the Greek economy, the PSI should secure the decline of the Greek debt to GDP ratio with an objective of reaching 120% by 2020. To this end **we invite Greece, private investors and all parties concerned to develop a voluntary bond exchange with**

³⁹² See *Franco-German declaration: Statement for the France-Germany-Russia Summit*, Deauville, October 18, 2010, [Accessed on May 1, 2018], available at: https://www.eu.dk/~media/files/eu/franco_german_declaration.ashx?la=da

³⁹³ The unexpected announcement of debt restructuring was criticized by some as very damaging to the credibility of the euro zone in financial markets. Indeed the announcement was followed by a sharp widening of bonds spreads of several Eurozone countries, Ireland in whose government guarantee of the banking sector had just expired in particular. Taken together with its already fragile position, the announcement is believed to have put Ireland on the path to losing its market access and forced it, together with the ECB, to a rescue programme. See also chapter 4.1.2 and European Stability Mechanism, *Safeguarding the Euro in Times of Crisis, The Inside Story of ESM*, Luxembourg, 2019, ISBN 978-92-95085-33-6, at p. 98 [Accessed on May 1, 2018], available at: <https://op.europa.eu/en/publication-detail/-/publication/615e3a9c-8d86-11e9-9369-01aa75ed71a1/language-en>

³⁹⁴ The IMF in particular stressed that Greece would be unlikely to regain private market access by early 2012, as initially envisaged under the adjustment program and that while a significant privatization effort would help to reduce financing needs, a residual gap of about €70 billion would remain through the end of the program period in the mid-2013, which could rise to a total of €104 billion through the mid-2014 if market access was further delayed by a need to demonstrate a more advanced state of fiscal and macroeconomic adjustment. See International Monetary Fund, *Greece: Fourth Review Under the Stand-By Arrangement and Request for Modification and Waiver of Applicability of Performance Criteria*, IMF Country Report No. 11/175, July 2011, at p. 26 [Accessed on May 1, 2018], available at: <https://www.imf.org/en/Countries/GRC>

a nominal discount of 50% on national Greek debt held by private investors. The Eurozone Member States would contribute to the PSI package up to 30 bn euro. On that basis, the official sector stands ready to provide additional programme financing of up to 100 bn euro until 2014, including required recapitalization of Greek banks. The new programme should be agreed by the end of 2011 and the exchange of bonds should be implemented at the beginning of 2012. We call on the IMF to continue to contribute to the financing of the new Greek programme.³⁹⁵

This set the stage for months of negotiations and resulted in the largest sovereign debt restructuring ever.

4.1.1.1 Closing the Funding Gap via Private Sector Involvement

On February 2012, EU leaders announced an agreement with the ECB, IMF and the Greek government on a second adjustment programme with additional €130 billion support and a substantial reduction of debt burden supported by private sector participation in the form of an exchange of old Greek government bonds for new with lower face value. In particular, the announcement contained acknowledgement that a common understanding had been reached between the Greek authorities and private investors on a 53.5% face value reduction of all Greek government bonds issued prior to 2012 with a face value of about €206 billion.³⁹⁶ In particular, investors accepting the offer would receive for every **€100 Greek government bond** a consideration of:

- (i) one and two year **€15 EFSF notes**;³⁹⁷

³⁹⁵ A first PSI proposal from the Eurozone Member States announced in July 21, 2011 comprised of a €109 billion EFSF aid, a net private sector contribution of about €37 billion and a €12.6 billion bond buy-back programme. Following the Eurogroup statement, the Institute of International Finance with the support of 39 major international and Greek financial institutions rolled out a proposal to restructure Greek bonds with four options assuming a gross contribution of €135 billion through a voluntary swap of bonds maturing from 2011 to 2020 and 90% bondholder participation. In the end, none of the proposals were adopted because economic conditions in Greece deteriorated materially and none of the proposals was deemed sufficient to put Greece back on path to sustainability. Some also claimed that the proposals were too lenient for Greece's creditors. See European Council, Statement by the euro area heads of state or government and EU institutions of July 21, and Statement by the EU heads of state or government, of October 26, 2011, [Accessed on May 15, 2018], available at: <https://www.consilium.europa.eu/en/european-council/euro-summit/documents-2010-2018/> and European Commission, Background document on the offer by the International Institute of Finance (IIF) and on Debt Buy Back (DBB), July 27, 2011, [Accessed on May 15, 2018], available at: https://ec.europa.eu/economy_finance/articles/financial_operations/2011-07-27-psi_en.htm

³⁹⁶ See Statement by Vice-President Rehn at the Eurogroup of February 21, 2011, [Accessed on May 15, 2018], available at: https://ec.europa.eu/commission/presscorner/detail/en/MEMO_12_122

³⁹⁷ In essence, the EFSF loaned Greece €30 billion in the form of EFSF notes under a Private Sector Involvement Liability Management Facility. Under a separate agreement, the EFSF also undertook to issue a six-month notes worth around €4.9 billion to finance accrued interest on the bonds subject to the exchange.

- (ii) **new bonds of a total face value of €31.5** with maturities from 2023 to 2042 and escalating annual coupons ranging from 2% to 4.3%;
- (iii) **a GDP-linked security** that could provide an extra payment stream of up to 1% of the face value of the outstanding new bonds if GDP were to exceed the IMF's growth projections for Greece; and
- (iv) compensation for any accrued interest owed under the old bonds, in the form of **six-month EFSF notes**.³⁹⁸

While the swap entailed a large 53.5% haircut in nominal terms, the debt reduction amounted to about a 75% write-off in net present value terms.³⁹⁹ To make the offer more attractive, terms of the new bonds afforded their holders with much more protection than the old ones. Namely, the new bonds were to be governed by English law, be subject to jurisdiction of English courts and rank *pari passu* among themselves and with all other unsecured, unsubordinated Greek debt. Also, as long as any new bond remained outstanding, the Greek government would be prevented from issuing any secured bonds unless the exchanged bonds were ratably secured.⁴⁰⁰ Attractiveness of the exchange was also meant to be increased by the almost cash-like “sweetener” in the form of EFSF notes.⁴⁰¹ About €41 billion of the bailout package was reserved for pay-outs for the tendered bonds and the payment of interest accrued thereon.

Importantly, the ECB, along with national central banks, the Greece's largest creditors, holding bonds with face value of €42.7 and €13.5 billion, respectively, were carved out from the PSI. Just before the exchange, the Eurosystem bonds were exchanged for new bonds which were exactly the same as the old ones save for their ISINs, a feature that made them

³⁹⁸ The terms however differed for some bondholders due to impracticalities associated with some regulatory requirements in foreign jurisdictions, so for example bondholders in the US received cash instead of the EFSF notes in order to avoid registration process with the SEC. See Ministry of Finance of the Hellenic Republic, Press Release of February 24, 2012, [Accessed on May 15, 2018], available at: http://blogs.reuters.com/felix-salmon/files/2012/03/Greek.Min-Fin-Press_Release_Feb.24-2012.pdf

³⁹⁹ See Darrow Peter, Hans Richard, *A Greek odyssey: Greece's sovereign debt restructuring and its impact on holders of Greek bonds*, DLA Piper Finance Alert, March 26, 2012, [Accessed on May 15, 2018], available at: https://www.dlapiper.com/en/us/insights/publications/2012/03/a-greek-odyssey-greeces-sovereign-debt-restructu/#_edn5

⁴⁰⁰ Holders of the new bonds were also entitled to the benefit of the co-financing agreement, including the right to obtain payment of principal and interest on the same dates and on a pro rata basis as the EFSF in respect of the €30 billion facility. See Cotterill Joseph, *PSI, the Greek details*, the Financial Times, February 21, 2012, [Accessed on May 15, 2018], available at: <https://www.ft.com/content/e217e642-e92d-3399-9879-95e4b0812606>

⁴⁰¹ The EFSF notes were issued under the so-called co-financing agreement, in essence, an inter-creditor agreement requiring any payments by Greece in respect of the EFSF loan and the new Greek bonds to be split pro rata according to amounts due. In other words, the co-financing agreement Greece was to ensure that Greece could not default on the new bonds without simultaneously defaulting on the EFSF loan.

“ineligible” for a haircut.⁴⁰² The decision to carve these holdings out was controversial as it afforded the ECB with a preferential status not only vs-à-vis private investors but also in respect of other public sector representatives, such as central banks outside the EU.⁴⁰³

However, the PSI did not pose a threat only to the Eurosystem, but also to Greek (and other European) banks that had large exposures to Greece mostly due to the fact that they did not have to hold any capital against it. First, the new bonds would temporarily lose their eligibility to serve as collateral in Eurosystem monetary operations since the exchange would constitute Greece’s “selective default” in the eyes of the rating agencies. More importantly, the PSI was to also bring about significant losses to Greek banks’ balance sheets and, at the same time, potentially drain their cash reserves because the banks had, as well as many of their European peers, written large amounts of CDS referencing Greek debt. There was fear that the swap would constitute a “Restructuring” within the meaning of the rules of the International Swap and Derivatives Association’s (“**ISDA**”) and thus require the CSD underwriters, mostly European banks, to pay billions of euros to the policy holders.⁴⁰⁴ Even if most of them had sufficient cash reserves to make these payouts, failure to pay even of a few banks could have severely impaired confidence in the CDS market as a whole.⁴⁰⁵ This concern was probably also the reason why so much effort was initially devoted to make the PSI „voluntary“.⁴⁰⁶ Indeed, ISDA had hinted that despite the fact that its framework documentation does not distinguish between voluntary and mandatory events, for an event to constitute a “Restructuring”, it had

⁴⁰² Holdings of the European Investment Bank with face value of €315 million were also excluded. See Trebesch Christoph, Zettelmeyer Jeromin, *ECB Interventions in Distressed Sovereign Debt Markets: The Case of Greek Bonds*, Peterson Institute for International Economics Working Paper No. 18-1, January 22, 2018, at p. 8, [Accessed on May 15, 2018], available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3106769

⁴⁰³ Also, to shield the Eurosystem from any potential losses, the ECB decided to allow using Greek bonds which did not fulfil the Eurosystem’s minimum requirements for credit quality in its monetary policy operations only upon the condition that Greece provided a collateral enhancement in the form of a buy-back scheme to national central banks. See Decision 2012/153/EU of 5 March 2012 on the eligibility of marketable debt instruments issued or fully guaranteed by the Hellenic Republic in the context of the Hellenic Republic’s debt exchange offer (OJ 2012 L 77, p. 19).

⁴⁰⁴ It was probably still in a fresh memory that triggering payouts on CDS referencing CDOs issues by Goldman Sachs and other major Wall Street investment banks brought AIG, the world largest insurance company by assets at that time, on the brink of failure. For details See chapter 3.3.4.

⁴⁰⁵ Even though it worked in respect of the ECB bond swap, it eventually failed preventing Credit Event determination after the Greek government activated the newly introduced collective action clauses and crammed downed the swap of non-consenting bondholders.

⁴⁰⁶ For example, the swap invitation referred to the exchange as a “*voluntary liability management transaction by way of a voluntary bond exchange*”. See Jeromin Zettelmeyer, Christoph Trebesch, and Mitu Gulati, *The Greek Debt Restructuring: An Autopsy*, Working Paper Series WP 13-8, August 2013, Peterson Institute for International Economics, at p. 27, [Accessed on May 15, 2016], available at: https://www.researchgate.net/publication/264618936_The_Greek_Debt_Restructuring_An_Autopsy

to take such form as to bind all holders of the restructured debt.⁴⁰⁷ Therefore, to protect the sector from a systemic crisis, approx. €25 billion of the new bailout package was expressly earmarked for the recapitalization of Greek banks.⁴⁰⁸ As a result of these arrangements the Greek banking sector was largely insulated from the negative effects of the PSI.⁴⁰⁹

The problem, however, was that, terms and conditions of the old bonds according to which the exchange could be effectuated varied. The largest portion of the bonds subject to the exchange with face value of about €177 billion, or 86% of all, were issued under Greek law and required consent of all bondholders of a particular issue, an extremely difficult if not impossible task to accomplish.⁴¹⁰ On the other hand, it had its benefits, namely, these contained very few protections for their holders as oppose to for example English law governed bonds. Also, it allowed the Greek legislators to introduce a law, which in essence forced any holdouts to participate in the exchange, provided at least one-half of all bondholders (measured by the bond face value) participated, and at least two-thirds of them, voting collectively without distinction by issues, consented.⁴¹¹ While these threshold followed

⁴⁰⁷ The announcement came after mounting questions from policy holders regarding the initial voluntary exchange offer proposal with four options was disclosed in the summer of 2011. On an example, ISDA also explained that if bonds were to contain a collective action clause, which would be used to cram bond exchange on even a minority of non-consenting bondholders, it would most likely constitute a “Credit Event”. However, ISDA also added that its understating was that more than 90% of all Greek’s outstanding debt was governed by Greek law and did not contain collective action clause. Finally, ISDA also disputed the rumors that a Credit Event determination in respect of Greece would lead to a massive payments by protection sellers and noted that as of July 2011, the total net exposure of protection writers was less than 5 billion. See International Swap and Derivatives Association, Press Release: Greek Sovereign Debt Q&A (Update), New York, July 25, 2011.

⁴⁰⁸ Another €16 billion was provided to the Greek banking sector in December 2012. See European Stability Mechanism, Financial Assistance, Programme Database, Disbursement, [Accessed on May 15, 2019], available at: <https://www.esm.europa.eu/assistance/programme-database/disbursements>

⁴⁰⁹ This, however, cannot be said about the Cypriot banking sector, which was hit hard by the exchange given its high exposure to Greek sovereign debt. Since Cypriot banks were not compensated for PSI-related losses, Cyprus had to turn to the ESM financial assistance in the amount of 100 % of the country’s GDP, one of the largest in history. Also, uninsured depositors were bailed-in for the first time ever.

⁴¹⁰ About €20 billion bonds (e.g. less than 10% of face value eligible for the swap) were issued under English law, significant portion of which was not tendered in swap. The primary reason was that holders of these bonds had much remedies than the other bonds, in particular the Greek law-governed ones and were not subject to the amendments effected by the Greek Bondholder Act. Specifically, these bonds contained *pari passu* and cross-default clauses allowing declaration of default and acceleration of the bonds’ repayment in the event of the swap. There was especially a threat that courts could interpret the *pari passu* clause as the requirement of Greece to pay debts to all of its creditors *pari passu* even outside bankruptcy. Specifically, in 2000, a Brussels court adopted a novel interpretation of the meaning of *pari passu* in a case brought by Elliott Associates L.P., a distressed debt hedge fund, against the Peruvian government, which had defaulted on its bonds and attempted to restructure them. The court in particular ordered the Peruvian government an Euroclear not to provide any payment to the restructured creditors unless all holdout creditors are also paid in proportion to their claim. Also, in 2012, the District Court for the Southern District of New York issued injunctions enjoining Argentina from making payments to creditors on its 2005 and 2010 restructured bonds without making ratable payments to NML Capital, a distressed debt hedge fund that was a holdout creditor in the original two restructurings. See Court of Appeals Of Brussels, September 26, 2000, in re Elliott Associates, L.P., General Docket No. 2000/QR/92 and *NML Capital, Ltd. v. Argentina*, 699 F.3d 246, 264, 2d Circuit 2012.

⁴¹¹ See Greek Law No. 4050/2012 on the rules amending State emission or guarantee securities of 23 February 2012. The offer also stipulated that the Greek government would not settle the exchange if holders of bonds with

standard market practice, the size of the restructuring made it almost impossible for a bondholder or even a group of bondholders to buy a blocking minority.

Having adopted the “bondholder act”, the exchange was launched, and the results announced in March 2020 - almost 83% of the approx. €177 billion bonds governed by Greek law were tendered. While participation among foreign-law governed bonds was lower and stood initially at around 61%, taking together, it secured the necessary majorities to carry out the exchange, cram it down on non-consenting bondholders and unlock the €130 billion bailout package.⁴¹² While the announcement of the results led to a “Restructuring” determination by ISDA, the concerns about massive pay-outs under the CDS proved to have been unwarranted. ISDA in particular resolved that a “Restructuring Credit Event” had occurred following the exercise of collective action clauses to amend the terms of Greek law governed bonds such that the right of all holders of the affected bonds to receive payments had been reduced. The expected net payout under the CDS referencing Greek debt was to be less than \$3 billion.⁴¹³

face value of at least 75% of all bonds subject to the exchange did not tender their bonds. While it had similar effects like contractual collective action clause, the act was a unilateral statutory modification of debt contract, thus diverging in both form and substance.

⁴¹² By the end of the process, in late April of 2012 a total participation reached €199.2 billion, or 96.9 % of eligible face value, while holders of approximately €6.4 billion held out. The holdouts were scattered across 25 bonds, of which 24 were foreign-law governed. See Jeromin Zettelmeyer, Christoph Trebesch, and Mitu Gulati, *The Greek Debt Restructuring: An Autopsy*, Working Paper Series WP 13-8, August 2013, Peterson Institute for International Economics, at p. 12, [Accessed on May 15, 2016], available at: https://www.researchgate.net/publication/264618936_The_Greek_Debt_Restructuring_An_Autopsy

⁴¹³ See International Swap and Derivatives Association, *News Release: ISDA EMEA Determinations Committee: Restructuring Credit Event Has Occurred with Respect to The Hellenic Republic*, March 9, 2012, [Accessed on January 10, 2016], available at: <https://www.isda.org/2012/03/09/isda-emea-determinations-committee-restructuring-credit-event-has-occurred-with-respect-to-the-hellenic-republic/> and International Swap and Derivatives Association, *News Release: ISDA EMEA Determinations Committee: CDS Auction relating to The Hellenic Republic*, March 19, 2012, [Accessed on January 10, 2016], available at: <https://www.isda.org/2012/03/19/isda-emea-determinations-committee-cds-auction-relating-to-the-hellenic-republic/>

4.1.1.2 The “voluntary” Greek debt restructuring

Against all odds and in a rather remarkable turn of events, the PSI turned out to be successful even though the threat of Greek’s default was far from over.⁴¹⁴ On the other hand, the success was not a merely result of a well-design and attractive terms of the swap. After all, investors lost about 75% of their initial investment. The scattered high volume of creditors with minority holdings was an important factor of the success. In addition, Greek debt was largely held by large regulated financial institutions such as banks, insurance companies and pension funds in Greece and elsewhere in Europe, which meant that the ECB and EU leaders had extensive leverage and could press these institutions to “voluntarily” participate. Commerzbank’s CEO described the participation of large European banks in the restructuring as “*voluntary as a confession during the Spanish inquisition.*”⁴¹⁵ The ECB again proved to be probably the most influential EU institution positioned somewhere between monetary and fiscal authority.

Also, while the strong insistence to avoid triggering the CDS referencing Greek debt had a good rationale, if it had prevailed, it could have had negative long-lasting consequences for the whole market. In essence, taking more than a 50% loss without an insurance payout being triggered would have made CDS protection illusory. This could possibly result in investors’ unwillingness to purchase CDS, or more likely, in decrease in premiums they would be willing to pay. From a long-term perspective, it could also ensue in increased financing costs

⁴¹⁴ Domestic political tensions, but also austerity measures imposed by the second bailout programme drove yields soon back to the pre-PSI highs. As a result, the terms of the second bailout programme had to be relaxed only a few months later. By this time, it was also acknowledged that despite the restructuring, the debt burden was unsustainable, the problem however was that majority of Greek debt was already held by the official sector and any form of face value write-down would be politically untenable. Therefore, to reduce its debt burden and unlock release of further funds from the EFSF, Greece decided to retire almost €32 billion of its bonds issued under the exchange by borrowing approx. €11 billion from EFSF, which reduced its debt by 8 % in 2012 GDP terms. While the buy-back resulted in substantial debt relieve and avoided any face-value write-down, its implementation was controversial. In particular, by the time the buy-back was implemented in December 2012, the prices had gone up by over 20% from the time it was announced about a month earlier. Therefore, had the buy-back been conducted at predetermined fixed prices, it could have either consumed much less financing or achieved significantly higher debt relief. In other words, benefits of this operation were to a large extent appropriated by the bondholders. For details see Jeromin Zettelmeyer, Christoph Trebesch, and Mitu Gulati, *The Greek Debt Restructuring: An Autopsy*, Working Paper Series WP 13-8, August 2013, Peterson Institute for International Economics, at p. 39, [Accessed on May 15, 2016], available at: https://www.researchgate.net/publication/264618936_The_Greek_Debt_Restructuring_An_Autopsy and International Monetary Fund, *Greece: First and Second Reviews Under the Extended Arrangement Under the Extended Fund Facility, Request for Waiver of Applicability, Modification of Performance Criteria, and Rephasing of Access—Staff Report; Staff Supplement; Press Release on the Executive Board Discussion; and Statement by the Executive Director for Greece*, IMF Country Report No. 13/20, January 2013, Accessed on May 15, 2018], available at: <https://www.imf.org/en/Publications/Search?series=IMF%20Staff%20Country%20Reports&when=During&year=2013>

⁴¹⁵ See Laura Stevens, Harriet Torry, Eyk Henning, *Greek Bond Deal Makes German Banker See Red*, the Wall Street Journal, February 24, 2012, [Accessed on January 10, 2016], available at: <https://www.wsj.com/articles/SB10001424052970203960804577240570332762612>

for highly indebted Eurozone countries as investors in their debt would demand extra premium for an increased risk associated with malfunctioning CDS. The fact that this was not a purely theoretical possibility could be evidenced by the market reaction to the ISDA general counsel's public description of the PSI plan involving a 50 % haircut as voluntary and thus unlikely to trigger a Credit Event under the referencing CDS.⁴¹⁶ On the other hand, embracing this argumentation would mean that even a 100% haircut would not be a "Restructuring" under the ISDA documentation. While the distinction between voluntary and compulsory restructuring is not entirely unreasonable, this line of argumentation seems to be at odds with the economic function of CDS. In other words, why to buy an insurance against losses that does not trigger payout when losses materialize. The other problematic aspect of the ISDA determination is the conclusion that the Eurosystem's carve out from the scope of the PSI did not constitute a CDS trigger event under the ISDA documentation. While the ISDA Determinations Committee took the unusual step of publishing an explanation of the decision, the reasoning is not very compelling. Basically, ISDA was of the view that the new-carved out ECB bonds enjoyed senior ranking, as the bonds subject to the exchange did, so there was no subordination – one of the subcategories of a "Credit Event". In any event, subordination constitutes a Credit Event to ensure that there is a *pari passu* treatment in liquidation, dissolution, reorganization or winding up, none of which was the case of Greece, the Committee explained. Finally, although the ECB could claim a higher amount, its claims under the new bonds ranked, in the opinion of ISDA, *pari passu* with the restructured bondholder claims.⁴¹⁷ While this interpretation is not implausible, it seems to completely disregard the economic function of the CDS and the fact that the only reason behind the exchange was to shield the ECB from the restructuring-related losses and consequently giving its claims a seniority-like treatment. This was also later

⁴¹⁶ Only a few days later ISDA put out a press release describing how the Credit Events are determined in order to dispel rumors and concerns about opacity of the determination process. It was in particular explained that „*The determination of whether a credit event occurs under CDS documentation is made by the relevant ISDA Determinations Committee (DC), which consists of 10 sell-side and five buy-side firms. ISDA serves as secretary to, but does not sit on, the DC. A supermajority of votes (12 of 15 DC members) is required to find that a credit event has occurred without the decision being subject to external legal review. A weaker majority decision would be subject to external legal review that might overturn such a determination.*“ See International Swap and Derivatives Association, *News Release: ISDA Statement on CDS Credit Event Process*, October 31, 2011, [Accessed on July 1, 2016], available at: <https://www.isda.org/2011/10/31/isda-statement-on-cds-credit-event-process/> and Bowman Louise, *ISDA: 50% Greek haircut 'voluntary', likely no credit event for CDS*, October 27, 2011, [Accessed on July 1, 2016], available at: <https://www.euromoney.com/article/b12kjfhmd2654z/isda-50-greek-haircut-39voluntary39-likely-no-credit-event-for-cds?copyrightInfo=true>

⁴¹⁷ See International Swap and Derivatives Association, *News Release: ISDA Statement on CDS Credit Event Process*, October 31, 2011, [Accessed on July 1, 2016], available at: <https://www.isda.org/2012/03/01/isda-emea-determinations-committee-credit-event-has-not-occurred-with-respect-to-recent-questions-on-the-hellenic-republic-restructuring/>

confirmed by the ECB's disclosure that the Eurosystem had made approx. €8.7 billion in net profits on Greek bonds between 2012 and 2016.⁴¹⁸

Moreover, by exempting the ECB (and the Eurozone central banks) from the restructuring and the ECB's insistence on not bailing-in bank bondholders meant that these actors were afforded much better treatment in comparison to the other bondholders due to their compensation for the PSI-related losses. First, the exemption contributed to the Greece's maintenance of high stock of debt. Second, the decision in effect subordinated all the other Greek bondholders despite their arguably legitimate expectations about the ECB's "ordinary" creditor status when transacting in the private markets. While there was no official explanation, during a press conference, the ECB's president hinted that participating in the restructuring and taking heavy losses on its Greek government bond portfolio would be tantamount to monetary financing. In other words, the ECB took the view that conceding to the PSI was akin to actually giving money to the Greek bailout programme and thus violating the prohibition of monetary financing.⁴¹⁹ While one could agree with the view that a voluntary concession to a 75% haircut would most likely, in substance, violate prohibition of monetary financing provided for in the TFEU, the ECB did not have to consent to the restructuring voluntarily. It could have opposed the exchange and still be forced to participate by means of the new "bondholder act", an act which would have not resulted in effective subordination of the other Greek bondholders and provide the much-needed relief to the Greek debt burden. On the other hand, one could see why this was politically untenable as it would have most likely spurred public backlash and put into question all sovereign bond programmes by the ECB, at times, arguably the only effective tool to prevent solvency crises of some Member States and to protect financial stability of Eurozone.

While the accusations of unequal treatment were - not surprisingly - rejected by the General Court of the European Union in 2015, the reasoning of the court has some weak spots.⁴²⁰ In particular, in the proceeding, more than 200 bondholders submitted an action under Arts. 268 and 340 TFEU against the ECB, arguing that the ECB had infringed their legitimate expectations, the principle of legal certainty and the principle of equal treatment of private

⁴¹⁸ The disclosure was the ECB's response to an inquiry by Nikolaos Chountis, a member of the European Parliament. See Letter from the ECB president Mario Draghi to Mr Nikolaos Chountis of October 10, 2017, [Accessed on July 1, 2018], available at https://www.ecb.europa.eu/pub/pdf/other/ecb_mepletter171010_Chountis.en.pdf?ca00752c61bdb4df6c227f4f3c62b98a

⁴¹⁹ See European Central Bank, Press conference of February 9, 2012, Introductory statement to the press conference (with Q&A), [Accessed on May 15, 2018], available at: <https://www.ecb.europa.eu/press/pressconf/2012/html/is120209.en.html>

⁴²⁰ See General Court of the European Union, *Alessandro Accorinti and Others v ECB* (Case T-70/13).

creditors. They sought damages caused to them, in particular by the exchange agreement the ECB concluded with Greece. The agreement, which allowed to shield the Eurosystem from losses stemming from the PSI was in the view of the bondholders affording the ECB a preferred creditor status to the detriment of the private sector under the disguise of public policy decision. Consequently, without the preferential creditor status of the Eurosystem, the private creditors would have never seen the value of their securities fall and depreciate to such an extent. In summary, the court rejected all claims of the bondholders and concluded that the loss suffered by them was not attributable to the ECB but to the economic risks ordinarily inherent in the commercial activities carried out in the financial sector. Specifically, the existence of a sufficiently serious breach of EU law, one of the three cumulative conditions for the EU's liability under Art. 340 TFEU, was not proven as the ECB acted within the limits of its wide discretion provided for in Arts. 127 and 282 TFEU. At the same time, the press releases and the public statements rejecting the possibility of Greek debt restructuring made by the ECB prior to the PSI were of a general nature and came from an institution which did not have the power to decide on a possible restructuring and as such could not give rise to any legitimate expectations. Furthermore, the court found that the general principle of equal treatment was not applicable since private investors and the ECB were not in a comparable situation, the ECB was exclusively guided by public interest objectives, i.e. safeguarding price stability and the sound management of monetary policy, while the private investors acted in pursuit of the purely private interest of maximizing their profits. In any event, the *pari passu* principle was not part of EU law and was binding only the issuer, i.e. Greece and not the ECB. In conclusion, from the decision it follows that private investors cannot rely on the principle of the protection of legitimate expectations or on the principle of legal certainty in a field such as that of monetary policy, the objective of which involves constant adjustment to reflect changes in economic circumstances, which a diligent and well-informed investor should be aware of.

There are three potential weaknesses in the court's reasoning. First, the court, similarly to the OMT case, assessed the ECB's actions against their stated purpose and not their nature, which inevitably brings about considerable amount of legal uncertainty and it practice forces investors to scrutinize the ECB's various asset purchases according to what they aim to achieve. Alternatively, they are carried out in the pursue of public policy objective and thus the ECB has always preferred status. If that were the case, investors would most likely disregard any ECB sovereign bond purchases and price in the risk that any potential losses on the ECB sovereign bond holdings would be imposed on private investors. Consequently, it would make the aim of the ECB's sovereign purchase programmes unattainable. Second, such preferred status would also mean that any purchase of sovereign bond of a particular issue by the ECB would in effect subordinated the holders of the rest such issue, which could potentially be

interpreted as a credit event under CDS referencing such bonds. The issue was *de facto* acknowledged by the terms of the SMP's successor – the OMT, which explicitly provides that Eurosystem holdings rank *pari passu* with the holdings of other creditors. Third, the dismissal of the legitimate expectation line of argumentation on the basis of fact that the ECB did not have the power to decide on the restructuring, disregards the true nature of the ECB's involvement in the bailout programmes and its unique lender of last resort position to carry through its will.⁴²¹ There should be no doubt that Greek officials had no say in the decision to shield the Eurosystem from the restructuring and could hardly resist the ECB's insistence on bailing out senior bank bondholders.

The issue of the ECB's involvement in the restructuring also raises an interesting question about who should be liable for any potential compensation of foreign investors who would lose their investments in contravention of Greece's international obligations.⁴²² Again, this is not a purely theoretical exercise as it was brought before the International Centre for Settlement of Investment Disputes (ICSID) in 2013. Specifically, Poštová banka, a Slovakian bank which had bought Greek government bonds in 2010 and was forced to accept the exchange via the retroactive collective action clause provided for in the "bondholder act", and its Cypriot shareholder Istrokapital SE, filed an international arbitration claim against Greece, invoking protection of bilateral investment treaties and claiming that they had been forced to exchange their bonds for new securities of substantially lesser value by a retroactive and unilateral amendment of the bond terms.⁴²³ Unfortunately, the tribunal did not get into a nitty-gritty assessment of the advanced retroactive collective action clauses and dismissed the claims on the grounds of lack of jurisdiction. On the other hand, the tribunal itself stated that the issue was not clear-cut and involved a complex factual and legal background.⁴²⁴ While one

⁴²¹ See also chapter 4.1.2.1.

⁴²² The EC is not surprisingly of the view that the responsibility lies solely within the requesting Member States. In particular, the EC expressly stated that "*The ownership of the design of the programme belongs to the authorities of the Member State concerned, and the main measures are included in the authorities' Letter of Intent (LoI) to the IMF and the EU. In the preparatory phase of the programme and the subsequent MoU there are intense interactions between the national authorities and the Troika but given that the MoU is signed by the national authorities, who are also responsible for its implementation, the ultimate responsibility rests with them.*" See European Commission, *Questionnaire supporting the own initiative report evaluating the structure, the role and operations of the 'troika' (Commission, ECB and the IMF) actions in euro area programme countries*, December 16, 2013, [Accessed on May 1, 2015], available at: www.europarl.europa.eu

⁴²³ See *Poštová banka, a.s. and ISTROKAPITAL SE v. Hellenic Republic*, ICSID Case No. ARB/13/8.

⁴²⁴ The first hurdle for the claimants to overcome was the question whether the shares held by Istrokapital in Poštová banka on one side and the acquisition of bonds by the bank on the other side, were considered protected investments under the Greece-Slovakia bilateral investment treaty. The tribunal concluded negatively by stressing that while a shareholder of a company incorporated in the host State may assert claims based on measures taken against such company's assets that impair the value of the claimant's shares, the shareholder does not have standing to pursue claims directly over the assets of the local company, as it has no legal right to such assets. The second procedural issue concerned the interpretation of "investment" under the ICSID Convention and the Slovakia-Greece BIT, and as to whether Poštová banka's Greek sovereign bonds were within the scope of those

can understand that the tribunal was not keen on opening the floodgates of future international debt restructuring-related litigation, it left some important questions unanswered, most notably the allegation of investor discrimination *vis-à-vis* the Eurosystem.

On the other hand, the merits of the PSI eventually got under a court scrutiny. In particular, over 6,300 bondholders brought an action to the European Court of Human Rights, claiming, *inter alia*, that the forcible participation in the restructuring amounted to a *de facto* expropriation which had deprived them of their property in contravention the European Convention on Human Rights.⁴²⁵ When addressing the contention, the court in essence asserted that while the claimants' property rights were infringed, it was proportionate and in furtherance of an important public interest. In addition, when assessing the extent of loss suffered by the applicants, it emphasized that the nominal value of the bonds did not reflect their real monetary value when the restructuring took place since the Greek state would have probably defaulted on its obligations if it had not been for the restructuring, which would have made the bonds worthless. Even supposing that not all the applicants had been involved in speculative transactions, they ought to have known the risks as regards possibly large drops in the value of the bonds purchased, especially given that Greece had already faced high debts and a large deficit in 2009. Although is a logical conclusion, two points should be made. First, this line of argumentation, very much like the court's reasoning in the case of the AIG's takeover by the Fed, affords the official sector a very broad leeway as to how it will treat private investors during a crisis since these actions are almost by definition taken only when solvency of a firm (or a state) is at stake. Investors would simply be always better off with any form of restructuring, regardless of its terms if the only alternative was bankruptcy. Also, it is interesting to see how courts keep reiterating that investing on capital markets is never risk-free, yet sovereign bonds are still treated as risk-free assets by applicable financial regulation.

In conclusion, the Greek debt crisis caught the EU and the other Eurozone countries off guard. Also, the political reluctance in Europe to start debt restructuring and the absence of effective mechanisms to contain its possible financial fallout severely protracted the debt restructuring, which was very costly to Greece which had to continue paying investors in full

definitions of "investment". The tribunal answered this query negatively too. In particular, it argued that while the definition of "investment" under the bilateral investment treaty was very broad ("*Investment means every kind of asset and in particular, though not exclusively includes: [...]*"), this meant neither that all categories qualified as an "investment" nor that the only way to exclude a category would be an express exclusion. It then noted that none of the provisions of the investment treaty refers to sovereign debt, public obligations or the like and that the only reference to bonds is limited to debentures, i.e. bonds issued by private companies. See especially paras. 245, 288 and 377 of the decision.

⁴²⁵ See judgment of the European Court of Human Rights in the case of *Mamatras and Others v. Greece* (application nos. 63066/14, 64297/14 and 66106/14).

between 2010 and March 2012, as the PSI negotiations dragged on.⁴²⁶ The PSI also reopened a long-standing debate about the need to strike a balance between bailouts (official sector financial support) and bail-ins (adequate private sector contributions). So when and to what extent should PSI be used instead of public resources is an important policy question. The post-crisis EU bank resolution framework, which requires bail-in private of private creditors before any public finances are tapped could serve as a useful inspiration. However, until recently, the European financing Mechanisms did not contemplate any private sector-burden sharing as a requirement for granting an aid. While there have been efforts to change that approach, these efforts did not yield much fruit since the recent revisions to the treaty establishing the ESM only provide that *“in exceptional cases an adequate and proportionate form of private sector involvement, in accordance with IMF practice, shall be considered in cases where stability support is provided”*.⁴²⁷ Most importantly, since a large amounts of the bonds issued by the weaker Eurozone sovereigns have been moving out of the hands of foreign investors and into the hands of local banks and other domestic institutions, any significant restructuring of Eurozone sovereign debt will present the danger of causing significant domestic banking crisis and further reinforce the sovereign-bank doom loop.⁴²⁸

⁴²⁶ The need for restructuring was arguably apparent even before the first 2010 package was unveiled which was evidenced by the so-called „systemic exemption“ added by the IMF into its funding policy framework to overcome the result of its own assessment that the Greece’s debt was not sustainable with high probability. The exemption applied to cases where there were significant uncertainties around debt sustainability and allowed large-scale financing to go ahead without a debt restructuring if there was a high risk of systemic international spillovers. The exemption was subsequently repealed due to its shortcomings, including, its potential aggravation of moral hazard in the international financial system, in particular by inducing creditors to overlend to sovereigns at interest rates that do not fully reflect the sovereign’s risky debt situation, given the belief they would likely be bailed out in the event of a sovereign debt crisis. See International Monetary Fund, The Fund’s Lending Framework and Sovereign Debt – Further Considerations, IMF Policy Paper, April 9, 2015, [Accessed on May 12, 2018], available at: <https://www.imf.org/en/News/Articles/2015/09/28/04/53/sopol120815a>

⁴²⁷ See Preamble 12A of the draft revised text of the ESM Treaty.

⁴²⁸ For details see Lee C. Buchheit G. Mitu Gulati Ignacio Tirado, The Problem of Holdout Creditors in Eurozone Sovereign Debt Restructurings, January 24, 2013 [Accessed on May 1, 2016], available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2205704

4.1.1.3 Recapitalization of the Greek Banking Sector

As already pointed out, the implosion of the American housing market, did not have a severe ramifications for the Greek banking sector given its limited exposure to exotic structured finance products. On the other hand, the Lehman Brothers' demise and the subsequent turmoil in the financial markets resulted in worsening liquidity conditions in the Greek banking sector. The funding pressures were addressed primarily by central bank emergency liquidity assistance and the so-called enhancement liquidity law allowing the Greek government, among other things, to purchase preferred bank shares with special terms and issue guarantees to facilitate bank access to capital markets.⁴²⁹ The debt guarantees proved to be crucial for functioning of the Greek financial system once the Greek banks lost access to international capital markets. Also, the government guarantees were used to make shares in Greek banks eligible collateral under emergency liquidity assistance given that the most common marketable assets in Greek banks' portfolios - Greek government bonds - ceased to be accepted as collateral by the Eurosystem while deposit outflows intensified.⁴³⁰ However, by the late 2009, the primary attention was drawn towards the Greek's public finances.

While the EU/IMF adjustment programme agreed in May 2010 were to put Greek public finances on a sustainable path, (or at least was supposed to), it had the exact opposite effect for the Greek banking sector. First, the bailout programmes required strict fiscal discipline to restore confidence in sustainability of public finances and structural reforms to restore competitiveness and economic growth. The (overly) severe austerity measures, however, took heavy toll on individuals and businesses and resulted in deterioration of the macroeconomic situation, significant deposit outflows, impaired loan portfolios and consequently in eroded capital base and liquidity problems of Greek banks.⁴³¹ More specifically, the high stock of non-

⁴²⁹ The preference shares carried a fixed annual interest of 10 % and were to be redeemed after five years, provided that the Greek government could convert them into ordinary shares if their repayment was to bring capital adequacy ratios below the required level. Also, unlike classis preference shares, they were vested with voting rights and the right to appoint additional member of the board who would have veto powers in respect of any decision of both the board and general meeting relating to distribution of profits or remuneration of board members and executives. For details see Economic Stabilization Advisory Group, Governmental Assistance to the Financial Sector: an Overview of the Global Responses, February 27, 2009, at p. 49 [Accessed on May 12, 2018], available at: www.sherman.com/media/NewsInsights

⁴³⁰ The volume of emergency liquidity assistance to the Greek banking system peaked in 2012 at €123 billion. The primary focus of the funding was to counterbalance deposit outflows, which reached €90 billion between 2010 and 2013. See Mourmouras I. J., *On Emergency Liquidity Assistance: theory and evidence*, Speech in Oxford on February 27, 2017, [Accessed on May 12, 2018], available at: <https://www.bankofgreece.gr/en/news-and-media/press-office/news-list/news?announcement=c91acfb-3322-4472-82a0-90d17fc17cce>

⁴³¹ The deterioration in the financial condition of borrowers led to a sharp increase in non-performing loans, with the NPL ratio increasing from 3.12% at the end of 2008 to 32.92%. See European Central Bank, Statistical Data Warehouse, [Accessed on May 12, 2018], available at: <https://sdw.ecb.europa.eu/browseSelection.do?DATASET=1&node=9689430>

performing loans (NPL) on Greek banks' balance sheets weighed on their ability to lend to the real economy through higher provisioning, increase in capital requirements and elevated funding costs. No matter the scheme, addressing the NPL issue, or asset impairment in general, implies allocating losses within the system as they have to be borne by the bank or by its shareholder, creditors or customers or by the state.⁴³²

Second, the Greek debt restructuring under the PSI was another major hit for the Greek banking sector and resulted in a €37.7 billion loss for Greek banks. After the restructuring, the Greek central bank carried out a strategic viability stress-tests with the aim to single out viable banks unable to raise private capital as recipients of state funds. The remaining non-viable banks were resolved, unless private capital could be raised. In the period 2010–2015, the Greek banking sector underwent six stress-testing exercises. To address the capital shortfalls, state aid was granted primarily through public funds injected by the Hellenic Financial Stability Fund, a state-owned fund operating as a private entity, established in 2010 with the objective of contributing to maintain the financial stability of the Greek banking system. Approx. €33 billion was injected into the four largest banks, namely, Piraeus, National Bank of Greece, Eurobank, and Alpha Bank. Accordingly, since Greece was facing one of the largest bank restructurings in the EU, it was also among the first Member States to introduce a special institutional framework for banking resolution in October 2011.⁴³³ During the following years the Bank of Greece, as the national resolution authority, resolved 14 banks, with the first 13 under domestic laws, while the last under the new pan-European regime.

The new domestic law concerning bank resolution was first used in the case of Proton Bank, a bank with high-risk business model, imprudent lending policies and high ratio of related-party transactions. Given the aim of avoiding a disruption of financial stability and the need to protect depositors with no willing private sector buyer, the Hellenic Financial Stability Fund established a bridge bank, where good assets were transferred to avoid the need to sell them in the market at fire sale prices. The “good bank” continued the bank’s operations without any interruption, while the “bad bank” was wound-up and liquidated.⁴³⁴ Between 2011 and 2015, sale of business and bridge bank tools were used in twelve and two cases, respectively. Shareholder equity in all resolution cases was entirely written-down, while depositors were

⁴³² On the other hand, providing a government guarantees or assets purchases by management companies could avoid fire-sales and thus in consequence minimizing losses and reducing potential recapitalization costs.

⁴³³ See Bank of Greece, *The institutional framework for resolution*, [Accessed on May 12, 2018], available at: <https://www.bankofgreece.gr/en/main-tasks/resolution/the-institutional-framework-for-resolution>

⁴³⁴ See Bank of Greece, *Chronicle of the Great Crisis, The Bank of Greece 2008–2013*, Centre for Culture, Research and Documentation, September 2014, ISBN: 978-960-7032-65-2, at p. 193, [Accessed on December 2, 2019], available at: www.bankofgreece.gr

protected. Although all but for one resolution cases were carried out under domestic legislation, it has been argued that if the new resolution and recovery framework had been in place when the crisis started, Greece would have been worse off. In particular, “uninsured” depositors would not have been protected in full, which probably would have further deteriorated depositors’ confidence and spurred bank runs with domino-like effects for the other Greek banks.⁴³⁵

4.1.2 The Irish Banking Sector Restructuring

Unlike in the case of Greece, the Irish government debt crisis did not arise from excessive public spending, but rather from excessive and unfettered growth of the financial and real estate sector between 2003 and 2008 funded largely by overseas short-term wholesale markets, which expanded Irish bank assets to five times the country’s GDP.⁴³⁶ While emerging difficulties in Ireland’s financial sector were cognizant in late 2007, the true magnitude of the Irish crisis came to the spotlight only after the Lehman Brother’s bankruptcy.⁴³⁷ Only two weeks later, the Irish government announced guarantee of all liabilities of six systematically important Irish banks and their subsidiaries located abroad for a period of two years.⁴³⁸ Although the decision spurred public backlash, the Irish government might not have many other choices. First, while the Irish central bank had some discretion to provide emergency liquidity against lower quality collateral, at the end of the day, it was the Irish

⁴³⁵ See World Bank Group, *Bank resolution and bail-in in the EU : selected case studies pre and post BRRD*, Washington, D.C., April 18, 2017, [Accessed on December 2, 2019], available at: <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/731351485375133455/bank-resolution-and-bail-in-in-the-eu-selected-case-studies-pre-and-post-brrd>

⁴³⁶ In the two decades ending in 2007, Ireland went from being one of the poorest countries in the European Union to one of the most prosperous. Low taxes, moderate wages, and a young, well-educated workforce attracted major corporations that saw Ireland as a platform for exports of manufactured goods to the rest of Europe. Growth averaged more than 6 % a year. See International Monetary Fund, *IMF Lending Case Study: Ireland*, May 2019, [Accessed on December 2, 2019], available at: <https://www.imf.org/en/Countries/IRL/ireland-lending-case-study>

⁴³⁷ Given its heavy exposure to foreign wholesale funding, the almost collapse of Bear Stearns weighted heavily on funding of the Irish banking sector.

⁴³⁸ In particular, all deposits (retail, commercial, institutional and interbank), covered bonds, senior debt and dated subordinated debt, to the extent not already covered by national guarantee schemes, were guaranteed. Only equity and perpetual subordinated debt was not covered. On October 2, the Irish government adopted legislative framework to underpin the guarantee, which also provided new emergency powers to the Irish Finance Ministry enabling it to provide financial support to credit institutions where necessary to maintain the stability of the financial system. The act in particular provided government authorization for provision of loans, guarantees, exchanges of assets and any other kind of financial support or accommodation to credit institutions on terms and conditions the Finance Minister thought as fit, including regulating commercial conduct and competitive behavior, which *de facto* made its beneficiaries a government run entities. See European Commission, *Press Release: Commission approves revised Irish support scheme for financial institutions*, October, 13, 2008, [Accessed on December 2, 2019], available at: https://ec.europa.eu/commission/presscorner/detail/en/IP_08_1497

government who stand behind the central bank's claims.⁴³⁹ In other words, providing unlimited amount of emergency assistance would have reinforced the sovereign-bank doom loop.⁴⁴⁰ Second, the government had no mechanism for a direct bank recapitalization and selective assistance would have required the ability to distinguish insolvent from illiquid banks, an uneasy task requiring time, which the government did not have after the Lehman Brother's collapse.

4.1.2.1 Nationalization and Bailout of Anglo-Irish Bank

The guarantee created large a contingent liability of about €440 billion, more than double the Irish GDP, but provided only a short-term relief and did not address the serious funding problems of most notably Anglo-Irish Bank and Irish Nationwide Building Society, the two most distressed banks with the highest stock of poorly underwritten exposure to property sector facing severe runs.⁴⁴¹ With the increasing fears that the bank could be declared insolvent, the Irish government nationalized Anglo-Irish Bank in January 2009 to ensure continuance of its operation and an orderly wind down.⁴⁴² At the same time, while the guarantee was able to address short-term liquidity problems, it was no able to address increasing concerns about the banks' solvency.⁴⁴³

⁴³⁹ Unlike the provision of standard monetary policy facilities, which creates a claim of the Eurosystem as a whole. The rules and procedures surrounding the provision of emergency liquidity assistance in fact implement the Bagehot's principle described in chapter 3. In addition, the rules also require ECB assessment whether the provision of assistance does not interfere with the objectives and tasks of the Eurosystem or the prohibition of monetary financing. For details See Agreement on emergency liquidity assistance available at: <https://www.ecb.europa.eu/mopo/ela/html/index.en.html>

⁴⁴⁰ On the other hand, when the decision was taken, the prevailing view was that Ireland was a stable country with sound fundamentals that was subject to a liquidity run and a guarantee from a sovereign with one of the lowest debt levels in the EU was supposed to restore trust and end the liquidity crisis. However, as the crisis progressed, it became increasingly clear that the banking system did not only have a liquidity problem but also that there was a question mark over its solvency, so the guarantee did not allow banks to re-establish nonguaranteed market access. See Pisani-Ferry Jean, Sapir André, Wolff Guntram, *EU-IMF assistance to euro-area countries: an early assessment*, Bruegel Blueprint 19, Volume XIX, ISBN: 978-90-78910-30-5, at p. 79, [Accessed on December 15, 2015], available at: <https://www.bruegel.org/2013/06/eu-imf-assistance-to-euro-area-countries-an-early-assessment/>

⁴⁴¹ See Gregory Connor, Thomas Flavin and Brian O'Kelly, *Restructuring and Recovery of the Irish Financial Sector: An Economic Case History*, Working Paper., April 2015, [Accessed on December 2, 2019], available at: <http://mural.maynoothuniversity.ie/6076/>

⁴⁴² See Brown John, *Dublin nationalises Anglo Irish Bank*, the Financial Times, January 16, 2009, [Accessed on December 15, 2019], available at: <https://www.ft.com/content/964f2e9e-e33f-11dd-a5cf-0000779fd2ac>

⁴⁴³ The unilateral decision to establish the guarantee was also heavily criticized by the other Member States and the EU representatives since it put liquidity pressure on banks in other Member States, who provided less robust protection to bank deposits. To stem deposit outflows, other Member States also introduced bank deposit guarantees or increased coverage of their deposit guarantee schemes. One of the consequences of these uncoordinated measures was the harmonization of deposit protection schemes by a new EU directive in late 2009.

As a result of “running” investors, the Irish banking sector became increasingly dependent on central bank liquidity.⁴⁴⁴ The support began to accelerate with the looming expiration of the government guarantee and nobody to provide longer-term funding. Investors no longer trusted the guarantee because the government itself was under stress. As a result, the emergency central bank support to the Irish banking sector had reached approx. €140 billion, or around 85% of Irish GDP, by November 2010, representing approx. one fourth of the ECB’s total lending, an unprecedented level of exposure to a country, whose share in the capital of the ECB was less than 1%.⁴⁴⁵ On the other hand, the severity of the run on Anglo Irish made the bank’s ability to obtain ECB’s assistance increasingly challenging. At the same time, while the liquidity problems were dealt with by the central bank money, this was not going to address its solvency problems stemming from large property-related losses. This was much trickier problem since the Irish government was not able to obtain such large amount of resources from the private sector. One of the left available options was to seek out emergency liquidity assistance from the Irish central bank. This however raised two significant issues. First, the risk of the Anglo Irish’s default was to be borne by the Irish central bank and consequently by Ireland, which put further upward pressure on the price of the government’s debt. Second, such assistance in effect bailed out the bank’s bondholders and other creditors at the expense of the taxpayers’ at the time it was clear the bank was not going to be wound-down and not sold as a going concern. Indeed, the bank lacked available collateral for liquidity funding from either the ECB or the Irish central bank and was most likely insolvent by the beginning of 2010. However, the ECB allegedly refuted the idea of letting a major Eurozone bank go bankrupt in the midst of the most severe crisis Eurozone ever encountered and forged a “rescue plan” between itself, the Irish central bank and government.⁴⁴⁶

In particular, since the ECB and the Irish central bank had the resources, i.e. could print more money, but could not bail Anglo Irish bank out, while the Irish government could bail the bank out, but did not have the resources, the rescue plan concerned an issuance by the Irish

⁴⁴⁴ The guarantee was superseded in December 2009 by the Eligible Liabilities Guarantee Scheme covering newly issued or rolled over- liabilities of the six systematically important banks with a maturity of up to five years. See European Commission, *Press Release: Commission approves revised Irish support scheme for financial institutions*, November, 11, 2009, [Accessed on December 2, 2019], available at: https://ec.europa.eu/commission/presscorner/detail/en/MEMO_09_564

⁴⁴⁵ See European Central Bank, *Media: Irish Letters*, [Accessed on December 2, 2019], available at: <https://www.ecb.europa.eu/press/html/irish-letters.en.html>

⁴⁴⁶ Some went even further and suggested that the ECB president himself called to the Irish authorities and demanded not bail in bank bondholders on the grounds that doing so would damage the big French and German banks holding such debt. See Barry Eichengreen, *The Irish Crisis and the EU from a Distance*, University of California, Berkeley, January 2015, [Accessed on December 2, 2019], available at: <https://www.elibrary.imf.org/view/IMF087/22904-9781513587363/22904-9781513587363/ch09.xml?language=en>

government of €30 worth promissory notes to Anglo Irish bank to be pledged to the Irish central bank as collateral for emergency liquidity assistance. The plan spurred understandable public outcry since it in effect used taxpayers' money to pay off private creditors of insolvent bank, with no prospect that the injection would help the bank to carry on its business and be sold off later on.

After transferring majority of their deposits to sound banking institutions in early 2011, Anglo Irish Bank and Irish Nationwide Building Society were merged to form Irish Bank Resolution Corporation.⁴⁴⁷ The remaining problem however was where to find the roughly €3.1 billion annually, or approx. 2 % of Irish GDP, to pay interest on the promissory note in the period of ordered austerity under an economic adjustment programme and without access to capital markets. It was argued that the terms of the promissory notes were untenable from the very beginning.⁴⁴⁸ In particular, meeting the €3.1 billion payment required the Irish government to cut an additional 2% of GDP out of the budget or, once market access would be restored. In addition, the terms required to repay the emergency liquidity assistance by borrowing at considerably higher cost and raising anew debt sustainability issues.⁴⁴⁹ With further cost cutting politically unfeasible, the Irish government announced liquidation of the resolution corporation along with restructuring of the promissory notes. In particular, it was put into liquidation, while the promissory notes it held were agreed to be swapped for a portfolio of long-term government bonds with over thirty years maturity.⁴⁵⁰ Interestingly, the ECB did not

⁴⁴⁷ Prior the merger, Irish government invested €4 billion in ordinary shares in Anglo Irish Bank and €100 million in Irish Nationwide Building Society in special investment shares, so the tap for the bailout for the Irish government totaled at €34.7 billion. See Irish Department of Finance, Irish Bank Resolution Corporation (IBRC), January 23, 2018, [Accessed on December 15, 2019], available at: <https://www.gov.ie/en/publication/97fb9b-irish-bank-resolution-corporation-ibrc/>

⁴⁴⁸ The terms of the promissory notes provided that no interest was to be charged in 2011 and 2012, however, the interest charges in the following years were to consume about ½ of the €3.1 payment, or about 1% of the country's GDP. See Cotterill Joseph, *Luck of the Irish... promissory notes*, Opinion FT Alphaville, the Financial Times, [Accessed on December 15, 2016], available at: <https://www.ft.com/content/92c7e7cd-10a2-324e-80aa-66287aec0782>

⁴⁴⁹ The ECB's refinancing rate was close to zero, while the emergency liquidity assistance roughly 75 basis points above. Even when Ireland returned back to the bond market in March 2013, yields on its new 10-year bonds hovered at around 4%. See Barry Eichengreen, *The Irish Crisis and the EU from a Distance*, University of California, Berkeley, January 2015, [Accessed on December 2, 2019], available at: <https://www.elibrary.imf.org/view/IMF087/22904-9781513587363/22904-9781513587363/ch09.xml?language=en>

⁴⁵⁰ See Irish Department of Finance, Irish Bank Resolution Corporation (IBRC), January 23, 2018, [Accessed on December 15, 2019], available at: <https://www.gov.ie/en/publication/97fb9b-irish-bank-resolution-corporation-ibrc/> and Whelan Karl, *ELA, Promissory Notes and All That: The Fiscal Costs of Anglo Irish Bank*, The Economic and social review, December 2012, [Accessed on December 15, 2015], available at: https://www.researchgate.net/publication/239810599_ELA_Promissory_Notes_and_All_That_The_Fiscal_Costs_of_Anglo_Irish_Bank

approve or disapprove the swap but the members of its Governing Council rather “unanimously took note” of it.⁴⁵¹

4.1.2.2 The ECB as the Manager of the Irish Crisis

The Irish banking crisis and the rescue of Anglo-Irish bank in particular, is an interesting case study due to the ECB’s involvement in it, especially its opposition against imposition of losses on bondholders and other senior creditors during the rescue and the subsequent negotiation of the EU-IMF bailout. In the first instance, the ECB rejected the allegations that it had forced the Irish government to impose losses on its taxpayers in order to protect creditors of already fail bank and insisted that there was a substantial write-down of subordinated debt. Regarding the possible write-down of senior debt, the ECB emphasized that it was a political agreement that burden sharing of senior debt would not be applied until mid-2013, the necessary governance tools to address bail-in of creditors were at that time not available and potential burden-sharing of senior debt in the immediate aftermath of the pledge from EU representatives not to impose losses on senior creditors, would have had negative spillover effects on the financial stability of Ireland, as well as on other European countries.⁴⁵² The potential benefits from any burden-sharing with senior bondholders of Anglo Irish Bank would have in the ECB’s view been considerably outweighed by the possible risks the effects of the bail-in would have had on the other Irish banks as well as on other European countries. The potential amount of savings was seen as limited. In contrast, the Irish government was in the process of a significant banking sector recapitalization amounting to approx. €24 billion, or around 14% of Irish GDP and imposition of losses on senior bondholders might have intensified depositor outflows and in consequence the banking sector’s reliance on emergency central bank funding, which could have further exacerbated the sovereign-bank nexus.⁴⁵³ Moreover, the existence of the government guarantee severely limited the possibility to impose losses on senior bank creditors before late 2010, at which point the stock of debt eligible for write-down

⁴⁵¹ See European Central Bank, *Introductory statement to the press conference (with Q&A)*, February 7, 2013, [Accessed on December 15, 2015], available at: <https://www.ecb.europa.eu/press/pressconf/2013/html/is130207.en.html>

⁴⁵² The cash gained from the burden-sharing of Irish banks allegedly amounted to approx. €14 billion between 2009 and 2011. At the same time, shareholder write-downs over that period exceeded €29 billion. See European Central Bank, *Media: Irish Letters*, November 6, 2014, [Accessed on December 15, 2015], available at: <https://www.ecb.europa.eu/press/html/irish-letters.en.html>

⁴⁵³ Around €62 billion, or 40 % of Irish GDP, is said to have been used to recapitalize Ireland’s banks, with over €35 billion injected into Anglo-Irish and Irish Nationwide Building Society. See Ahearne Alan, *Political-Economic Context in Ireland*, in Special Report 21, *Resolving the European Debt Crisis*, Peterson Institute for International Economics and Bruegel, March 2012, ISBN: 9780881326420, at p. 35.

had materially declined.⁴⁵⁴ In addition, the ECB stressed that any burden-sharing could have been considered a default event, which could have led to a bank being excluded from access to Eurosystem funding.⁴⁵⁵

As to the ECB's involvement in the EU-IMF bailout, two controversies arose. First, the public disclosure of previously unreleased letters between the ECB president and the Irish Finance Minister in 2014 confirmed that the ECB "forced" Ireland to apply for the bailout. In particular a letter from November 19, 2010, showed that the ECB threatened Ireland not to extend more emergency lending to Irish banks unless it received a written commitment from the Irish government to request the bailout and commit itself to fiscal consolidation, structural reforms and financial sector restructuring, while guaranteeing immediate compensation to the Irish central bank of any missed payment on emergency liquidity assistance by the recipient banks.⁴⁵⁶ Two days later, Ireland as the second Eurozone country formally applied for a €67 billion financial assistance package funded by the IMF, the EU and the ECB. The adjustment programme for Ireland was formally agreed in December 2010 and included a joint-financing package of €85 billion for 2010-13, of which €35 billion was earmarked for the banking sector.⁴⁵⁷ Along with the plan to bring down the double digit fiscal deficits and undergo structural reforms to underpin economic growth, the key pillar of the programme was a reform of the Irish financial sector with the focus on in particular its restructuring and down-sizing.

The first step was a significant capital injection into banks and a transfer of their impaired assets to the National Asset Management Agency, in essence a bad bank established by the Irish government in December 2009 to acquire and manage primarily property development-related assets from the Irish banking sector.⁴⁵⁸ The second step was a

⁴⁵⁴ In particular, any burden-sharing might have triggered the government guarantee, which would have shifted the losses back to Irish taxpayers. In that context, it was also relevant that Irish laws did not provide for depositor preference in creditors' pecking order, thus claims of senior bondholders were legally *pari passu* with claims of ordinary depositors and any attempt to treat senior bondholders differently might have been challenged and trigger protracted litigation.

⁴⁵⁵ See Letter from Mario Draghi to Matt Carthy, Member of the European Parliament dated February 17, 2015, [Accessed on December 15, 2015], available at <https://www.ecb.europa.eu/press/html/irish-letters.en.html>

⁴⁵⁶ See Letter from Jean-Claude Trichet to Brian Lenihan Tánaiste, dated November 19, 2010, [Accessed on December 15, 2015], available at: <https://www.ecb.europa.eu/press/html/irish-letters.en.html>

⁴⁵⁷ For details see European Commission, Financial Assistance to Ireland, [Accessed on December 15, 2015], available at: https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/financial-assistance-eu/which-eu-countries-have-received-assistance/financial-assistance-ireland_en

⁴⁵⁸ The agency's founding goal was in particular to achieve the best possible return for the taxpayer through liquidation of its entire portfolio within a 7 to 10 years. The biggest challenge was valuation of such assets as overpriced purchases would constitute a state aid, while their market price could have severely eroded the selling banks' capital base. The final approach approved by the Commission concerned purchases at then market values with a premium accounting for a long-term asset value. The purchases were paid through the issuance the agency's issuance of a 95% state-guaranteed senior debt, which could then be used by the participating banks as collateral in operations with the ECB. Importantly, since the Irish government could not afford to take on additional debt, a

round of stress tests and asset quality reviews of the banks' balance sheets in order to properly determine the size of the losses and liquidity position of individual banks.⁴⁵⁹ The third element was a liquidity review, reflecting the lessons from the financial crisis, in particular the importance of a stable funding structure and a shift from a purely capital related to also liquidity stress-testing. With the exception of Anglo-Irish Bank and Irish Nationwide Building Society, which were both liquidated, the rest of the banking sector was recapitalized and restructured.

The ECB's involvement in the EU-IMF bailout also raises concern, namely its strong opposition against imposing losses on holders of about €19 billion senior unsecured debt. While the IMF proposed a 50% haircut, a plan supported by the Irish government, the ECB's rejected any haircut on the grounds that it could disrupt the flow of wholesale funding to Irish but also to other euro area banks.⁴⁶⁰ The decision not to impose losses on senior bondholders (at all) was widely criticized since it was perceived as using Irish taxpayer's money to bailout German and French banks.⁴⁶¹ The truth is that the ECB was in a position to exert an intense pressure on the Irish government due to the significant dependence of the Irish banking sector on the emergency assistance, which could have been pulled out at any time. This will potentially bring controversies also in the future as banking sectors in countries asking for assistance are often distressed and in need of central bank liquidity. In any event, involvement in such economic adjustment programmes, even if indirect, might blur the division between monetary and fiscal policy and create potentially significant conflict of interest. In particular, given its independence, the ECB has a very broad discretion whom liquidity support will be provided and while there are limits to that discretion, such as that only illiquid and not insolvent

51% stake in the agency's SPV established to acquire the assets and issue the bonds was owned by private investors to ensure that these transactions were treated as off-balance sheet in the Irish budget. However, given the guarantee, the government representatives on the agency's board maintained a veto power over the board's decisions. For details see Comptroller and Auditor General, *Special Report 102 - National Asset Management Agency - Second Progress Report*, July 26, 2018, [Accessed on August 15, 2018], available at: <https://www.audit.gov.ie/en/find-report/publications/special%20reports/special-report-102-national-asset-management-agency-second-progress-report.html>

⁴⁵⁹ It was in part a reaction to the failure of stress tests run by the Committee of European Bank Supervisors and other international organizations, such as IMF or OECD to reveal the major risk in and the capital needs of not only the Irish banking sector. The credibility of the stress tests was especially called into question when, just months after passing the 2011 stress test, a number of banks, including Dexia and Bankia, required a government bailout.

⁴⁶⁰ See Pisani-Ferry Jean, Sapir André, Wolff Guntram, *EU-IMF assistance to euro-area countries: an early assessment*, Bruegel Blueprint 19, Volume XIX, ISBN: 978-90-78910-30-5, at p. 111, [Accessed on December 15, 2015], available at: <https://www.bruegel.org/2013/06/eu-imf-assistance-to-euro-area-countries-an-early-assessment/>

⁴⁶¹ Although the costs for the Irish taxpayers were much smaller when compared to the €35 billion bailout of Anglo-Irish and Nationwide Building Society, since the amount of senior unsecured debt in those two institutions was reported to be about €3.7 billion, with the remaining part of the €19 billion being held of investors of going concern banks. See Ahearne Alan, Political-Economic Context in Ireland, in Special Report 21, *Resolving the European Debt Crisis*, Peterson Institute for International Economics and Bruegel, March 2012, ISBN: 9780881326420, at p. 40.

banks with sufficient collateral can be the recipients, as demonstrated on the case of Anglo-Irish bank, their significance is rather limited. In other words, the ECB may be tempted to “dictate” Member States specific measures in respect of their economies, fiscal policies or financial sectors during these negotiations. Moreover, the ECB will be on both sides of virtually any future Eurozone sovereign debt restructuring, given its large sovereign debt holdings. In such cases, assent to any debt restructuring could amount to monetary financing as the ECB would in effect agree to cancel its sovereign debt claims.⁴⁶² On the other hand, any opposition against debt restructuring might call for a much more fiscal austerity on the recipient Member States and as such make adjustment programmes unsuccessful. At the same time, given the extremely low inflation levels, which the ECB has been for a long time largely unsuccessfully trying to elevate, the ECB could be tempted to require more “light” austerity measures. Furthermore, access to the OMT is conditional on participation in an economic adjustment programme, so the ECB may end up making the provision of liquidity conditioned on a decision it will be a part of. Not to mention that the ECB is now also the single EU-level prudential bank supervisor, which adds further complexity.

Finally, the promissory note transaction seems to amount to monetary financing since from an economic point of view, the plan concerned provision of central bank money to a failed bank to pay off its creditors, which the Irish government could not borrow on the markets but would end up repaying.

⁴⁶² Indeed this conflict of interest has so far been most notably displayed in the case of Greek sovereign debt restructuring. For details see Chapter 4.1.1.

4.2 Financial Assistance Mechanisms as a Firewall to Save the Euro

When the financial crisis hit, the EU was ill-prepared and did not have either institutional framework or a sound legal basis for provision of financial assistance to Member States. Its framers simply did not conceive that it would become necessary to provide financial assistance to a Member State facing “bankruptcy”. This was one of the reasons, why at an early stage several Member States insisted on involving the IMF in the negotiations about the bailout programmes, which had expertise in this respect.⁴⁶³

Prior to the Eurozone debt crisis no crisis mechanism existed. While Arts. 122(2) and 143 TFEU provided possibility for some form of financial assistance, neither was a suitable legal basis for provision of financial assistance to Member States facing severe financial difficulties. As a result, three new mechanisms were introduced at the height of the crisis, namely, the European Financial Stabilization Mechanism (the “**EFSM**”), the European Financial Stability Facility (the “**EFSF**”) and the European Stability Mechanism (the “**ESM**”).⁴⁶⁴

4.2.1 European Financial Stabilization Mechanism

The EFSM was established as a reaction to the Greek solvency crisis on the basis of Art. 122(2) TFEU, which foresees the possibility of the Council upon proposal from the Commission to grant financial assistance to a Member State in difficulties or seriously threatened with severe difficulties caused by, *inter alia*, exceptional occurrences beyond its control and a Council regulation implementing it.⁴⁶⁵ Such difficulties may also be caused by a serious deterioration in the international economic and financial environment. In particular, according to the regulation, the unprecedented global financial crisis and economic downturn provoked a strong deterioration in the deficit and debt positions of some Member States and consequently caused severe deterioration of their borrowing costs, beyond what can be explained by economic fundamentals.

⁴⁶³ See Pisani-Ferry Jean, Sapir Andre, Wolff Guntram, *EU-IMF assistance to euro-area countries: an early assessment*, Bruegel Blueprint Series, Volume XIX, ISBN: 978-90-78910-30-5, at p. 18.

⁴⁶⁴ For details see Menelaos Markakis, *Accountability in the Economic and Monetary Union: Foundations, Policy, and Governance*, Oxford University Press, ISBN-13: 9780198845263, at p. 20.

⁴⁶⁵ See Council Regulation (EU) No 407/2010 of 11 May 2010 establishing a European financial stabilization mechanism. The regulation in particular stresses that strong economic policy conditions should be imposed in case of activation of the mechanism with a view to preserving the sustainability of the public finances of the beneficiary Member State and restoring its capacity to finance itself on the financial markets

The assistance under EFSM could take the form of a loan or a credit line financed by borrowings on the capital markets or from financial institutions contracted by the Commission on behalf of the EU and under the EU's budget implicit guarantee and may not, in aggregate, exceed €60 billion.⁴⁶⁶ The Member State seeking financial assistance is required to discuss its financial needs with the Commission and ECB and submit a draft economic and financial adjustment programme, which shall be approved by qualified majority of the Council members acting upon a proposal from the Commission. As a general rule, any assistance should be disbursed in installments to secure that the beneficiary Member State adheres to the programme.⁴⁶⁷

The EFSM was primarily utilized for provision of financial assistance to Ireland (a €22.5 billion loan) and Portugal (a €24.3 billion loan) between 2011 and 2014.⁴⁶⁸ The Council also approved a three-month bridge loan of up to €7.16 billion to Greece in 2015.⁴⁶⁹ While the primary financial assistance mechanism for the Eurozone countries is now expected to be the ESM, the EFSM however remains active and could be used if the need arose.

4.2.2 European Financial Stability Facility

The EFSF was created on June 7, 2010 as a temporary crisis resolution mechanism, specifically as a lending facility for troubled euro area Member States. It is a private corporation under Luxembourg law established on the basis of a framework agreement between the EFSF and the Eurozone Member States as its shareholders.⁴⁷⁰

It could provide financial assistance in the aggregate amount of up to €440 billion by way of loan disbursements, precautionary facilities, facilities to finance the recapitalization of financial institutions in a euro-area Member State (through loans to the governments of such Member States), facilities for the purchase of bonds in the secondary markets on the basis of

⁴⁶⁶ See Art. 2 of Council Regulation (EU) No 407/2010.

⁴⁶⁷ See Art. 4 of Council Regulation (EU) No 407/2010.

⁴⁶⁸ See European Commission, Overview of EFSM financial assistance operations, [Accessed on December 15, 2015], available at: https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/financial-assistance-eu/funding-mechanisms-and-facilities/european-financial-stabilisation-mechanism-efsm_hr#efsmprogrammes

⁴⁶⁹ See Council of the European Union, Press Release: EFSM: Council approves €7bn bridge loan to Greece, [Accessed on December 15, 2015], available at: <https://www.consilium.europa.eu/en/press/press-releases/2015/07/17/efsm-bridge-loan-greece/#>

⁴⁷⁰ See EFSF Framework Agreement of July 6, 2010, available at: <https://www.esm.europa.eu/content/efsf-framework-agreement>

an ECB analysis recognizing the existence of exceptional financial market circumstances and risks to financial stability, or facilities for the purchase of bonds in the primary market.⁴⁷¹

It is financed by issuing or entering into bonds, notes, commercial paper, debt securities or other financing arrangements backed by irrevocable and unconditional guarantees by the euro area Member States. The availability of such financial assistance is conditional upon entering into a memorandum of understanding with the Commission, acting on behalf of the euro-area Member States, including conditions such as budgetary discipline and economic policy guidelines and their compliance with the terms of such MoU.⁴⁷²

The ESFS provided assistance primarily in the form of loans within a macroeconomic adjustment programmes while the only other instrument used was a loan for an indirect bank recapitalization to Spain.⁴⁷³ However, the EFSF does not provide any further financial assistance, as this task was taken over and is now performed solely by the ESM.⁴⁷⁴

⁴⁷¹ See Art. 2(1) (b)(c) of the EFSF Framework Agreement.

⁴⁷² When negotiating terms of the MoU, the EC acts in liaison with the ECB and IMF. See Arts. 2(1)(a) and 2(2) and of the EFSF Framework Agreement.

⁴⁷³ The first assistance under ESFS in the amount of €17.7 billion was provided to Ireland. The ESFS/ESM has so far disbursed €295 billion of funds, including €26 billion in loans to Portugal, €6.3 billion in loans to Cyprus, €61.9 billion in loans to Greece and a €41.3 billion loan to Spain. See European Stability Mechanism, Financial Assistance, [Accessed on December 15, 2020], available at: <https://www.esm.europa.eu/financial-assistance>

⁴⁷⁴ Nevertheless, the ESFS continues to operate to administer loan repayments from the beneficiary countries and make interest payments to the EFSF bondholders. It also rolls over outstanding bonds since the maturity of loans extended is longer than the maturity of the bonds issued by the ESFS. The EFSF will be liquidated when there is no longer financial assistance outstanding and all EFSF-issued debt instruments and any reimbursement amounts due to the EFSF have been repaid in full. See European Stability Mechanism, Before the ESM, [Accessed on December 15, 2020], available at: <https://www.esm.europa.eu/efsf-overview>

4.2.3 The European Stability Mechanism

The ESM is an international financial institution established by an international treaty (the "**ESM Treaty**") and a successor of the EFSF.⁴⁷⁵ The purpose of the ESM is to act as a permanent crisis resolution mechanism mobilizing funding and providing stability support to its members which are experiencing, or are threatened by, severe financing problems, if indispensable to safeguard the financial stability of the euro area as a whole and of its Member States.⁴⁷⁶ To achieve this purpose, the ESM has a €500 billion lending capacity. Since the TFEU lacked a proper legal basis for establishment of a crisis management mechanism, the Council decided, in accordance with the so-called simplified revision procedure under Art. 48(6) TEU, to introduce the following paragraph amending Art. 136 TFEU:

*"The Member States whose currency is the euro may establish a **stability mechanism to be activated if indispensable to safeguard the stability of the euro area as a whole.** The granting of any required financial assistance under the mechanism will be made subject to strict conditionality."⁴⁷⁷*

The ESM is managed by a Board of Governors, the supreme governing body composed of Eurozone finance ministers and a Board of Directors chaired by a Managing Director.⁴⁷⁸ The Board of Governors is authorized to decide on provision of any ESM financial assistance, but the Commission, in liaison with the ECB and, wherever possible, together with the IMF, with the task of first assessing the need for financial assistance as well as sustainability of a member's public debt, and then if warranted, negotiating an MoU detailing the conditionality attached to the financial assistance. In parallel, the Managing Director of

⁴⁷⁵ The ESM Treaty was signed by the Eurozone member states on February 2, 2012 and became effective after ratification by all signatories on September 27, 2012. Interestingly, the first version of the ESM Treaty, which was signed in July 11, 2011 was never ratified since the deteriorating conditions of especially Greece forced the Eurozone Members to add more flexibility. In particular, the first version did not provide for the "precautionary" forms of financial assistance or indirect recapitalization. Also, the amended version eased the conditions for financial assistance, but on the other hand add a requirement to become a party to the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union (the so-called fiscal compact) and implement the balanced budget rule as specified in that treaty within the agreed timeline. In addition, decision making procedure was streamlined in some cases and the timing of capital contribution provision was accelerated. See the European Council, Factsheet, Treaty establishing the European Stability Mechanism, February 2, 2012, [Accessed on December 15, 2015], available at: https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ecofin/127788.pdf

⁴⁷⁶ See Art. 3 of the ESM Treaty.

⁴⁷⁷ The amendment became effective on May 1, 2013. See European Council Decision of 25 March 2011 amending Article 136 of the Treaty on the Functioning of the European Union with regard to a stability mechanism for Member States whose currency is the euro (2011/199/EU).

⁴⁷⁸ Each Governor appoints, from among people of high competence in economic and financial matters, one member of the Board of Directors, which appoints the Managing Director. The EC and the ECB may participate in the Board of Governors' meetings as observers. For details see Arts. 5, 6 and 7 of the ESM Treaty.

prepares a proposal for a financial assistance facility agreement, which is to be adopted by the Board of Governors and approved by the Board of Directors.⁴⁷⁹

The ESM has an authorized share capital of €704.8 billion, of which €80.5 billion has been paid-in with the remaining part being callable upon a unanimous vote, except for capital restoration for loss absorption purposes, in case of which a simple majority suffices.⁴⁸⁰ In addition, the Managing Director of the ESM may make an emergency capital call to avoid default on any scheduled or other payment obligations due to the ESM's creditors.⁴⁸¹ The voting rights of each ESM shareholder, as exercised by its appointees on the Board of Governors and Board of Directors, correspond to the ESM's capital structure and percentage of shares allocated to such shareholder under the ESM Treaty.⁴⁸²

The ESM may grant financial assistance in the form of precautionary credit lines to members whose economic conditions are still sound to maintain continuous access to market financing by reinforcing the credibility of their macroeconomic performance. In addition, the ESM may purchase its members' bonds in the primary markets in order to maximize the cost efficiency of the financial assistance or in the secondary markets when a lack of liquidity poses a threat to financial stability and risk pushing interest rates towards unsustainable levels and in consequence creating refinancing problems for the banking system.⁴⁸³ Finally, the ESM Treaty contemplates assistance in the form of loans for recapitalization of financial institutions, where the roots of a crisis are primarily located in the financial sector.⁴⁸⁴ Even though the list of instruments is a closed one, the ESM Treaty empowers the Board of Governors to amend the list and introduce new instruments.⁴⁸⁵

⁴⁷⁹ See Art. 13(3) of the ESM Treaty.

⁴⁸⁰ However, a qualified 85 % majority of the votes cast shall apply instead of the unanimity in case the EC and the ECB concluded that a failure to adopt decision to grant or implement financial assistance would threaten financial sustainability of the Eurozone. For more see Art. 4(1) of the ESM Treaty.

⁴⁸¹ Germany, Italy, France and Spain collectively hold shares representing more than 3/4 of the subscribed capital. For details see European Stability Mechanism 2019 Annual Report, [Accessed on July 15, 2020], available at: <https://www.esm.europa.eu/sites/default/files/esm-annual-report-2018.pdf>

⁴⁸² See Arts. 5 through 7 of the ESM Treaty.

⁴⁸³ Interestingly, while this instrument is a though as an economic/fiscal policy tool, it has basically the same objective (i.e. depressing excessive yields on government bonds) as the various government bond purchase programmes from the ECB, which are claimed to be tools of monetary policy. See also chapter 3.

⁴⁸⁴ For details see Arts. 14 through 18 of the ESM Treaty.

⁴⁸⁵ See Art. 19 of the ESM Treaty. Despite huge controversies, the authorization was utilized at the end of 2014 with the introduction of an instrument for direct recapitalization of financial institutions with the aim to address the sovereign-bank doom loop, which the indirect recapitalization tool was thought to reinforce. For details, see chapter 5.3.2.5.

To provide the financial assistance to its members, the ESM is empowered to borrow in the European and international capital and money markets from banks, financial institutions or other persons or institutions. The operation of the ESM is then financed through a charge of margins above the borrowing rate to the ESM Members receiving the assistance.⁴⁸⁶ Interestingly, even before the ESM Treaty was ratified, it was argued that a broad reading of the ESM Treaty could allow the reference to the “banks” to be interpreted as to include also the ECB and that granting the ESM a banking license would allow it to permanently access the ECB’s liquidity.⁴⁸⁷ This possibility was however firmly rejected by the ECB as amounting to monetary financing.⁴⁸⁸

The numerous lawsuits and constitutional complaints filed, *inter alia*, in Slovenia, Estonia, France, Austria, Germany or Ireland even before the ESM Treaty and the amendment to Art. 136 TFEU became effective, evidence how much controversies surrounded the ESM’s establishment. Inevitably, it did not take long before the controversy ended up before the CJEU, which handed over its now famous Pringle ruling.⁴⁸⁹

In particular, the reference was made by the Irish Supreme Court in proceedings brought by a member of Irish Parliament against the Irish government seeking a declaration, first, that the amendment to Art. 136 TFEU by the Council decision under the simplified revision procedure constitutes an unlawful amendment of the TFEU since it constituted an unlawful intrusion into Member State’s sovereignty and, secondly, that by ratifying the ESM Treaty, Ireland would undertake obligations incompatible with the treaty rules on economic and monetary policy on which the EU was founded.⁴⁹⁰ At the same time, the ruling is also important for and is cited in the ECJ’s subsequent ruling concerning the lawfulness of the OMT programme by the ECB.⁴⁹¹ In a broader context, both cases, each from a different perspective,

⁴⁸⁶ See Art. 20(1) of the ESM Treaty.

⁴⁸⁷ See Wall Denis, *Monti Pushes for ESM Banking License*, the Wall Street Journal, August, 1, 2012 [Accessed on July 15, 2015], available at: <https://www.wsj.com/articles/SB10000872396390444320704577563140539189060>

⁴⁸⁸ See Opinion of the European Central Bank of 17 March 2011 on a draft European Council Decision amending Article 136 of the Treaty on the Functioning of the European Union with regard to a stability mechanism for Member States whose currency is the euro (CON/2011/24).

⁴⁸⁹ They all eventually dismissed the complaints. See e.g. Constitutional judgement of the Supreme Court No 3-4-1-6-12 of July 12, 2012, available at: <https://www.riigikohus.ee/en/constitutional-judgment-3-4-1-6-12>, BVerfG, Judgment of the Second Senate of 12 September 2012 - 2 BvR 1390/12, available at: https://www.bundesverfassungsgericht.de/SharedDocs/Entscheidungen/EN/2012/09/rs20120912_2bvr139012en.html or VfGH Judgement No. SV 2/12 of February 25, 2013, available at: https://www.vfgh.gv.at/medien/Press_Releases5.en.html

⁴⁹⁰ See Judgment of the Court (Full Court), 27 November 2012, *Thomas Pringle v Government of Ireland and Others*, Case C-370/12.

⁴⁹¹ For details of the ruling see chapter 3.4.2.

deals with the issue of asymmetric EMU structure, in particular with fact that the EU had exclusive competence in the area of monetary policy but not in the area of fiscal or economic policy.⁴⁹²

When addressing the first contention, the court was assessing whether the amendment to Art. 136 TFEU concerns solely the Part III of TFEU (as required by Art. 48 TEU), or whether it, in substance encroaches on the competence of the EU in the area of monetary policy and in the area of the coordination of the economic policies of the Member States. In short, the court answered in negative. While the ESM pursues the objective of maintaining the stability of the euro area as a whole, which may have effects on the stability of the currency used within that area, an economic policy measure, in the court's view, cannot be treated as equivalent to a monetary policy measure for the sole reason that it may have indirect effects on the stability of the euro. At the same time, while objective of both the ESM and the new framework for closer coordination and surveillance of the economic and budgetary policies of Member States have as their objective reduction of possible risk of public debt crises, the objective of the former is the management of financial crises which, notwithstanding sound economic and budgetary policies, might nonetheless arise. Finally, the amendment did not confer any new competence on the EU since, in the court's opinion, it created no legal basis for the EU to undertake any action which was not possible before.

When responding to the second question, the court in essence analyzed provisions of the ESM Treaty in light of the EU's exclusive competence as provided for in the TFEU, in particular in the area of monetary policy and the "no bail-out clause". As regards the former, the court rejected the argument that the ESM encroaches upon the monetary policy competence of the ECB since its purpose is not to maintain price stability, despite the fact that its economic policy measure may have indirect consequences on the rate of inflation. Accordingly, ESM is not entitled to either set the interest rates for the euro area, or to issue currency while the financial assistance, which the ESM grants is funded entirely paid-in capital or by the issue of financial instruments. When analyzing the latter, the court looked at the objective of the "no bailout" clause as discernable from the preparatory works of the Treaty of Maastricht, which is to ensure that the Member States follow a sound budgetary policy by assuring that they are subject to the logics of the market when they enter into debt. Since that ought to prompt them to budgetary discipline, which contributes to attainment of the financial stability of the EMU. Therefore, TFEU does not, in the court's opinion, prohibit the granting of financial assistance by one or more Member States to a Member State, which remains

⁴⁹² See Arts. 3(1)(c) and 5(1) TFEU.

responsible for its commitments to its creditors provided that the conditions attached to such assistance are such as to prompt that Member State to implement a sound budgetary policy. In contrast, financial assistance under ESM amounts to the creation of a new debt, owed to the ESM by a recipient Member State, which remains responsible for its commitments to its creditors in respect of its existing debts. Consequently, a mechanism such as the ESM and the Member States who participate in it are not liable for the commitments of a Member State which receives stability support and nor do they assume those commitments, as prohibited under the “no bailout clause”.

In essence, the reasoning follows the same logic as the OMT case. In other words, Even though both the ECB and the ESM do the same thing, that is buy sovereign bonds in the secondary markets, as long as they stress that they pursue different goals, it is in line with the TFEU.

Importantly, taking into account experience with the Greek bailout, the ESM Treaty also introduced the requirement to include collective action clauses in all new euro area government securities issues in the so called two-limb form, i.e. two majorities would be required to modify terms across series, with one relating to face value of all issuer’s bonds and the other as a minimum threshold to be met across all series in order to modify terms of bonds in all series. This is, however, a higher bar than was in the case of Greece PSI, which did not require voting per issue and an aggregate majority suffices to amend the terms of all issues. The weakness of in the design was, however, recognized and one-limb collective action clause was introduced at the end of 2019.⁴⁹³ The new clause removes the need for a majority within each series, provided a qualified majority is obtained across all series, which should facilitate simultaneous restructuring of multiple bond series.

4.2.3.1 The Unseen Peril of the ESM Preferred Creditor Status

The Greek debt restructuring was not the only case that “took ISDA busy” during the Eurozone sovereign debt crisis. Specifically, the issue centered around the so-called preferred creditor status afforded to various multilateral development organizations, most notably the IMF. In particular, throughout the history of IMF lending, the institution has enjoyed the preferred creditor status (“**PCS**”), which affords the IMF priority creditor status over other (private or official) creditors in order to provide confidence that IMF resources are safe even

⁴⁹³ See Draft revised text of the treaty establishing the European Stability Mechanism as agreed by the Eurogroup on 14 June 2019, December 12, 2019, [Accessed on December 22, 2019], available at: www.europarl.europa.eu

when other creditors of a distressed country face substantial uncertainty about whether they will be repaid in full.⁴⁹⁴ However, the IMF's PCS is *de facto* rather than *de jure* as it is not explicitly provided for in any of the IMF's founding documents, although it is widely recognized by the international community. The issue of PCS came under scrutiny when ISDA considered whether the financial assistance provided by the IMF to Ireland constituted debt restructuring due to the subordination of existing bondholder claims via the privileged position of the IMF.⁴⁹⁵ The ISDA was specifically asked to assess whether a "Restructuring" within the meaning of applicable ISDA standards had occurred and thus payouts under CDS referencing Irish sovereign debt, other than that of the IMF, should be made.⁴⁹⁶ Under the standards, "Restructuring" covers, *inter alia*, the occurrence of change in the ranking in priority of payment of any obligation, causing the "Subordination" of such obligation to any other obligation provided that, *inter alia*, it is announced by the issuer or a governmental authority in a form that binds all holders of the obligations that are being subordinated.⁴⁹⁷ "Subordination" in turn arises, *inter alia*, if, in case of liquidation, dissolution, reorganization or winding up of the issuer, the claims of holders of senior debt would be satisfied prior to the claims of holders of junior debt.⁴⁹⁸

On March 15, 2011, when assessing whether these conditions were fulfilled in the case of the IMF bailout loan to Ireland, the EMEA ISDA Determination Committee concluded that no "Restructuring", and in particular, no "Subordination" had occurred.⁴⁹⁹ Although the analysis as to why this conclusion had been arrived at is not publicly available, it was argued it was due

⁴⁹⁴ See Schadler Susan, *The IMF's Preferred Creditor Status: Does It Still Make Sense after the Euro Crisis?* Centre for International Governance Innovation, Policy Brief No. 37, March 2014, at p. 4, [Accessed on July 15, 2016], available at: <https://www.cigionline.org/publications/imfs-preferred-creditor-status-does-it-still-make-sense-after-euro-crisis>

⁴⁹⁵ Since the implementation of the 2009 ISDA Credit Derivatives Determinations Committees and Auction Settlement CDS Protocol to the ISDA documentation, determination of the occurrence of a Credit Event shall be made by the (regional) Determination Committees, each comprised of 10 sell-side institutions (i.e. dealers) and 5 buy-side (i.e. non-dealers). Before this so called "Big Bang" Protocol, counterparties could take their disputes to arbitration or courts. Given the composition of the committees and the opacity as to who sits thereon, independence of the committees has been questioned. Indeed, some argue that the determination of whether a Credit Event occurred is effectively controlled by institutions benefitting if a Credit Event is not determined. See e.g. Morgenson Gretchen, *Scare Tactics in Greece*, the New York Times, November 19, 2011, [Accessed on July 15, 2016], available at: <https://www.nytimes.com/2011/11/20/business/credit-default-swaps-as-a-scare-tactic-in-greece.html>

⁴⁹⁶ For more details see Section 4.1 through 4.7 of the 2003 Credit Derivatives Definitions as supplemented (the "2003 ISDA Definitions").

⁴⁹⁷ See Section 4.7 (a) (iv) of the 2003 ISDA Definitions.

⁴⁹⁸ See Section 2.19(b)(B) of the 2003 ISDA Definitions.

⁴⁹⁹ See ISDA EMEA Determinations Committee, March 15, 2011, [Accessed on July 15, 2016], available at: www.isda.org

to the IMF's *de facto* rather than *de jure* privileged status.⁵⁰⁰ On the other hand, it could be argued that the requirement for Restructuring (Subordination) to bind all holders of the obligations was not fulfilled in respect of the IMF assistance to Ireland since its priority status was not legally enforceable.⁵⁰¹ As long as Ireland remained current on its obligations to the bondholders, and they did not object the IMF status, that such Subordination was (at least tacitly) agreed upon and was indeed voluntary.

Interestingly, the determination that "Restructuring" had not occurred in connection with the provision of financial aid to Ireland run counter an analysis ISDA had published on its websites earlier arguing that "Subordination" had occurred since provision of the IMF loan created a creditor with preferential insolvency treatment constituted change in the ranking in priority of payment and the Irish bondholders could not object to the IMF's preferred status. Since Irish law incorporated the agreement governing the IMF, it formally acknowledged the IMF's preferred senior creditor status.⁵⁰²

This raises potential issues in respect of the preferred creditor status of the ESM, which is expressly contemplated by the recital to the ESM Treaty providing that:

*"Like the IMF, the ESM will provide stability support to an ESM Member when its regular access to market financing is impaired or is at risk of being impaired. Reflecting this, Heads of State or Government have stated that the **ESM loans will enjoy preferred creditor status in a similar fashion to those of the IMF, while accepting preferred creditor status of the IMF over the ESM. This status will be effective as of the date of entry into force of this Treaty.** In the event of ESM financial assistance in the form of ESM loans following a European financial assistance programme existing at the time of the signature of this Treaty, the ESM will enjoy the same seniority as all other loans and obligations of the beneficiary ESM Member, with the exception of the IMF loans."*⁵⁰³

⁵⁰⁰ See Schadler Susan, The IMF's Preferred Creditor Status: Does It Still Make Sense after the Euro Crisis? Centre for International Governance Innovation, Policy Brief No. 37, March 2014, at p. 4, [Accessed on July 15, 2015], available at: <https://www.cigionline.org/publications/imfs-preferred-creditor-status-does-it-still-make-sense-after-euro-crisis>

⁵⁰¹ Pursuant to Section 4.8 of the 2003 ISDA Definitions, a "Governmental Authority" means any de facto or de jure government (or any agency, instrumentality, ministry or department thereof), court, tribunal, administrative or other governmental authority or any other entity (private or public) charged with the regulation of the financial markets (including the central bank) of the issuer or of the jurisdiction of organization thereof.

⁵⁰² See ISDA's analysis of the senior status of the IMF with respect to its loans to the Republic of Ireland, January 18, 2011, [Accessed on July 15, 2016], available at: www.isda.org and Schadler Susan, The IMF's Preferred Creditor Status: Does It Still Make Sense after the Euro Crisis? Centre for International Governance Innovation, Policy Brief No. 37, March 2014, at p. 4, [Accessed on July 15, 2015], available at: <https://www.cigionline.org/publications/imfs-preferred-creditor-status-does-it-still-make-sense-after-euro-crisis>

⁵⁰³ See Recital (13) of the ESM Treaty. The PCS does not apply to the financial assistance provided to Spain because it was initially granted by the EFSF and transferred to the ESM thereafter.

Although the recital stresses that the ESM will enjoy the PCS similar to the IMF, there is one important difference – its form. PCS is not mentioned in the IMF's Articles of Agreement and only in 1988 did PCS receive a formal, though not legally binding, endorsement from the IMF Board of Governors' interim committee, which at that time, was responsible for the IMF key policy decision.⁵⁰⁴ Therefore, unlike in ordinary bankruptcy law, there is no statutory pecking order of creditors as to rankings of their claims provided for in international law in respect of sovereign borrowers. On the other hand, in economic terms, the IMF having the PCS means that it receives payment before any other (rescheduled) creditor, should the borrower have not enough assets (cash) to cover them all. In this respect, the arguably legally binding nature of the PCS of the ESM could potentially entail the risk that investors could try to use the ESM's privileged status as a basis for a trigger event under the respective CDS referencing euro area sovereign debt in case of a financial assistance to such Member State by the ESM. Moreover, the explicit *de jure* seniority could theoretically also be used for a loan acceleration or as a basis for breach of *pari passu* clause in various debt arrangements.

⁵⁰⁴ *Id.* at p. 3

4.3 Breaking the Sovereign-bank Doom-loop

The previous paragraphs described selected episodes of the euro area sovereign debt crisis, including the immediate responses by Eurozone leaders. Despite the fact that some progress has been made at the institutional level, it was a very tedious process, which is far from over. Specifically, the ESM's €500 billion lending capacity, while most likely sufficient to deal with crises in smaller Member states such as Ireland, would most likely be inadequate to protect financial stability of the Eurozone as a whole in a systemic crisis. Moreover, out of all the tools available to the ESM, only one – the direct recapitalization tool, has the potential not to reinforce the sovereign-bank doom-loop. The fact that it took almost four years to come up with only one tool is striking. Despite some potential practical difficulties, which may come along with the new ESM direct recapitalization tool, it is a necessary step for breaking the sovereign-bank doom loop.⁵⁰⁵ Nonetheless, other significant opportunities for improvement were missed.

4.3.1 The Old Pains of the New Basel Rules

The third Basel Accord adopted in 2010 is a direct result of the 2007-8 financial crisis that revealed, among other things, how misplaced the trust in the second Basel accord - in making banks and the global banking system resilient - was.⁵⁰⁶ The new framework was implemented in the EU through the fourth Capital Requirements Directive (“**CRD IV**”) and the Capital Requirements Regulation (“**CRR**”).⁵⁰⁷ Both the third Basel Accord and the way it is implemented into EU law follow the previous framework and provide for the same procedure for the determination of riskiness of sovereign debt. Specifically, while CRR does not grant a zero risk-weight to sovereign debt, it provides for the same discretion to consider banks' exposure towards their “home” sovereign as risk free.⁵⁰⁸ However, CRR implements this exemption more loosely than the revised Basel accord so its outreach is much broader in EU law. This was also highlighted in a report from the Basel Committee on Banking Supervision

⁵⁰⁵ See also chapter 5.3.2.5.

⁵⁰⁶ See Bank for International Settlements, Basel Committee on Banking Supervision, *Basel III: A global regulatory framework for more resilient banks and banking systems*, December 2010, [Accessed on May 15, 2015] available at: https://www.bis.org/publ/bcbs189_dec2010.pdf

⁵⁰⁷ See Directive 2013/36/EU of the European Parliament and of the Council on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms and Regulation (EU) No 575/2013 of the European Parliament and of the Council on prudential requirements for credit institutions and investment firms.

⁵⁰⁸ See Arts. 114(4) and 400 of CRR.

assessing implementation of the new rules. Specifically, its report confirms that the exemption in EU law is much broader than in the new accord and classified that divergence as a “material noncompliance”.⁵⁰⁹ In essence the single currency allows all Eurozone banks to rely on the exemption regardless of the size of the exposure.

It is startling that having gone through what was briefly described above, Europe still sees sovereign debt as risk-free and treats sovereign exposure even more leniently than the often-criticized Basel framework. In other words, the Greek *de facto* insolvency in no way change the perception that if a bank were to hold Greek bonds on its balance sheet, it need not hold any capital against them since these bear no risk. The latest so-called Banking Package introduced in the EU in 2019, embracing the latest – fourth Basel Accord, which will be fully phased in into EU law by 2027 does not change this perception either. So even though thousands pages of new regulation have been enacted as a reaction to the recent financial crisis, one of its most significant root causes have not been, and will not in the foreseeable future be, accounted for. In the same vein, before the crisis the Prospectus Directive and today the Prospectus Regulation still carves out sovereign debt securities from its scope and allows their issues to be carried out without any disclosure.⁵¹⁰

4.3.2 Eurozone Safe Asset as the Way Forward

The so-called European safe asset is a long-debated and politically controversial topic in the EU. A European safe asset, similar to US Treasuries, would be a new financial instrument for the common issuance of debt, which could reinforce integration and financial stability. However, developing a safe asset for the euro area raises a number of complex legal and political issues revolving primarily around the no-bailout clause of the TFEU and the concomitant concerns about deterioration of incentives for sound fiscal policies.⁵¹¹

In contrast with the US, the euro area does not have a Eurozone-wide safe asset, despite the comparable size of its economy and financial system. Paradoxically, while the

⁵⁰⁹ See Bank for International Settlements, Basel Committee on Banking Supervision, *Basel III regulatory consistency assessment (Level 2) Preliminary report: European Union*, October 1, 2012, [Accessed on May 15, 2015] available at: https://www.bis.org/bcbs/implementation/l2_eu.htm

⁵¹⁰ See Art. 1(2) of Directive 2003/71/EC of the European Parliament and of the Council of 4 November 2003 on the prospectus to be published when securities are offered to the public or admitted to trading and amending Directive 2001/34/EC and Art. 1(2)(b) of Regulation (EU) 2017/1129 of the European Parliament and of the Council of 14 June 2017 on the prospectus to be published when securities are offered to the public or admitted to trading on a regulated market, and repealing Directive 2003/71/EC.

⁵¹¹ See European Commission, *Reflection Paper on the Deepening of the Economic and Monetary Union*, Brussels, May 31, 2017, COM (2017), 291, [Accessed on December 5, 2018], available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2017:291:FIN>

regulatory framework sees sovereign debt of all Member States as risk-free, investors do not share this view (and as has been shown in the previous chapter neither do courts) and especially during turbulent times “flight to the safety” of German Bunds. Indeed, this chapter provides plenty evidence that this ill-designed framework amplifies market volatility and is a source of systemic risk not only for the Eurozone banking sector, but also for solvency of Member States themselves.

Changing the regulatory treatment of sovereign bonds is also subject to heated discussions in an effort to sever the bank-sovereign loop, which would arguably have broken Eurozone if had not been for the ECB’s various sovereign bond purchase programmes. However, the regulatory treatment of sovereign debt is a politically sensitive issue. While the set-up has some rationale given the importance of sovereign debt in funding of public expenditures and, on the whole, relatively low risk of sovereign default, it incentivises the banking sector to cumulate large sovereign exposures, especially of their “home” countries.

In part as an alternative to changing sovereign debt risk-free status, several proposals have been put forward after the Eurozone sovereign debt crisis, some based on full while others with limited or on debt “mutualization”. It was only in April 2019 when the European Parliament endorsed the Commission’s proposal for a regulation on sovereign bond-backed securities (the “**SBBS**”).⁵¹² In the proposal, the SBBS are designed as a standard ABS issued by a private sector special purpose vehicles (SPVs) referencing a pool of sovereign bonds issued by the Eurozone Member States. The relative weight of the sovereign bonds of each Eurozone member is proposed to be very close to the relative weight of its participation to the ECB capital key since it is a proxy of each Member State's economic size and its stake in the stability of the European financial system.⁵¹³

In practice, the proposed framework anticipates purchases of sovereign bonds in the primary and secondary markets at standard market prices by these SPVs, which would then securitize them into SBBS. The SBBS would represent claims on the proceeds from the underlying securitized portfolio in a sequence according to seniority of individual tranches. As

⁵¹² See European Parliament legislative resolution of 16 April 2019 on the proposal for a regulation of the European Parliament and of the Council on sovereign bond-backed securities (COM(2018)0339 – C8-0206/2018 – 2018/0171(COD)), April 16, 2019, [Accessed on December 5, 2019], available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=EP%3AP8_TA%282019%290373 and Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on sovereign bond-backed securities, 2018/0171 (COD), Brussels, 24.5.2018, [Accessed on December 5, 2019], available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018PC0339>

⁵¹³ Other considered keys we rejected, e.g. a key based on each Member State's outstanding sovereign debt as this was seen as capable to give rise to moral hazard.

typical for securitization, the SBBS would be sliced into senior, mezzanine and junior tranche accounting to 70 %, 20 % and 10 % of the pool, respectively.⁵¹⁴

While there are currently no legal constraints for the development of such securitization structures, the existing legal framework provides economic disincentives for their private sector “manufacturing”. In particular, the SBBS would be treated as plain vanilla securitization products and thus be subject to additional capital charges if held in bank portfolios in contrast with the euro area sovereign bonds against which no capital is required to be held.⁵¹⁵ Consequently, despite the fact that the SBBS arguably do not carry higher risks than the bonds they reference, it would be more costly for banks to keep them in their portfolios. In this respect, the proposal does not anticipate creation of a publicly owned or controlled SPVs that would be securitizing the underlying portfolios and issuing the SBBS, but rather provides an enabling framework for their market-led development. As a result, the added value of the proposal does not lie within the SBBS framework, as the private sector could for sure come up with such framework on its own, but in the favorable regulatory treatment of the SBBS. In other words, the regulatory treatment of SBBS compliant with the regulation is proposed to be aligned with the treatment of the individual sovereign bonds they would reference in terms of capital requirements, concentration limits, and liquidity.

Indeed, the reasoning behind the less favorable regulatory treatment of securitization products, in particular, information asymmetry between originators and investors and their opaque and complex structure, does not seem to be pertinent to the SBBS. Moreover, assuming that the zero-risk weight treatment of the euro area sovereign bonds would not, due to political sensitivity, be changed, there seems to be no reason why the mere fact that zero-risk assets are “bundled” together should make them more opaque or risky, thus justify worse regulatory treatment. In other words, combining zero-risk assets together does not make them riskier. To the contrary, the “bundling” would arguably make them more liquid and less risky, especially the senior or mezzanine tranches.

In practice, commercial banks holding senior tranches of SBBS, *in lieu* of government bonds of a particular Member State, could reduce their “home bias” risk exposure and at least in part address the sovereign-bank doom loop. It could also lead to market integration and provide a new and more balanced benchmark for the euro-denominated sovereign debt

⁵¹⁴ The proposal sets a binding limit only to the senior tranche. In contrast, relative weights of the mezzanine and junior tranches could be freely determined, provided that the junior tranche could represent less than 2 % of the outstanding nominal value of a particular issue.

⁵¹⁵ Leaving aside the higher capital charges, securitization products, in contrast with sovereign bonds, may also not be counted for liquidity coverage ratio purposes and are restricted from being purchased by some investor classes.

market. On the other hand, whether the issuance of SBBS would work from a business perspective is a different question. In particular, given the ultra-low interest rates environment we live in (and probably will), some argue that the income streams from a portfolio of securitized government bonds could hardly cover capital, labor and other expenses associated with running the scheme all that on top of paying out interest to holders of junior and mezzanine tranches.⁵¹⁶ Given the fact that commercial banks are thought to hold primarily (or exclusively) the senior tranches, asset managers, broker-dealers, investment funds and other firms not subject to stringent prudential requirements could potentially create demand for such the junior and mezzanine tranches. This brings in another important question, namely whether there will be a sufficient demand for the SBBS. While the ultra-accommodative monetary policy propels a strong search for yield, critics argue that Member States and/or the ECB may be incentivized to buy the junior tranches in case there is no demand from private investors, which would amount to at least implicit mutualization of the euro area debt.⁵¹⁷ In respect of the demand for senior tranches, it may depend on assigned credit ratings. Again, some argue that given its novelty, lack of historical experience and the fact that investors will not have direct claim against the sovereign but only to the SPV, SBBS may not receive a sovereign-like rating despite expected political pressure to do so. In addition, it is not clear how investors would react in times of market turbulence and whether they would not “dump” SBBS and fly to the real safe haven, i.e. German bunds.

Although some of these arguments may turn out to be accurate, there seems to be not many material downside of pushing this new regulatory framework through. Market participants will most likely come up with viable business models and ways of how to make this new asset class attractive. If they do not, they will pay for it. With respect to the fear that the ECB would buy the junior tranches and (at least) implicitly mutualize sovereign debt, the ECB (ESCB) is already buying sovereign bonds, so buying a securitized portfolio of such bonds seems not to cross any further lines. One could even argue that buying SBBS is less controversial since the ECB may not be targeting specific countries and affording them a preferential treatment. In any case, the issue of debt mutualization, monetary financing and risk premium distortion are valid concerns, however, these can be addressed by the ECB when tailoring new purchase programmes and should not be a reason for halting this new initiative even before it started.

⁵¹⁶ See e.g. Demary Markus, Matthes Jurgen, *An Evaluation of Sovereign-backed Securities (SBSs) Potentials, Risks and Political Relevance for EMU Reform*, Cologne Institute for Economic Research, IW policy paper 12/2017, June 23, 2017, at p.13, [Accessed on May 15, 2016], available at: <https://ideas.repec.org/p/zbw/iwkpps/122017.html>

⁵¹⁷ See *Id.* at p. 16.

Market participants should be free to choose since arguably nobody but them would be worse off if the framework does not work. At the same time, given the recalcitrant opposition against abandoning zero-risk weights of sovereign exposures, it may be the only option how to at least in part address the sovereign-bank doom loop.

5 WHAT HAS CHANGED? BANKING UNION AND BEYOND

Although the 2007-8 financial crisis mushroomed in the US and then spilled over to the rest of the world, in the EU, it unfolded in waves, starting with the crisis of the banking (financial) sector then mutated into sovereign debt and economic crisis and finishing off as a political crisis. However, the first impetus to establish a Pan-European financial market infrastructure did not come with the recent crisis. The crisis was a mere catalyst for acceleration of the process. Specifically, the vision of having pan-European financial market infrastructure, and in particular the ECB as the single EU supervisor over the stability of the financial sector, was first mentioned in resolutions of the European Parliament from April 2000 and November 2002, with the latter, *inter alia*, stressing:

„[...] Calls for a revision of the Treaty that would make it possible – if it were so decided in the future – to **provide for a legal base for prudential supervision of large pan-European financial entities at European level**, either by modifying Article 105(6) to enable the ECB to act as a direct supervisor or by inserting a new chapter in the Treaty **that would allow for the creation of a European financial services supervisory agency or European sectoral agencies for banking, insurance/pension funds and/or financial conglomerates;**”⁵¹⁸

Despite the common vision of EU leaders to have an integrated market for financial services overseen by EU-level authorities, such contemplations had not materialized into any specific action until the recent financial crisis fully unfolded. It may come as no surprise given the strong economic growth and prosperity in Europe in the pre-crisis years.⁵¹⁹ The crisis, or more precisely, the negative consequences stemming therefrom, were the main drivers behind the regulatory overhaul in the financial sector that begun in 2008 and has been ongoing up until now.

⁵¹⁸ See European Parliament resolution on the Commission communication on implementing the framework for financial markets: Action Plan (COM)(1999) 232, April 13, 2000, [Accessed on December 4, 2015], available at: <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT%2BTA%2BP5-TA-20000180%2B0%2BDOC%2BXML%2BV0//EN> and European Parliament resolution on prudential supervision rules in the European Union (2002/2061(INI)), [Accessed on December 4, 2015], available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52002IP0568&from=EN>

⁵¹⁹ See World Bank National Accounts Data, and OECD National Accounts data files, GDP growth (annual %) - European Union, [Accessed on December 4, 2015], available at: <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2017&locations=EU&start=2017&view=bar>

5.1 Early Calls for a Quasi-federative Financial Architecture

The collapse of Lehman Brothers and the subsequent takeover of AIG in the fall of 2008 proved to be very contagious with rippling effects throughout various market segments and across the globe. The severity of the crisis and only a limited success with taming it despite massive interventions of governments and central banks in the financial sector across the world, highlighted the need to minimize the chances that such crises will come about in the future. EU leaders in particular emphasized that this aim was to be achieved through more robust and accelerated integration at the institutional level, which was still, in contrast with financial market integration, fragmented along national borders. More efficient, integrated and sustainable European system of financial supervision was seen as necessary for safeguarding systemic stability in the EU and addressing the sovereign-bank doom loop. Therefore, at heights of the crisis, in November 2008, the European Commission (the “**Commission**”) mandated a group of experts to come up with a plan for strengthening the European financial system that had proven to be fragmented and unable to deal with the new challenges brought about by innovation and globalization. Then Commission’s president José Manuel Barroso described the group’s mandate as follows:

“There is an obvious mismatch between European and global financial markets and supervision which remains largely national. There is wide agreement that we need to bridge that gap but different ideas on how to go about it. So, the Group’s role is to bring forward concrete **proposals which will contribute to greater financial stability and help maximize protection for depositors, policy holders and investors.**”⁵²⁰

In February 2009, the so-called Larosière Group delivered a report comprising of a new framework that was to take Europe towards a **new regulatory framework**, improving risk management and **creating proper incentives in the financial markets, strengthened micro and macro-prudential supervision** across all financial sectors in the EU and an **effective crisis management mechanism**, building confidence and trust so that investors, depositors and citizens feel to be properly protected.

⁵²⁰ See European Commission, *Press Release: High Level Expert Group on EU financial supervision to hold first meeting on 12 November*, November, 11, 2008, [Accessed on December 4, 2014], available at: http://europa.eu/rapid/press-release_IP-08-1679_en.htm

5.1.1 The Need for Supervisory Repair

As underlined in the second chapter, the 2007-8 financial crisis was a result of, *inter alia*, regulatory race to the bottom, ill-designed financial regulation, weak regulatory supervision and non-existent macro-prudential oversight. While a well-designed regulatory framework, which sets proper incentives, is an important element for preservation of financial stability, more regulation is arguably not the answer. Strong regulatory oversight and enforcement is crucial. One of the most important lessons from the crisis is that micro-prudential supervision, the traditional focus of regulators, is not sufficient for preservation of financial stability. While micro-prudential supervision may prevent failure of an individual financial institution, or at least ring-fence negative effects associated therewith, and thus in consequence prevent a domino-like effect in the financial system, if falls short of spotting or preventing the build-up of systemic imbalances. The supervisory failures, despite not having been the primary cause of the crisis, had brought about many headaches that could have been avoided, had a different supervisory framework been in place when it broke off. Specifically, too much attention was devoted to supervision of individual institution, which meant that the regulators did not see the forest for the trees. Therefore, the crisis clearly demonstrated that there should be someone responsible for overseeing financial system as a whole, although it goes without saying that even a single institution may pose threat to stability of financial system, which should be addressed by specific regulation in this respect. Effective macro-prudential supervision should encompass all sectors of the financial system, not just banking, and should be placed at the EU level. At the same time, such macro-prudential regulator would also have to be entrusted with adequate powers to avoid the situation that macro-prudential risks are spotted but there are no tools to address, as was also the case before the crisis. Macro-prudential supervision would ensure that individual supervisors or regulators are not favoring a particular type of institution and vying with each other to increase competitiveness of a particular industry, as seen in the US in the pre-crisis era. On the other hand, unduly intrusive supervisory practices would translate into high costs for the financial sector and, in turn, for customers, taxpayers and the wider economy.⁵²¹

⁵²¹ See European Commission, *Press Release: High Level Expert Group on EU financial supervision to hold first meeting on 12 November*, November, 11, 2008, [Accessed on December 4, 2014], available at: http://europa.eu/rapid/press-release_IP-08-1679_en.htm

5.1.2 Establishment of the European System of Financial Supervision

In its Communication from May 2009, the Commission expressed the view that the recommendations in the report prepared by the de Larosière Group contained a balanced and pragmatic vision for a new system of European financial supervision through the creation of new European Supervisory Authorities, and, for the first time, a European level body charged with overseeing risks in the financial system as a whole.⁵²² In accordance with the recommendations of the de Larosière Group, the Commission introduced a new set of regulations for the creation of the European System of Financial Supervision (the “**ESFS**”) consisting of

- (i) **three new supervisory authorities responsible for micro-prudential supervision in the banking, securities markets and insurance sector** ensuring that the rules applicable to the financial sector are adequately implemented - namely the European Banking Authority (“**EBA**”) the European Securities and Markets Authority (“**ESMA**”) and the European Insurance and Occupational Pensions Authority (“**EIOPA**” and collectively with EBA and ESMA (“**ESAs**”);⁵²³
- (ii) the **European Systemic Risk Board (“ESRB”)** responsible for monitoring systemic risks and preserving financial stability within the European financial system; and⁵²⁴
- (iii) the **Joint Committee of ESAs** - a platform to ensure cross-sectoral supervisory consistency across the EU and consequently confidence in the financial system as a whole.

In addition, national supervisory authorities became a part of the ESFS and retained responsibility for supervision in their respective Member States.⁵²⁵

⁵²² See European Commission, Communication from the Commission - European financial supervision COM/2009/0252716, [Accessed on December 4, 2014], available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52009DC0252>

⁵²³ See Regulation (EU) No 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/78/EC (the “**EBA Regulation**”), Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC (the “**ESMA Regulation**”) and Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/79/EC (the “**EIOPA Regulation**”).

⁵²⁴ See 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 (the “**ESRB Regulation**”)

⁵²⁵ See Art.3 (1) of the ESRB Regulation.

5.1.2.1 Ensuring Regulatory Consistency

The 2007-8 financial crisis revealed that nationally based supervisory frameworks lagged behind globalization of financial markets and the interconnected reality of European financial markets in which financial institutions operate across borders. The establishment of the three independent EU agencies – EBA, ESMA and EIOPA as of January 1, 2011 was to address these shortcomings by bringing together financial supervision at national level and at the EU level. In general, all three agencies were entrusted with similar powers and competences in their respective fields to contribute to the establishment of common regulatory and supervisory standards and practices, in particular by providing opinions to the EU institutions and by developing guidelines, recommendations, and draft regulatory and implementing technical standards. Specifically, the three regulations establishing ESAs provide that each of the agencies may develop draft technical standards in the areas of their expertise, which are then submitted to the Commission for their adoption in accordance with Arts. 290 and 291 TFEU by means of delegated or implementing acts binding and directly applicable in all Member States.⁵²⁶

In this respect, matters subject to technical standards should be genuinely technical, where their development requires the expertise of supervisory experts. In particular, regulatory technical standards adopted as delegated acts pursuant to Art. 290 TFEU should further develop, specify and determine the conditions for consistent harmonization of the rules included in the legislative acts adopted by the European Parliament and the Council, supplementing or amending certain non-essential elements thereof. Implementing technical standards adopted as implementing acts pursuant to Art. 291 TFEU should establish conditions for the uniform application of legislative acts. Thus, in theory, the agencies are prohibited from making any policy choices, however, the reality is much more complicated.⁵²⁷

At the same time, they are also to ensure the consistent application of EU law and proper functioning of supervisory colleges in cross-border matters, prevent regulatory arbitrage, mediate and settle disagreements between national competent authorities. Should any such mediation fail, ESAs are empowered to reconcile the differences via adoption of a

⁵²⁶ The process of adoption of delegated acts in the form of regulatory technical standards or implementing acts oblige the Commission to justify deviations from the drafts prepared by the ESAs. See Arts. 10 through 15 of the EBA Regulation, the ESMA Regulation and the EIOPA Regulation.

⁵²⁷ See chapter 5.3.1.3 and Directive 2014/51/EU of 16 April 2014 amending Directives 2003/71/EC and 2009/138/EC and Regulations (EC) No 1060/2009, (EU) No 1094/2010 and (EU) No 1095/2010 in respect of the powers of the European Supervisory Authority (European Insurance and Occupational Pensions Authority) and the European Supervisory Authority (European Securities and Markets Authority) and chapter 5.3.1.1 below.

decision binding on the respective national supervisory authorities.⁵²⁸ ESAs also closely cooperate with ESRB in assessment and measurement of systemic risk, in particular by providing ESRB with the necessary information and by ensuring a proper follow-up to its warnings and recommendations.⁵²⁹

ESAs are also to promote transparency and fairness in the market for consumer financial products or services across the internal market and thus play a key role in consumer protection in the EU. In particular, they, *inter alia*, collect and analyze consumer trends, such as the development of costs and charges of retail financial services and products, and issue warnings and reports thereon and contribute to developing industry standards for common disclosure rules.⁵³⁰

Despite the broad institutional framework brought about by the ESFS in January 2011, the roles of ESAs within the pan-European supervisory framework remain rather limited and arguably insufficient for preparation of the European financial system for crises to come. In particular, the biggest weakness is that neither of them was entrusted with *de jure* decision-making powers since they were created as decentralized agencies, a distinct from the EU institutions, which are enumerated in the European founding treaties (“**Treaties**”), such as the ECB. Consequently, the responsibility for day-to-day supervision remains with national competent authorities, with the exception of the responsibility of ESMA for the registration, direct supervision and sanctioning of CRAs and trade repositories in the EU. Although their competencies were important in developing the so-called Single Rulebook, that is a harmonized set of rules applicable to the financial sector EU-wide, ESAs remained primarily providers of technical advice in the area of EU financial markets. The problem was (and still is) that existence of neither of the agencies is explicitly contemplated by the Treaties so their creation via EU secondary law is substantively constrained. In particular, the legal basis for their foundation is provided for in Art. 114 TFEU allowing the adoption of harmonizing measures in furtherance of the internal market. Nevertheless, they have become an institutional cornerstone of the new European supervisory framework and their importance and powers have been steadily increasing, despite the fact that their roles has evolved differently. EBA was at the center of a numerous banking crises in the EU and coordinated EU-wide stress tests in order to prepare ground for the ECB to take over its new responsibilities under as a pan-European supervisory authority. ESMA’s role has been significantly increased as it

⁵²⁸ See Art. 19 of the EBA Regulation, the ESMA Regulation and the EIOPA Regulation.

⁵²⁹ See Art. 8 of the EBA Regulation, the ESMA Regulation and the EIOPA Regulation.

⁵³⁰ See Art. 9 of the EBA Regulation, the ESMA Regulation and the EIOPA Regulation.

became the direct supervisor of CRAs and gained an extended scope of competences in respect of regulating OTC derivatives and central counterparties and overseeing trade repositories.⁵³¹ EIOPA has in some ways lagged behind, also due to the fact that European insurance sector has not gone through any systemic crisis since its establishment.

5.1.2.2 Addressing Systemic Risk

The ESRB was created to draw on the lessons from the financial crisis and in particular on the need to anticipate adverse systemic developments and to prevent the accumulation of excessive risks within the financial system. In general, ESRB is a body accountable to the European Parliament and responsible for the macroprudential oversight of the European financial system and should contribute to the prevention or mitigation of systemic risks to financial stability.

The ESRB consists of the General Board, the Steering Committee responsible for day-to-day work, the Secretariat, and two advisory committees. The General Board, the only decision-making body has 67 members, comprising of, *inter alia*, the ECB Vice-President, the national central bank governors, the three ESAs Chairmen and one Member of the Commission.⁵³² In contrast with the ECB or ESAs, ESRB has only “soft powers”. Specifically, it may request and **collect from the ESAs, the ECB, the ESCB and/or Member States all the information** necessary for identifying, prioritizing and assessing all risks to financial stability within the EU.⁵³³ In addition, it may also **issue non-binding warnings** in respect of systemic risks and where appropriate accompanied by **recommendations** for remedial action and/or changes to EU legislation.⁵³⁴ Finally, it is also tasked to **monitor observance of warnings and recommendations** by using a “comply or explain” mechanism.⁵³⁵

⁵³¹ See Regulation (EU) Regulation (EU) No 513/2011 of the European Parliament and of the Council of 11 May 2011 amending Regulation (EC) No 1060/2009 on credit rating agencies and Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories

⁵³² For details see Art. 4 *et seq.* of the ESRB Regulation.

⁵³³ See Art. 15 of the ESRB Regulation.

⁵³⁴ See Arts. 16 and 17 of the ESRB Regulation.

⁵³⁵ Recipients of recommendations are required to communicate to the ESRB within a specified timeframe the actions they have undertaken in response thereto. If no action is taken, they are required to justify to the ESRB and to the Council their reasons for inaction. If the ESRB determines that an addressee’s response has been inadequate, it is required to report the matter to the Council and the relevant ESA, which in turn are bound to take the “utmost account” of the recommendation and use their powers to exert pressure in support of implementation thereof. See Arts. 16 and 17 of the ESRB Regulation.

The macroprudential role of ESRB is primarily exercised by warnings and recommendations of either general or a specific nature. These may be addressed to the EU as a whole or to one or more Member States, ESAs, or national supervisory authorities. Recommendations and warnings can be made public on a case-by-case basis.⁵³⁶

In December 2012, ESRB issued its first recommendation on MMMFs addressed to the Commission, which called on the Commission to bring forward legislation that would address systemic risks arising from MMFs. In particular, it was recommended that the legislative proposal contains that all MMMFs, *inter alia*, maintain adequate liquidity and are subject to robust public disclosure and reporting requirements. The recommendation also followed informal discussions and ensued in a new regulation on MMMFs incorporating some of the recommendations.⁵³⁷ Also, in May 2020, ESRB issued a recommendation that relevant national authorities request financial institutions under their remit to refrain from any action that result in a reduction in the amount and quality of their own funds or in a reduction of their loss absorbing capacity, including payment of dividends, share buy-backs and paying variable remuneration, which was also widely followed.⁵³⁸

In addition, sector-specific EU legislation requires consultation with ESRB and mandates it to issue opinions with regard to certain matters of financial stability or macroprudential policy.⁵³⁹ Specifically, ESRB is mandated to co-ordinate Member States' macroprudential policies, provide guidance to national competent authorities and ensure that the countercyclical capital buffer is applied consistently across the EU.⁵⁴⁰ It also gives opinions and recommendations regarding appropriateness of imposition of systemic risk buffer above certain thresholds.⁵⁴¹ Finally, it may also issue opinions regarding the ability of Member States to apply stricter capital and other requirements in cases of macro-prudential or systemic risk in their financial systems.⁵⁴²

⁵³⁶ However, even if no recommendation or warning is made public, the ESRB is obliged to send all of them also to the Council and the Commission, who shall then also be addresses of any explanations from subjects whom any such warning or recommendation is directed towards. See Art. 18 of the ESRB Regulation.

⁵³⁷ See Recommendation on of the European Systemic Risk Board of 20 December 2012 on money market funds (ESRB/2012/1).

⁵³⁸ See Recommendation on of the European Systemic Risk Board of 27 May 2020 on restriction of distributions during the COVID-19 pandemic (ESRB/2020/7).

⁵³⁹ See Art. 31 CRR.

⁵⁴⁰ See Art. 135 CRD IV.

⁵⁴¹ See Art. 133(12) and (15) and 133(4) CRD IV.

⁵⁴² See Art. 458 CRR.

While the creation of the ESRB is a step towards the right direction, its design is a missed opportunity. First, it is only a “soft law” institution authorized to issue recommendations but with no decision-making powers. Accordingly, it cannot directly intervene in financial markets or issue binding instructions and must rely on its ability to persuade other authorities at the EU and national levels of its views, which would then take necessary actions. Moreover, that are no supervisors or other regulators in the EU responsible for the shadow banking sector, so the fact that a risk is identified may fall short of any specific action to address it. Also, the composition of its only decision making body seems to be strongly influenced by the fact that it emerged in the midst of the Eurozone sovereign debt crisis and is predominantly composed of central bankers. This may ensue in too much focus on risks arising within the financial and in particular the banking sector. At the same time, probably the most challenging systemic risks of this time, prolonged ultra-accommodative monetary policy from the ECB, will be very hard to deal with. In particular, the strong representation of central bankers may impede its ability to focus on the impact of central bank actions on financial stability. This is concerning especially given that central banks, on the whole, failed to identify systemic risks in the financial system prior to the recent financial crisis despite their board access to information and significant expertise in the area of financial supervision. The following paragraphs describing the dealing with systemic in the US could and indeed should serve to EU legislators as an inspiration.

5.1.2.3 Dealing with Systemic Risk in the United States

In the US, the main post-crisis piece of legislation trying to address, among other things, systemic risk in the financial system is the Dodd-Frank Act Wall Street Reform and Consumer Protection Act adopted in 2010 (“**Dodd-Frank Act**”). The full title of the act speaks for itself: *“An Act to promote the financial stability of the United States by improving accountability and transparency in the financial system, to end “too big to fail”, to protect the American taxpayer by ending bailouts, to protect consumers from abusive financial services practices, and for other purposes.”*⁵⁴³

The Dodd-Frank Act does not designate a single agency that would have the sole responsibility for ensuring financial stability of the entire financial system, but different agencies have various roles in preserving financial stability, though the Fed has a unique role. Specifically, the act expanded and curtailed the Fed’s powers in some respects. In respect of

⁵⁴³ See Dodd-Frank Wall Street Reform and Consumer Protection Act [July 21, 2010]. § 12 U.S.C. § 53.

the latter, the intention was to prevent the Fed from bailing out failing firms while preserving enough of its discretion that it could still provide broadly based credit facilities to address unpredictable crises.⁵⁴⁴ In this respect, three significant changes were made to limit the Fed's Section 13(3) of the Federal Reserve Act authority discretion. First, the Fed can no longer cherry pick whom it will provide assistance and may only provide it to "participants in programs or facilities with broad-based eligibility". At the same time, such program or facility may not be structured to remove assets from the balance sheet of a single and specific company. Finally, the Fed may not establish any such program or facility without the prior approval of the Secretary of the Treasury. More broadly, the Dodd-Frank put emphasize on the purpose of the new rules stressing out what most likely had been contemplated by the legislators before the act, namely that the emergency lending should be aimed at providing temporary liquidity to distressed markets. As such, it should be used only to provide temporary liquidity to financial companies facing liquidity shortfalls and in no event to aid failing institutions.⁵⁴⁵ As a result, the Fed's discretion to address systemic risk within the financial system was significantly hamstrung. On the other hand, the Fed's policy mandate was expanded by making maintenance of financial stability, next to price stability and full employment, its explicit goal, which permeates through the legal system.⁵⁴⁶ Specifically, the mandate was expanded towards systematically important financial institutions, or SIFIs, along with bank holding companies with assets of at least \$250 billion and nonbank financial companies designated as SIFIs by the newly created committee of regulators, the Financial Stability Oversight Council (the "**FSOC**").⁵⁴⁷ All these SIFIs are subject to higher prudential and other regulatory standards, including, the requirement to prepare living wills, the credibility of which the Fed in cooperation with the FDIC assesses and approves.⁵⁴⁸

⁵⁴⁴ See Labonte Marc, *Federal Reserve: Emergency Lending*, Congressional Research Service, January 6, 2016, at p. 8, [Accessed on June 5, 2016], available <https://ypfs.som.yale.edu/node/2665>

⁵⁴⁵ See 12 U.S.C. § 343.

⁵⁴⁶ For example the Fed "shall consider the extent to which the proposed acquisition would result in greater or more concentrated risks to global or United States financial stability or the United States." See 12 U.S.C. § 1843(j)(2).

⁵⁴⁷ Specifically, its members consists of ten voting members, each with an equal vote, and five non-voting members. The voting members are the Secretary of the Treasury, who serves as the chair, the Chair of the Fed, the head of the OCC, the Chair the FDIC, the Director of the Consumer Financial Protection Bureau, the Chair of SEC, the Chair of the CFTC, the Chair of the National Credit Union Administration Board, the Director the FHFA, and an independent presidential appointee with insurance expertise. The non-voting members are the Director of the Office of Financial Research, the Director of the Federal Insurance Office, a state insurance commissioner, a state banking supervisor, and a state securities commissioner, each designated by the respective state regulators. See 12 U.S.C. § 5321.

⁵⁴⁸ For more on this topic, see Arantxa Jarque, Kartik Athreya, *Understanding Living Wills*, Federal Reserve Bank of Richmond Economic Quarterly, Third Quarter 2015, vol. 101, no. 3, pp. 193–223, [Accessed on May 15, 2016], available at: https://www.richmondfed.org/publications/research/economic_quarterly/2015/q3/jarque

The FSOC is a collaborative body chaired by the Secretary of the Treasury that brings together the expertise of the federal financial regulators, including the Fed, state regulators and an independent insurance expert appointed by the President. The FSOC is not just “a meeting of regulators” as it has its own permanent staff that collects data on the financial system and provides information and technical expertise to the FSOC. Its mandate concerns identifying risks, promoting market discipline by reducing the expectation of government bailouts, and responding to emerging threats to the financial system.⁵⁴⁹ While the act entrusted the FSOC with only limited decision-making powers, unlike the ESRB, it has some “real teeth” powers.

Specifically, it may recommend enhanced supervision and prudential standards for nonbank financial companies supervised by the Fed and certain bank holding companies. The recommendation may include, among other things, application of enhanced risk-based capital and liquidity requirements, leverage limits, resolution plans, concentration limits and overall risk management requirements.⁵⁵⁰ Importantly, the FSOC is authorized to designate non-bank financial institution for consolidated supervision and regulation regardless of their form.⁵⁵¹ In a similar vein, it is authorized to designate financial market utilities that perform payment, clearing, or settlement activities as systemic requiring them to meet prescribed risk management standards and heightened oversight by the Fed, the SEC, or the CFTC.⁵⁵²

The power of the FSOC to designate a nonbank financial company as a SIFI can be perceived as one of the most important powers of the FSOC along with the power to recommend their breaking-up, which has, however, so far been a merely theoretical option, unlike in the case of the SIFI designation. It seems that the FSOC was entrusted with the power to, at least partially, fill in the shadow corners in the regulatory system. Before the 2007-8 financial crisis there were no procedures in place to deal with systemic risk posed by nonbank

⁵⁴⁹ See 12 U.S.C. § 5322. However, a 2019 amendment to the Dodd-Frank Act eased enhanced regulatory scrutiny of SIFIs by e.g. raising the asset threshold for bank holding companies from \$50 to \$250 billion for automatic treatment as a systemically important financial institution as well as the applicability of the enhanced prudential standards to those institutions. Also, the SIFI designation would result in a more tailored framework for the Fed's supervisory review and would significantly reduce the compliance costs and burdens imposed on many mid-sized and smaller institutions. For details see Economic Growth, Regulatory Relief, and Consumer Protection Act, Public Law 115-174.

⁵⁵⁰ See 12 U.S.C. § 5325.

⁵⁵¹ See 12 U.S.C. § 5323.

⁵⁵² In July 2012, the FSOC unanimously designated eight financial market utilities responsible for the clearing and settling of transactions among financial institutions as systemically important and subjected them to heightened risk management standards. See Financial Stability Oversight Council, *Press Release: Financial Stability Oversight Council Makes First Designations in Effort to Protect Against Future Financial Crises*, July 18, 2012, [Accessed on July 5, 2016], available at: <https://www.treasury.gov/press-center/press-releases/Pages/tg1645.aspx>

financial companies threatening stability of the US financial system as a whole. However, it was, and still is, often the case that systemically important financial institutions comprise a holding company with many subsidiaries from investment banks, broker-dealers, hedge funds, private equity firms, or even insurance companies. Prior to the crisis, each part of the group, including the holding company, was subject to a different regulatory authority or no authority at all.

Given a broad definition of “nonbank financial companies”, the Dodd-Frank Act gives a significant authority to the FSOC to subject entities or groups not supervised by federal banking or any regulators to heightened regulatory scrutiny and oversight. In particular, the designation may concern any corporation, limited liability company, partnership, business trust, association, or similar organization incorporated or organized in the US that is predominantly engaged in financial activities, which cover also banking, securities, insurance, investment and any activity related to banking or managing or controlling banks.⁵⁵³

If a company meets the nonbank financial company test, the FSOC can choose one of two determination standards on which a SIFI label could be based, namely that material financial distress at the company or the nature, scope, size, scale, concentration, interconnectedness, or mix of the company’s activities, could pose a threat to US financial stability.⁵⁵⁴ In 2012, the FSOC put out a guidance describing further the manner in which it was intended to apply the statutory standards, and the processes and procedures that intended to follow in making SIFIs determinations. Specifically, the FSOC explained that it would consider a threat to US financial stability to exist if a company’s material financial distress would inflict significant damage on the broader economy through any of three transmission channels, namely, exposure to other market participants, funding and liquidity profile capable of significantly disrupting key markets, or provision of critical function or services. It further detailed six categories to be considered when assessing whether a company’s material

⁵⁵³ In order for a company to be predominantly engaged in financial activities, 85 % or more of its consolidated annual gross revenues must be derived from, and 85 % or more of a company’s consolidated assets must be related to, activities that are financial in nature. Specifically, such activities *inter alia* concern (i) insuring, guaranteeing, or indemnifying against loss, harm, damage, illness, disability, or death (ii) underwriting, dealing in, or making a market in securities, (iii) lending, exchanging, transferring, investing for others, or safeguarding money or securities, (iv) providing financial, investment, or economic advisory services, including advising an investment company, (v) issuing or selling instruments representing interests in pools of assets permissible for a bank to hold directly, (vi) engaging in any activity determined, by order or regulation that is in effect to be so closely related to banking or managing or controlling banks as to be a proper incident thereto, (vii) directly, or indirectly acquiring or controlling, whether as principal, on behalf of one or more entities (including entities, other than a depository institution or subsidiary of a depository institution, that the bank holding company controls), or otherwise, shares, assets, or ownership interests (include debt or equity securities, partnership interests, trust certificates, or other instruments representing ownership) of a company or other entity, whether or not constituting control of such company or entity. See 12 U.S.C. § 5311(a)(4)(B) and § 1843(k)(4)(A)-(I).

⁵⁵⁴ See 12 U.S.C. 5323(a)(2)(K).

financial distress could pose a threat to the US economy, namely its size, interconnectedness, substitutability, leverage, liquidity risk and maturity mismatch, and existing regulatory scrutiny.⁵⁵⁵

Once designated, the companies would be required to report to and submit to the supervision of the Fed. In turn, this would mean that they would become subject to a broad enforcement powers, including the power to order ceasing any unsafe or unsound practices. The designees are also subject to regulatory regimes concerning prior approval of bank acquisitions.⁵⁵⁶ Most importantly, the act requires the Fed to apply a heightened prudential regulatory standards to SIFI designees, like if they were bank holding companies and authorized it to take "mitigatory actions" against any designee that poses a grave threat to the financial stability of the US, including requirements that the company restrict or cease certain activities and transactions, or even divest certain assets.⁵⁵⁷ As a result, designees would have strong motivation to either litigate the designation or to divest, as was the case of MetLife and General Electric, respectively.⁵⁵⁸ As of the end of 2019, the FSOC has designated four companies, namely, AIG, General Electric Capital Corporation, MetLife, Inc. (MetLife), and Prudential Financial, Inc.

For each of the four nonbank financial companies, the FSOC's analysis focused mainly on the exposure and liquidity transmission channels. In addition, in all of these cases, the FSOC determined that their complexity and potential difficult resolvability aggravated the risk that their material financial distress could significantly impair financial intermediation and financial market functioning. Finally, for three of them, excluding MetLife, the FSOC also determined that the critical function or service transmission channel could exacerbate the risks that the companies' material financial distress pose to financial stability. However, in a rather remarkable turn of events, all designees subsequently shed their SIFI labels, either by voluntary concessions, such as in the case of General Electric, or through a protracted litigation, such as in the case of MetLife.⁵⁵⁹ Prudential Financial, Inc., the largest US insurance

⁵⁵⁵ The first three were to assess the potential impact of a nonbank financial company's financial distress on the broader economy, while the remaining three to assess the vulnerability of a nonbank financial company to financial distress. See 12 C.F.R. § 1310, Financial Stability Oversight Council, Authority to Require Supervision and Regulation of Certain Nonbank Financial Companies.

⁵⁵⁶ See 12 U.S.C. § 5361 and § 5362.

⁵⁵⁷ See 12 U.S.C. § 5331.

⁵⁵⁸ See U.S. Department of the Treasury, FSOC Designations, [Accessed January 5, 2020], available at: <https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/fsoc/designations>

⁵⁵⁹ Faced with the prospect of onerous scrutiny from the Fed, the company had undergone corporate restructuring to scale back its systemic significance. In 2016, the FSOC rescinded the company's designation, citing fundamental change in the company business through corporate reorganization and a series of divestitures resulting in significant reduction of the potential negative effects of the company's distress on the financial markets and the US economy.

group, and the last remaining FSOC-designated SIFI, was released from the enhanced Fed oversight in October 2016 by the incoming US administration.⁵⁶⁰ The case of MetLife and especially the court's reasoning is worth taking look at since it could serve as a blueprint for setting the boundaries of the almost unfettered administrative discretion of the various governmental agencies created in response to the recent financial crisis.⁵⁶¹

The FSOC made a final SIFI determination regarding MetLife in December 2014, on the grounds that, simplifying somewhat, MetLife was a major participant in the US economy and financial markets with significant exposure to other financial firms through its insurance products and capital markets activities, which meant that its material financial distress could lead to an impairment of financial intermediation or of financial market functioning that would be sufficiently severe to inflict significant damage on the broader economy. At the same time, the FSOC determined that MetLife holds assets that, if liquidated quickly, would cause a fall in asset prices and thereby significantly disrupt trading or funding in key markets or cause significant losses or funding problems for other firms with similar holdings. Consequently, material financial distress at MetLife could pose a threat to US financial stability.

On January 2015, MetLife brought a suit against the designation seeking its rescission claiming, that, among other things, the FSOC did not follow its own guidance when making the designation, and that it did not, at all, examine the costs of its designation and focused exclusively on the presumed benefits.

In March 2016, the court rescinded the designation conceding to the MetLife's arguments. In particular, it was concluded that the FSOC made critical departures from the standards it adopted in its guidance, never explaining such departures or even recognizing them as such, which alone, rendered the determination process fatally flawed. Additionally, the court opined that the FSOC assumed the upside benefits of the designation, even without

See Financial Stability Oversight Council, *Basis for the Financial Stability Oversight Council's Rescission of Its Determination Regarding GE Capital Global Holdings, LLC*, June 28, 2016, [Accessed January 5, 2020], available at: <https://home.treasury.gov/system/files/261/GE%20Capital%20Global%20Holdings%2C%20LLC%20%28Recission%29.pdf> and Mann Ted, Tracy Ryan, *GE Capital Sheds 'Systemically Important' Label*, the Wall Street Journal, June 29, 2016 [Accessed on July 15, 2016], available at: <https://www.wsj.com/articles/ge-capital-sheds-systemically-important-label-for-too-big-to-fail-firms-1467205963>

⁵⁶⁰ See U.S. Department of the Treasury, FSOC Designations, [Accessed January 5, 2020], available at: <https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/fsoc/designations>. This "re-designation" brought about intense criticism as it was argued that in contrast to its former SIFI peers, it neither shrank nor simplified itself, but actually expanded its systemic footprint calculating on leniency of the new US pro-business administration. See e.g. Kress Jeremy, *The Last SIFI: The Unwise and Illegal Deregulation of Prudential Financial*, Stanford Law Review, Volume 71, December 2018, [Accessed on August 20, 2019], available at: <https://www.stanfordlawreview.org/online/the-last-sifi-the-unwise-and-illegal-deregulation-of-prudential-financial/>

⁵⁶¹ See *MetLife, Inc. v. Financial Stability Oversight Council*, 177 F. Supp. 3d 219 (2016).

specific standards from the Fed, but not the downside costs thereof, which rendered the designation arbitrary and capricious.⁵⁶² Specifically, the court reminded that the FSOC's own guidance specified six factors to be considered when assessing whether a company's material financial distress could pose a threat to US financial stability and that the first three categories sought to assess the potential for spillovers from the firm's distress to the broader financial system or real economy, while the remaining three sought to assess how vulnerable a company is to financial distress. In other words, the FSOC intended the second group to assess a company's vulnerability to distress, while the first group the impact of such distress on US financial stability. Yet in the final determination, the FSOC posited that all six categories were meant only to assess the potential effects of a company's material financial distress. In the same vein, the court found that the FSOC failed to observe its standard for determining whether material distress at MetLife could pose a threat to the financial stability of the US because it simply assumed that its losses would affect the market in a manner that would be sufficiently severe to inflict significant damage on the broader economy without accounting for collateral taken and other mitigating factors or projecting any estimates of such losses. The FSOC never projected what the losses would be, which financial institutions would have to actively manage their balance sheets, or how the market would destabilize as a result. Indeed, court stressed that the FSOC hardly adhered to any standard when it came to assessing MetLife's threat to US financial stability.

Beyond the above stated, the court also stressed that the FSOC purposefully omitted any consideration of the cost of MetLife's designation as "too-big-to-fail". Purposeful because the FSOC refused to make any cost-benefit analysis on the grounds that neither the Dodd-Frank nor any other law commands the FSOC to do so. While the court acknowledged that there was no explicit legal requirement for the FSOC to carry out a cost-benefit analysis, it emphasized that an agency's action may only be lawful if it rests on a consideration of all the relevant factors. Although the term leaves some discretion, an agency may not entirely fail to consider an important aspect of a problem when deciding whether regulation or regulatory action is appropriate. In the end, cost-benefit analysis should be a central part of the administrative process because such considerations reflect the understanding that reasonable regulation ordinarily requires paying attention to the advantages and the disadvantages of

⁵⁶² Despite vague statutory definition, the term "capricious and vague" has been interpreted by the US courts before. The scope of review under the standard is highly deferential and narrow and a court may not substitute a judgment of the agency. A court's judgment is confined within whether the decision was based on a consideration of the relevant factors and whether there has been a clear err in the judgment of the agency. To sum it up, even if a court disagrees with conclusions of the agency, to sustain the decision it is enough by a court to confirm that the agency had a rational basis for its decision. However, the standard is not toothless as the agency may not depart from a prior policy or simply disregard rules that are still on the books. See e.g. *Federal Communications Commission v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009).

agency decisions. Accordingly, since the FSOC refused to consider cost as part of its calculus, it was impossible to know whether its designation does significantly more harm than good, which rendered its decision arbitrary and capricious.

The reasoning of the court, especially the part relating to the lack of cost-benefit analysis is of vital importance today. The post-crisis financial regulation came with a huge price tag and billions of dollars are being spent on regulatory costs under the auspices of safeguarding financial stability. Similarly to the Dodd-Frank Act, the European post-crisis regulation affords almost unfettered discretion to the various regulatory agencies. While some discretion is necessary to provide the decision-makers with ability to flexibly react to market developments, it should have clearly set limits and balance out whether imposition of unnecessary regulatory burdens could not make market participants actually weaker and more vulnerable or to push them out of the regulatory perimeter. No regulation is appropriate if it does more harm than good, no matter what noble aims it tries to achieve.

A revised guidance regarding the SIFI designation process announced by the FSOC at the end of 2019 seems to acknowledge these shortcomings and represents a major shift from the previous guidance.⁵⁶³ In general, the new guidelines focus on identifying and regulating systemically important activities rather than entities, cost-benefit analyses and enhanced engagement in the designation process. Specifically, the new guidelines elevates substance over the form and focus on identifying and addressing potential risks and threats to US financial stability through an activities-based approach, regardless of form or charter of the entities concerned. In particular, the FSOC now focuses on whether an activity could pose or amplify a potential risk to financial stability. This could indeed reduce regulatory arbitrage and competitive distortions and the threat that market participants would try to escape out of the regulatory purview by changing its form. While the new guidelines keep the FSOC the possibility to designate individual nonbank financial entities as SIFIs, it is a fallback plan to be considered only if a potential risk or threat cannot be adequately addressed through an activities-based approach. The new guidelines also account for the court's criticisms in the MetLife case and require the FSOC to determine, prior to any designation, that the expected benefits to financial stability from the entity-based designation justify the expected costs that

⁵⁶³ See Financial Stability Oversight Council, *Authority To Require Supervision and Regulation of Certain Nonbank Financial Companies*, December 30, 2019, [Accessed on March 5, 2020], available at: <https://www.federalregister.gov/documents/2019/12/30/2019-27108/authority-to-require-supervision-and-regulation-of-certain-nonbank-financial-companies>

the designation would impose.⁵⁶⁴ In addition, the FSOC must also assess the likelihood of a company's material financial distress and not just the potential effects stemming therefrom.

In short, the new guidelines seem to be a step in the right direction. The activity-based approach will most likely address at least some criticism of the old SIFI designation model, in particular by its potential to avoid unnecessary or duplicate regulation and limit regulatory arbitrage and competitive distortions. At the same time, the FSOC is not losing its ability to identify and address systemic risk within the financial system. To the contrary, the new approach gives the FSOC the possibility to address existing and emerging systemic threats outside the current regulatory perimeter regardless of their form, such as central clearing, short-term wholesale funding or technology-based services such as crypto-currency exchanges.

5.2 Roots of the Banking Union

The failure of Lehman Brothers and dramatic events that ensued spurred an unprecedented series of bailouts in the EU, and in particular in the Eurozone. The massive support was directed at individual institutions, but also at the financial system as a whole. Measures included increased deposit insurance coverage, capital injections, explicit guarantees of bank liabilities and purchases or guarantees of impaired assets with the overarching objective to prevent widespread failures of financial institutions and restore a normal functioning of financial intermediation. Although these fiscal efforts had a considerable positive short-term impact, they had significant negative impact on public finances globally. Consequently, Greece had to be "rescued" by the EU/IMF in May 2010. Ireland and Portugal soon followed the same path. The tedious political process to put together firewalls at the European level imposed significant costs on the European banking sector. The results of a 2010 EU-wide stress test, which highlighted overall resilience of the European banking sector, did not stop the sell-off as markets remained largely unconvinced that the results reflected the true risks of the banking sector.⁵⁶⁵ Regulatory efforts to restore trust in European banks, in particular the creation of the ESFS, proved insufficient. The second EU-wide stress test carried out by the newly created EBA in 2011, which concluded that only eight out of ninety tested

⁵⁶⁴ In addition, the guidelines also stipulate that before making a recommendation for application of heightened regulatory standards to primary regulatory agencies, the FSOC will have to ascertain whether such agency would perform a cost-benefit analysis of the actions it would take in response to the recommendation and if no such analysis is expected, then the FSOC will have to perform the cost-benefit analysis itself.

⁵⁶⁵ See European Banking Authority, Archive: Results of 2010 EU wide stress testing exercise, [Accessed on July 15, 2015], available at: <https://www.eba.europa.eu/risk-analysis-and-data/eu-wide-stress-testing/2010>

banks would not fulfill the setout capital criteria in the two-year horizon, did not help either.⁵⁶⁶ Although the creation of the EFSF as a new crisis stabilization mechanism was a significant step towards stabilization of the Eurozone sovereign debt crisis, it did nothing to sever the link between sovereign debt and bank solvency, the most pressing issue of the European banking sector. The subsequent “voluntary” Greek debt restructuring further eroded confidence in the European banking sector but also in future prospects of Eurozone as a whole. As a result, the debate about structural reform of the financial system accelerated.

The contours of the reforms, which would address the pressing problems of the monetary union were outlined in a joint report "Towards a Genuine Economic and Monetary Union" published by the Presidents of the European Council, Commission, Eurogroup and ECB in June 2012.⁵⁶⁷ The report essential building blocks for the future EMU in an integrated financial framework, an integrated budgetary framework, an integrated economic policy framework and strengthened democratic legitimacy and accountability.

The integrated financial framework was in essence a follow-up to the Single Rulebook centered around establishment of an EU-level supervisor ensuring a uniform application of the rulebook and effective crisis prevention across the EU bloc. To this end, the EU-level supervisor was to receive the supervisory authority and pre-emptive intervention powers applicable to all banks. An EU-level resolution scheme funded primarily by contributions from banks was to be a complementary element of the new integrated framework. Finally, strengthening the existing deposit insurance scheme would strengthen the credibility of the whole scheme. Nevertheless, the ESM was contemplated to act as the fiscal backstop to the resolution and deposit guarantee authority.

Integrated budgetary framework called for a new budgetary framework represented by an EU-level fiscal policy based on a greater pooling of decision making in the budget area given the interdependencies within the euro area. In particular, upper limits on the annual budget balance and on government debt levels of individual Member States were suggested to be agreed in common. To this end, a cap on EU governments' ability to issue debt was proposed, with any exemptions needed to be approved and justified up-front. Finally, issuance

⁵⁶⁶ The stress-test also revealed that of the approx. €100 billion EU bank exposure to Greek sovereign debt was 67 % held by Greek banks. See European Banking Authority, Archive: 2011 EU-wide stress test results, [Accessed on July 15, 2015], available at: <https://www.eba.europa.eu/risk-analysis-and-data/eu-wide-stress-testing/2010>

⁵⁶⁷ See *Towards a Genuine Economic and Monetary Union, Report by President of the European Council*, Brussels June 26, 2012, [Accessed on May 6, 2015], available at: <https://www.consilium.europa.eu/media/33785/131201.pdf>

of common debt with joint and several liability was proposed to be explored in order to further deepen fiscal integration.

Integrated economic policy framework meant deeper convergence and integration in the economic area, particularly in the political area of labor mobility and tax coordination to foster imbalances and ensures the capacity to adjust to shocks and compete in a globalized world economy.

The last component of the revamped EMU, the high level of democratic legitimacy and accountability was designated as essential for the functioning of the previous three components, especially for the integrated fiscal policy. It was seen as necessary for legitimate and accountable joint decision-making.

Overall, the report emphasized that a long-term prosperity and stability of the EMU is dependent on the implementation, in some form, of all the four pillars since they are mutually interdependent and complementary.

It is hard to object to the conclusions of the report, especially to the part emphasizing the need to progress in all four areas to some extent in order for the EMU to work. While European banking sector was at the heart of the recent crisis and has also been at the center of the recent initiatives establishing new European financial system architecture, deeper political and fiscal integration is necessary for its proper functioning. Yet, there has so far been little or no progress in these areas and as it will be described in more detail in the following chapters, this remains one of the biggest weaknesses of the new institutional setup. The reason is simple, it is hard to imagine having a centralized pool of funds readily available to bankroll recapitalization of banks across the EU without encouraging “freerides”, unless there are common fiscal rules enforced at the EU level. Most importantly, a system of EU-level or “federal” authorities ensuring sound and swift supervision and crisis management resolution need to be entrusted with decision-making powers, which is hardly possible without deepening political integration. Especially an EU-level resolution mechanism whereby cross-border operating institutions are to be taken over, restructured and sold without or in most cases against the will of their shareholders and creditors need robust political support and surrendering of sovereignty by individual Member States towards the EU-level bodies. The importance of having a political consensus can be demonstrated on the diverging approaches in the US and the EU. Arguably, had proper decision-making process and executive oversight had existed, the problems of the European banking crisis could have been dealt with and resolved much earlier. Indeed, when looking at the processes undergone and measures undertaken both in the EU and the US, the difference is striking. If one were to deem the Lehman Brother’s failure in September 2008 as the beginning of the crisis, it would see that

the legislative response in the US was much faster. In particular, the Emergency Economic Stabilization Act authorizing the Treasury Secretary *inter alia* to extend credit to and purchase distressed assets from banks and other financial institutions in the amount of \$700 billion was adopted two weeks after the crisis fully broke off. After this “quick fix”, number of other measures and proposals from the Fed and the Treasury followed,⁵⁶⁸ only to ensue in the enactment of the Dodd-Frank Wall-Street Reform and Consumer Protection Act in 2010. This is not to say that all measures to tackle the crisis had been undertaken by 2010, but the brunt of work needed for the US to bounce back to recovery and economic growth was done.⁵⁶⁹

5.2.1 Creation of Centralized European Supervision

The idea of integrated financial framework contemplated by the “Towards a Genuine Economic and Monetary Union” report was soon materialized in a Commission’s Communication of September 2012 introducing “A Roadmap towards a Banking Union”. The Banking Union was meant to be built on the foundations of the single market for financial services operating under the Single Rulebook and further accelerate its development primarily in the areas of capital requirements, deposit insurance and bank restructuring.

The Communication also clearly laid out the reasons behind the new project of Banking Union when stressing:

“Further steps are needed to tackle the specific risks within the Euro Area, where pooled monetary responsibilities have spurred close economic and financial integration and increased the possibility of cross-border spill-over effects in the event of bank crises, and **to break the link between sovereign debt and bank debt and the vicious circle which has led to over € 4,5 trillion of taxpayers money being used to rescue banks in the EU.**”⁵⁷⁰

Aside from stressing why the Banking Union was needed, the Commission also stated that completing the Banking Union would require further work to deliver a single supervisory mechanism (the “SSM”), a common system for deposit guarantees and an integrated crisis

⁵⁶⁸ See Board of Governors of the Federal Reserve board, Supervisory Capital Assessment Program, May 7, 2009, [Accessed on December 1, 2015], available at: <https://www.federalreserve.gov/newsevents/files/bcreg20090507a1.pdf>

⁵⁶⁹ See also VERÓN, Nicolas, The challenges of Europe’s fourfold union, Bruegel, August 2012, [Accessed on December 1, 2015], available at: http://bruegel.org/wp-content/uploads/imported/publications/pc_2012_13_senate.pdf

⁵⁷⁰ See COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL: „A Roadmap towards a Banking Union“. Brussels, September 12, 2012, [Accessed on March 3, 2015] available at: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0510:FIN:EN:HTML>

management framework. Therefore, the new framework was founded on three pillars dealing with how banks are authorized to provide services, how they are funded and finally how they are dealt with when they are distressed.

The SSM underpinned by the Single Rule Book for financial services was the first step towards the creation of the Banking union and a necessary condition for the direct recapitalization of European banks through the ESM.⁵⁷¹

The overarching objective of the SSM was to sever the sovereign-bank doom-loop, by installing an impartial supervisor between national regulators with home bias and the respective banking sectors they supervise. The creation of the SSM was effectuated via two acts adopted in September 2013, namely the regulation conferring special tasks on the ECB concerning policies relating to the prudential supervision of credit institutions (the “**SSM Regulation**”) and the regulation providing for enhanced cooperation between EBA and ECB as regards the new tasks conferred upon the ECB.⁵⁷² Both these acts aimed at implementing the SSM into the ESFS. The new SSM framework became fully operational in November 2014 after conclusion of a 12-month comprehensive assessment of the financial health of 130 systematically important institutions carried out by the ECB.⁵⁷³

The enhanced cooperation between EBA and the ECB was designed to ensure that the establishment of the SSM would not hamper proper functioning of the Single Market for financial services by creating double standards and competitive distortions. Thus, that EBA maintains its powers and tasks remains “in charge” of developing and contributing to the consistent application of the Single Rulebook applicable to the whole EU. Since only Eurozone Member States are required to participate in the SSM (while other Member States may opt-in under the so-called “close cooperation” status), the amendment to the EBA Regulation introduced a system of “double majority” voting, which in essence gives non-Eurozone Member

⁵⁷¹ For details see chapter 5.5.1.6.

⁵⁷² See 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 and Regulation (EU) No 1022/2013 of the European Parliament and of the Council of 22 October 2013 amending Regulation (EU) No 1093/2010 establishing a European Supervisory Authority (European Banking Authority) as regards the conferral of specific tasks on the European Central Bank pursuant to Council Regulation (EU) No 1024/2013.

⁵⁷³ The assessment covered bank with total assets of €22 trillion accounting for approx. 82 % of total banking assets in the SSM and consisted of (i) a supervisory risk assessment to review, quantitatively and qualitatively, key risks, including liquidity, leverage and funding; (ii) an asset quality review to enhance the transparency of bank exposures by reviewing the quality of banks’ assets, including the adequacy of asset and collateral valuation and related provisions; and (iii) a stress test to examine the resilience of banks’ balance sheet to stress scenarios. The assessment was based on a capital benchmark of 8 % CET1, drawing on the revised definition of capital under CRR and CRD IV. Overall, the exercise has identified capital shortfalls for 25 banks, totaling €25 billion. For details see European Central Bank, Aggregate Report on Comprehensive Assessment, October 2014, [Accessed on May 6, 2015], available at: https://www.bankingsupervision.europa.eu/banking/tasks/comprehensive_assessment/html/2014_index.en.html

States power to block EBA decisions with a cross-border element.⁵⁷⁴ The mechanism was an important concession to ensure that Member States not participating in the SSM would not be out-voted with regard to issues relating to the application and interpretation of the Single Rule Book.

Legal basis for such significant shift of competence is enshrined in Art. 127(6) TFEU, which empowers the Council to “[...] 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.”

While the wording of Art. 127(6) TFEU is somewhat open-ended and does not contain any substantial rules, it is broadly accepted as a solid constitutional basis for allowing the ECB to carry out activities under the SSM in order to ensure “safety and soundness of credit institutions and the stability of the financial system within the Union and each Member State”.⁵⁷⁵

Specifically, under the SSM, the ECB is also exclusively competent to carry out a number of key supervisory tasks in relation to all credit institutions established in Eurozone, including, chartering, approving acquisition of qualifying holdings, ensuring compliance with micro-prudential requirements in the areas of own funds requirements, securitization, large exposure limits, liquidity, leverage, and reporting and public disclosure, conducting stress-tests and supervisory reviews. Importantly, the ECB also gained competence in the area of recovery planning and early intervention phase of the new crisis management process.⁵⁷⁶ On the other hand, dealing in securities and other non-prudential activities are outside the ECB’s and SSM’s scope and remain the responsibility of the respective national and/or EU-level authorities, such as ESMA or EIOPA.

On the other hand, the SSM Regulation entrusts the ECB with rather limited array of macroprudential tasks and tools. In particular, the ECB, if deemed necessary, may decide to require observance of stricter prudential requirement, including higher capital buffers, than applied by national competent authorities. However, such measures must take into account the specific situation of the financial system, economic situation and the economic cycle in individual Member States or parts thereof.⁵⁷⁷

⁵⁷⁴ The ECB is authorized to adopt memoranda of understanding with the relevant national competent authorities from non-participating Member States detailing their mutual cooperation when performing their respective supervisory tasks. See Art. 3(6) of the SSM Regulation.

⁵⁷⁵ See Art. 1 of the SSM Regulation.

⁵⁷⁶ See Art. 4 of the SSM Regulation.

⁵⁷⁷ See Art. 5 of the SSM Regulation.

Even though the SSM Regulation contemplates that the ECB is responsible for a direct prudential supervision of only significant credit institutions, financial holding companies, mixed financial holding companies, and Eurozone branches of credit institutions established in Member States not-participating in the SSM, whereas direct supervisory tasks in respect of less significant credit institutions are delegated to national competent authorities, the ultimate responsibility for effective and consistent functioning of the SSM is borne by the ECB, regardless of any delegation of tasks to national competent authorities.⁵⁷⁸ The CJEU confirmed the ECB's reading of the SSM Regulation as conferring on the ECB exclusively competence for prudential supervision of credit institutions regardless of their size. The national competent authorities merely assist the ECB in carrying out its tasks in relation to less significant credit institutions within a framework of decentralized implementation of its exclusive competence.⁵⁷⁹ Thus, the exercise of supervision in the SSM is not based on distribution of competence between the ECB and national competent authorities, but reflects the decentralized exercise of the ECB's exclusive competence in relation to less significant institution, although in a very autonomous manner. In practice, less significant credit institutions are directly supervised by the national competent authorities (which are in turn supervised by the ECB) in accordance with relevant domestic legislation, including EU law, but the ECB may, at any time, decide to "recall the delegation" and exercise direct supervision in respect of any credit institutions when necessary to ensure consistent application of high supervisory standards.⁵⁸⁰

⁵⁷⁸ See Art. 6(1) and (4) of the SSM Regulation. To qualify as significant, the bank must fulfil at least one of the following criteria: (i) size - the total value of its assets exceeds €30 billion, (ii) economic importance - for the specific country or the EU economy as a whole, (iii) significant cross-border activities - the total value of its assets exceeds €5 billion and the ratio of its cross-border assets/liabilities in more than one other participating Member State to its total assets/liabilities is above 20 %, (iv) direct public financial assistance - has requested or received funding from the ESM or the EFSF (v) domestic significance - one of the three most significant banks in a participating Member State. In addition, a supervised bank can also be considered significant if it is one of the three most significant banks established in a particular Member State. See Art. 6(4) of the SSM Regulation. As of November 1, 2019, there were 117 significant entities and/or groups directly supervised by the ECB. For details see European Central Bank, List of supervised entities (as of 1 December 2019), January 7, 2020, [Accessed on February 1, 2020], available at: <https://www.bankingsupervision.europa.eu/press/publications/html/index.en.html?skey=list>

⁵⁷⁹ See Judgment of the Court (First Chamber) of May 8, 2019, *Landeskreditbank Baden-Württemberg - Förderbank v European Central Bank* (Case C-450/17 P).

⁵⁸⁰ This aspect distinguishes the centralized supervision from the Eurosystem single monetary policy framework as responsibility for the Union monetary policy is shared between both the ECB and the Eurozone national central banks. See Art. 4(5)(b) of the SSM Regulation. However, chartering of banks, regardless of their size, and acquisition of qualified holdings in them is within the exclusive competence of the ECB. In particular, such applications are filed with the respective national authorities, which carry out the first assessment and submit a draft decision to the ECB on the basis thereof. The ECB has then the final say. See Arts. 15 and 16 of the SSM Regulation and Art. 73 *et. seq.* of the SSM Framework Regulation. In this respect, the CJEU confirmed that submission of such non-binding drafts, although part of the decision-making procedure, may not be challenged at national courts since the ECB (i.e. an EU institution) has the final and exclusive decision-making power, which consequently falls under the exclusive jurisdiction of the CJEU. See *Silvio Berlusconi and Fininvest v. Banca d'Italia* (Case C-219/17).

While one would assume a tendency to escape the designation of “being significant”, and more broadly the scope of the SSM, due to arguably more lenient stance of local supervisor with “home bias”, the recent relocation of Nordea, the Nordic region’s biggest bank, from Sweden to Finland, under the direct supervision of the ECB suggests that it might not be such a clear cut.⁵⁸¹ It was argued that by becoming a core participant in the Eurozone banking system, Nordea could find it easier to fulfil its ambition of growing across the region through acquisition.⁵⁸² In any event, the move of Nordea provides a precedent for its peers wishing run away from special sectoral taxes and tighter regulation of their home jurisdiction.⁵⁸³

5.2.1.1 Allocation of Responsibilities within the SSM

As already pointed out, TFEU stipulates that only the Governing Council and the Executive Board may adopt decisions on behalf of the ECB that produce legal effects *vis-à-vis* third parties.⁵⁸⁴ This institutional set-up brought and the fact that the two decision-making bodies were already mandated with monetary-policy tasks brought about unease about the design of the SSM governance structure.

First, the inherent conflict of interest between the lender of last resort and prudential supervision ruled out the possibility to confer the new supervisory tasks to the existing decision-making bodies of the ECB. Simultaneously, there was no political will to change TFEU, which would however be required to create a new decision-making body within the ECB. As a result, the SSM has a rather complicated governance structure. In particular, the SSM Regulation created a new internal body within the ECB, authorized to plan and execute the new tasks conferred on the ECB - the Supervisory Board.⁵⁸⁵ The Supervisory Board is particularly

⁵⁸¹ There have been cases where banks fought against the ECB supervision. See e.g. *Crédit Mutuel Arkéa v ECB* (Case T-712/15).

⁵⁸² See also Nordea Press Release: Why we propose to move into the Banking Union, March 18, 2018, Accessed on November 20, 2018], available at: <https://www.nordea.com/en/press-and-news/news-and-press-releases/news-group/2018/why-we-propose-to-move-into-the-banking-union.html> and Rosendahl Jussi, Kauranen Anne, *Nordea sees room for 'tactical' M&A after HQ move: CEO*, Reuters, October 2, 2018, [Accessed on November 20, 2018], available at: <https://www.reuters.com/article/us-nordea-finland-idUSKCN1MB26R>

⁵⁸³ It was in particular argued that Nordea would save it about €1 billion in deposit guarantees and costs related to funding Sweden’s bank resolution scheme, free up about €6 billion of capital and boost profits by up to €330 million. For details see Arnold Martin, Milne Richard, *Nordea headquarters move seen to boost profits by up to €330m*, the Financial Times, May 8 2017, [Accessed on January 20, 2018], available at: <https://www.ft.com/content/4fc74af4-33f6-11e7-bce4-9023f8c0fd2e>

⁵⁸⁴ See Art. 129(1) TFEU and Arts. 9 and 45 of the ESCB Statute.

⁵⁸⁵ The Supervisory Board is composed of (i) its Chair and Vice-Chair appointed by the Council following a proposal of the ECB and an approval by the European Parliament, (ii) four representatives of the ECB appointed by the Governing Council and (iii) representative of the national competent authorities, one per participating Member State. See Art. 26(1) through (3) of the SSM Regulation.

responsible for carrying out preparatory works and drafting decisions in the area of prudential supervision, however, since it has no formal decision-making authority, formal adoption of any such decisions rests with the Governing Council.⁵⁸⁶ On the other hand, it is within the sole discretion of the Supervisory Board whether to initiate a supervisory action in respect of any group or entity within the scope of the SSM.⁵⁸⁷ A draft decision is deemed adopted unless the Governing Council objects within a specified time frame (within 48 hours in emergency situation).⁵⁸⁸ If the Governing Council objects to a draft decision, it must state the reasons for doing so, in particular any monetary policy concerns.⁵⁸⁹

Competent authorities of participating Member States, which are concerned by and have different views regarding an objection by the Governing Council to a draft decision, are entitled to seek mediation with a panel composed of representatives of Member States participating in the SSM.⁵⁹⁰ The mediation panel has 20 business days for preparation of a

⁵⁸⁶ Practically, the direct supervision of significant institutions by the ECB is carried out via joint supervisory teams composed of persons appointed by the ECB and the relevant national competent authorities. Each significant institution is assigned to such joint supervisory team, which is managed by a coordinator and sub-coordinator(s) designated by the ECB and national competent authorities, respectively. JST tasks include but are not limited to (i) performing SREP; (ii) preparing and implementing the supervisory examination programme approved by the ECB and (iii) coordinating on-site inspections. Nevertheless, JSTs have no formal decision-making authority, and the NCAs act upon instructions of the ECB as its “agents”. In addition, the ECB as a consolidating supervisor chairs, and facilitates the formation of, a supervisory college in respect of significant institutions or groups with cross-border activities it directly supervises along with national competent authorities of the participating Member States (with observer status) where the parent undertaking of financial conglomerate and subsidiaries or significant branches of credit institutions are established. The ECB also takes part in colleges as a competent authority of subsidiaries and significant branches located in participating Member States where the group head office is in a non-participating Member State. For details see Regulation (EU) No 468/2014 of the European Central Bank of 16 April 2014 of 16 April 2014 establishing the framework for cooperation within the Single Supervisory Mechanism between the European Central Bank and national competent authorities and with national designated authorities (the “**SSM Framework Regulation**”).

⁵⁸⁷ Interestingly, the initial proposal of the SSM Regulation anticipated the possibility of the Governing Council to delegate “clearly defined supervisory tasks and related decisions regarding individual or a set of identifiable credit institutions, financial holding companies or mixed financial holding companies to the supervisory board, subject to the oversight and responsibility of the Governing Council”. However, this optionality spurred huge controversies and was eventually abandoned. See Proposal for a COUNCIL REGULATION conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions COM/2012/0511 final - 2012/0242 (CNS).

⁵⁸⁸ Decisions of the ECB are reviewable by an Administrative Board of Review, an internal body that carries out internal administrative reviews of the ECB’s supervisory draft decisions to ensure that such decisions are compliant with the rules and procedures of the ECB. Administrative reviews may be requested by any person or legal entity directly affected by an ECB supervisory decision, prior to its adoption by the Governing Council. The outcome of the review is a non-binding opinion addressed to the Supervisory Board, proposing that it either abrogate the initial decision or replace it with an identical or amended one for final approval by the Governing Council. For details see Art. 24 of the SSM Regulation and Decision of the European Central Bank of 14 April 2014 concerning the establishment of an Administrative Board of Review and its Operating Rules (ECB/2014/16) (2014/360/EU).

⁵⁸⁹ See Art. 26(8) of the SSM Regulation.

⁵⁹⁰ The Mediation Panel decides by a simple majority of its members. In the event of a tie, the most senior member of the panel in terms of office in the first instance, and by age in the event of two or more members having equal standing in terms of office has the casting vote. See Art. 25 of the SSM Regulation and Regulation (EU) No 673/2014 of the European Central Bank of 2 June 2014 concerning the establishment of a Mediation Panel and its Rules of Procedure (ECB/2014/26).

non-binding opinion and its delivery to the Supervisory Board and the Governing Council, although a shorter period set by the chair of the panel is required in urgent cases. The Supervisory Board has then 10 business days for submission of a revised draft decision to the Governing Council, after taking into account views of the panel. A further request for mediation concerning another objection by the Governing Council is not allowed.⁵⁹¹

5.2.1.2 Oversight over Systematically Important Banks with EU Presence

As a part of the latest series of post-crisis reforms referred to as the Banking Package, the Commission recently introduced a new regime for systematically important non-EU banks wishing to provide financial services in the EU to ensure a holistic supervision of their activities, and if necessary, to facilitate their resolution within the EU.⁵⁹²

In a press release, the Commission explained that the new regime is “to facilitate the implementation of the internationally agreed standards on internal loss-absorbing capacity for non-EU G-SIIs in EU law and, more broadly, to simplify and strengthen the resolution process of third-country groups with significant activities in the EU law, and, more broadly, to simplify and strengthen the resolution process of third-country groups with significant activities in the EU.”⁵⁹³

Specifically, the new regime, envisaged to apply from December 30, 2023, calls for non-EU groups operating in the EU to set up an intermediate parent undertaking authorized as credit institution or a financial holding company or mixed financial holding company or, subject to certain conditions, a CRR investment firm (“**IPU**”), provided it has at least two EU-established banks or investment firms. The requirement to set up an IPU in particular applies when the total value of assets in the EU of the third-country group, counting in assets of its EU

⁵⁹¹ See Arts. 10 and 11 Regulation (EU) No 673/2014 of the European Central Bank of 2 June 2014 concerning the establishment of a Mediation Panel and its Rules of Procedure (ECB/2014/26).

⁵⁹² The Banking Package comprises of (i) Regulation of the European Parliament and of the Council amending Regulation (EU) No 575/2013 as regards the leverage ratio, the net stable funding ratio, requirements for own funds and eligible liabilities, counterparty credit risk, market risk, exposures to central counterparties, exposures to collective investment undertakings, large exposures, reporting and disclosure requirements, and Regulation (EU), (ii) i) Directive of the European Parliament and of the Council amending Directive 2013/36/EU as regards exempted entities, financial holding companies, mixed financial holding companies, remuneration, supervisory measures and powers and capital conservation measures, (iii) Directive of the European Parliament and of the Council amending Directive 2014/59/EU as regards the loss-absorbing and recapitalization capacity of credit institutions and investment firms and Directive 98/26/EC, (iv) Regulation of the European Parliament and of the Council amending Regulation (EU) No 806/2014 as regards the loss-absorbing and recapitalization capacity of credit institutions and investment firms.

⁵⁹³ See European Commission, *Press release: Frequently Asked Questions: Capital requirements (CRR/CRD IV) and resolution framework (BRRD/SRM) amendments*, November 23, 2016, [Accessed on December 20, 2016], available at: https://ec.europa.eu/commission/presscorner/detail/en/MEMO_16_3840

branches, reaches or exceeds €40 billion. Also, the ECB, or the respective national competent authorities, as applicable, may allow to have two intermediate EU parent undertakings in cases, when the establishment of a single IPU would be incompatible with the requirement for a separation of activities (such as the in the US between banks and broker-dealers) to which the ultimate parent undertaking of such group is subject to, or when having a single IPU would make resolution less efficient.⁵⁹⁴ Basically, the new regime forces foreign banking groups with material presence in the EU to create an EU sub-consolidation group.

Given its likely material impact on third-country groups in terms of addition costs, the requirement spurred a heated debate as it was largely seen as a “retaliation” to an earlier rule from the Fed requiring foreign bank operations in the US to establish intermediate holding companies in the US.⁵⁹⁵

In particular, the Fed’s final rule introduced a new requirement for US operations of systemically important non-US banking organization (“**FBO**”) with US assets of \$50 billion or more (excluding, in general, assets held in branches and agency offices), to form a US intermediate holding company (“**IHC**”) and place such assets thereunder. The newly formed IHC would be a top-tier US subsidiary of the FBO under umbrella supervision of the Fed and would have to comply with rules applicable to US bank holding companies, in particular with enhanced risk management, liquidity, reporting and risk-based and leverage capital requirements.⁵⁹⁶

When compared with the US regime, the EU IPU regime is more onerous since, contrary to the Commission’s proclamation, reaching the €40 billion threshold triggers the requirement to set up IPU regardless of whether or not such third-country group meets the criteria for Global Systemically Important Institutions/Banks (“**G-SIIs**”). Also, since the threshold takes account of EU branch assets (despite the fact that these will not be subject to consolidated supervision within the EU sub-group), it is likely to catch some non-G-SII third-country groups. On the other hand, the EU IPO allows the parent undertaking to be an operating company, so establishment of a new holding company is not required. On the other

⁵⁹⁴ While the threshold for direct supervision of the ECB is over €30 billion in assets, the SSM regulation focuses on individual institutions, so the new requirement may apply even to institutions not directly supervised by the ECB. See Art. 6(4) of the SSM Regulation and Art. 21b of CRD V.

⁵⁹⁵ See 12 CFR §252.153.

⁵⁹⁶ However, the Fed recently introduced rules to tailor regulatory requirements for and supervision of FBOs to account for the size, complexity, risk profile and financial activities of their US operations and significantly eased the requirements for FBOs with less than \$100 billion in total global consolidated assets. For details see Board of Governors of the Federal Reserve System, Supervisory Policy and Guidance Topics: Foreign Banking Organization (FBO) Supervision and Regulation, October 20, 2019, [Accessed on December 1, 2019], available at: https://www.federalreserve.gov/supervisionreg/topics/fbo_supervision.htm

hand, the fact that an EU IPO may be an operating company undermines the potential benefit of having an EU sub-group for resolution purposes.⁵⁹⁷

5.2.1.3 Legal Constraints and Limitations of the SSM

There is no doubt that a centralized supervision at the EU-level is necessary for the proper functioning of the single market for financial services and a long-term stability of the European banking sector and Eurozone as a whole. In this context, the establishment of the SSM can be seen as a largely successful story, although the integration process is far from over and challenges remain. Arguably, the three areas deserving the most attention and further reforms concern the decision-making process, the separation of monetary policy and supervisory functions and the overall scope of the SSM.

First, the potential for diverging views between the Supervisory Board and the Governing Council raises concerns regarding operability of the whole decision-making process and some form of streamlining would be warranted. This could for example concern eliminating the high number of internal bodies or panels issuing non-binding opinions involved in the process. Also, other problematic aspect of the governance framework, although currently theoretical one, lies within the fact that the SSM Regulation does not anticipate involvement of non-Eurozone Member States participating in the SSM in the decision-making process. While such Member State may submit its reasoned objections to the Governing Council against a draft decision of the Supervisory Board or against objections of the Governing Council to a draft decision of the Supervisory Board, the ultimate remedy in the case of the former is to withdraw from the SSM and in the case of the latter to notify the ECB its intention not to be bound by the potential decision, in case of which its participation in the SSM may be suspended or terminated by the ECB.⁵⁹⁸ This does not seem to be very balanced mechanism given the fact that non-Eurozone Member States have no representation in the Governing Council. Therefore, the involvement of non-Eurozone Member States participating in the SSM should be revised, so that their voice would be heard especially given the fact that the “close cooperation” may not be voluntary terminated in the first three years.⁵⁹⁹

Second, the current set-up does not clearly delineate accountability of the two involved bodies, although the ultimate decision-maker is in effect the Governing Council. The fact that

⁵⁹⁷ For details see chapter 5.5.2.

⁵⁹⁸ See Art. 7(7)(8) of the SSM Regulation.

⁵⁹⁹ See Art. 7(6) of the SSM Regulation.

the ultimate decision-maker is the Governing Council, may in fact limit the ECB's accountability in the area of prudential supervision and question effectiveness of the separation of the ECB's monetary policy and supervisory function. Regarding the former, the strong emphasis on independence of the Supervisory Board and on the members of the ECB decision-making bodies in the SSM Regulation and the TFEU, although warranted for monetary policy purposes, is not desirable for a prudential supervisor.⁶⁰⁰ Given the ECB's important role, *inter alia*, in early intervention (pre-resolution) processes and its exclusive competence to determine that a bank is failing or likely to fail, a necessary requirement for the commencement of resolution process, its decision have the potential to materially affect rights of banks and its creditors, shareholders or managers. This is also the reason why the balance between accountability and independence is usually tilted more towards accountability in banking supervision, which is, however, not the case of the SSM. While the SSM Regulation stipulates that the ECB shall be accountable to the European Parliament and to the Council for the implementation of its decision thereunder, the Supervisory Board's oversight is ultimately subject to the Governing Council's decision and "discretion".

The SSM Regulation also requires establishment of "Chinese Walls" between these monetary policy and supervisory function of the ECB.⁶⁰¹ Clearly, the ECB's accommodative monetary policy may be beneficial to the banking sector but not to attaining its primary objective of maintaining price stability. Again, while the SSM Regulation dictates that the staff involved in carrying out the tasks conferred on the ECB thereunder must be organizationally separated from, and subject to, separate reporting lines from the staff involved in carrying out other tasks conferred on the ECB, the ultimate decision about any supervisory action rests within the Governing Council.⁶⁰²

The fact is, however, that available options, which could improve the current SSM's governance structure, are severely limited unless there is a treaty change.

⁶⁰⁰ Members of the Supervisory Board and Governing Council are required to act independently and objectively in the interest of the EU as a whole, and to neither seek nor take instructions from EU institutions or bodies, from any government of a Member State or from any other public or private body. The ECB must be independent in the exercise of its powers and in the management of its finances. Union institutions, bodies, offices and agencies and the governments of the Member States must respect that independence. See Art. 19(1) of the SSM Regulation, Arts. 130 and 282 TFEU and Art 7 of the ESCB Statute.

⁶⁰¹ See Recital 65 and Art. 26(8) of the SSM Regulation.

⁶⁰² Art. 25(5) of the SSM Regulation provides for a mediation procedure allowing national competent authorities to apply for mediation regarding the reparation of monetary and supervisory roles of the ECB. The panel comprises one member per Participating Member State from among the Members of the Governing Council and the Supervisory Board and tries to find balance between the position of the Governing Council and the Supervisory Board, however, its opinion is not binding, and the ultimate decision will "take" the Governing Council. For details see Regulation (EU) No 673/2014 of the European Central Bank of 2 June 2014 concerning the establishment of a Mediation Panel and its Rules of Procedure (ECB/2014/26).

Finally, taken from a high-level perspective, the biggest weakness of the SSM seems to be its scope. In particular, the new supervisory regime addresses only one segment of the European financial system, although an important one, and generally speaking does not at all concern financial services firms that do not fall into a relatively narrow category of credit institution and certain financial holding companies. Other entities that do not have formal bank licenses, but nevertheless engage in bank-like activities, provide key wholesale market services and engage in maturity or liquidity transformation very much like banks, such as securities firms or various securitization vehicles, are completely left out of the SSM scope.⁶⁰³ While it is true that Eurozone but the EU as a whole is predominantly financed by banks, in contrast with for example the US, the significance of capital markets in the EU is expected to grow, especially with the underway Capital Markets Union project. Although, the new prudential regime for investment firms, which simplifying somewhat, forces systematically important investment firms to convert into credit institutions, addresses some of these concerns, it is again limited to only one particular business form.⁶⁰⁴ Systemic risk posed by, for example clearing houses, or money market funds, is a pressing issue on both sides of the Atlantic. Paradoxically, while the compulsory trading and central clearing of all standardized OTC derivatives, a direct result of the recent financial crisis, reduced counterparty risk, the financial system has become so reliant on them that they pose systemic risk to stability of the whole financial system due to concentration of liquidity risk. However, given the interconnectedness of the various segments of the financial sector, if any such risk were to materialize, its negative effects would soon spill over into the banking sector. This is clearly one of the lessons that should have been learnt from the near collapse and subsequent US government takeover of AIG, an insurance company with business seemingly remote from that of banking. Nevertheless, the fear that its demise could spur a domino-like effect and bring down other financial services firms, most notably the investment banks Goldman Sachs and Morgan Stanley was a major impetus behind its bailout. The SSM does not have competence to address any of these risks. Nevertheless, given the increasing regulatory scrutiny and

⁶⁰³ However, a recent CJEU ruling in *Crédit Mutuel Arkéa v ECB* effectively expand this scope. The case concerned *Crédit mutuel*, a non-centralized French banking group, made up of a network of local credit unions having the status of cooperatives all affiliated with the *Confédération nationale du Crédit mutuel (CNCM)*, not itself a credit institution. In short, the court confirmed the ECB's power to exercise consolidated supervision over the group and impose additional capital requirements on CNCM, given the CNCM's status of a central body of the group within the meaning of Art. 10 CRR, irrespective of the fact that CNCM was not a credit institution within the meaning of EU law. See *Crédit Mutuel Arkéa v ECB* (Case T-712/15).

⁶⁰⁴ See Regulation of the European Parliament and of the Council of 27 November 2019 on the prudential requirements of investment firms and amending Regulations (EU) No 1093/2010, (EU) No 575/2013, (EU) No 600/2014 and (EU) No 806/2014 and Directive of the European Parliament and of the Council of 27 November 2019 on the prudential supervision of investment firms and amending Directives 2002/87/EC, 2009/65/EC, 2011/61/EU, 2013/36/EU, 2014/59/EU and 2014/65/EU.

growing compliance costs within the banking sector, it is arguably likely that future financial crisis will not be rooted in the overregulated banking sector, but somewhere “in the shadows” of it. The brief overview of the 20th century evolution in the financial services industry in the first chapter supports this view.

On the other hand, the scope of Art. 127(6) TFEU, which serves as the legal basis for the SSM, provides authorization only in respect of “prudential supervision of credit institutions and other financial institutions with the exception of insurance undertakings”. Therefore, the treaty would most likely have to be amended to allow the SSM to cover other types of financial services firms and most notably shadow banks. Accordingly, the approach that has recently been chosen in respect of systematically important investment firms will not work for hedge funds and other types of shadow banks. Thus, the narrowly tailored wording of Art. 127 (6) TFEU significantly limits the possibility for expansion of the current ECB’s powers.

The other, but related issue is that the SSM focuses solely on prudential regulation and leaves the other areas of banking business to national regulators and/or ESAs.

Accordingly, systemic risk seems not to be addressed adequately within the new European Supervisory Framework. The ECB has no competence in regulation systemic risk and only a limited competence in the area of macro-prudential supervision. At the same time, the only EU-level authority with tasks relating to systemic risks, the ESRB, is a soft law institution issuing non-binding warnings and recommendations with no enforcement powers. Moreover, the fact that the ESRB’s body is predominantly composed of bankers might skew its focus towards the banking sector and leave other risks unseen. This is further reinforced by the fact that the ECB is not responsible for a holistic supervision of the business forms within its scope, but only to prudential part of it, which runs the risk of exposing a group with diversified businesses to a patchwork of EU-level and national regulators.

Finally, while the SSM created a harmonized supervisory framework for enforcement of the Single Rulebook, it did not address the high fragmentation of the European banking sector. Moreover, it has been argued that fragmentation and disintegration of finance has been almost exclusively a European phenomenon. It has in particular been evidenced that, despite considerable balance sheets clean-up, regulatory harmonization, and deepening institutional integration within the Banking Union European financial integration has been lagging behind and bank M&A activity within the Euro Area have been on a steadily declining trend, both in terms of number and value, since the year 2000.⁶⁰⁵ Capital markets are also still highly

⁶⁰⁵ The often-cited reasons behind this concerning trend are ring-fencing and protectionism of host state regulators in respect of affiliations of foreign banks operating within their territory as recently demonstrated by the polarized discussions regarding waivers to liquidity and capital requirements for subsidiaries of cross-border operating

fragmented and not easily accessible to a sufficiently wide pool of firms, which presents another barrier to free movement of liquidity and capital across borders.

5.3 From Centralized Supervision to Centralized Resolution

Introduction of a new special resolution regime for banks and the financial sector more broadly is one of the many initiatives brought about by the 2007-8 financial crisis. The other initiatives briefly described in the previous parts of this chapter were, generally speaking, introduced to make the financial sector more resilient and capable of absorbing more severe economic shocks without jeopardizing financial stability. On the other hand, it is clear that even the best regulation conceivable cannot prevent crises from coming about. At the same time, the turmoil in the financial markets across the world brought about by the demise of Lehman Brothers supports the conclusion that letting a systematically important institution fail is not a credible policy option, despite moral hazard concerns. In the wake of the 2007-08 financial crisis, neither the US nor the EU had any special regime for dealing with distressed banks and other financial services firms. As a result, central banks took the lead and acted as the crisis managers of last resort and pumped hundreds of billions of dollars into their respective financial sectors and in some cases even orchestrated *ad hoc* restructurings. Governments followed with massive bailouts. In many countries, governments went beyond liquidity provision and took over institutions.⁶⁰⁶ These interventions, although necessary to prevent collapse of the financial system, spurred public outcry and frustration as the public, in most cases rightly so, regarded these institutions as the culprits of the crisis. Fiscal austerity and economic contraction followed as costs of these interventions threatened the financial standing of the sovereigns, especially in the EU, where assets of the banking sector amounted to €43 trillion or about 350 % of EU GDP in 2008.⁶⁰⁷ Some Member States, such as Greece, became *de facto* insolvent.

groups. However, the differences in company, insolvency and commercial law also play a significant obstacle to further cross-border consolidation. For further details on the topic see e.g. Enria Andrea, *Fragmentation in banking markets: crisis legacy and the challenge of Brexit*, Speech at BCBS-FSI High Level Meeting for Europe on Banking Supervision, September 17, 2018, [Accessed on December 3, 2018], available at: www.eba.eu/documents

⁶⁰⁶ An IMF survey of 37 major economies estimates that in the decade between 2007-2017, direct public support to financial institutions amounted to \$1.6 trillion or \$3.5 trillion with the inclusion of guarantees. For details see Deniz Igan, Hala Moussawi, Alexander F. Tieman, Aleksandra Zdzienicka, Giovanni Dell'Ariccia, Paolo Mauro, *The Long Shadow of the Global Financial Crisis: Public Interventions in the Financial Sector*, IMF Working Paper, WP/19/164, July 2019, [Accessed on August 16, 2019], available at: <https://www.elibrary.imf.org/view/Journal/IMF001.xml?language=en&redirect=true>

⁶⁰⁷ The number represent the total assets of credit institutions and other financial institutions whose business is to receive deposits and/or close substitutes for deposits and, for their own account (at least in economic terms), to grant credits and/or make investments in securities. See Liikanen; et al., *High-Level Expert Group on Reforming*

At the same time, any regulatory response to a crisis like the world went through in 2007-8 has major political underpinnings and tries to cope with often diverging aims, namely, stability of the financial sector but also economic growth and competitiveness. Thus, it is no wonder that once crisis or effects thereof starts fading away, there is often strong push towards deregulation, as happened in the run-up to the 2007-8 financial crisis. Indeed, financial booms and risk-taking during economic expansion are often amplified by political push for deregulation, and an increasing light-touch approach to financial supervision. Therefore, post-crisis reforms do not always survive the following boom. History suggests that politics can be the real undoing of macro-prudential regulations.⁶⁰⁸ The regulatory push-back often ensues only after another financial crisis with severe political ramifications stemming from bank bailouts and austerity measures. The new crisis resolution mechanism introduced after the 2007-8 financial crisis builds on these presumptions and calls for the creation of *ex ante* set of rules and procedures for dealing with failing banks and other financial institutions that would be readily available for crises to come. These initiatives are primarily response to the failure of governments to swiftly and effectively deal with failing banks and other financial institutions and distressed financial sector during the recent financial crisis. Although it can be argued that some governments responded swiftly, they did so by resorting to taxpayers' money.

In order to address these shortcomings, at the 2009 Pittsburgh Summit, the G20 leaders agreed on strengthening the international financial system when, *inter alia*, stressing:

“Systemically important financial firms should develop internationally-consistent firm-specific contingency and resolution plans. Our authorities should establish crisis management groups for the major cross-border firms and a legal framework for crisis intervention as well as improve information sharing in times of stress. We should develop resolution tools and frameworks for the effective resolution of financial groups to help mitigate the disruption of financial institution failures and reduce moral hazard in the future. Our prudential standards for systemically important institutions should be commensurate with the costs of their failure. The FSB should propose by the end of October 2010 possible measures including more intensive supervision and specific additional capital, liquidity, and other prudential requirements.”⁶⁰⁹

the Structure of the EU Banking Sector, October 2, 2012, at p. 11, [Accessed on August 10, 2015], available at: http://www.ec.europa.eu/internal_market/bank/docs/high-level_expert_group/report_en.pdf

⁶⁰⁸ For an interesting examination of ten of the most infamous financial booms and busts since the 18th century and responses Jihad Dagher, *Regulatory Cycles: Revisiting the Political Economy of Financial Crises* International Monetary Fund, IMF Working Paper 18/8, January 2018, [Accessed on August 16, 2019], available at: <https://www.elibrary.imf.org/view/Journal/IMF001.xml?language=en&redirect=true>

⁶⁰⁹ See G20 Leaders' Statement at the Pittsburgh Summit, 24 – 25 September 2009, [Accessed on August 16, 2015], available at: <https://www.fsb.org/source/g20/>

The high-level rudiments agreed in Pittsburgh materialized into a 2011 Financial Stability Board document named Key Attributes of Effective Resolution Regimes for Financial Institutions comprising the core elements for an effective resolution and only a few months later endorsed as a “new international standard for resolution regimes”.⁶¹⁰ The aim was clear - providing a framework on how “too big to fail” financial institutions should be organized, what instruments should be employed to wind them down in an orderly manner without taxpayer money while maintaining continuity of their vital economic functions. More specifically, the Key Attributes emphasized that an effective resolution should in particular ensure allocation of losses on shareholders and unsecured and uninsured creditors in a manner that respects a clear hierarchy of claims, not rely on public support and create expectation that such support will be provided, but also avoid unnecessary destruction of value. Also, resolution should be fast, transparent and as much as possible predictable through resolution planning in order to preserve continuity of systemically important financial services, and payment, clearing and settlement functions, protect depositors and insurance policy holders and ensure a rapid return of ring-fenced client assets. In general, the new regime was to enhance market discipline through incentives for market-based solutions but at the same time ensure that non-viable institutions can exit the market in an orderly fashion.

In addition, effective resolution regime would also entrust national resolution authorities with a broad range of powers, including the option to sell or transfer shares in, or business (or a part thereof) of, an institution to a third party, either directly or through a bridge institution, protecting insured depositors and policy holders and other retail customers.

Although the Key Attributes related only to global systemically important financial institutions, they served as a blue-print to general resolution regimes in other jurisdictions. In the EU, these were primarily implemented via the Single Resolution Mechanism Regulation (the “**SRM Regulation**”) and the Bank Recovery and Resolution Directive (“**BRRD**”).⁶¹¹

⁶¹⁰ See *Financial Stability Board, Key Attributes of Effective Resolution Regimes for Financial Institutions*, October 2011, [Accessed on August 16, 2015], available at: <https://www.fsb.org/work-of-the-fsb/policy-development/effective-resolution-regimes-and-policies/key-attributes-of-effective-resolution-regimes-for-financial-institutions/> and Communiqué G20 Leaders’ Summit – Cannes, November 3-4, 2011, [Accessed on August 16, 2015], available at: www.oecd.org/g20

⁶¹¹ See Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012, of the European Parliament and of the Council and Regulation (EU) No 806/2014 of the European Parliament and of the Council of 15 July 2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund and amending Regulation (EU) No 1093/2010, as amended.

In the EU, there was no common resolution framework before SRM Regulation and BRRD and although some Member States had a special regime for dealing with distressed banks, they were often not followed in practice. Unconventional monetary policies undertaken by the ECB and enormous fiscal interventions had to be used, mainly through loans, capital injections or guarantees or all of them. To get the sense of the magnitude of these interventions, almost €5.4 trillion of state aid was approved by the Commission in the EU over the period from 2008 to 2014 out of which approx. €4.7 trillion was actually utilized.⁶¹²

Although trillions were spent, the bailouts were no panacea as they only moved the debt burden from private (bank) to public balance sheets (sovereigns). This in turn made debt service of many states unsustainable and led to the sovereign debt crisis, effects of which also quickly spilled over to the real economy, causing further economic slowdown and exacerbating the already present credit crunch and liquidity crisis. The so-called sovereign-bank doom loop only amplified the downward spiral.⁶¹³ However, given the size of the banking sector, some countries could not even afford to bail their banks out.⁶¹⁴ Other countries *de facto* defaulted, as they would have not been able to pay or refinance their debts without the assistance from the IMF, the EC, the ECB and the ESM.

All in all, the 2007-8 financial crisis made it clear that the EU cannot have deeply integrated internal market with unfettered freedom to provide (not only) financial services without also having an integrated or “single” mechanism or framework for restructuring and winding down institutions or groups with systemic importance for their respective Member States or the EU as a whole. If and as long as resolution, practices and approaches to burden-sharing were to remain national and financial resources needed for resolution funding were raised and spent at national level, the internal market would remain fragmented. Accordingly, regulators had strong incentives to unilaterally ring-fence banking operations in their

⁶¹² Of this amount, approx. €700 billion was used on recapitalization via capital-like instruments, while approx. €4 trillion to guarantees and other liquidity measures. For more details see European Commission Services, *State Aid Scoreboard 2018 - Aid in the context of the financial and economic crisis*, [Accessed on August 1, 2015] available at: https://ec.europa.eu/competition/state_aid/scoreboard/index_en.html#crisis

⁶¹³ Interestingly, at the heights of the euro area debt crisis in 2015, debt to GDP ratio of Eurozone was still lower than in the US, despite the public perception. In particular in the Eurozone it stood at 85 %, while it was 103 % in the US at that time. For more see European Commission, *Debt to GDP Comparison by Countries*, July 2, 2015, [Accessed on August 1, 2015] available at: <http://ec.europa.eu/eurostat/documents/2995521/7235991/2-21042016-AP-EN.pdf>

⁶¹⁴ The extreme case of Iceland which with total financial sector assets amounting to 12 times its GDP at the end of 2007, with the three largest banks assets exceeding 9 times GDP alone. For more details see International Monetary Fund, *Iceland: Financial System Stability Assessment Update*, the IMF Country Report No 08/368, December 2008, [Accessed on August 1, 2015] available at: <https://www.imf.org/en/Publications/CR/Issues/2016/12/31/Iceland-Financial-System-Stability-Assessment-Update-22529>

jurisdictions to protect their national banking systems by for example limiting intra-group transfers and lending or imposing higher liquidity and capital requirements on subsidiaries of foreign banks in their jurisdictions. This in turn restricted cross-border activities of banks and created obstacles to the exercise of fundamental freedoms in the internal market.

In a response, BRRD was adopted in June 2014. While BRRD was a major step towards harmonization of the rules relating to the resolution of banks across the EU, it did not provide for a centralized decision-making authority, thus it did not address the risk of adoption of potentially inconsistent decisions by various national resolution authorities in respect of the resolution of cross-border operating groups. Also, it would not reduce the dependence of institutions on national budgets. That is why SRM Regulation was introduced about a month later.

5.3.1 Single Resolution Mechanism

In line with the Key Attributes, the new resolution regime in the EU introduced by SRM Regulation and BRRD is built upon the principle that the banking and more broadly the financial sector cannot be completely protected from failures and that non-viable institutions must be able to exit the market in an orderly manner. Banking sectors of individual Member States in the internal market are highly interconnected and banking groups often operate across lines of individual Member States and have a relatively large percentage of foreign assets. SRM Regulation therefore aims primarily at ensuring a neutral approach in dealing with distressed cross-border operating banking groups and preventing the spillover of crises from one into other Member States.

In particular, SRMR established the second pillar of the Banking Union, the Single Resolution Mechanism (the “**SRM**”), a centralized resolution authority – the Single Resolution Board (the “**SRB**”) for dealing with failing banks and complementing the centralized supervision carried out by the ECB under the SSM. The SRM Regulation assumes that supervision and resolution are two complementary aspects of the internal market for financial services whose application at the same level should be mutually dependent. The SRM was established to address the misalignment between the centralized EU-level supervision over significant banks and groups and the national treatment of the same entities in resolution proceedings pursuant to BRRD following the establishment of the SSM. Specifically, its aim was to minimize potential conflicts stemming from either lack of coordination between various national resolution authorities, or from diverging national interests, or from both.

5.3.1.1 Scope and Division of Tasks within the SRM

In general, the SRM Regulation provides for a uniform institutional framework for resolution under BRRD in respect of institutions established within the euro area (or in the Member States that decided to opt in and participate). Along with the institutional framework set-up, the SRM Regulation also contains substantive rules empowering the SRB to adopt decisions directly applicable in all participating Member States. In addition, some substantive rules in the SRM Regulation are also applied by national resolution authorities, although these rules do not replace substantive rules provided for in BRRD but rather complement them (see further below).

The scope of the SRM in particular covers:

- (i) **credit institutions** established in the participating Member States;
- (ii) **parent undertakings**, including **financial holding companies and mixed financial holding companies** subject to consolidated supervision carried out by the ECB; and
- (iii) **investment firms and financial institutions**, which are not supervised by the ECB on an individual basis, provided that parent undertakings of such entities are subject to consolidated supervision of the ECB.⁶¹⁵

Similarly to the SSM, the tasks within the SRM are divided between the SRB and national resolution authorities. Specifically, the SRB is responsible for drawing-up resolution plans, adopting resolution schemes in respect of all credit institutions directly supervised by the ECB, *i.e.* those that are considered to be significant within the meaning of the SSM Regulation, or in relation to which the ECB has decided to exercise its powers directly.⁶¹⁶ In addition, the SRB is also directly responsible for resolution of banking groups subject to consolidated supervision of the ECB and for the effective and consistent functioning of the SRM as a whole.⁶¹⁷

However, the SRB's scope is broader than that of the ECB. First, the SRB is directly responsible for resolution of certain investment firms and financial institutions not covered by

⁶¹⁵ See Art. 2 of the SRM Regulation.

⁶¹⁶ See footnote 757. As of November 1, 2019, the ECB directly supervised 117 significant entities and/or groups, representing almost 82 % of banking assets in the euro area. See European Central Bank, *Press Release: ECB will directly supervise 117 banks in 2020*, December 4, 2019, [Accessed on February 1, 2020], available at: <https://www.bankingsupervision.europa.eu/press/pr/date/2019/html/ssm.pr191204~45bda0701a.en.html>

⁶¹⁷ Pursuant to Art. 4(1)(g) SSM Regulation the ECB in particular carries out supervision over credit institutions' parents established in one of the participating Member States, including over financial holding companies and mixed financial holding companies. See also Art. 7(1) SRM Regulation or similarly in respect of the ECB in Art. 6(1) SSM Regulation.

the SSM at all.⁶¹⁸ Second, the SRB's scope covers also cross-border banking groups supervised by the ECB on neither consolidated nor individual basis, provided such groups have credit institutions established in more than one participating Member State.⁶¹⁹ Finally, the SRB is directly responsible for adoption of a resolution scheme in respect of any credit institution (regardless of its significance) the resolution of which requires the utilization of funds from the Single Resolution Fund (the "**SRF**"). Similarly to the ECB under the SSM, the SRB may, when deemed necessary to ensure consistent application of high-resolution standards, take over and carry out directly the tasks reserved by the SRM Regulation to national resolution authorities.⁶²⁰

In contrast, national resolution authorities are responsible for all entities and groups, which are not under the SRB's remit, namely those neither significant nor cross-border. However, the SRB is, generally speaking, significantly involved in resolution processes under the purview of national resolution authorities. In particular, national resolution authorities have to inform the SRB of the measures they intend to take and closely co-ordinate their execution. In addition, such measures must, in principle, be made in accordance with resolution plans of the respective entities, which must be submitted to, including any updates thereof, to the SRB accompanied by a reasoned assessment of resolvability of an entity or a group concerned.⁶²¹ Thus, the level of discretion of national resolution authorities under the SRM is rather smaller when compared to discretion afforded to national supervisory authorities under the SSM.

The partial asymmetry in the design of the SRB and the ECB might bring about practical drawbacks since actions of resolution and supervisory authorities during, but also prior to, resolution, are interwoven and to some extent mutually dependent. Most notably, the respective supervisory authorities are responsible for deciding whether an institution is failing

⁶¹⁸ In particular, significant investment firms and financial institutions established in participating Member States, provided they belong to a group controlled by an undertaking subject to ECB's consolidated supervision. See Art 2(c) of the SRM Regulation and Art. 4(1)(g) of the SSM Regulation. However, the recent initiatives, which requires "large" investment firms to obtain a bank license and fall under the direct supervision of the ECB will make the SSM and the SRM scope more aligned. See Regulation of the European Parliament and of the Council of 27 November 2019 on the prudential requirements of investment firms and amending Regulations (EU) No 1093/2010, (EU) No 575/2013, (EU) No 600/2014 and (EU) No 806/2014 and Directive of the European Parliament and of the Council of 27 November 2019 on the prudential supervision of investment firms and amending Directives 2002/87/EC, 2009/65/EC, 2011/61/EU, 2013/36/EU, 2014/59/EU and 2014/65/EU.

⁶¹⁹ See Art. 7(2)(b) and Art. 3(24) of the SRM Regulation. As of December 4, 2019, there were 9 cross-border groups within the remit of the SRB. See Single Resolution Board, Banks under the SRB's Remit, [Accessed on February 1, 2020], available at: <https://srb.europa.eu/en/content/banks-under-srbs-remit>

⁶²⁰ See Art. 7(4) of the SRM Regulation.

⁶²¹ National resolution authorities (and similarly also the SRB in respect of resolution plans it drew itself) may deviate from a resolution plan if they conclude that, when taking into account the circumstances of the case, the resolution objectives will be achieved more effectively by taking actions which are not provided for in the resolution plan. See Arts. 7(3), 9 and 10 of the SRM Regulation.

or likely to fail, which is, among other things, *conditione sine qua non* for taking resolution action by the respective resolution authorities.⁶²² In practical terms, if the SRB were to take a resolution action in respect of entities outside the ECB' scope, i.e. cross-border banking groups with credit institutions in two more participating Member States, it would have to consult with, and seek the failing or likely to fail determination from, national supervisors of each of the members of such group, be it central banks, securities regulators or other agencies.

To makes things more complex, substantive rules provided for in the SRM Regulation are to be applied by both the SRB and national resolution authorities, although in different cases and to different extent, while in contrast, substantive rules provided for in BRRD as transposed to national laws apply only to national resolution authorities. Specifically, under the SRM Regulation, national resolution authorities shall perform, and be responsible for, the following tasks:

- (i) **adopting resolution plans** and carrying out resolvability assessment;
- (ii) requiring an institution **to contact potential purchasers** in order to prepare for its (or its assets or business) sale during an early intervention;⁶²³
- (iii) applying **simplified obligations or waiving the obligation** to draft a resolution plan;⁶²⁴
- (iv) setting the level of **minimum requirement for own funds and eligible liabilities ("MREL")**;
- (v) **adopting resolution decisions and applying resolution tools**, provided that it does not require the use of the SRF;⁶²⁵ and
- (vi) **writing down or converting relevant capital instruments**.⁶²⁶

In order to ensure that unified rules apply to all resolution actions under the SRM, national resolution authorities shall apply the relevant provisions of the SRM Regulation when carrying out the above tasks and any references in the SRM Regulation to the SRB shall be read as references to national resolution authorities. However, in such cases, although

⁶²² See Art. 18(1)(a) of the SRM Regulation and Art. 32(1)(a) of BRRD.

⁶²³ See Art. 7(3) and 13(3) of the SRM Regulation and Art. 27(2) and 38 of BRRD.

⁶²⁴ Simplified obligations may be applied if the failure of an institution or a group is not likely to have significant adverse consequences for the financial system or be a threat to financial stability, whereas waiver of the requirement may be granted to institutions affiliated to a central body and wholly or partially exempt from prudential requirements pursuant to Art. 10 CRR. See Art. 11 of the SRM Regulation.

⁶²⁵ Any such action must in particular be financed exclusively by (i) write-down and conversion of capital instruments; (ii) the sale of business tool; (iii) the bridge institution tool; (iv) the asset separation tool; (v) the bail-in tool and/or deposit guarantee scheme. See Art. 7(3)(e) of the SRM Regulation.

⁶²⁶ The write-down and conversion of capital instruments can be used both, before (at the point of non-viability of an institution), and when conditions for resolution are met (as a pre-condition for the use of the bail-in tool). See in detail chapter 5.3.4.4.

applying substantive rules provided for in the SRM Regulation, national resolution authorities shall exercise powers conferred thereon under national laws implementing BRRD.⁶²⁷ As already pointed out, given that national laws implementing BRRD may differ, but also due to the possibility of diverging application by national resolution authorities of the relevant provisions of the SRM Regulation, the SRB may decide, at any time, after consulting the respective national resolution authorities, to exercise directly all of the powers provided for in the SRM Regulation in respect of any entity or group that falls under the purview of national resolution authorities.⁶²⁸

In addition, notwithstanding the powers bestowed on national resolution authorities by the SRM Regulation, Member States may decide to delegate such powers to the SRB, which would have the effect of the SRB also being responsible for resolution of entities or groups established in such Member States that are neither significant nor cross-border.⁶²⁹

Given the rather unusual framework, uniform implementation and application of BRRD in the participating Member States will be of vital importance for proper functioning of the SRM. This is further reinforced by the fact that even the SRB's decisions shall, as a general rule, be directed towards national resolution authorities, which then shall implement them in accordance with national laws implementing BRRD. Moreover, in such cases, national resolution authorities will be applying their own discretion, where relevant, in particular by further specifying the necessary measures to be taken under and in accordance with national laws implementing Arts. 35 to 72 BRRD and by ensuring that safeguards provided for in BRRD are complied with.⁶³⁰ Since the roles of the SRB and national resolution authorities under SRM are profoundly intertwined, the setup of their mutual cooperation is essential regardless of whether the SRB is the authority directly responsible for resolution of the entities or groups concerned. In furtherance of this goal, the SRM Regulation empowers the SRB to:

- (i) issue **guidelines and general instructions** to national resolution authorities;
- (ii) at any time, **require information** from, or **exercise its investigatory powers** in respect of, entities under its purview;⁶³¹ and

⁶²⁷ See Recital (28) ad Art. 7(3) SRM Regulation.

⁶²⁸ See Art. 7(4) SRM Regulation. The attraction power could in particular be used when a draft decision of a national resolution authority with regard to any entity or group under its purview does not comply with the SRM Regulation or with the SRB's general instructions according to which tasks should be performed and resolution decisions adopted. See Art. 31 of the SRM Regulation.

⁶²⁹ See Art. 7(5) of the SRM Regulation.

⁶³⁰ See Art. 6(7), 18(9) and 29(1) of the SRM Regulation.

⁶³¹ See Art. 34 through 37 of the SRM Regulation. The SRB may for example request information, require submission of documents and explanations, examine books or records or interview persons who consented thereto.

- (iii) **receive national resolution authorities' draft resolution decisions** on which it may opine and indicate the elements thereof to the extent they do not comply with the SRM Regulation or the SRB's general instructions.⁶³²

In addition, in cases where the SRB is responsible for drawing-up a resolution scheme, it shall also be responsible for close monitoring of its execution, while the respective national resolution authorities must cooperate and assist the SRB in such monitoring and the SRB may, on the basis of the information received, give instructions to national resolution authorities as to any aspect of such resolution scheme.⁶³³ Accordingly, when a national resolution authority has not complied with the SRB's decision or has applied it in way that poses threat to any of the resolution objectives or efficient implementation of the resolution scheme, the SRB may address orders directly to the entity or group concerned. In such circumstances, the SRB may in particular:

- (i) **transfer specified rights, assets or liabilities** of an institution under resolution to third persons;
- (ii) **require debt to equity conversion of instruments** with contractual terms for conversion;
- (iii) **adopt any other necessary action** to implement the decision in question, provided such measure significantly addresses the threat to the relevant resolution objective or to the efficient implementation of the resolution scheme.⁶³⁴

The SRM Regulation further stipulates that the institution under resolution shall comply with any decision of the SRB directly addressed thereto and that such decision shall prevail over any previous decision adopted by the national resolution authority on the same matter.⁶³⁵

In addition to the SRB's power to "take over" of the implementation of its own, or of national resolution authorities' resolution schemes, the SRM Regulation also empowers it to

In addition, the SRB may conduct on-site inspections at the business premises of the respective natural or legal persons, even without prior announcement. Interestingly, the SRM Regulation, Art. 37(2) in particular also stresses that when national law of the Member State concerned requires a national judicial authority order for carrying out such on-site inspection, such authority shall not review the necessity for the inspection or demand to be provided with the information of the SRB's file as the lawfulness of the SRB's decision shall be subject to review by the ECJ only. Notwithstanding the foregoing, the national judicial authority shall review whether the decision of the SRB is authentic and that the measures envisaged thereby are neither arbitrary nor excessive, taking into account the subject matter of the inspection.

⁶³² See Art. 31(1) of the SRM Regulation.

⁶³³ National resolution authorities are also required to furnish the SRB with a final report on implementation of the scheme. See Art. 28(1)(2) of the SRM Regulation.

⁶³⁴ See Art. 29(2) of the SRM Regulation.

⁶³⁵ See Art. 29(3) of the SRM Regulation.

compel entities and groups (including their staff, representatives and persons carrying out outsourced activities) falling within the SRM scope to follow its decisions by imposing fines, either as a one-off punishment, or as a daily penalty payments. The fines may also be imposed for, generally speaking, foiling the proper administration of the SRB's investigatory powers.⁶³⁶

5.3.1.2 Institutional Framework of the SRM

From the legal status point of view, the SRB is an EU agency with independent legal personality, which shall enjoy the most extensive legal capacity accorded to a legal person under national laws in each Member State.⁶³⁷

In respect of composition, the SRB has the Chair, four full-time members and appointees from the participating Member States representing their national resolution authorities (one per participating Member State),⁶³⁸ which currently makes the SRB a 24-members body, with each member having one vote.⁶³⁹ In addition, each of the ECB and the Commission has one permanent (non-voting) representative participating in the SRB's plenary and executive sessions.⁶⁴⁰

In general, the executive session composed of the Chair and the four independent members prepares draft decisions, which are adopted in plenary sessions but also carries out tasks to implement the SRM Regulation, unless provided otherwise.⁶⁴¹ More specifically, the

⁶³⁶ The amounts of fines shall be determined as a percentage of either the annual net or the average daily turnover of the undertaking concerned, with the former being used for a one-off fines and the latter for the periodic payments, in particular as up to 0.5 % and 0.1 % thereof, respectively. The monies collected are to be allocated to the SRF. See Art 38(2) of the SRM Regulation.

⁶³⁷ See Art. 42(2) of the SRM Regulation.

⁶³⁸ In the event of more than one national resolution authority in a participating Member State, a second representative is allowed to participate as observer without voting rights.

⁶³⁹ See Art. 43(1)(2) of the SRM Regulation.

⁶⁴⁰ See Art. 49(1) and 53(1) of the SRM Regulation.

⁶⁴¹ The SRM Regulation provides that when deliberating on an entity or a group of entities covered by the SRM Regulation and established only in one participating Member State, appointee of that Member State shall participate in the deliberations and in the decision-making process of the executive session. Accordingly, when deliberating on a cross-border group, the appointee of the participating Member State in which the group-level resolution authority and of the participating Member States in which a subsidiary or entity covered by consolidated supervision is established, shall also participate in the decision-making process of the executive session. In addition, representatives from national resolution authorities of non-participating Member States shall also be invited to participate in the meetings when deliberating on a group that has subsidiaries or significant branches in such non-participating Member States. Although the SRM Regulation contemplates that the members of the respective executive session should be able to reach a joint agreement on a decision in respect of a particular entity or group, it recognizes that it may not be always possible, especially in respect of cross-border groups operating also in non-participating Member States. In particular, in case a joint decision is not reached within a deadline set by the Chair, a decision shall be made by a simple majority of the SRB's independent members, with the Chair having the casting vote. See Art. 53(3)(4) and 55 of the SRM Regulation

SRB in its executive session in particular prepares, assesses and approves resolution plans, provides the Commission with draft resolution schemes and determines the level of MREL.⁶⁴² In addition, the executive session of the SRB also decides on revenues and expenditures of the SRF, primarily on *ex ante* and *ex post* collection of contributions from institutions established in the participating Member States and on the use of SRF funds to bankroll resolution.⁶⁴³

When performing tasks conferred on them by the SRM Regulation, the SRB and national resolution authorities are required to act independently and in the general interest. Unfortunately, the regulation is silent about what the “general interest” means.⁶⁴⁴ Although the general interest of the EU comes to mind, the problem is that the SRM Regulation explicitly provides that the Chair, the Vice-Chair and the other four independent members of the SRB shall act independently and objectively in the interest of the EU as a whole. So, apparently, the “general interest” is not meant to be the interest of the EU as a whole, otherwise the SRM Regulation would have explicitly said so. Accordingly, given the purpose of the SRM Regulation, *i.e.* to inter alia prevent collision of diverging national interest when applying resolution tools and to avoid “home bias”, it seems unlikely that the “general interest” should be interpreted as the general interest of the Member States where entities or groups in respect of which resolution action is taken are established. To the contrary, the SRM Regulation stresses that neither the Member States, the EU's institutions or bodies, nor any other public or private body shall seek to influence the Chair, the Vice-Chair or the members of the SRB.⁶⁴⁵ In addition, although national resolution authorities shall act in the general interest, it is not clear what standard should apply to the representatives in the SRB appointed by national resolution authorities. It is not clear whether the SRM Regulation was meant to establish such disparity between objectives to be pursued by the independent members of the SRB and national resolution authorities and their representatives in the SRB. Given the objective of the SRM Regulation and the SRM, there seems to be no apparent justification for a double

⁶⁴² Where necessary because of urgency, the SRB in its executive session may take certain provisional decisions on behalf of the SRB in its plenary session See Art. 54(3) of the SRM Regulation.

⁶⁴³ It in particular, it decides on Part II of the SRF budget pursuant to Art. 60(1) of the SRM Regulation, which, apart from the contributions, consists of (i) loans received from national resolution funds or other resolution financing arrangements in non-participating Member States or from financial institutions or other third parties, (ii) returns on SRF's investments and (iii) expenses recovered in resolution.

⁶⁴⁴ See Art. 47(1) of the SRM Regulation.

⁶⁴⁵ See Art. 47(3) of the SRM Regulation. In addition, pursuant to Art. 45(1) of the SRM Regulation, the SRB shall be accountable to the European Parliament, the Council and the Commission for the implementation of the SRM Regulation.

standard. In any event, the practical connotations are rather limited since the independent members of the SRB will have a final say in cases where agreement between all members of the SRB taking part in deliberations and the decision-making of the executive session is not reached.

In contrast, the plenary session carries out administrative and budget-related tasks, decides on more significant drawings from the SRF, on SRF's investments and on the necessity to raise *ex post* extraordinary costs.⁶⁴⁶ On the other hand, the plenary session decides only when at least one of its members called for it within three hours from submission by the executive session of a draft decision in this respect, Otherwise, the decision of the executive session is deemed to have been adopted.

As the general rule, the SRB in its plenary session takes its decisions by a simple majority of its members, with each member having one vote and the Chair having the casting vote. However, in some cases provided for in the SRM Regulation, the base out of which the simple majority is calculated differs. In particular, a two-third majority of the SRB members representing at least 50 % and 30 % of the contributions to the SRF during the eight-year transitional ending in 2024 and from then onwards, respectively, is required for the decision involving:

- (i) raising **extraordinary *ex post* contributions**,⁶⁴⁷
- (ii) **voluntary borrowing from, or lending to**, resolution financing arrangements (most often resolution funds) within non-participating Member States;⁶⁴⁸
- (iii) **alternative borrowings and financial facilities** or other forms of support from institutions, financial institutions or other third parties, which offer better financial terms;⁶⁴⁹ or
- (iv) **mutualization of national financial arrangements** in the case of a group resolution involving institutions from both participating and non-participating Member States.⁶⁵⁰

⁶⁴⁶ For example, the plenary session decides on (i) the use of the SRF for a specific resolution actions exceeding €5 billion for which the weighting of liquidity support is 0,5 (ii) evaluation of the application of the resolution tools once the net accumulated use of the SRF in the last consecutive 12 months has reached €5 billion and provides guidance which the executive session shall follow in subsequent resolution decisions, (iii) the necessity to raise extraordinary *ex-post* contributions (iv) the voluntary borrowing between financing arrangements (v) the mutualization of national financing arrangements the case of a group resolution involving institutions in non-participating Member States involving support of the SRF above the €5 billion (vi) investments in obligations of the Member States or intergovernmental organizations, or in other highly liquid assets of high creditworthiness, with sufficient sectoral, geographical and proportionate diversification. See Arts. 50(1) and 75(3) of the SRM Regulation.

⁶⁴⁷ See Art. 71 of the SRM Regulation.

⁶⁴⁸ See Art. 72 of the SRM Regulation.

⁶⁴⁹ See Arts. 73 and 74 of the SRM Regulation.

⁶⁵⁰ See Art. 78 of the SRM Regulation.

5.3.1.3 Challenges Associated With the Institutional Framework

The institutional setup of the SRM has been a controversial topic since unlike in the case of the ECB as a monetary authority and a prudential supervisor, neither TFEU nor TEU contemplates the existence of the SRM and the SRB. The for the weak constitutional basis is rather simple - lack of political will and time to change the treaties, which would require unanimity among the Member States (in some cases furthermore accompanied with compulsory popular votes). As a result, the SRM was created by a secondary legislative act adopted on the basis of Art. 114 TFEU providing authorization for adoption of measures to approximate national laws, which have as their object the establishment and functioning of the internal market, a clause often used to run around the almost impossible task to change the treaties.⁶⁵¹

The selected approach, however, brings to the forefront the recurring issue of how much discretionary powers afforded to EU institutions by the treaties can be delegated to EU agencies. This is also the most remarkable difference between the SSM and the ECB acting as the EU-level prudential supervisor and the SRM and the SRB as a head of EU-level resolution. Despite the complexities revolving around the decision-making process within the ECB, which tries to deal with the necessity to separate monetary and supervisory authority, the ECB is an EU institution and as such has a firm legal basis for taking policy decisions vis-à-vis third parties.⁶⁵² In contrast, the SRB, as an EU agency, has, or at least should not be afforded with discretionary decision-making powers. The extent to which an EU institution may delegate powers to and EU agency, however, is a contentious issue, and the contours of the delegation have been severely blurred by interpretation of the highest EU court, most notably in the *Meroni* and *Romano* cases. In particular, in the *Meroni* case, the court ruled that although a treaty institution may delegate the authority conferred thereon to other bodies, any such delegation may only concern clearly defined executive powers, the use of which must be subject to supervision of the delegating authority. In addition, any procedure for making an assessment by the body on which powers are being conferred must be subject to precise rules as to exclude any arbitrary decisions. The court went on to stressing that to delegate a

⁶⁵¹ The Article served also as the basis for the establishment of the ESFS and adoption of the SSM Regulation. Most likely, the EU representatives did want to avoid a potential blowback they experienced with the Lisbon Treaty which was first rejected by voters in France and the Netherlands and then also in Ireland. For more details see e.g. Piotr Maciej Kaczyński, Sebastian Kurpas & Peadar ó Broin, Ratification of the Lisbon Treaty Ireland is not the only problem, European Policy Institutes Network, Working Paper No. 18, September 2008, [Accessed on May 5, 2015], available at: https://www.researchgate.net/publication/228151213_Ratification_of_the_Lisbon_Treaty_Problems_Not_Only_in_Ireland

⁶⁵² For details on the governance structure and related issues see chapter 5.2.1.1.

discretionary power to bodies other than those which a treaty has established to effect and supervise the exercise of such power each within the limits of its own authority, would interfere with the division of powers provided for in the primary law.⁶⁵³

The *Romano* case on the other hand deals with the transfer of powers by the legislator, (the Council in particular), to an agency established by the secondary legislation.⁶⁵⁴ In short, the court concluded that the Council may not delegate to an agency the power to adopt acts having the force of law.

More recent interpretation of the *Meroni* and *Romano* holdings was provided by the EU court in a case involving the powers of ESMA, the new EU agency created in response to the 2007-08 financial crisis.⁶⁵⁵ The case concerned a challenge by the UK Government of legality of Art. 28 of the so-called short selling regulation adopted in 2012, which entrusted ESMA with special intervention powers, in particular, with the power to prohibit or impose conditions on a short selling or transaction with similar effects.⁶⁵⁶ Specifically, the regulation empowered ESMA to prohibit short selling in order to address a threat to the orderly functioning and integrity of financial markets or to the stability of the whole or part of the financial system in the EU, provided there are cross-border implications and measures undertaken by national regulators do not adequately address that threat.⁶⁵⁷

In the challenge, the UK Government, *inter alia*, argued that the regulation, Art. 28 thereof in particular, provides ESMA with wide discretionary powers to prohibit short selling bans given the fact that ESMA alone may assess whether a threat to the orderly functioning and integrity of financial markets or to the stability of the financial system exists. In addition, it was argued that the power for ESMA to ban short selling breached the principle in *Romano* that the EU legislature could not delegate the power to adopt (quasi) legislative measures of general application and that Arts. 290 and 291 TFEU only permit delegation of powers to the Commission or the Council. Finally, in the view of the UK Government, Art. 114 TFEU could not constitute a proper legal basis for the adoption of the measures like the power to prohibit

⁶⁵³ See Judgment of the Court of 13 June 1958, *Meroni & Co., Industrie Metallurgiche, SpA v High Authority of the European Coal and Steel Community* (Case 9-56).

⁶⁵⁴ See Judgment of the Court (First Chamber) of 14 May 1981, *Giuseppe Romano v Institut national d'assurance maladie-invalidité* (Case 98/80).

⁶⁵⁵ See Judgment of the Court (Grand Chamber), 22 January 2014, *United Kingdom of Great Britain and Northern Ireland v European Parliament and Council of the European Union* (Case C-270/2012).

⁶⁵⁶ See Regulation (EU) No 236/2012 of the European Parliament and of the Council of 14 March 2012 on short selling and certain aspects of credit default swaps.

⁶⁵⁷ The short-selling regulation authorizing ESMA to prohibit short-selling was adopted on the basis of Art. 114 TFEU, similarly to the SRM Regulation, which authorizes the SRB to carry out resolutions-related tasks.

short selling, as such measures cannot be seen as harmonization measures necessary for the establishment and the functioning of the internal market.

In its ruling, the court rejected all the above contentions. Specifically, in relation to the limitations stemming from the *Romano* case, the court reasoned that although the treaties do not contain any specific provision to the effect that powers may be conferred on an EU body, office or agency, a number of provisions in the TFEU nonetheless presuppose that such a possibility exists. In particular, the first paragraph of Art. 263 TFEU and Art. 277 TFEU, which provides for a judicial review mechanism of acts of general application intended to produce legal effects *vis-à-vis* third parties adopted by EU bodies, offices and agencies, imply that EU agencies can be vested with powers to take legally binding decisions in respect of natural and legal persons.

Furthermore, the court found that the delegation of powers on ESMA under Art. 28 of the regulation was compatible with the TFEU, and the *Meroni* ruling, as such powers are precisely delineated and amenable to judicial review in the light of the objectives established by the delegating authority. It was concluded that the provision does not confer any autonomous power on ESMA that goes beyond the bounds of the regulatory framework established by the ESMA Regulation and that the exercise of the powers thereunder is circumscribed by various conditions and criteria which limit the discretion of the ESMA.⁶⁵⁸ Furthermore, ESMA's margin of discretion is circumscribed by both the requirement to consult the ESRB and, if necessary, other relevant bodies, and by the requirement to notify the respective national regulators of the measure it proposes to take. In addition, any such decision by ESMA is only of temporary nature and based on the best practices in the field of supervision.

In addition, the court stressed that the disputed article vests ESMA with certain decision-making powers in the area which requires the deployment of specific technical and professional expertise and that such conferral does not correspond to any of the situations defined in Arts. 290 and 291 TFEU. However, it was reasoned that the article cannot be considered in isolation. On the contrary, that provision must be perceived as forming part of a series of rules designed to endow the respective national regulators and ESMA with powers of intervention to cope with adverse developments which threaten financial stability within the EU and market confidence. To that end, the court opined, those authorities must be in a

⁶⁵⁸ Interestingly, the court did not address the fact that the details and conditions for the exercise of the short-selling ban powers by ESMA are set out in the Commission Delegated Regulation (EU) No 918/2012 of 5 July 2012, which supplements the short selling regulation, an act drafted by ESMA itself via the preparation of the draft technical standard which the delegated act is based on. On the other hand, it is important to emphasize that the draft prepared by ESMA had to be formally endorsed by the Commission, so the Commission had the chance to reject the choices proposed by ESMA in the draft technical standard.

position to impose temporary restrictions on the short selling of certain shares, credit default swaps or other transactions in order to prevent an uncontrolled fall in the price of those instruments. Those bodies have a high degree of professional expertise and work closely together in the pursuit of the objective of financial stability within the EU. Thus, Art. 28 of the regulation, read in conjunction with the other regulatory instruments adopted in that field identified above, cannot be regarded as undermining the rules governing the delegation of powers laid down in Arts. 290 and 291 TFEU.

Interestingly, constitutional limits of the ability to confer delegated and/or implementing powers onto agencies outlined in *Romano* were upheld, although based on a different line of reasoning. In particular, the court emphasized that, in line with *Romano*, EU agencies cannot be the recipients of legislative or quasi-legislative powers and that a sub-delegation by the Commission of such powers delegated to it under Art. 290 TFEU to an agency would be unlawful.⁶⁵⁹ In contrast, similar restrictions do not apply to Art. 291 TFEU implementing powers. Although neither of Arts. 291 and 290 TFEU refers to agencies as potential delegates to which implementing powers can be conferred onto, implementing powers do not extend to amending or supplementing legislative acts with new elements, therefore fundamental constitutional principles do not prevent the legislator from conferring such powers on agencies as “a midway solution” between vesting implementing authority in either the Commission or the Council, on the one hand, or leaving it to the Member States on the other.

Lastly, the court rejected the argument that the Council and Parliament had acted *ultra vires* since Art. 28 of the regulation could not have been adopted on the basis of Art. 114 TFEU. In this respect, the court recalled that a legislative act must fulfil two conditions in order for it to be adopted on the basis of Art. 114 TFEU. First, it must comprise measures for the approximation of the provisions laid down in rules or actions in the Member States and, second, have as its object, the establishment and functioning of the internal market. When assessing whether these two conditions have been met, the court did not follow the view of the Advocate General who expressed his doubts about such possibility, and opined that the authors of the TFEU intended to confer on the EU legislature, depending on the general context and the specific circumstances of the matter to be harmonized, discretion as regards the most

⁶⁵⁹ In paras 84 and 85 of the opinion of the Advocate General, it was stressed that only the Commission can be the recipient of Art. 290 TFEU delegated powers and that it cannot delegate such powers to an EU agency. Specifically, a sub-delegation of such powers to an EU agency would be unlawful as the exercise of such powers changes the normative content of legislative acts, albeit with respect to their non-essential elements. The reason is that the principle of democracy enshrined in Arts. 2 and 10 TEU necessarily dictates that any power to adopt an EU measure that can alter the non-essential elements of an EU legislative act must be exercised by an EU institution that is democratically accountable, in other words by the Commission, which is ultimately accountable to the European Parliament. See OPINION OF ADVOCATE GENERAL JÄÄSKINEN from 12 September 2013 (Case C-270/12).

appropriate method of harmonization for achieving the desired result, especially in fields with complex technical feature.⁶⁶⁰ In consequence, although Art. 114 TFEU is not a legal basis for measures that are legally binding on individuals, in certain fields, the approximation of general laws alone may not be sufficient to ensure the unity of the market and therefore Art. 114 TFEU must read as to enable legislators to lay down measures relating to a specific product or class of products as well as, if necessary, individual measures concerning those products. Accordingly, looking at the purpose of the regulation, which is to ensure the proper functioning of the internal market and to improve the conditions of its functioning, in particular with regard to the financial markets, the court stressed that the second condition was also met.

All in all, the court's reasoning in this case suggests that, generally speaking, EU legislator and any EU institution may confer on EU agencies established by secondary legislation executive decision-making powers of general application, provided such conferral does not afford a wide degree of discretion, the use of which would make possible the factual execution of economic policy. In addition, the legislative framework enabling such delegation must be detailed enough and exercise of such powers by the persons onto which the powers are delegated must be subject to detailed conditions for their exercise, which limits the margin of discretion and makes it amenable to judicial review in the light of objective criteria determined by the delegating authority.

The above limitations may explain the design of the decision-making process within the SRM which is rather complex and involves also the Commission and the Council.

In particular, within the euro area, and in respect to significant and/or cross-border entities or groups, the SRM Regulation empowers the SRB to adopt a resolution scheme, which also contains an assessment that the conditions for resolution are met, namely that:

- (i) the entity or group concerned is **failing or likely to fail**;
- (ii) having regard to timing and other relevant circumstances, there is **no reasonable prospect that any alternative private sector measures**, including measures by an institutional protection scheme, or a supervisory action, including early intervention measures or the write-down or conversion of relevant capital instruments, taken in respect thereof, would prevent its failure within a reasonable timeframe; and

⁶⁶⁰ The Advocate General in particular stressed that by prohibition of short selling, ESMA is not developing specific and more detailed rules applicable to a given financial product or service. Rather ESMA is intervening on the conditions of competition in a particular financial market, falling within the remit of a national competent authority, when it is confronted with certain exceptional circumstances. However, a centralized emergency decision making process that replaces the decision of the competent Member State authority, without its consent, or which provides a substitution for the absence of one, cannot be considered to be encompassed by the concept of 'approximation of the provisions laid down by law, regulation or administrative action in Member States' under Article 114 TFEU. See OPINION OF ADVOCATE GENERAL JÄÄSKINEN from 12 September 2013 (Case C-270/12).

- (iii) a resolution action is **necessary in the public interest**, i.e. it is necessary for the achievement of, and is proportionate to one or more of the resolution objectives and winding up of the entity concerned under normal insolvency proceedings would not meet the resolution objectives to the same extent.⁶⁶¹

Although it is usually for the ECB, after having consulted the SRB, to determine that an entity or group is failing or likely to fail, the SRB may, in exceptional cases, also make the determination if it has informed the ECB of its intention to do so and the ECB has not reacted within three days.⁶⁶² In respect of the other two conditions for resolution, it is the sole responsibility of the SRB to determine that they have been met and neither the Commission nor the Council has any say on that. Once it has been established that the entity or group concerned is failing or likely to fail and the SRB has made a positive determination that resolution is in public interest and there is no alternative private sector measure or supervisory action capable of preventing failure of the entity or group concerned, the SRB adopts a resolution scheme, which formally places the entity or group concerned under resolution, specifies resolution tools to be applied, including whether the SRF will be used.⁶⁶³ However, once the resolution scheme is adopted by the SRB, it must be immediately passed along to the Commission, which then has 24 hours to either endorse it, to object to it with respect to the discretionary aspects thereof, and/or to modify the extent to which the SRF is used.

The Council's involvement in the decision-making process is dependent on the Commission's stance in respect of the proposed resolution scheme. In particular, the Commission may, within 12 hours from the transmission of the resolution scheme, propose to the Council to object the resolution scheme on the grounds of the failure to meet the public interest test, or to approve or object the Commission's modification of the amount of the SRF funds contemplated to be used in the resolution scheme. In case of an objection, the SRB has 8 hours to modify the resolution scheme, save for the cases where the Council objection is based on the failure to meet the public interest test, in case of which, the resolution process is stopped, and the entity or group concerned would be liquidated in accordance with national insolvency procedures. Provided there are no objections within the 24 hours period, the resolution scheme is deemed to have been adopted and becomes effective. Such scheme

⁶⁶¹ See Art. 18(1) of the SRM Regulation.

⁶⁶² Where failing or likely to fail determination is made by the ECB, it is then communicated also to the Commission. See Art. 18(1) of the SRM Regulation.

⁶⁶³ See Art. 18(6) of the SRM Regulation.

may be then implemented by the relevant national resolution authorities in accordance with instructions of the SRB.⁶⁶⁴

Clearly, the above-describe decision making process within the SRM tries to deal with the fact that only EU institutions may establish an EU (resolution) policy. Accordingly, since it is evident that not only the adoption of a resolution scheme, but also the assessment of whether the conditions for resolution have been met, require a wide margin of discretion, the Commission and the Council are involved as EU institutions. In particular, the Commission is empowered to assess the discretionary aspects of the resolution decisions taken by the SRB and to adopt delegated acts to further detail criteria to be taken into account by the SRB in the exercise of its powers. In addition, and as the SRM Regulation stresses itself, given the considerable impact of the resolution decisions on the financial stability of Member States and on the EU as such, as well as on the fiscal sovereignty of Member States, implementing powers to take certain decisions relating to resolution are conferred on the Council. Therefore, it should be for the Council, on a proposal from the Commission, to exercise effective control on the assessment by the SRB of the existence of a public interest and to assess any material change to the amount of SRF funds used.⁶⁶⁵

Although the procedure relating to the adoption of a resolution scheme by the SRB was apparently tailored to observe the principle of delegation of powers as interpreted by the EU courts, concerns as to whether it goes far enough might remain. First, although the SRM Regulation provides that the resolution scheme adopted by the SRB enters into force only if, within 24 hours after its adoption by the SRB, there are no objections from the Council or the Commission, it might be argued that the mere fact that the discretionary assessment by the SRB is not objected by the Council or the Commission, moreover within a very limited time frame, does not change the nature of such assessment. In particular, it arguably neither makes it a clearly defined executive power subject to the supervision of the Commission, nor removes the wide margin of discretion.

Moreover, the Commission and the Council are not involved in all of the SRB's decision-making processes that arguably afford the SRB some discretion. For example, the power of the SRB to order institution under resolution to adopt any action necessary to comply with the SRB's decision in question, in cases when a national resolution authority has not applied or has not complied with a SRB decision, or has applied it in a way which poses a threat to any

⁶⁶⁴ See Art. 18(7)(8) of the SRM Regulation.

⁶⁶⁵ See Recital (24) SRM Regulation.

of the resolution objectives seems to afford a wide margin of discretion.⁶⁶⁶ In these situation, the SRB shall only notify the Commission of the details of the envisaged measures. Although it could be argued that in these situation the resolution scheme has already been cleared by the Commission and the Council and thus, the SRB is acting within the confines set by the Commission and the Council, the SRB is afforded with similar powers also in respect of entities and groups resolution of which is under the purview of national resolution authorities and within which the Commission and the Council takes no role at all.⁶⁶⁷

Similarly, the SRB is responsible for assessing resolvability of institutions and groups under its purview, and therefore it may, after consulting with the ECB and the respective national resolution authority, determine that there are material impediments to the effective application of resolution tools and the exercise of resolution powers, in case of which it shall prepare a report to the institution or group concerned analyzing such impediments along with measures addressing them. Provided the impediments are not addressed by measures proposed by the group or entity concerned themselves within a four-months period, the SRB may, acting via the respective national resolution authority, require the entity or group concerned to, *inter alia*, limit or cease specific activities or restrict or prevent the development of new or existing business lines or sale of products, or require changes to their legal or operational structures.⁶⁶⁸ Given that such measures may interfere with the right to conduct business laid down by Art. 16 of the Charter of Fundamental Rights of the European Union, the SRM Regulation stresses that the SRB's discretion in this respect should be limited to what is necessary to simplify the structure and operations solely to improve its resolvability and justified by the overriding reason of being conducted in the public interest in financial stability. To determine whether an action was taken in the public interest, the SRB should be able to achieve the resolution objectives without encountering impediments to the application of resolution tools or its ability to exercise the powers conferred on it by the SRM Regulation while not going beyond the minimum necessary to attain the objectives sought. When making the determination, the SRB must take into account the threat to financial stability of those impediments to resolvability and the effect of the measures on the business of the institution concerned, its stability and its ability to contribute to the economy, on the internal market for financial services and on the financial stability in other Member States and the EU as a whole.⁶⁶⁹ Given the described role of the SRB in resolvability assessment, especially in

⁶⁶⁶ See Art. 29(2) of the SRM Regulation.

⁶⁶⁷ See Art. 7(5) of the SRM Regulation.

⁶⁶⁸ See Art. 10(11) of the SRM Regulation and Art. 17(5) of BRRD.

⁶⁶⁹ See Recital 46 and Art. 10(10) of the SRM Regulation.

assessing the “public interest test”, it seems hard to defend the view that the SRB is an agency endowed only with executive non-discretionary powers.

Similarly, the SRB is also empowered to decide on temporary exemptions for individual institutions from payment of extraordinary *ex post* contributions if it is necessary for the financial position of the institution concerned, although it could be argued that the margin of discretion in this case is lower given the delegated regulation adopted by the Commission to further specify conditions for granting such exemptions.⁶⁷⁰

5.3.2 Resolution Funding

The form and extent of funds used when recapitalizing or resolving distressed bank or other financial institutions deals with one of the most fundamental questions of a banking crisis – on whom losses will be allocated to ensure an uninterrupted provision of bank services. As described in the previous chapters, historically, taxpayers most often borne out losses stemming from financial crises. The new post-crisis framework tries to deal with this issue by limiting the use of public funds only to exceptional cases and as a last resort option after the private sector contributed to bank resolution to the extent possible. Specifically, BRRD contemplates a European system of financing arrangements consisting of:

- (i) the **national financing arrangements** (in most cases resolution funds);
- (ii) the **borrowing between national financing arrangements**; and
- (iii) the **mutualization of national financing arrangements** in the case of a group resolution.⁶⁷¹

In general, BRRD obliges all Member States to establish one or more financing arrangements for the purpose of ensuring that resolution authorities can effectively use resolution tools and powers.⁶⁷² In practice, such financial arrangements are established through resolution funds, which are at the disposal of national resolution authorities.⁶⁷³ In order

⁶⁷⁰ See Art. 71(2) of the SRM Regulation and Commission Delegated Regulation (EU) 2017/747 of 17 December 2015 supplementing Regulation (EU) No 806/2014 of the European Parliament and the Council with regard to the criteria relating to the calculation of *ex ante* contributions, and on the circumstances and conditions under which the payment of extraordinary *ex post* contributions may be partially or entirely deferred.

⁶⁷¹ See Art. 99 of BRRD.

⁶⁷² See Art. 100(1) of BRRD.

⁶⁷³ Member States may however provide for such arrangements to be established through mandatory contributions from credit institutions and investment firms authorized within their territory, which are not held in a fund controlled by national resolution authorities, but raises e.g. as a levy, provided national resolution authorities are entitled to an

to ensure sufficient level of funds, BRRD contemplates the power of national resolution authorities to:

- (i) raise **ex-ante contributions** based;
- (ii) raise **ex-post extraordinary contributions**; or
- (iii) contract **borrowings** and other forms of **alternative support**.

5.3.2.1 Regular and Extraordinary Contributions

Resolution authorities set the level of contribution in respect of each individual institution in proportion to its liabilities (excluding own funds and covered deposits) to the aggregate of such liabilities of all institutions authorized in a particular Member State, adjusted by their risk profile. Therefore, institutions, which fund their assets primarily by deposits, will pay low (or lower) contributions when compared with their peers funded more through debt capital markets or otherwise. While strong reliance on deposit in an institution's funding structure may be beneficial in this respect, such benefits will most likely be offset by the need to issue more liabilities, which could be written-down or converted in a crisis, given that deposits are generally speaking excluded from bail-in.⁶⁷⁴ The contributions are collected at least annually, and in the amount to ensure that the target level of 1 % of covered deposits of all institutions authorized in the territory of a particular Member State is reached by the end of 2024. This principle ensures that resolution funds have sufficient funds to finance resolution within its territory, taking into account funding models and risk profile of its "home" institutions. Once the target level is met, the collection of the regular *ex ante* contributions will be discontinued, unless the available financial means diminish below the target level, in case of which the regular contributions will be automatically resumed.⁶⁷⁵

The *ex post* extraordinary contributions on the other hand will be raised only if the available financial means are not sufficient to cover the losses, costs or other expenses incurred by resolution funds, however, they may not exceed three times the annual amount of regular contributions determined in respect of individual institutions.⁶⁷⁶

amount that is equal to the amount of the contributions, which Member States make immediately available to national resolution authorities upon their request. See Art. 100(6) of BRRD.

⁶⁷⁴ This is for example the case of banks in the Czech Republic. For more see chapter 5.3.4.4.

⁶⁷⁵ The available financial means to reach the target level may include irrevocable payment commitments which are fully backed by collateral of low risk unencumbered assets earmarked for the exclusive use by national resolution authorities, provided that such commitments does not exceed 30 % of all contributions raised. See Arts. 102(1) and 103(3) of BRRD.

⁶⁷⁶ See Art. 104 of BRRD.

5.3.2.2 Borrowing Between Financing Arrangements

A fallback option for resolution funds is to borrow from its peers established in other Member States. Specifically, each resolution fund can make such request in case the funds available through regulator contributions are not sufficient to cover losses and other expenses incurred, the extraordinary contributions cannot be immediately raised, and the terms of alternative funding means are not reasonable.⁶⁷⁷

The problem is that BRRD does not require resolution funds to respond to such requests and although it tries to incentivize resolution funds by allowing such borrowings to bear interest and be counted as assets towards the target levels of resolution funds, the willingness to provide such borrowings might be questionable, especially in times of a widespread crisis. Also, the need to unsuccessfully deplete the other enumerated possibilities makes the practical use of this option rather limited. First of all, it can be utilized only when the terms of alternative market source funding are not reasonable, which means that there are either increased risks associated with the resolution fund seeking funding or there is not enough liquidity in the market. In either cases, it is not reasonable to assume that the potential borrowers would be voluntarily conceding to less-favorite terms than the markets are pricing in. To the contrary, resolution funds would most likely require higher interest rates to give up their liquidity and run the risk of not being capable to fund their domestic resolution, if they were willing to give up any at all.

5.3.2.3 Mutualization and Use of National Financing Arrangements

In a case of a cross-border group resolution, resolution fund from Member State of each institution forming such group must contribute to financing of the group's resolution, in accordance with a resolution plan prepared by the group-level resolution authority after consultations with national resolution authorities of the institutions concerned. The plan forms a part of a group resolution scheme and generally speaking "pool" contributions of resolution funds by taking into account, among other things, the size of group members' balance sheets, their risk-weighted assets and the size and distribution of losses, including expected financial needs, within the group.⁶⁷⁸

⁶⁷⁷ See Art. 106 of BRRD.

⁶⁷⁸ See Art. 107(5) of BRRD.

BRRD also stresses that resources collected by resolution funds may be used only to the extent necessary to ensure effective resolution and to **guarantee assets and liabilities** of, or to **make loans** to, an institution under resolution (including of its subsidiaries), a bridge institution or an asset management vehicle. Also, resolution funds may be used to **purchase the assets** of an institution under resolution or to **recapitalize bridge institution or an asset management vehicle** or provide capital contribution in lieu of creditors excluded from bail-in. Finally, resolution funds will pay **compensation to shareholders or creditors** of an institution in resolution to ensure they are not worse off than they would have been in insolvency proceedings.⁶⁷⁹

Equally importantly, resources in resolution funds may not be used to directly absorb losses, or to recapitalize institutions under resolution, with the exception of the possibility to cover losses or to recapitalize such institution when excluding bail-inable liabilities from the bail-in scope, provided such assistance does not exceed 5 % of the total liabilities and own funds of the institution under resolution and shareholders and creditors were bailed-in.⁶⁸⁰

5.3.2.4 Resolution Financing Arrangements in the Participating Member States

Although the requirement to establish resolution funds applies to all Member States, the resolution funds of the euro area Member States will be replaced by the SRF. The SRF was established by the SRM Regulation as an important element of the new centralized EU-level resolution framework and is owned by the SRB. However, the core elements of the SRF are provided for in an intergovernmental agreement concluded between the Member States (the “**IGA**”).⁶⁸¹ The reason for choosing the form of an intergovernmental agreement was the lack of consensus among the Member States participating in the Banking Union as to whether such transfers could be based on the current provisions of EU law. The first proposal in this respect from the Commission contemplated that the SRF would be established and the funds mutualized on the basis of the SRM Regulation. Under the proposal, contributions held by national resolution funds would have been pooled in the SRF with the SRB free to use them to finance resolution, regardless of the Member State the funds would have come from. However, this supranational approach was challenged by the Council right off the bat,

⁶⁷⁹ See Art. 101 of BRRD.

⁶⁸⁰ See Art. 101(2) and Art. 44(5) of BRRD.

⁶⁸¹ The agreement was signed on May 21, 2014 by all Member States, save for Sweden and the UK and entered into force on January 1, 2016. Member States that have signed the IGA but are not participating in the Banking Union will be subject to the rights and obligations of the IGA after joining it.

especially by Germany, which insisted that the SRF should be composed of a network of separate national funds with no mutualization.⁶⁸² Although the European Parliament sided with the Commission, the Council was not persuaded given its view that Art. 114 TFEU was not the proper legal basis for the delegation of powers to an EU agency tantamount to “taxing” banks in the participating Member States. The final text of the IGA also suggests that the legal basis for the contributions to the SRF was not the only concern of the Council (Germany) as it stipulates that during the transitional period, the contributions collected at the national level remain separated in “national compartments” so that, in case of a resolution involving only one Member State’s bank, the funds collected by that Member State shall be depleted entirely before using funds in the compartments of the other participating Member States.

Similarly, to national resolution funds, the target level of the SRF should be at least 1 % of covered deposits of all credit institutions authorized in the participating Member States (approx. €55 billion) by the end of 2023.⁶⁸³ However, the SRB would extend the initial period for a maximum of 4 years in the event that the SRF has made cumulative disbursements in excess of 0,5 % of the total amount of covered deposits and where specific criteria provided for in a Commission delegated act are met.⁶⁸⁴

Financing of the SRF mirrors financing of national resolution funds, so the primary source of SRF funds are regular *ex ante* contributions or extraordinary *ex post* contributions. Rules relating to the calculation and collection of the contributions are similar to those provided for in BBRD in respect of all Member States. The regular contributions are collected annually based on:

- (i) **a flat contribution** pro rata based on the amount of an institution's liabilities excluding own funds and covered deposits, with respect to the total liabilities, excluding own funds and covered deposits, of all of the institutions authorized in the territories of all participating Member States; and

⁶⁸² See Stefan Grundmann, Hans W Micklitz, *The European Banking Union and Constitution Beacon for Advanced Integration or Death-Knell for Democracy?* 1st edition, ISBN: 9781509907564, January 24, 2019, at p. 228.

⁶⁸³ Irrevocable payment commitments may also be taken into account. See Art. 69(1) of the SRM Regulation.

⁶⁸⁴ The delegated act shall in particular specify the criteria for (i) spreading out in time of the contributions, (ii) determining the number of years by which the initial period can be extended, and (iii) establishing the annual contributions. See Art. 69(5) of the SRM Regulation and Commission Delegated Regulation (EU) 2015/63 of 21 October 2014 supplementing Directive 2014/59/EU of the European Parliament and of the Council with regard to *ex ante* contributions to resolution financing arrangements.

- (ii) **a risk-adjusted contribution**,⁶⁸⁵ taking into account the principle of proportionality, without creating distortions between banking sector structures of the participating Member States.

The SRM Regulation also emphasizes that the level of contributions must also take due account of the phase of the business cycle, and their pro-cyclical impact.⁶⁸⁶

However, unlike in the case of national resolution funds, the SRF does not collect the contributions itself and national resolution funds of the participating Member States remain responsible for their collection in respect of institutions established within their territories. Pursuant to the IGA, the participating Member States shall ensure that funds collected at the national level are transferred to the SRF. Although the SRF calculates (in close cooperation with the ECB and national resolution and supervisory authorities) the annual contributions of the individual institutions established in the participating Member States, the contributions are *de facto* set by the Member States themselves via the Council, which remains responsible for laying down the methodology for their calculation.⁶⁸⁷

Once the available financial means diminish below the target level, the regular contributions will resume to be collected. After the target level has been reached for the first time and where the available financial means have subsequently been reduced to less than two-thirds of the target level, the level of contributions must be set at a level that will ensure that the target level is reached within six years.⁶⁸⁸ In addition, where the available financial means are not sufficient to cover the losses, costs or other expenses incurred by the SRF in resolution actions, extraordinary *ex-post* contributions will be collected. These are calculated based on the rules applicable to *ex ante* contributions and may not exceed three times the annual amount of contributions. However, the SRB may, after consulting the respective national resolution authority, defer, in whole or in part an institution's payment of extraordinary contribution for a period of up to 6 months to protect its financial position.⁶⁸⁹

⁶⁸⁵ Based on the criteria set out in Art. 103(7) of BRRD.

⁶⁸⁶ See Art. 69(5) of the SRM Regulation.

⁶⁸⁷ The annual contributions may not in aggregate exceed 12.5 % of the target level. See Art. 70(7) of the SRM Regulation and Council Implementing Regulation (EU) 2015/81 of 19 December 2014 specifying uniform conditions of application of Regulation (EU) No 806/2014 of the European Parliament and of the Council with regard to *ex ante* contributions to the Single Resolution Fund.

⁶⁸⁸ See Art. 69(5) of the SRM Regulation.

⁶⁸⁹ See Art. 71(1)(2) of the SRM Regulation.

All in all, the above described rules relating to the collection of funds seem not to be controversial given the mutual understanding between the Member States that banks and their shareholders should be in the first line to bear the costs associated with banking crises. On the other hand, the pooling of the funds collected at the EU level was and still remains controversial and delicate issue for some participating Member States, primarily Germany and other countries with (relatively) healthy banking sectors. Understandably, they fear that the funds raised from their banks will be used to bankroll resolution of fragile banking sectors in other Member States, in particular in Greece, Italy or Spain. This fear is also the reason why the “compartmentalization” of the SRF, which should limit moral hazard of the participating Member States with more fragile banking sectors. In addition, this fear also translates into the “fundamental change of circumstances” provision of the IGA.⁶⁹⁰ The provision in particular gives each of the signatories the right to claim that any amendment to the SRM Regulation against its will is a fundamental change of circumstances and a legal basis for withdrawing from the IGA. But the wording is not a clear cut and there is room for maneuvering by the other contracting parties. In the end, the ECJ will have a final say on whether an alteration of the SRM Regulation represents a fundamental change of circumstances.⁶⁹¹

In addition, the adopted text of the IGA addresses:

- (i) **transfers of the contributions** levied by national resolution authorities to the national compartments of the SRF;
- (ii) **mutualization of the national compartments'** funds over a transition period of 8 years;
- (iii) **lending between national compartments**; and
- (iv) the **potential contribution of non-euro area** participating Member States to the SRF.

Contributions raised during the transitional period at national levels are earmarked to compartments of the SRF corresponding to the total contributions to be raised by individual Member States during the transitional period.

According to the IGA, the SRB shall have the power to dispose of the financial means within the compartments of the SRF in the following manner:

- (i) costs will be borne by the compartments of the participating Member States where an institution or a group under resolution is authorized; costs brought about by a cross-border resolution will be borne by national compartments of the Member States where the parent undertaking and subsidiaries are authorized in proportion the relative

⁶⁹⁰ See Recital 18 of the IGA

⁶⁹¹ See Art. 7(2) of the IGA.

amount that each member of the group provided to the respective national compartment in proportion to the aggregate amount of contributions provided by all entities of the group;⁶⁹²

- (ii) the SRB will have recourse to the financial means available within the respective national compartments, up to the cost that each national compartment is due to contribute according to the criteria laid out in (i) above, in the following manner
- (iii) during the first year of the transitional period, all financial means available within the national compartments concerned will be used;
- (iv) during the second and third year of the transition period, 60 % and 40 %, respectively, of the financial means available within the national compartments concerned will be used;
- (v) during the subsequent years of the transitional period, the availability of the financial means within the national compartments concerned will decrease annually by 6.75 %;

provided that, if the financial means available in the national compartments concerned are not sufficient for the SRF to cover resolution needs, the SRB will have recourse to the available financial means in the pool of (mutualized) compartments of the SRF. In accordance with the IGA, during the first and second year of the transition period (i.e. in 2016 and 2017), 40 % and 60 %, respectively, of the financial means available within the national compartments have been mutualized. From 2018 onwards, an additional 6.75 % of the national compartments are to be mutualized annually up until the end of 2023 when all the national compartments will have been merged and ceased to exist.⁶⁹³

If the financial means in the national compartments (both non-mutualized compartments of the Member States concerned with the resolution and mutualized compartments) are not sufficient to cover costs of a particular resolution, the Member States concerned of the institutions under resolution will be required to raise extraordinary *ex post* contributions from institutions authorized within their territory. If *ex post* contributions are not immediately accessible, the SRB may borrow funds from non-participating Member States, contract for borrowings or other forms of support from institutions, financial institutions or third

⁶⁹² The SRB may, upon request by a participating Member State, consider changing this principle by further taking into account Art. 107(5) of BRRD, if it considers the distribution of costs according to that principle would lead to a large asymmetry between distribution of costs between national compartments. See second subparagraph of Art. 5(1)(a) of the IGA.

⁶⁹³ See Art. 5(1) of the IGA.

parties or effectuate temporary transfers between non-mutualized compartments of the SRF.⁶⁹⁴

In addition, the temporarily make use of the part of the financial means available in the compartments of the SRB not yet mutualized may also be made upon the request from the participating Member States. These borrowings will have to be repaid by extraordinary *ex post* contributions.⁶⁹⁵ The amount temporarily transferred from each of the compartments will be pro rata to the target level of the SRF but may not exceed 50 % of the available financial means within each compartment not yet mutualized.⁶⁹⁶

Decisions of the SRB regarding the temporary transfer of financial means between compartments requires a simple majority of the members of its plenary session. The SRB will also specify the rate of interest, the period for refunding and other terms and conditions concerning the transfer of financial means between the compartments. However, a SRB's decision on temporary transfers may only enter into force if no contracting party from whose compartments the transfers are been made objects to it within 4 days. On the other hand, an objection may be raised only in one of the following circumstances:

- (i) the **contracting party might need the resources itself to finance a resolution** operation in the near term or if the temporary transfer would jeopardize the conduct of an ongoing resolution within its territory;
- (ii) the **temporary transfer would take amount to more than 25 % of the non-mutualized part** of its national compartment; or
- (iii) the contracting party is of the view that the **beneficiary does not provide sufficient guarantees of repayment.**

In case objections are raised, the decision on temporary transfer of the SRB will nevertheless be adopted but will exclude the resources of the objecting party or parties.⁶⁹⁷ Also, the contracting party who temporary transferred funds may request the SRB for an early repayment if an institution within its jurisdiction becomes subject to resolution.⁶⁹⁸

Finally, the purposes on which SRF funds may be used mirror the purposes provided for in BRRD. However, unlike BRRD, the SRM Regulation explicitly limits the ability of the SRF

⁶⁹⁴ See Art. 5(1) of the IGA.

⁶⁹⁵ See Art. 7(1) of the IGA.

⁶⁹⁶ See Art. 4(2) and 7(2) of the IGA.

⁶⁹⁷ See Art. 7(4) of the IGA.

⁶⁹⁸ See Art. 7(5) of the IGA.

to hold any capital instruments of the institution under resolution for a period exceeding 5 years.⁶⁹⁹

5.3.2.5 The Common Fiscal Backstop

As already pointed out, the IGA acknowledges that situations may occur, especially during the transitional period, where the financial means available in the SRF are not sufficient to undertake a particular resolution action, and where the *ex-post* contributions are not immediately accessible. This issue was also highlighted by the ECB in its opinion on the draft SRM Regulation.⁷⁰⁰ In particular, the ECB stressed that access to fiscal resources would be an essential element of the SRM's backstop arrangements because private sources of funding may, especially at the start of SRM, be scarce and temporarily dry up under acute financial market turmoil. The ECB was aware that the Commission had not included an obligation on participating Member States to grant access to public funds as this could interfere with the Member States' fiscal sovereignty which cannot be encroached upon by the means of an EU regulation. The ECB further suggested that to overcome the issue of possible interfering with the principle of fiscal neutrality, credit lines under any backstop arrangement would have to be fully recoupable, if they were to be activated. It would also be important to carefully calibrate the time horizon for recouping these funds from the financial sector so as to avoid overly procyclical levies.

Despite the concerns raised by the ECB, the final versions of neither the SRM Regulation, nor the IGA provides any details on the contemplated backstop. The SRM Regulation only stipulates that the SRB may contract for the SRF financial arrangements, including, where possible, public financial arrangements.⁷⁰¹

On the other hand, a political agreement was reached in 2013 to create a system to ensure available financing to the SRF during the transitional period as a last resort instrument.⁷⁰² In particular, it was agreed that a bridge financing would be made available either

⁶⁹⁹ See Art. 76(1) and (4) of the SRM Regulation.

⁷⁰⁰ See Opinion of the European Central Bank of 6 November 2013 on a proposal for a Regulation of the European Parliament and of the Council establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Bank Resolution Fund and amending Regulation (EU) No 1093/2010 of the European Parliament and of the Council (CON/2013/76).

⁷⁰¹ See Art. 74 of the SRM Regulation.

⁷⁰² See Statement of Eurogroup and ECOFIN Ministers on the SRM backstop, December 18, 2013, [Accessed on May 15, 2016] available at: <https://www.consilium.europa.eu/media/21899/20131218-srm-backstop-statement.pdf>

from national sources, backed by bank levies, or from the ESM. Importantly, there was also a common understanding that a common backstop should be developed and become fully operational within 10 years.

In line with the political agreement, each of the participating Member States subsequently entered into a harmonized facility agreement with the SRB and committed itself to provide credit line to its national resolution fund in case of funding needs in connection with resolution of institutions within its territory. Alternatively, credit lines could also be provided from the ESM. IGA also anticipated that bridge financing from either national resolutions funds or from the ESM could be a temporary part of the SRM framework before a common backstop is developed.⁷⁰³

Also, despite huge controversies between the Eurozone members, political agreement on the possibility of the ESM to recapitalize banks directly was reached in June 2014.⁷⁰⁴ Specifically, €60 billion out of the total €500 billion lending capacity was earmarked for the purposes of potential direct recapitalization. It was a major step forward as the ESM had before provided funds only to Eurozone governments and the IMF does not provide assistance to private corporations.⁷⁰⁵ In this respect, the ESM's new mandate would correspond more closely to the mandate of multilateral development banks like the European Bank for Reconstruction and Development, the European Investment Bank or the International Finance Corporation.

The political consensus was subsequently implemented by ESM in its guidelines for a direct recapitalization instrument.⁷⁰⁶

In particular, the direct recapitalization instrument aims at preserving financial stability of the euro area as a whole and of its Member States by catering for those specific cases in which an ESM member experiences acute difficulties with its financial sector that cannot be remedied without significantly endangering its fiscal sustainability due to a severe risk of

⁷⁰³ See Recital 13 of the IGA.

⁷⁰⁴ See Statement by the president of the Eurogroup, June 10, 2014, [Accessed on May 15, 2016] available at: <https://www.consilium.europa.eu/media/28065/143163.pdf>

⁷⁰⁵ For details on the framework and establishment of the ESM, see chapter 4.2.3.

⁷⁰⁶ See Resolution of the Board of Governors of the European Stability Mechanism, December 8, 2014, [Accessed on May 15, 2016] available at: https://www.esm.europa.eu/sites/default/files/20141208_establishment_of_the_instrument_for_the_direct_recapitalisation_of_institutions.pdf and European Stability Mechanism, Guideline on Financial Assistance for the Direct Recapitalization of Institutions, December 8, 2014, [Accessed on May 15, 2016] available at: https://www.esm.europa.eu/sites/default/files/20141208_guideline_on_financial_assistance_for_the_direct_recapitalisation_of_institutions.pdf

contagion from the financial sector to the sovereign. In addition, according to the guideline, the use of this instrument could also be considered if other alternatives, such as ESM loans, would have the effect of endangering the continuous market access of its members. Clearly, the direct recapitalization instrument seeks to remove the risk of contagion from the financial sector to the sovereign by allowing the recapitalization of institutions directly, thereby reducing the effect of the vicious circle or doom-loop between a deteriorating creditworthiness of a sovereign and its fragile financial sector.⁷⁰⁷ Given its nature, the direct recapitalization by ESM may not be used for bailing out failing institutions and its use is subject to state aid rules and the Commission's approval.⁷⁰⁸

The guidelines also provide for a list of conditions for its use that concern both the beneficiary institution and the requesting Member State. In respect of the former, the following must be met:

- (i) the institution **is, or likely to be in the near future, in breach of its capital requirements** and unable to tap markets or its shareholders to cover its capital shortfall;
- (ii) the **contribution by shareholders, the holders of relevant capital instruments and other eligible liabilities**, and the national resolution fund, of at least 8 % and 5 %, respectively, of the total liabilities including own funds of the institution under resolution
- (iii) the **write-down or conversion of all unsecured, non-preferred liabilities**, other than eligible deposits, is **not expected to address the capital shortfall** in full;
- (iv) **the institution is of a systemic relevance or failure thereof pose a serious threat to the financial stability** of the Eurozone as a whole or to the requesting Member State.⁷⁰⁹

In essence, these conditions mirrors the conditions for resolution, thus their fulfillment should not be an issue. In respect of the conditions applicable to the requesting Member State, it must be unable to provide financial assistance to the institution in full without very adverse effects on its own fiscal sustainability and the other alternatives of funding would endanger its continuous market access and consequently require the financing of its needs via the ESM. Also, provision of the assistance must be indispensable to safeguard the financial stability of the Eurozone as a whole or of its Member States.⁷¹⁰ However, even if granted, the assistance

⁷⁰⁷ See Art. 2.1 of the guidelines.

⁷⁰⁸ See Art. 2(3) and 4(4) of the guidelines.

⁷⁰⁹ The systemic dimension of these institutions shall be assessed taking into account, primarily, their size, interconnectedness, complexity, and substitutability. See Art. 3(1) of the guideline.

⁷¹⁰ See Art. 3(2) of the guideline.

is not provided without strings attached and it in many respects resembles conditions of the EU/IMF bailout adjustment programmes. Specifically, the aid is conditional upon:

- (i) **approval by the Commission of a restructuring plan** ensuring the viability of the institution after recapitalization and restructuring;
- (ii) **conclusion of a Memorandum of Understanding (MoU)** detailing the policy conditions related to the requesting ESM member's financial sector and, where appropriate, its supervision, corporate governance of institutions, and relevant domestic legislation between the Commission and the requesting Member State;⁷¹¹
- (iii) **establishment of institution-specific conditions** not required under the state aid framework, including, restriction upon the remuneration of management and dividend policy of the institution; and ⁷¹²
- (iv) **entering into** by the ESM, the requesting Member State and the institution concerned of a **financial assistance facility agreement** further specifying the terms and conditions and the amounts to be provided, as well as the type of instruments and the obligations of the requesting Member State.⁷¹³

Additionally, the requesting Member State, must, as a general rule, contribute capital alongside the ESM. It must specifically provide:

- (i) **a one-off capital injection** so that the institution concerned would reach CET1 ratio of at least 4.5 % under a sufficiently prudent stress test scenario;
- (ii) **a capital contribution** of equivalent of 10 % of the total amount of the ESM contribution, in case the institution maintains CET1 of at least 4.5 % under the sufficiently prudent stress test scenario;

provided, however, that if the contribution under (i) is below the amount that would have been required under (ii), the requesting Member state should cover the difference.

In exceptional circumstances, and if the requesting Member State is not, due to its fiscal position and significant implications upon market access, able to provide the contribution in full, the ESM may decide to partially or fully suspend the requirement, if the member agrees to indemnify the ESM for any loss incurred on the share of capital that was acquired *in lieu* of the member, with any such loss being treated as a long-term loan. Unless authorized

⁷¹¹ See Art. 4(7) of the guideline.

⁷¹³ The guideline also provides for extensive monitoring powers of the Commission, the ESM, the ECB, or where appropriate, the IMF, including the right to conduct on-site inspections and stipulates that when this instrument is implemented outside of the confines of a macroeconomic adjustment programme, the requesting Member State shall be subject to enhanced surveillance by the Commission. See Art. 10(1) of the guideline.

otherwise, the requesting Member State may not sell the shares as long as the ESM holds any capital instruments in the institution concerned.⁷¹⁴

As a general rule, recapitalization by the ESM will be conducted against the acquisition of common shares that satisfy the CET1 requirements under CRR, however, the ESM may decide to authorize the acquisition of other capital instruments, such as, hybrid or contingent convertible shares to help the institution to fulfil the pillar 2 requirements, or issuance of guarantees, provided an appropriate level of common shares is also acquired.⁷¹⁵ In exceptional circumstances, the ESM may also provide financial assistance to bridge institution or an asset management vehicle that are part of the resolution process, provided, however, that any assistance to the latter may only be made in conjunction with assistance to the beneficiary institution that has transferred the assets and has a viable business model.⁷¹⁶ In this respect, given the fact that some forms of financial assistance could be in the form other than voting shares (i.e. hybrid or preference shares, guarantees), specific conditions of such assistance will be of vital importance to ensure the ESM is able to influence the key aspects of business model and governance of the requesting institution. The guideline goes as far as suggesting that changes to the national legal framework removing any impediments to the exercise of appropriate influence by the ESM shall form part of the conditions for providing the assistance.⁷¹⁷

While a direct recapitalization instrument is a necessary tool for the ESM to break the sovereign-bank doom loop, the conditions attached to the above setup are rather complex and burdensome. Operability of the instrument could also be weakened by the necessity to fulfill the patchwork of diverging conditions. Especially the rather intrusive surveillance powers of the Commission and the possibility to request major changes in the domestic financial sector may lead to a tedious and time-consuming negotiations, which could, however, undermine the purpose of this instrument in the first place.

On the other hand the latest proposal from the Eurozone leaders politically agreed in 2018 anticipates that the direct recapitalization would replace the direct recapitalization tool of the ESM with a full fledge financial backstop by the end of 2023 at the latest.⁷¹⁸ The disclosed

⁷¹⁴ See Art. 12(2) of the guideline.

⁷¹⁵ Only if they warrant reducing the total cost of the recapitalization and are not issued in respect of funding instruments. See Arts. 10(2) and 11(2) of the guidelines.

⁷¹⁶ For details on the resolution process see chapter 5.3.4.

⁷¹⁷ See Art. 11(2) of the guidelines.

⁷¹⁸ See Statement of the Euro Summit, 29 June 2018, [Accessed on December 28, 2019], available at: <https://www.consilium.europa.eu/en/press/press-releases/2018/06/29/20180629-euro-summit-statement/>

term sheet in particular anticipated the establishment of a common backstop by the ESM to the SRF in the form of a credit line of “last resort” in the size aligned with the SRF target, i.e. €55 billion. As a rule, credit lines will have maturity of 3 years with possible extension by a maximum of 2 years if requested by the SRB, provided that maturity can be set at 5 years upfront in cases of threat to Eurozone financial stability.⁷¹⁹ If adopted in this form, it will likely ensure immediate credit availability for the purposes of resolution and thus remove arguable the biggest weakness of the current ESM direct recapitalization tool. At the same time, while the size of the credit line would most likely not suffice to backstop a market-wide stress and resolution financing needs of big Eurozone banks, the proposal contemplates a nominal cap of the credit that would be set above the initial size and could be adjusted by a decision of the ESM. In addition, the fact that the credit lines would not be provided to Member States but to the SRB could help to sever the sovereign-bank doom loop. Financial backstop for bank resolution, similar to the one provided by the US Treasury to the FDIC, is a long overdue agenda in Eurozone, but the latest proposal provides a good prospect that this might change.

5.3.3 Living Wills and Early Intervention

Both BRRD and the SRM Regulation stress that planning ahead of “what might go wrong” with bank or a banking group and be prepared for it is an essential part of the new crisis management regime.⁷²⁰ Indeed, bank resolution can be a complex process and it is unlikely that regulators would be able to swiftly wind-down a large bank without interrupting its critical functions while ensuring that losses are not borne by the taxpayers, in other words, without a public bailout. Supervisory and resolution authorities are more likely to orderly wind-down a distressed bank or a group if they have gathered enough information and planned their steps in advance. At the same time, in cases of cross-border operating groups where more national supervisory or resolution authorities are involved, recovery and resolution planning enables them to agree in advance mechanisms for cooperation and coordination that would otherwise be difficult to form during a crisis. In sum, recovery and resolution plans represent a fundamental tool to allow proper *ex ante* preparation for crises to come.

⁷¹⁹ See European Stability Mechanism, *Terms of reference of the common backstop to the Single Resolution Fund*, December 4, 2018, [Accessed on December 28, 2019], available at: https://www.consilium.europa.eu/media/37268/tor-backstop_041218_final_clean.pdf

⁷²⁰ See Recital (46) of the SRM Regulation and Recital (25) of BRRD.

5.3.3.1 Recovery Planning

Recovery plans, formally an institution's governance arrangements, are in essence roadmaps to be followed by institutions in order to restore their viability following a significant deterioration of financial situation.⁷²¹ The purpose of recovery plans is to laid out *ex ante* appropriate conditions and procedures to ensure the timely implementation of recovery actions as well as a wide range of recovery options.⁷²²

Broadly speaking, recovery plans should contain (i) a description of the institution and of its internal structures and processes, (ii) identification of critical functions and core business lines; (iii) range of recovery actions and measures and timeframe for their implementation, including preparatory arrangements for facilitating sale of assets or business lines or recapitalization); (iv) a framework of easy to monitor indicators of quantitative or qualitative nature describing the points at which appropriate actions referred to in the plan are to be taken; (v) communication and disclosure plan outlining how the institution intends to manage negative market reactions; and (vi) a range of scenarios of severe macroeconomic and financial stress relevant to the institution's specific conditions, including system-wide events.⁷²³ Importantly, in order to minimize moral hazard, recovery plans must not assume access to public financial support.⁷²⁴

Once drawn-up, recovery plans are submitted to the respective national competent authorities, which assess their content against the requirements of BRRD and in particular whether the implementation of the actions contemplated thereby is reasonably likely to swiftly and effectively restore the viability of the institution concerned without adversely affecting the financial system and other institutions.⁷²⁵ Governing bodies of institutions that are required to prepare and submit recovery plans on their behalf will therefore play an important role in choosing the proper strategies. It will also force institutions to thoroughly analyze their operational structures, critical functions, risk profiles and related interlinkages and weaknesses to ensure that indicators, scenarios and actions in recovery plans are in line with their business plans and strategies.

⁷²¹ See Art. 74 of CRD IV and Art. 5 of BRRD *et seq.*

⁷²² See Art. 5(6) of BRRD.

⁷²³ See Art. 5(1) and 9(1) of BRRD and section A of the Annex thereto.

⁷²⁴ See Art. 5(3) of BRRD.

⁷²⁵ National supervisory authorities are further required to pass on the recovery plans to the respective resolution authorities to assess and identify any actions contained therein capable of negatively affecting the resolvability of the institution. See Art.6(4) of BRRD.

National competent authorities have six months to assess submitted recovery plans and issue a wide array of instruction to their drafters in case they see them as inadequate. In case the communicated deficiencies are not addressed in an amended plan, supervisors may direct the institution to make specific adjustments to the revised plan or even to its business. As an *ultima ratio* option, failure to address deficiencies empowers national competent authorities to direct the institution to take any measures they consider necessary and proportionate, taking into account the seriousness of the deficiencies and the effect of the measures on the institution's business. These may, *inter alia*, entail direction to reduce risk profile, make changes to the governance structure or funding strategy of the institution concerned.⁷²⁶

Once approved, institutions recovery plan must be updated at least annually, however competent authorities may require institutions to update their recovery plans more frequently.⁷²⁷

Even though the reasoning behind the existence of recovery plans, including their content is quite straightforward, their legal status may not be easy to determine. At first glance, recovery plans seem to be more of a guidance, which an institution prepares for itself *ex ante* before any issues within itself are observed. On the other hand, as we can see, failure to satisfy supervisory with the content of the recovery plan may severely hamstring the governing body of the institution in respect of how to run it, moreover in times when the institution faces no difficulties. Arguably, it can also be seen as an interference with the freedom to conduct business and with the business judgement of the management. The extent to which the management may depart from the plan if the situation so requires and what legal repercussions such departure should have, if any, is crucial. Most notably, is *ex-ante* adoption of any such plan capable of modifying fiduciary duties of the management or restricting their business judgment? BRRD provides some answers and specifically stresses that the institution may take action provided for in the recovery plan even if indicators for triggering such actions are not present, if considered appropriate. By the same token, the management may refrain from taking action contemplated by the recovery plan even if indicators for taking such actions have been met. In both cases, however, the management must notify the competent authority of any such action or refrainment from action without delay.⁷²⁸

⁷²⁶ This is without prejudice to Art. 104 of CRD IV. See Art. 6(6) of BRRD.

⁷²⁷ Update are also required after a change to the legal or organizational structure of the institution, its business or its financial situation, which could have a material effect on, or necessitates a change to, the recovery plan. See Art. 5(2) of BRRD.

⁷²⁸ See Art. 9(1) BRRD.

Indeed, the management should be able to take an action ahead of any material deterioration, as well as to choose the one that would, in its opinion work better, even if not included in the plan and to swiftly react to changing developments that may have not been contemplated. It would be hard to argue that the plans must be followed and observed meticulously as *ex ante* set out contingencies may turn out to be inaccurate, so some flexibility must be provided. However, *ex-ante* laid out detailed plan may put constraints on the management as any such departure could be perceived as imprudent and in contravention of regulators' instructions.

Maybe even more interesting question in this respect is to what extent the "instructions" from the supervisors as to what an institution puts in its plan could be deemed to interfere with the business judgement, as not following may have severe ramifications. Although one could argue that the regulator's interference is in the public interest, it needs to be reiterated that the recovery plans are tools for restoration of viability, outside of the resolution and before the institution concerned is failing or likely to fail.

Also, even if one was to admit that "instructions" from supervisors are in the public interest, it does not address potential liability concerns. In particular, it is not clear who should be liable for losses brought about by the management acting in accordance with plan the content of which was "forcefully" dictated by the supervisors.

5.3.3.2 Resolution Planning

Recovery plans sometimes colloquially referred to as "living wills" are similar to and to a great extent interconnected with recovery plans. Although formally separated under BRRD, in practice, recovery and resolution are highly interlinked since they represent a formalized guidance on how to transition from recovery to resolution phase of a crisis managing process. Also, they should both accurately map out legal and operational structure, business lines, critical functions, the degree of interconnectedness and spot risks and weaknesses of institutions and their business models and strategies. An effective interaction between the recovery and resolution plans is also important to ensure that national supervisory and resolution authorities are not sending mixed or contradictory instructions to the institutions concerned.

On the other hand, there are notable differences. Specifically, to juxtapose recovery and resolution plans, the former aim at *ex ante* outlining measures and processes for the restoration of financial position of a distressed institution through which its failure can be prevented. Consequently, recovery plans should be based on realistic assumptions applicable

in a wide range of adverse scenarios that would preserve going concern of the institution. As such, institutions are allowed to “pick their own poison” and draw-up recovery plans themselves, although supervisors do play an important role in the determination of their content.

Resolution plans on the other hand are prepared by resolution authorities and contain a roadmap for and actions to be taken by themselves when conditions for resolution are met in order to orderly wind-down the institution when restoration of its financial position is no longer an option. Although institutions must cooperate with resolution authorities in preparation of resolution plans, their role is limited, and the cooperation is primarily carried out via provision of information. In other words, recovery plans are roadmaps, which institutions prepare to “save” themselves in the future if the need be, while recovery plan is a “backup” prepared by the regulators in case institutions would not be able to save themselves.

Resolution plan must cover *inter alia* (i) a description of resolution strategy, including tools and powers to be used to implement it; (ii) arrangements to ensure that legal and economic separation of critical functions and core business lines to ensure operational continuity (such as such as IT-systems or payment systems); (iii) timeframe for execution of resolution plan; (iv) arrangements for ensuring available resolution financing; and (v) a plan for communicating with the media and the public.

In respect of a resolution strategy of groups, there are in essence two approaches, depending on its operational structure, which may nevertheless be combined. First, the single point of entry strategy (“**SPE**”), in most cases preferable to groups with high level of integration and shared intergroup services, contemplates taking into resolution and applying resolution tools only in respect of the top tier consolidating parent company. This strategy requires sufficient amount of loss-abortion capacity in the form of hybrid or debt instruments at the top tier holding company level in order to ensure, that the parent can absorb losses of its subsidiaries which would need to be ensured by structural subordination of its intragroup liabilities. In contrast, the multiple point of entry strategy (“**MPE**”) envisages resolution of individual entities or sub-groups and would be preferable in groups with low integration, operationally independent entities or subgroups.

In respect of content of a recovery plan, BRRD emphasizes that robustness of recovery plans should reflect systemic importance of the institution concerned, including the group it belongs to and overall interconnectedness, including through mutual guarantee schemes.⁷²⁹

⁷²⁹ In order to comply with the principle of proportionality and to avoid excessive administrative burden, BRRD provides for the possibility of competent authorities and/or resolution authorities, to waive the requirements relating

From a practical point of view, it therefore seems that institutions that are less interconnected and complex should suffice with plans that contain primarily information on their structure, triggers for recovery actions and recovery options at the disposal of the institution concerned. This strategy allows resolution to be commenced with and resolution tools applied to individual entities, or subgroups within a group.

The implementation of the SPE and MPE strategy is closely interlinked with MREL and the differentiation of internal and external total loss-absorbing capacity (“**TLAC**”).⁷³⁰

Equally importantly, along with the drawing up of resolution plans, BRRD envisages that resolution authorities carry out the so-called resolvability assessments.

The aim of the resolvability assessment is to find out whether it is feasible and credible for resolution authorities to either liquidate the institution under normal insolvency proceedings, or to use resolution tools, while avoiding significant adverse effect on the financial system of the Member State where the institution is established or in other Member States or the EU itself and ensuring continuity of critical functions of the institution concerned.⁷³¹

In particular, the resolvability assessment has three consecutive stages. At first, resolution authorities assess the impact of winding-up of an institution under normal insolvency proceedings on financial markets and infrastructure, other financial institution and the real economy. In this scenario, the institution may be orderly wind-down under normal insolvency proceedings and only a “streamlined” resolution plan with simplified obligations will have to be prepared. In contrast, if the liquidation is not credible and feasible, then the second step is to identify the preferred resolution strategy and draw-up a “full” resolution plan. In the third stage, the feasibility and credibility of the resolution strategy, or resolvability, is assessed.⁷³²

to the preparation of the recovery and resolution plans on a case-by-case basis, e.g. in respect to institutions which belong to an institutional protection scheme within the meaning of Article 113(7) of CRR.

⁷³⁰ For details see chapter 5.5.2.

⁷³¹ See Arts. 15(1) and 16(1) of BRRD and 10(3) of the SRM Regulation.

⁷³² Resolvability assessment assumes that no extraordinary public financial support (besides the use of the national resolution funds or other arrangements contemplated by BRRD and the SRM Regulation), central bank emergency liquidity assistance and/or other liquidity assistance under non-standard collateralization, tenor and interest rate terms will be used. See Arts. 15(1) of BRRD and 10(1) of the SRM Regulation

If, the assessment of resolvability determines that there are substantive impediments to the resolvability of an institution or group concerned, BRRD and the SRM Regulation provides the SRB and national resolution authorities with very broad authorities and discretion, including the power to require an entity to:

- (i) **revise intragroup financing** or issue debt with loss absorption capacity;
- (ii) **limit its exposures, divest assets or cease activities**, business lines or sale of products; or
- (iii) make **changes to legal or operational structures**.⁷³³

Given the concrete steps, it is clear that the SRB and national resolution authorities may significantly intervene in an operating business of the entity or group concerned, although the respective authorities must consider the impact of the selected measure on the institution's business model.⁷³⁴ Again, this legal set-up brings the question of whether such severe interference with business judgement of the management in any may limit liability of its members. On the other hand, the process includes mutual consultation and cooperation within the involved parties, including supervisory authorities and the entity or group concerned has the opportunity to propose remedial measures to address or remove the revealed impediments.⁷³⁵

All things considered, *ex ante* resolution and recovery planning seems to be a vital part of the new post-crisis crisis management framework in Europe and elsewhere trying to deal with the future unknowns. However, two significant concerns should be emphasized. First, the new powers the regulators gained in this novel area is enormous and looks almost unbridled with only limited safeguards for the institutions concerned. Second, the usefulness and effectivity of such plans will greatly depend on how effectively these will be enforced. In particular, systematically important banks or institutions almost by operates across borders, including outside the EU, so the ability of EU authorities to enforce or instruct oversees

⁷³³ See Arts. 17 and 18 of BRRD and 10(7)(11) of the SRM Regulation.

⁷³⁴ See Arts. 17(7) of BRRD and 18(2) of the SRM Regulation

⁷³⁵ The resolution authority is also required to duly consider the potential effect of the intended measures on the particular institution, on the internal market for financial services, and on financial stability in other Member States and the Union as a whole. See Commission Delegated Regulation (EU) 2016/1075 of 23 March 2016 supplementing Directive 2014/59/EU of the European Parliament and of the Council with regard to regulatory technical standards specifying the content of recovery plans, resolution plans and group resolution plans, the minimum criteria that the competent authority is to assess as regards recovery plans and group recovery plans, the conditions for group financial support, the requirements for independent valuers, the contractual recognition of write-down and conversion powers, the procedures and contents of notification requirements and of notice of suspension and the operational functioning of the resolution colleges.

members of a European group could be severely limited. While cooperation between the respective regulators might be beneficial, implementation of a cross-border resolution scheme contemplated by a resolution plan would be greatly dependent on local commercial and company law and the capability of enforcement of foreign administrative actions.

5.3.3.3 Intra-group Financial Support

Another useful preventive tool contemplated by BRRD is the possibility for institutions to enter into financial agreements that would *ex ante* stipulate a financial assistance in case of *ex post* distress.⁷³⁶ Such agreements would in fact be private contracts, which institutions operating within a group could enter into to affiliated group members, especially those operating across more than one Member State. Intragroup-financial agreements is not a novelty that would be a product of the recent financial crisis, however, before BRRD, there was no legal framework, so it was not easy for competent authorities to assess their various forms, especially in cases of cross-border operating groups.

In this respect, BRRD stipulates that a parent institution (either in a Member State or EU-wide) and its subsidiaries under the scope of BRRD and covered by consolidated supervision may enter into agreements for provision of mutual financial support in cases where conditions for early intervention in respect of a member of the group are met.⁷³⁷ Therefore, BRRD distinguishes between intragroup financial support that may only be provided once conditions for early intervention are met and other forms of intra-group financial or funding arrangements. Furthermore, BRRD calls for Member States to remove any legal impediments in national law preventing such agreements to be concluded.⁷³⁸

In respect of either the form of financial support or the beneficiary, BRRD provides a great deal of leeway. In particular, the support may be provided by the parent to its subsidiaries or *vice versa*, between subsidiaries themselves or by any combination thereof in the form of a loan, guarantee or provision of assets for collateralization or any combination thereof, including by transacting by the beneficiary with a third party.⁷³⁹

BRRD also emphasizes the importance of consideration for the support. Specifically, it stresses that it must be set at the time when the support is provided. Furthermore, the

⁷³⁶ See Art. 19 *et seq.* of BRRD.

⁷³⁷ For details about early intervention measures see chapter 5.4.2.4.

⁷³⁸ Save for any measures adopted in accordance with the options provided for in CRR and CRD IV.

⁷³⁹ See Art. 19(5) of BRRD.

calculation of the consideration and other terms of the agreement must also be in compliance with principles laid out by BRRD, namely (i) each party must be acting freely and in its best interest but may take account of any direct or indirect benefit resulting from the support, (ii) the party granting the financial support must have full disclosure of relevant information from the receiving party, (iii) the consideration may take account of any non-public information available on the basis of being in the same group, however need not of any temporary disruptions affecting market prices.⁷⁴⁰

Importantly, even though BRRD subjects the provision of financial support to the fulfillment of conditions for early intervention, it forbids entering into any such agreement *ex post*, *i.e.* when such conditions are met in respect of any of the group members. The assessment whether any party to the agreement meets the conditions for early intervention, along with other factors will be reviewed by the respective competent authorities. In particular, in respect of an EU parent institution, the institution will apply for approval to the ECB, which subsequently passes the proposal on to the competent authorities of each of the subsidiaries, which are to become parties to the agreement. Thereafter, BRRD instructs the involved competent authorities to do everything within their powers to reach a joint decision within four months from the date of receipt of the application by the ECB. In case no joint decision is reached within the given timeframe, the ECB shall make its own decision, taking into consideration views or reservations of the other supervisors. However, any competent authority may turn to EBA to reconcile any possible disagreements at the end of the four-month period, which shall have a final say on the issue if no reconciliation has taken place.⁷⁴¹

The financial support may only be provided if (i) there is a reasonable prospect that the support will significantly redress financial difficulties and be reimbursed (ii) the support aims at restoring or preserving the financial stability of the group or its entities and is in the interest of the party providing the support, (iii) the provision of support would not jeopardize liquidity or solvency of the entity providing the support and financial stability in the Member State of the provider of the funding, (iv) the provider of the support does not infringe and will not lead to infringement by it of capital and liquidity requirements and large exposure limits provided for in CRD IV and CRR, respectively and (v) resolvability of the provider of support would not be jeopardized due to the provision of the support.⁷⁴²

⁷⁴⁰ See Art. 19(7) of BRRD.

⁷⁴¹ See Art. 20 of BRRD.

⁷⁴² See Art. 23 of BRRD.

Moreover, even if all the above requirements are met, the final say on whether such an agreement should be entered into rests with the shareholders of the institutions involved. Shareholders are also required to authorize both providing or receiving of the financial support and the support may only be provided if the authorization has not been in the interim revoked. Thus, even if *ex ante* approved by the regulators and shareholders, at the end of the day, shareholders will have the final say on any such assistance. Indeed, that begs the question why bother to negotiate and go through the regulatory scrutiny, if the parties to the agreement may weasel out of the contractual obligation by having shareholders revoke their authorization when push comes to shove.⁷⁴³

If all the above conditions have been met, the management is then to take the decision to provide the financial support. However, before providing the support, the is required to once again notify all the respective competent authorities and EBA. Thereafter, the supervisor of the institution providing the support may, within five business days after receiving the notification, prohibit or restrict provision of the support, if it deems that the conditions stipulated in BRRD have not been met. However, either the consolidating supervisor or the one supervising the institution, which should receive the support, may request EBA reconcile possible disagreement and take final and binding decision thereon.⁷⁴⁴

5.3.3.4 Early Intervention Measures

Early intervention is a stage of the new crisis management framework, which follows recovery planning but precedes resolution. Broadly speaking, early intervention measures are tools to help prevent institutions with deteriorating financial and economic situation to get to a failing or likely to fail state. It is a bit “grey area” because the SSM Regulation and BRRD entrust the respective supervisory authorities with great deal of discretion and the conditions, which must be met in order to “early intervene” are broadly defined.⁷⁴⁵ In general, BRRD provides that supervisory authorities may apply early intervention measures in case of a rapidly deteriorating financial condition of an institution, where the institution infringes CRD IV or CRR requirements, or where it is likely that it will, in the near future infringe any of such requirements,

⁷⁴³ See Art. 21 of BRRD.

⁷⁴⁴ See Art. 25 of BRRD.

⁷⁴⁵ See Arts. 27 *et seq.* Of BRRD and 16 of the SSM Regulation.

due to, *inter alia*, a rapidly deteriorating financial condition (in terms of e.g. deteriorating liquidity, increasing leverage, non-performing loans or concentrated exposures).⁷⁴⁶

On the other hand, supervisors are not required to use them when any of the triggers are met and BRRD does not specify sources the supervisors may rely on when determining whether conditions for using early intervention measures have been met. In practice, however, they would most likely be used following negative Supervisory Review and Evaluation Process (“SREP”) results or stress tests or significant downgrading of the institution by CRAs, as in other times, supervisors may not, for variety of reasons, be aware of the deterioration or may come to reveal them too late.

In case any of the triggers for early intervention has been met, BRRD makes, without prejudice to other supervisory powers, a variety of measures available to the supervisory authorities to address the institution’s deteriorating financial and economic situation. Specifically, it may require *inter alia* (i) the management to implement one or more measures contemplated by the recovery plan; (ii) the management to convene, or to convene itself if the management fails to do so, the general meeting and set the agenda with various corporate actions, including capital increase; (iii) removal of members of the management or senior executives unfit to perform their duties;⁷⁴⁷ (iv) negotiate a restructuring plan with creditors or (v) changes to the institution’s business strategy or its legal or operational structure.⁷⁴⁸

In respect of the use of early intervention powers, BRRD is silent as to whether there is any “waterfall”, however Art. 28 of BRRD seems to contemplate a sequential order. In particular, it stresses that competent authorities may require the removal of the senior executives or the management in its entirety or with regard to individuals only if other measures taken in accordance with Art. 27 of BRRD are not sufficient, and provided there is “*a significant deterioration in the financial situation of an institution or where there are serious infringements of law, of regulations or of the statutes of the institution, or serious administrative irregularities*”

⁷⁴⁶ Breach of transparency or reporting obligations provided for in Articles 3 to 7, 14 to 17 and 24 to 26 of Regulation (EU) No 600/2014 (MIFIR) may also serve as a trigger for early intervention measures. The other regulatory requirements concern in particular the requirements for authorization and operating of an investment firm. The triggers for the use of early intervention measures are in detail elaborated on in EBA’s Guidelines. See EBA/GL/2015/03, May 8, 2015, [Accessed on January 5, 2016], available at: <https://www.eba.europa.eu/regulation-and-policy/recovery-and-resolution/guidelines-on-early-intervention-triggers>

⁷⁴⁷ The so-called „proper and fit“ requirements for bank management are primarily set out in Art. 91 CRD IV, which in general stipulates that a member shall at all times be of sufficient good repute, possess sufficient knowledge, skills and experience, and devote sufficient time to perform his duties. In addition, management members must act with honesty, integrity and independence of mind to effectively assess and challenge the decisions of the senior management where necessary and to effectively oversee and monitor management decision-making.

⁷⁴⁸ See Art. 27(1) of BRRD and 16(2) of the SSM Regulation.

[...].⁷⁴⁹ The wording begs the question whether the removal of the management and/or senior executives may only be carried out after all other options contemplated by Art. 27 of BRRD have been depleted unsuccessfully. Although the text may suggest so, it can be argued that the wording “*without prejudice to measures referred to in Art. 104 [...]*” in Art. 27 of BRRD suggests that the list of measures therein is not exhaustive. If that was the case, it would be hard to argue that all “options” provided therein must be exhausted before the management and/or the senior executives may be removed. Moreover, it would also make no sense to require to deplete all the options in Art. 27 of BRRD if one or more members of the management or senior management were clearly unfit to perform their duties. Once the removal is carried out, the appointment of new members must be done in accordance with national company law and subject to approval of the supervisory authority. Interestingly, BRRD does not address the eventuality that a new management is not appointed, as in this phase, the supervisory authority would not be empowered to appoint it itself.⁷⁵⁰

Following the “waterfall” of tools at disposal, BRRD further stipulates that if replacement of the management or senior executives is deemed to be insufficient, it may appoint one or more temporary administrators to the institution to either replace the management or to work with it.⁷⁵¹ If the latter option is chosen, the supervisory authority must further specify the role, duties and powers of the administrator and requirements for the management to consult or obtain the administrator’s approval prior any specific decision is taken.⁷⁵² BRRD also provides that such administrator may be entrusted with some or all powers of the management under the national law. Accordingly, the supervisory authority is required to specify the role and functions of the administrator at the time of the appointment (such as managing the business or part of the business of the institution with a view to preserving or restoring the financial position and taking measures to restore sound and prudent management). While the supervisory authority may lay out acts, which the administrator may take only with its prior consent, such consent must always be obtained in order to convene general meeting.⁷⁵³

⁷⁴⁹ See Art. 28 of BRRD.

⁷⁵⁰ For example, depending on specific domestic laws, members of the management may be appointed by either supervisory board or general meeting. Although BRRD authorizes the supervisory authority to convene general meeting and set its agenda, there can be no assurance that shareholders would vote for the suggested candidates.

⁷⁵¹ The appointment is to be made public only if the temporary administrator possess the power to represent the institution vis-à-vis third parties.

⁷⁵² See Art. 29 of BRRD.

⁷⁵³ See Art. 29(5) of BRRD.

The supervisory authority may remove administrator at any time and for any reason or it may alter the terms of his or her appointment. While the term of such appointment shall not last more than one year, the term may in exceptional circumstances be renewed, provided the conditions for his appointment continue to be met and the prolongation is justified to the shareholders. Also, regarding the possible interaction between the temporary administrator and institution's shareholders, BRRD emphasizes that his appointment shall not prejudice the rights of the shareholders under EU and/or national laws. From the corporate law point of view, this emphasize seems interesting. Given that powers of the administrator must be in compliance with applicable company law and that the powers of the general meeting are not curtailed, the administrator could be deemed to be a director. On the other hand, recital to BRRD acknowledges that appointment of the administrator interferes with the shareholders rights, when stressing that "*During the recovery and early intervention phases laid down in this Directive, shareholders should retain full responsibility and control of the institution except when a temporary administrator has been appointed by the competent authority. They should no longer retain such a responsibility once the institution has been put under resolution.*"⁷⁵⁴

Importantly, BRRD explicitly states that the administrator shall not be deemed to be a shadow director or a *de facto* director under national law. At the same time, the administrator is neither appointed nor may he be recalled by the shareholders. Given to the foregoing, the legal position of the administrator, most notably his liability, is not clear. Specifically, it is not clear whether and how liability for actions taken by the management is being altered, if at all. One could imagine the potential differences between the interests of the administrator and the management. Even though commonalities can be found, as both would presumably want to avoid bankruptcy, the management still remains obliged to act in the best interest of its principals, i.e. shareholders, while the administrator would, *inter alia*, aim to preserve and restore financial position and sound management of the institution concerned.⁷⁵⁵ In other words, the administrator is installed to protect public interest, and to a great extent interests of creditors, primarily depositors, while the management remains to be agents of the residual claimants, i.e. shareholders. Obviously interests of the said constituents may not always be aligned and indeed often diverge. Consequently, the not clearly delineated liability for decisions adopted by the management with the consent or at the instruction of the administrator, may lead to unwillingness of the management to participate in such processes.

⁷⁵⁴ See point 39 of recital to BRRD. The recital also stresses that the appointment of the administrator should not unduly interfere with rights of the shareholders or procedural obligations established under EU or national company law and should respect international obligations of the EU or Member States, relating to investment protection.

⁷⁵⁵ See Art. 29(3) of BRRD.

5.3.3.5 Extraordinary Public Support

Extraordinary public support can be seen as one of the key tools and an important exception to the main tenet BRRD is built upon that costs associated with bank failures should be first and foremost borne by banks' shareholders and creditors and not by the taxpayers. Generally speaking, the fact that an institution requires extraordinary public support indicates that it is failing or likely to fail, which would require commencement of resolution, provided the other conditions are fulfilled, most notably public interest is present.⁷⁵⁶ However, BRRD also introduces some flexibility in respect of the extraordinary public support even though it may only be provided as an *ultima ratio* tool and under strict conditions. Importantly, this pre-resolution tool is not available to the SRB since its actions may not impinge on the budgetary sovereignty and fiscal responsibilities of Member States.⁷⁵⁷

First of all, extraordinary public support may only be provided to solvent institutions and subject to approval of the Commission as to its compliance with the EU state aid rules.⁷⁵⁸ Second, the support must be of precautionary and temporary nature and be both necessary to avoid a serious disturbance in the economy of a Member State and to preserve financial stability. Also, the support must be proportionate to remedy the consequences of the serious disturbance and may not be used to offset losses that the institution has incurred or is likely to incur in the near future. In addition, if the public support takes the form of direct recapitalization, it must be carried out at prices and on terms that do not confer a competitive advantage on the institution and may only be carried out in respect of institution that is neither failing or likely to fail nor has reached the so-called point of non-viability, i.e. a state where capital instruments must be written-down or converted into equity to ensure an institution's viability and there is no reasonable prospect that any alternative private sector measures or supervisory action, including early intervention measures, can remedy the situation.⁷⁵⁹

The public support may take the form of (i) a state guarantee for newly issued debt or to secure emergency liquidity assistance from central bank,⁷⁶⁰ or (ii) capital injection or

⁷⁵⁶ See Art. 32(4)(d) of BRRD.

⁷⁵⁷ See Art. 6(6) of the SRM Regulation.

⁷⁵⁸ See Art. 107 *et seq.* TFEU.

⁷⁵⁹ See Art. 59(3) of BRRD.

⁷⁶⁰ Those measures shall be of a precautionary and temporary nature and shall be proportionate to remedy the consequences of the serious disturbance and shall not be used to offset losses that the institution has incurred or is likely to incur in the near future. Accordingly, ordinary activities of central banks related to monetary policy, such as open market operations and standing facilities, do not fall within the scope of the State aid rules, however, emergency liquidity support to a specific institution may constitute aid unless (i) the beneficiary of the aid is temporarily illiquid but solvent and the provision of support occurs in exceptional circumstances and not as a part of a larger aid package; (ii) the support is fully secured by collateral to which appropriate haircuts are applied; (iii)

purchase of shares of the distressed institution addressing capital shortfalls revealed under stress-tests, asset quality reviews or similar EBA or ECB exercises.⁷⁶¹

To sum it up, the extraordinary public support provided for in BRRD is confined within a very narrow scope of solvent institutions financial situation of which is threatening to the economy of a Member State and financial stability in a way that cannot be addressed with supervisory (including early intervention) powers or private sector measures, but not serious enough to fulfill conditions for resolutions.

Given the patchwork of conditions, the circumstances whereunder the extraordinary public support may be provided are confusing at best, and in direct contradiction at worst. For example, the recapitalization may only be provided if it is necessary to avoid serious disturbance to the economy of a Member State, but only as far as it does not confer an advantage upon the receiving institution. It is hard to imagine a form of financial aid necessary to avoid serious disturbance in the economy of a Member State that does not confer a competitive advantage upon its recipient. Accordingly, At the same time, the extraordinary public support is state aid within the meaning of Art. 107(1) TFEU,⁷⁶² and as such is subject to approval by the Commission, but the recapitalization is required to be made at prices and on terms that do not confer an advantage upon the recipient institution. However, granting of an advantage on a selective basis is an intrinsic feature of state aid.⁷⁶³ Accordingly, an advantage, within the meaning of Art. 107(1) TFEU, is any economic benefit, which an undertaking could not have obtained under normal market conditions and as a result of which, the financial situation of an undertaking is improved.⁷⁶⁴ The fact that the aid may only be

the central bank charges a penal interest rate to the beneficiary; (iv) the measure is taken at the central bank's own initiative, and in particular is not backed by any government counter-guarantee. If case the conditions are satisfied, no burden sharing is required before accessing central bank funds. See Communication from the Commission on the application, from 1 August 2013, of State aid rules to support measures in favor of banks in the context of the financial crisis (the "**Banking Communication**"), [Accessed on May 10, 2016], available at <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52013XC0730%2801%29>

⁷⁶¹ However, the according to the Commission, for such support to comply with state aid rules, it should cover shortfalls under adverse stress-test scenarios, whereas capital shortfalls under the baseline scenario should be covered by the private sector. See State Aid case No. 43365, Amendment of the restructuring plan of National Bank of Greece, 2015.

⁷⁶² See Art. 2(28) of BRRD. Art. 107(1) TFEU reads as follows: „Save as otherwise provided in the Treaties, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favoring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market.”

⁷⁶³ From an EU competition law perspective, qualification of a measure as state aid requires that the measure is imputable to the state, financed through state resources, grants an advantage to selected undertakings, threatens to distort competition, and potentially affects trade between Member States. See par 5 *et seq.* of the Commission Notice on the notion of State aid as referred to in Article 107(1) of the Treaty on the Functioning of the European Union (2016/C 262/01), [Accessed on May 10, 2016], available at: [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016XC0719\(05\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016XC0719(05)&from=EN)

⁷⁶⁴ See *Id.*, par 67.

provided to remedy a serious disturbance of the economy of a Member State (and not to provide a competitive advantage) is not relevant as only effects of the measure on the beneficiary undertaking is relevant, and not the cause or the objective of the aid.⁷⁶⁵ Although not all transactions carried out by a public authority would constitute state aid, the EU courts have developed the so-called Market Economy Investor Principle whereunder it is necessary to assess whether, in similar circumstances, a private investor of a comparable size operating in normal conditions of a market economy could have been prompted to make the investment in question.⁷⁶⁶ Simplifying somewhat, it could be argued that the non-existence of an alternative private sector measure, a condition for provision of the extraordinary public support, evidences that no reasonable private investor is prompted to make such investment because if there were, it would have participated in the recapitalization itself.

In this respect, the Banking Communication adopted in 2013 was a turning point as in the aftermath of the financial crisis up until its adoption, the Commission had introduced six special communications for dealing with state aid in the financial sector.⁷⁶⁷ However, these communications were arguably too lenient and provided too much flexibility, which had made bank bailouts rampant.⁷⁶⁸ Once the Eurozone sovereign debt crisis fully unfolded in 2011 and the “sovereign-bank vicious circle” came into spotlight, it was clear that the practice of bank

⁷⁶⁵ See Judgment of the Court of Justice of 2 July 1974, *Italian Republic v Commission of the European Communities* (Case 173/73)

⁷⁶⁶ The assessment must be made on an *ex-ante* basis, having regard to the information available at the time the intervention was decided, and it is not sufficient to *ex post* rely on a retrospective finding that the investment made was actually profitable. See Judgment of the Court (Grand Chamber), 5 June 2012, *European Commission v Électricité de France (EDF)* (Case C-124/10 P) or Judgment of the Court of First Instance (Second Chamber, extended composition) of 6 March 2003, *Westdeutsche Landesbank Girozentrale and Land Nordrhein-Westfalen v Commission of the European Communities* (Joined cases T-228/99 and T-233/99)

⁷⁶⁷ For details see Communication from the Commission - The application of State aid rules to measures taken in relation to financial institutions in the context of the current global financial crisis (2008/C 270/02); Communication from the Commission - The recapitalization of financial institutions in the current financial crisis: limitation of aid to the minimum necessary and safeguards against undue distortions of competition (2009/C 10/03); Communication from the Commission on the treatment of impaired assets in the Community banking sector (2009/C 72/01); Commission Communication on the return to viability and the assessment of restructuring measures in the financial sector in the current crisis under the State aid rules (2009/C 195/04); Communication from the Commission on the application, from 1 January 2011, of State aid rules to support measures in favor of banks in the context of the financial crisis (2010/C 329/07); Communication from the Commission on the application, from 1 January 2012, of State aid rules to support measures in favor of banks in the context of the financial crisis (2011/C 356/02).

⁷⁶⁸ For example, from a procedural point of view, even though there was the requirement to submit a restructuring plan, there was no need to have it approved by the Commission before the aid was provided, and indeed it was often the case it was not submitted at all. Thus the public support was often provided “blindly” without having any specific plan how to restore sounded of the institution in question. Consequently, between October 2008 and January 2013 Member States injected €591.9 billion, or 4.6 % of 2012 EU GDP of capital support into the European financial sector. For more details on the support see European Commission, *State aid: Commission's new on-line state aid benchmarking tool shows less aid to banks*, Brussels, December 20, 2013, [Accessed on May 10, 2016], available at: https://europa.eu/rapid/press-release_IP-13-1301_en.htm

bailouts was not sustainable. The Banking Communication was in essence an interim solution to the problem since the creation of the Banking Union and implementation of the necessary reforms would take some time. Despite its non-binding character, the Banking Communication introduced important conditions to accessing public funds, in particular, the requirement to submit a restructuring plan (including capital raising plan) prior to granting the aid, change management and apply strict executive remuneration policies and prevent outflow of own funds, by, *inter alia*, banning dividend payouts and share buy-backs. Most notably, the communication introduced the requirement to implement adequate burden sharing.

The last requirement is of vital importance as it *de facto* mirrors the bail-in requirement for access to public funds under resolution as provided for in BRRD.⁷⁶⁹ The aim of the burden sharing is quite discernable as the Banking Communication stresses: “*State support can create moral hazard and undermine market discipline. To reduce moral hazard, aid should only be granted on terms which involve adequate burden-sharing by existing investors.*”⁷⁷⁰

In particular, the burden-sharing requirement stresses that losses must be first and foremost borne by the shareholders and thereafter by hybrid capital holders and subordinated debt holders. Also, the hybrid capital and subordinated debt holders must contribute to reducing the capital shortfall to the maximum extent, either by a conversion of their debt instruments into capital or a write-down of their principal. In any case, cash outflows from the beneficiary to the holders of such securities must be prevented to the extent legally possible. In contrast, the Banking Communication does not require conversion or write-down of senior debt, especially uninsured deposits and unsubordinated bonds. This is however an important distinction between burden sharing under BRRD, which contemplates imposition of losses even on senior creditors and uninsured depositors.⁷⁷¹

The Banking Communication further distinguishes the cases where the capital ratio of the bank remains above the minimum level required by CRR and where it falls below the minimum threshold. In case of the former, the Commission stresses that the bank should restore its capital position on its own (e.g. by means of capital raisings). Only in case of the latter, provided there are no other alternatives (including early intervention measures) and after equity, hybrid capital and subordinated debt have fully contributed to offset any losses, may

⁷⁶⁹ For details see chapter 5.4.3.

⁷⁷⁰ See section 3.1.2. of the Banking Communication.

⁷⁷¹ For details see chapter 5.4.3.

public aid be granted.⁷⁷² Importantly, BRRD alike, the Banking Communication also stresses that subordinated creditors should not receive less in economic terms than what their instrument would have been worth if no aid had been granted, the so-called “No Creditor Worse-off” safeguard.⁷⁷³

Given all the above conditions that must be met simultaneously, and given the involvement of numerous authorities, both at the EU and national level, the practical use of the extraordinary public support tool seems very limited, unless the Commission adopts a broad interpretation of the relevant provisions. Accordingly, the Commission has enormous authority in this respect. On the other hand, the very limited possibility to resort to taxpayer money is in line with the basic principles the new crisis management framework is built upon.

5.3.4 Resolution Process

As outlined in the preceding chapters, the new post-crisis crisis management regime provided for in BRRD and the SRM Regulation can be divided into three or four phases. The first stage is preparatory and comprises recovery and resolution planning, although as it was described in the preceding paragraphs, the respective supervisory or resolution authorities can significantly wade in an institution’s business, especially if they deem it not resolvable. The second stage concerns early intervention, which could be seen as a preventive phase trying to address deteriorating conditions of an institution and avoid its failure. The third stage, which is somewhat intertwined with the last stage, concerns write-down or conversion of capital instruments. Finally, if none of the previous stages addressed the deteriorating condition of the institution concerned, a resolution scheme is adopted, and resolution actions applied, provided a set of specific conditions is met. The conditions or triggers for resolution are largely intertwined with and should be read in light of resolution principles and objectives.

⁷⁷² The Banking Communication provides for an exception to the need to follow the described burden-sharing requirements where implementing such measures would endanger financial stability or lead to disproportionate results. This could cover cases where the amount of support is small in comparison to the bank’s risk weighted assets and the capital shortfall has been reduced significantly in particular through capital raising.

⁷⁷³ See section 46 of the Banking Communication. Although arguably the mandatory write-down of at least 8 % of bank liabilities before any provision of public funds under BRRD effective from January 1, 2016 propelled several major bank restructurings before the end of 2015.

5.3.4.1 Resolution Objectives and Principles

The basis resolution principles and objectives provided for in BRRD and the SRM Regulation clearly mirror the pains and lessons from the 2007-8 financial crisis. As such, resolution is a *sui generis* unlike any other known processes before. While there are certain similarities with regular insolvency proceedings, the governing principles diverge to a great extent. Specifically, many safeguards typical for insolvency laws are either modified or abandoned altogether during resolution. Time is of the essence and public interest serves as justification for a much more significant intrusion into contractual and property rights by the public sector. Moreover, unlike in the case of insolvency proceedings, the entire resolution process is shouldered by administrative agencies, although *ex post* a court review is possible. This is also the reason why failing or likely to fail bank should as a default be dealt with in regular insolvency regime, unless specific conditions are met and public interest is present in case of which, special procedures under BRRD and the SRM Regulation should be applied.

Accordingly, the basic objective of insolvency proceeding is to settle claims of a (larger) number of persons according to a given pre-determined order and *par conditio*. In contrast, the resolution objectives are

- (i) to **ensure the continuity of critical functions**;
- (ii) to **avoid significant adverse effects on financial stability**, in particular by preventing contagion, including to market infrastructures, and by maintaining market discipline;
- (iii) to **protect public funds** by minimizing reliance on extraordinary public financial support;
- (iv) to **protect insured depositors and investors** protected by investor-compensation schemes;⁷⁷⁴ and
- (v) to **protect client funds and client assets**.⁷⁷⁵

When pursuing these objectives, the SRB, the Council, the Commission and the relevant national resolution authorities must seek to minimize the cost of resolution and avoid destruction of value unless necessary to achieve them and ensure that the general principles governing resolution are observed. Broadly speaking, these principles can be grouped into three categories. The first relates to a pre-determined waterfall of loss-sharing. Specifically, shareholders must be first in line to bear losses, followed by creditors. While creditors are

⁷⁷⁴ See Directive 2014/49/EU of the European Parliament and of the Council of 16 April 2014 on deposit guarantee schemes and Directive 97/9/EC of the European Parliament and of the Council of 3 March 1997 on investor-compensation schemes.

⁷⁷⁵ See Arts. 31(2) of BRRD and 14(2) of the SRM Regulation.

divided into classes according to a special pecking order, they must be treated *pari passu* within each class and none of them shall bear greater losses than would have been incurred, had the institution been wound up under insolvency proceedings. Insured deposits must be protected in full. Second, unless specific circumstances require otherwise, the management and senior executives should be replaced, in whole or in part, but should remain of assistance. The management, senior executives and/or other persons should be made liable for the failure of the institution. Finally, any resolution action must be taken in accordance with the safeguards provided for in BRRD and the SRM Regulation.⁷⁷⁶

In addition, when applying resolution tools in respect of banking groups, the respective authorities must apply resolution tools and exercise resolution powers in a way that minimizes the impact on other group entities and on the group as a whole and minimizes the adverse effects on financial stability in the EU and its Member States, in particular, in the countries where the group operates.⁷⁷⁷

5.3.4.2 Conditions (Triggers) for Resolution

Identically to the SRM Regulation, BRRD requires three cumulative conditions to be met in order to determine whether an institution should be wound-down under insolvency laws or under the special resolution regime. Specifically, it must be determined that the institution is failing or likely to fail. Second, there must be no reasonable prospect that alternative private sector measures, including supervisory and/or early intervention measures would prevent the failure within a reasonable timeframe. Third, resolution action must be in the public interest.⁷⁷⁸

While the assessment whether the first condition has been met is in general within the purview of national supervisory authorities, or the ECB, depending on the institution or group concerned, BRRD allows a “co-determination” by both supervisory and resolution authorities at the election of Member States.⁷⁷⁹ Also, resolution authorities may be given such authority in cases where the supervisory authorities do not act within a reasonable timeframe. The SRM Regulation contains such a fallback. BRRD and the SRM Regulation also contain irrefutable presumptions that an institution is failing or likely to fail, in essence, when it is, or is about to become in the near future, balance sheet or cash-flow insolvent or when it infringes, or is about

⁷⁷⁶ See Arts. 34(1) of BRRD and 15(1) of the SRM Regulation.

⁷⁷⁷ See Arts. 34(2) of BRRD and 15(2) of the SRM Regulation.

⁷⁷⁸ See Arts. 32(1) of BRRD and 18(1) of the SRM Regulation.

⁷⁷⁹ See Art. 32(2) of BRRD.

to infringe in the near future, conditions for authorization that would justify its withdrawal.⁷⁸⁰ Finally, the same presumption also applies when extraordinary public support is required.⁷⁸¹

While elements of failing or likely to fail are vaguely defined, EBA provided some further guidance and laid out some objective elements on the basis of which discretion of the relevant authorities should be based. At the same time EBA emphasized that the identification of a single objective element should neither lead to an automatic determination that it is failing or likely to fail, nor automatically trigger resolution actions. Accordingly, the relevant authorities should in each case decide whether the institution is failing or likely to fail on the basis of a comprehensive assessment of both qualitative and quantitative objective elements, taking into account all other circumstances and information relevant for the institution and outcomes of SREP.⁷⁸²

While the content of the second element of the test, the absence of private sector solution, is also not entirely clear, the public interest element seems to be the most difficult to grasp. Specifically, a resolution action will be in the public interest if it is necessary for the achievement of and is proportionate to one or more of the resolution objectives and winding up of the institution under normal insolvency proceedings would not meet those resolution objectives to the same extent.⁷⁸³ While a single objective will suffice to pass the test, BRRD and SRM Regulation further emphasizes that the resolution objectives are of equal significance, and resolution authorities shall balance them as appropriate to the nature and circumstances of each case.⁷⁸⁴ This will, however, be an uneasy task, given their conflicting nature. In particular, balancing the principles of preservation of financial stability with deposit and taxpayer money protection could be quite conundrum. Specifically, imposition of losses on uninsured depositors and other senior creditors during a crisis might be a severe blow to investor confidence and spur bank runs and in consequence threaten stability of a Member States' banking and financial sector as demonstrated during the Cypriot banking crisis.⁷⁸⁵

⁷⁸⁰ See Arts. 32(4) of BRRD and 18(4) of the SRM Regulation.

⁷⁸¹ Safe for cases described in chapter 5.4.5.2.

⁷⁸² See EBA/GL/2015/07, 26 May 2015, [Accessed on October 10, 2015], available at: <https://www.eba.europa.eu/regulation-and-policy/recovery-and-resolution/guidelines-on-failing-or-likely-to-fail>

⁷⁸³ See Arts. 32(5) of BRRD and 18(5) of the SRM Regulation.

⁷⁸⁴ See Arts. 31(3) of BRRD and 14(3) of the SRM Regulation.

⁷⁸⁵ During the Cypriot crisis, for the first time ever in Eurozone, losses were imposed on uninsured depositors, which ensued in the need to impose capital controls. For a detailed description of the crisis see World Bank Group, *Bank resolution and bail-in in the EU : selected case studies pre and post BRRD*. Washington, D.C. :, [Accessed on January 10, 2019], available at: <http://documents.worldbank.org/curated/en/731351485375133455/Bank-resolution-and-bail-in-in-the-EU-selected-case-studies-pre-and-post-BRRD>

Generally speaking, protection of (not only insured) depositors, or more precisely, the effort to prevent a bank run and/or to stem possible negative spillovers and a system-wide crisis ensuing from a bank run could this likely be often invoked in order to meet the public interest criterion. In practice, this would however mean that only very small banks, if any, would not pass the public interest test and in consequence be wound up under insolvency proceedings.

5.3.4.3 Selected Resolution Tools

Once conditions for resolution are fulfilled, BRRD and the SRM Regulation provides resolution authorities with four basic tools, namely:

- (i) the **sale of business** tool;
- (ii) the **bridge institution** tool,
- (iii) the **asset management** tool; and
- (iv) the **bail-in** tool.⁷⁸⁶

The **sale of business tool** authorizes the respective resolution authorities to sell shares or other instruments of ownerships issued by an institution under resolution, or any or all of its assets, rights and liabilities, to willing buyers, without consent or even against opposition of its shareholders.⁷⁸⁷ When only some assets, rights and/or liabilities are to be transferred, the entity itself should be wound up under insolvency proceedings. Also, all corporate and securities law requirements for such transfers are automatically disappplied and BRRD and the SRM Regulation contains specific procedural requirements of the sale and its marketing. In particular, the sale should be marketed in a transparent manner and on a board non-discriminatory commercial terms without conferring an unfair advantage on the potential purchaser. Transparency is important, however, it must be adjusted to the specific circumstances of the resolution process to maintain confidence in the markets and minimize the risk of negative contagion. For example, mandatory public disclosures of inside information may be delayed. Also, while the sale must aim at maximizing the sale price, which must furthermore be based on a fair, prudent and realistic valuation, it shall also take into account the need for a rapid resolution.⁷⁸⁸ Finally, resolution authorities may decide not to apply these

⁷⁸⁶ See Arts. 37(3) of BRRD and 22(2) of the SRM Regulation.

⁷⁸⁷ See Arts. 37(1) of BRRD and 24(1) of the SRM Regulation.

⁷⁸⁸ See Art. 39(1)(2) of BRRD. In this respect, Art. 76 of BRRD allows to use resolution financing arrangements as a safeguard of asset quality in partial asset transfers to increase the chances to find out a private sector purchaser

principles in circumstances amounting to a material threat to financial stability arising from or aggravated by the failure or likely failure of an institution under resolution when their observance would likely undermine the effectiveness of the sale of business tool in addressing that threat or achieving the resolution objective of avoiding significant adverse effects on financial stability.⁷⁸⁹ In practice, potential conflicts between the marketing requirements and the resolution objective can, for example, arise where there is the risk that full compliance may cause additional uncertainty and a loss of market confidence or where certain potential purchasers may be more likely to ensure financial stability than others, and in general with respect to the legal and organizational feasibility, the practicability and the timely implementation of the sale.⁷⁹⁰

The name of the **bridge institution tool** speaks for its purpose, i.e. to bridge the period between the time when resolution is commenced and the time when a private sector purchaser is found.⁷⁹¹ It follows that it will usually be used when the market situation is not suitable for the market sale since there are either no potential buyers available or it or its assets would have to be sold at fire sale prices. Thus, by using this tool, resolution authorities would not be selling shares, or assets, rights and liabilities of an institution under resolution to willing buyers, but instead to a special purpose institution tasked with maintaining critical functions of the acquired business.⁷⁹² However, in contrast with the sale of business tool, bridge bank allows resolution authorities to transfer shares, or assets, rights or liabilities back from the bridge institution in case the possibility is stated expressly in the instrument by which the transfer was made, or if the specific shares, assets, rights or liabilities do not in fact fall within the classes of, or meet the conditions for transfer of shares, assets, rights or liabilities specified in the instrument by which the transfer was made.⁷⁹³

under time constraints. For details see Technical advice by the European Banking Authority on classes of arrangements to be protected in a partial property transfer, August 14 2015, [Accessed on October 12, 2015], available at: <https://www.eba.europa.eu/eba-publishes-technical-advice-on-protected-arrangements-in-a-resolution-situation>

⁷⁸⁹ See Art. 39(4) of BRRD.

⁷⁹⁰ For details on the elements where compliance could undermine the effectiveness of the sale of business tool see EBA/GL/2015/04, 20 May 2015, [Accessed on October 5, 2015], available at: <https://www.eba.europa.eu/regulation-and-policy/recovery-and-resolution/guidelines-on-the-sale-of-business-tool>

⁷⁹¹ See Arts. 40 of BRRD and 25 of the SRM Regulation.

⁷⁹² Alike in the case of the sale of business tool, neither shareholder consent is required, nor any corporate or securities law requirements apply.

⁷⁹³ See Art. 40(7) of BRRD and 25(2)(b) of the SRM Regulation. The use of this power spurred controversies in the case of resolution of Banco Espírito Santo. For details, see chapter 5.

Bridge institution must be at least partially owned by the state or its instrumentalities, however it must always remain under the control of the resolution authority to ensure that creditors of the institution under resolution converted into shareholders of the bridge institution do not take control of it.⁷⁹⁴ Furthermore, it must be ensured that the total value of transferred liabilities do not exceed the total value of the transferred rights and assets. In other words, losses and non-performing assets should be left in the “bad bank”. However, the bridge institution may be recapitalized by debt to equity swap of the bad bank creditors or by utilization of resolution financing arrangements, subject to mandatory bail-in requirement. These may also be used to provide credit to the bridge institution or to guarantee its debt issuances.⁷⁹⁵ Also, the bridge institution must, in principle, be fully compliant with capital, liquidity and other regulatory requirements like if it were an ordinary bank investment firm, as applicable, but specific temporary exemptions may be granted.⁷⁹⁶

In theory, this “bridge period” should not be lengthy and should not surpass two years, however, unless circumstances warrant prolongation. However, practical experience with this resolution tool shows that selling the resolved institution to a suitable buyer is a complex and challenging task, which may take many years and even eventually fail to succeed. If no private sector solution can be found within two or more years (depending on the length on possible extension) the bridge institution, or its residual parts of assets, rights and liabilities, should be wound down under insolvency proceedings. The resolution of Andelskassen JAK Slagelse by the Danish authorities, which had to eventually wind up even the bridge bank after unsuccessful sale to a private buyer, or the case of Banco Espírito Santo, where the bridge bank continues to operate even six years after its establishment highlights some of these complexities.⁷⁹⁷

The third instrument envisioned by BRRD and the SRM Regulation is **the asset separation tool**.⁷⁹⁸ Broadly speaking, this tool is to provide a relief to an institution’s balance

⁷⁹⁴ In particular BRRD requires that the (i) contents of the bridge institution’s constitutional documents are approved by the resolution authority, (ii) the resolution authority either appoints or approves the bridge institution’s management body (iii) the resolution authority approves the remuneration of the members of the management body and determines their appropriate responsibilities; and (iv) the resolution authority approves the strategy and risk profile of the bridge institution. See Art. 41(1) of BRRD.

⁷⁹⁵ See Art. 101 of BRRD.

⁷⁹⁶ See Art. 41(1) of BRRD.

⁷⁹⁷ For a detailed description of the Danish resolution see World Bank Group, *Bank resolution and bail-in in the EU : selected case studies pre and post BRRD*. Washington, D.C. :, at p. 25 *et seq.* [Accessed on January 10, 2019], available at: <http://documents.worldbank.org/curated/en/731351485375133455/Bank-resolution-and-bail-in-in-the-EU-selected-case-studies-pre-and-post-BRRD>

⁷⁹⁸ See Arts. 42 of BRRD and 26 of the SRM Regulation.

sheets by separating its bad assets and selling the viable ones with the view to maximize their value, if their immediate sale would, generally speaking, result in significant losses.⁷⁹⁹ The use of this tool requires establishment of one or more asset management vehicles (or bridge institutions), wholly or partially owned by public authorities and controlled by the resolution authority, to which good assets, right or liabilities of one or more institutions under resolution would be transferred.⁸⁰⁰

The main difference between the sale of business and bridge institution tools and the asset separation tool is that the two former are created to continue some or all critical functions of the defunct institution, whereas the latter is not meant to preserve a going-concern business of the institution concerned, but merely to sell-off its assets, rights and liabilities at the highest price possible. Also, the asset management tool can only be used in conjunction with at least one of the other tools, usually with the bridge institution tool where an asset management vehicle may subsequently acquire assets, rights or liabilities from the bridge institution. The resolution authority may also transfer some rights, assets or liabilities back from the asset management vehicle to the institution under resolution under the same condition as in the case of the bridge institution tool.⁸⁰¹

⁷⁹⁹ In particular, BRRD stipulates that the respective resolution authority may only use the asset separation tool if (i) the market for those assets is such that their liquidation under normal insolvency proceedings could have an adverse effect on one or more financial markets; (ii) the transfer is necessary to ensure the proper functioning of the institution under resolution or bridge institution; or (iii) the transfer is necessary to maximize the liquidation proceeds. See Art. 42(5) of BRRD and EBA Guidelines on the determination of when the liquidation of assets or liabilities under normal insolvency proceedings could have an adverse effect on one or more financial markets under Article 42(14) of Directive 2014/59/EU of May 20, 2015, [Accessed on October 10, 2015], available at: <https://www.eba.europa.eu/regulation-and-policy/recovery-and-resolution/guidelines-on-the-asset-separation-tool>

⁸⁰⁰ This may be effectuated without shareholder consent and without complying with any procedural requirements under corporate and securities laws. Also, the conditions for governance structure and operation of a bridge institution apply *mutatis mutandis* to asset management vehicle(s). See Art. 42(1) through (4) of BRRD.

⁸⁰¹ See Art. 42(8) through (10) of BRRD.

5.3.4.4 Write-Down and Conversion of Capital and Bail-in of Unsecured Debt

As already pointed out, the power of resolution authorities to **write-down and/or convert relevant capital instruments** is not a resolution action, although it is closely intertwined with the resolution process in two important aspects.

First, it is *de facto* the last option of the resolution authorities before taking resolution action and placing an institution or a group under resolution.⁸⁰² In this respect, the power to write-down or convert capital instruments may be used even before conditions for resolution are met, though the conditions for its use are similar. Specifically, the capital instruments can be written-down and/or converted when an institution or a group concerned reaches the so-called “non-viability point”.⁸⁰³ It is the situation where the institution or group is failing or likely to fail and there is no reasonable prospect that any action, other than the write-down or conversion would prevent the failure of the institution or group within a reasonable timeframe, or in other words, it is when all conditions for resolution are met, save for the public interest.⁸⁰⁴

Second, BRRD and the SRM Regulation require capital instruments of an institution or a group to be written-down and/or converted once the conditions for resolution are met and before any resolution action taken. At the same time, it may be used during resolution in combination with resolution actions.⁸⁰⁵ Thus, capital instruments of an institution or a group can be written-down or converted “in” and “out of” resolution.

In practice, resolution authorities must exercise the write-down or conversion power in accordance with the priority of claims under normal insolvency proceedings and in a way ensuring that CET 1 instruments (i.e. most often common shares) are reduced, or cancelled, depending on the losses, first. AT1 and Tier 2 instruments may only be written down or converted after CET1 instruments are cancelled.⁸⁰⁶ In this respect there is no substantive difference in the between this power and the bail-in tool with the exception that bail-in applies also to unsecured liabilities and that certain liabilities can be in exceptional circumstances excluded from its scope.⁸⁰⁷

⁸⁰² However, this discretionary statutory power of resolution authorities should be distinguished from the automatic write-down or conversion of Additional Tier 1 (AT1) instruments when Common Equity Tier 1 (CET1) ratio of an institution falls below certain level under CRR, which is a contractually based trigger. For details see chapter 5.5.

⁸⁰³ In addition, it may also be used when extraordinary public support under the conditions described in chapter 5.4.3.5 is required.

⁸⁰⁴ See Arts. 59(4) of BRRD and 21(3) of the SRM Regulation.

⁸⁰⁵ See Arts. 59(3) of BRRD and 21(1) of the SRM Regulation.

⁸⁰⁶ See Arts. 60(1) of BRRD and 21(10) of the SRM Regulation.

⁸⁰⁷ See Arts. 44(2) of BRRD and 27(5) of the SRM Regulation.

Bail-in tool is probably the most important but also by far the most controversial tool regulators were entrusted in response to the 2007-08 financial crisis. In particular, its importance lies within the fact that it ensures that losses of a failing, or failed institution are borne out by its owners and creditors and not borne by the taxpayers and that its use is a necessary condition for tapping into public funds, including resolution financing arrangements.⁸⁰⁸ This result is ensured by statutory imposition of losses on investors and creditors, in a predetermined “pecking order” by either converting contractual claims into equity, or by writing their principal amount down, all outside insolvency proceedings.

Specifically, BRRD and the SRM Regulation stipulates two purposes of the bail-in tool. First, it can be used to recapitalize an entity under resolution and ensure its ability to comply with the conditions for authorization and to sustain market confidence in such entity, provided there is a reasonable prospect that the recapitalization will, together with other measures, its financial soundness and long-term viability. The second use possible use is to convert to equity or reduce the principal amount of claims or debt instruments before their transfer to a bridge institution with a view of providing capital to such bridge institution or under the sale of business or asset separation tool.⁸⁰⁹

However, some liabilities are statutorily “protected” and their bail-in is explicitly prohibited. These broadly speaking cover primarily insured deposits and ringfenced clients’ assets, secured liabilities, including hedging instruments and covered bonds, employment, social security, tax and other liabilities preferred by law, liabilities to deposit guarantee schemes for due contributions, short term liabilities to other financial institutions, payment or securities settlement systems or their participants and liabilities to commercial or trade creditors relating to the provision of critical goods or services.⁸¹⁰

In addition, in exceptional circumstances, the resolution authority may wholly or partially exclude certain liabilities from bail-in, where it is not possible to bail-in the liability within a reasonable timeframe; the exclusion is necessary and proportionate to achieve continuity of critical functions and core business lines; the exclusion is necessary and proportionate to avoid widespread contagion, in particular as regards deposits of SMEs, that could bring about a serious disturbance to the economy of a Member State or the EU as a whole, or where the application of the bail-in tool to those liabilities would cause a destruction in value such that

⁸⁰⁸ See chapter 5.4.3

⁸⁰⁹ See Arts. 43(2) of BRRD and 27(1) of the SRM Regulation.

⁸¹⁰ See Arts. 43(3) of BRRD and 27(3) of the SRM Regulation.

the losses borne by other creditors would be higher than if those liabilities were excluded from bail-in. Where a resolution authority decides to use this power and exclude otherwise eligible liability from bail-in, it may increase the level of write-down or conversion applied to other eligible liabilities, provided that the no creditor is worse off than it would have been under insolvency liquidation.⁸¹¹ This requirement is the manifestation of the so-called “no creditor worse off” principle, one of the key safeguards of the new crisis management framework, which filters through many provisions of BRRD and the SRM Regulation.⁸¹² It aims to address concerns regarding the extrajudicial nature of the new resolution framework and the potential material effects of resolution actions on property and contractual rights. Thus, no matter what resolution action is chosen by the resolution authorities, no creditor shall incur greater losses than would have incurred if the institution had been wound up under normal insolvency proceedings. In other words, creditors of bail-inable debt should be indifferent as to whether resolution or insolvency proceedings are commenced. This should be attained by a valuation carried out *ex ante* prior to any resolution action estimating the treatment that each class of shareholders and creditors would have been expected to receive, if the institution were wound up under normal insolvency proceedings.⁸¹³

Nevertheless the safeguards provided in BRRD and the SRM Regulation, this will be a challenging task and likely more an art than science. Not only all known information will have to be taken into account, a challenging task on its own, but also material future projections will have to be made about the possible impact of resolution actions on the institution concerned, including projections about what would have happened if insolvency proceeding had been commenced instead. To mitigate the potential for unfair treatment of shareholders and creditors, the framework requires an *ex-post* comparison between the treatment that shareholders and creditors have received and the treatment they would have received under normal insolvency proceedings to be carried out as soon as possible after resolution tools have been applied. If it is determined that shareholders and creditors have received, in payment of their claims, less than the amount that they would have received under normal insolvency

⁸¹¹ See Arts. 44(5) of BRRD and 27(5) of the SRM Regulation.

⁸¹² See 73 of BRRD and 29(1) of the SRM Regulation.

⁸¹³ Valuation should be carried out by an independent expert at the request of the relevant supervisory or resolution authority. Broadly speaking, BRRD contemplates three types of valuation, namely, (i) first to determine whether an institution is failing or likely to fail, (ii) second when the resolution authority concludes that conditions for resolution are met in order to choose the proper resolution action and to estimate what shareholders and creditors would have received in insolvency proceedings, (iii) third (and final) *ex post* valuation after resolution to determine whether shareholders and creditors would have received better treatment if the institution had gone through insolvency proceedings. However, when an independent valuation is not possible, due to e.g. the urgency of the situation, a provisional valuation can be carried out by the resolution authority itself. See Arts. 36, 74 and 75 of BRRD.

proceedings, they should be entitled to the payment of the difference by the resolution financing arrangements. While such valuation may not be contested in a court, it may be challenged together with the resolution decision. On the other hand, the only remedy is monetary compensation as effectuated resolution actions may not be unwound. Given the above, this can be expected to be a heavily litigated issue.⁸¹⁴

As regards the bail-in conditionality for access to public funds and the resolution financing arrangements, including the SRF, BRRD and the SRM Regulation provides that these resources may only be utilized when at least 8 % of total liabilities including own funds of the institution under resolution have been bailed-in, measured against valuation as at the resolution initiation.⁸¹⁵ The other important novelty in this respect is that BRRD and the SRM Regulation provides that losses are imposed in a binding “waterfall”, reflecting claim hierarchy under insolvency laws.

Specifically, to the extent not written-down or converted prior to resolution, CET 1, AT 1 and Tier 2 instruments have to be bailed-in first, followed by other subordinated debt instruments. In practice, shareholders of an institution under resolution will in the best-case scenario be significantly diluted, but their shares will in most instances be either cancelled or transferred to converted debtholders. Senior unsecured liabilities, such as uninsured deposits are to be bailed in last.⁸¹⁶ However, given the relatively long list of liabilities excluded from bail-in, and the possibility to carve out liabilities by the resolution authorities, for the bail-in tool to fulfill its purpose, it will be essential that institutions or groups subject to this new regime have sufficient loss absorption and recapitalization capacity. In other words, institutions must issue and have outstanding sufficient amount of equity or hybrid instruments or debt so that they have sufficient “liability buffer” that could be bailed-in. For this purpose, BRRD and the SRM Regulation requires resolution authorities to set a minimum required level of loss-absorbing liabilities, the so-called MREL to be held by each institution expressed as a percentage of its

⁸¹⁴ See e.g. the currently pending *Algebris (UK) and Others v. Commission*, (Case T-570/17) where the applicants argue, *inter alia*. the valuation of Banco Popular was not fair, prudent or reliable, and was inconsistent with the ‘no creditor worse off principle’ and as such did not constitute accurate and reliable and consistent evidence on which to base the resolution scheme.

⁸¹⁵ Thus, unlike the Banking Communication, which allowed Commission’s discretion, BRRD and the SRM Regulation sets a clear burden sharing requirement, which cannot be departed from. See Arts. 44(5) of BRRD and 27(7) of the SRM Regulation.

⁸¹⁶ See Arts. 48 of BRRD and 17 of the SRM Regulation.

total liabilities and own funds.⁸¹⁷ In this respect, G-SIIs has their own loss-absorption standard with the same purpose as MREL, the so-called TLAC (or total loss absorption capacity).⁸¹⁸

Finally, unless some exceptional circumstances apply, within one month after application of the bail-in tool, management or persons appointed by the resolution authority *in lieu* thereof must submit a business reorganization plan for the recapitalized institution setting out measures to restore a long-term viability of the institution or the “surviving” part(s) of its business.⁸¹⁹

The bail-in tool is undoubtedly the cornerstone of the new post-crisis crisis management framework as it aims to put to an end the existing paradigm of “uncontrolled” bailouts by bringing in loss-absorbing equity at the time they need it most. Losses of a distressed institution must be borne out by someone, and if that someone is not to be the taxpayers, it inevitably must be persons within the institution and/or some of its counterparties. In this respect, shareholders and junior creditors seem to be a clear choice. They are economically compensated for their “lower ranking” and, in comparison with for example depositors and other senior creditors, much more capable to properly ascertain and react to an institution’s increasing risk profile or deteriorating financial health and in consequence influence management’s behavior. The possibility that their claims may be fully cancelled within hours or days when institution’s financial health starts deteriorating, can further reinforce shareholder and creditor oversight incentives. While the idea of cancelling shares and converting creditors into shareholders, thus making them pay *in lieu* of taxpayers is tempting, views are emerging that this will not be the case.⁸²⁰ It has been argued the outcome in terms of creditors’ monitoring of the bank management would not be efficient, if any at all, because of the legal design of the bail-in and specifically the protection afforded to creditors under the no creditors worse off

⁸¹⁷ Broadly speaking, MREL will consist of regulatory capital and liabilities that meet certain criteria. Importantly, where a MREL-eligible liability is governed by the laws of a third-country, resolution authorities may require the institution to demonstrate to the satisfaction of the relevant resolution authority that the bail-in tool in respect of such liabilities could be enforced, otherwise such liability should not be counted towards MREL. BRRD and the SRM Regulation tries to deal with this issue by requiring institutions to ensure contractual recognition of EU resolution actions in cases where the liability is governed by law of a third-country. In particular, terms of institution’s contracts and debt instruments must include provisions to the effect that creditors acknowledge that the liability may become subject to bail-in and agrees to be bound by any reduction of the principal or outstanding amount due, conversion or cancellation resulting therefrom. However, this could be a serious obstacle for EU banks in case their counterparties and/or regulators of such counterparties refuse to insert or recognize such clauses. See Arts. 45(4) and 55 of BRRD and 12 of the SRM Regulation.

⁸¹⁸ For more details on the loss-absorption and recapitalization instruments, see chapter 5.5.

⁸¹⁹ See Art. 52(1) through (3) of BRRD and 27(16) of the SRM Regulation.

⁸²⁰ See Martino Edoardo, *The Bail-in Beyond Unpredictability: Creditors’ Incentives and Market Discipline*, European Business Organization Law Review, May 8, 2020, [Accessed on July 15, 2020], available at: <https://link.springer.com/article/10.1007/s40804-020-00188-7>

principle which caps the bearable losses that creditors can incur under resolution. In other words, why should creditors care more if they are legally entitled to receive not less than in insolvency. In any event, even if the threat of bail-in does not instill greater market discipline, it could still protect taxpayer money.

5.3.5 Resolution Process and the Case of Banco Espírito Santo

As pointed about in the previous chapter, of the most important elements of the new crisis management framework is the burden sharing mechanism referred to as bail-in.

The “resolution” of the Portuguese lender Banco Espírito Santo, S.A. (“**BES**”) in particular highlights intricacies practical challenges of the new resolution regime, despite the fact that the new BRRD/SRM was not yet applicable. Nevertheless, the special resolution regime for banks and other financial institutions Portugal had introduced in 2012 is also based on the principle that losses of failing institution should be first and foremost borne out by its shareholders and creditors and largely mirrors the now applicable BRRD/SRM Regime.⁸²¹

While the roots of problems that got BES on the brink of failure also concerned innovation coupled with perplexed interviewed corporate structures operating across financial and nonfinancial sectors, the overarching root cause was much more mundane. In particular, the bank espoused aggressive business model focused on fast-growing asset base financed by debt. As one Portuguese business official said, “*This was 20 years of leverage compounded, from 1993 to 2014. Leverage works very well if you create value. If you don’t create value, it goes very badly so you are like Alice in Wonderland, you have to keep running to stay in the same place.*”⁸²²

Moreover, as the financial crisis in Portugal unfolded into the \$83 billion EU/IMF bailout, the shares of BES fell sharply and given the frozen capital markets, BES was not able to raise capital to meet the margin calls. At the time the problems were mounting, BES was the third largest bank in Portuguese designated by the ECB as significant and awaiting to come under its direct supervision.

In July 2014, the Bank of Portugal, the Portuguese central bank and prudential supervisor of the entire Portuguese financial system, announced losses largely above market

⁸²¹ See Decree-Law No. 31-A/2012 of 10 February 2012.

⁸²² See Miles Johnson Peter, Wise September, *Banco Espírito Santo: Family fortunes*, the Financial Times, September 11, 2014, [Accessed on November 20, 2014], available at: <https://www.ft.com/content/a63a4a56-32c0-11e4-93c6-00144feabdc0>

expectations reflecting, among other things, questionable accounting practices and related-party transactions ensuing into high exposures to entities from the Espírito Santo Financial Group.⁸²³ The announcement had severe consequences on BES financial position and in particular ensued in a substantial depletion of regulatory capital to below 5 % (i.e. 3 % below the regulatory minimum) and severe liquidity pressure from its counterparties. Moreover, BES could not accommodate these pressures through monetary policy operations since it lacked assets of adequate quality that could be accepted as collateral by the ECB.

Against this backdrop and considering the importance of BES in the Portuguese banking system and the financing of the national economy, the Bank of Portugal decided to apply a resolution measure in respect of BES.⁸²⁴ Specifically, since there was general mistrust in BES business and no willing buyer available, the Bank of Portugal decided to establish a bridge bank (called Novo Banco) to which essential parts of BES's business, including all senior liabilities and performing assets were transferred. Broadly speaking, shareholder and junior debtholders claims, non-performing assets and liabilities towards persons who run, controlled or had a significant shareholding in BES had been left in the "bad bank", which was put into liquidation. As a result, even though the applicable legal regime did not provide for the bail-in tool, BES shareholders and junior creditors were effectively bailed-in.

Novo Banco received a €4.9 billion capital injection from the Portuguese Resolution Fund, which became its single shareholder. Although the fund had been funded, SRF alike, by the Portuguese banking sector, it was created in 2012 and had thus not collected enough contributions to underwrite the almost €5 billion Novo Banco's share issue. Despite initial hesitations, Portugal that itself had just departed from an EU/IMF bailout had to step in and loan almost €4 billion to the resolution fund. Since the resolution was carried out over the weekend, it prevented a deposit run as Novo Banco opened on Monday and continued providing financial services where BES on Friday afternoon left off.

⁸²³ At the end of July 2014, BES announced losses of approx. €3.6 billion for the first half of the year, which included also approx. €1.5 billion of unexpected losses resulting from operations mainly conducted in the first half of the year and under a new management installed to address BES's deteriorating financial position. See Banco de Portugal, *Press Release of Banco de Portugal on the application of a resolution measure to Banco Espírito Santo, S.A.*, August 3, 2014, [Accessed on July 10, 2017], available at: <https://www.bportugal.pt/en/comunicado/press-release-banco-de-portugal-application-resolution-measure-banco-espirito-santo-sa>

⁸²⁴ See Banco de Portugal, *Application of a resolution measure to Banco Espírito Santo, S.A.*, August 3, 2014 [Accessed on October 17, 2017], available at: <https://www.bportugal.pt/en-US/OBancoeoEurosistema/ComunicadoseNotasdeInformacao/Pages/comb20151229-2.aspx>

Given the fact that the full contribution of shareholders and of subordinated debt holders to the losses of BES were ensured in accordance with the burden sharing rules set out in the Banking Communication and that the loan from Portugal to the resolution funds was to be primarily reimbursed by the proceeds of the Novo Banco´ sale, the Commission approved the resolution aid as compatible with state aid rules.⁸²⁵

To sum it up, Novo Banco became a fully-fledged bank with unrestricted access to capital markets and liquidity facilities of the ECB effectively ring-fenced from risks associated with contractual obligations and activities that BES had entered into or carried out.

It may seem that the actions carried out by the Portuguese authorities successfully rescued a failing bank by imposition of losses on shareholders and junior creditors while protecting the financial system and taxpayers’ money. However, one final step was necessary for its success, namely the sale of Novo Banco’s business to private investors. Without that, financial system and depositor’s money may have been saved but at a high cost. This has been rather challenging task. Even though Bank of Portugal managed to sell some assets or financial units of Novo Banco, in particular its insurance unit to Apollo Global Management LLC and its investment banking arm to China’s Haitong Securities,⁸²⁶ this is far from a triumph as these sales were rather minor successes and far from securing what regulators had to put up to bankroll the new “good bank”.

Moreover, before taking up its new powers, ECB decided to carry out a comprehensive assessment and asset quality review of the banking sector in which it found capital shortfalls of Novo Banco amounting to €1.4 billion.⁸²⁷ Therefore, to make Novo Banco alluring to investors, the Bank of Portugal decided to undertake rather a bold move and re-transferred almost €2 billion worth senior liabilities back to the “bad bank” to improve Novo Banco’s capital position.⁸²⁸ The justification of the decision is rather succinct and provides that:

⁸²⁵ See European Commission, *Press Release: State aid: Commission approves resolution aid for Portuguese Banco Espírito Santo*, August 4, 2014, [Accessed on July 10, 2017], available at: http://europa.eu/rapid/press-release_IP-14-901_en.htm

⁸²⁶ See Bugge Axel, *Portugal's Novo Banco completes BES sale to China's Haitong*, the Reuters, September 7, 2015, [Accessed on December 10, 2017], available at: <http://www.reuters.com/article/novobanco-haitong/update-1-portugals-novo-banco-completes-besi-sale-to-chinas-haitong-idUSL5N11D32720150907>

⁸²⁷ See Wise Peter, *Portugal's Novo Banco told to fill €1.4bn capital shortfall*, the Financial Times, November 15, 2015, [Accessed on July 10, 2017], available at: <https://www.ft.com/content/2cfa3f1e-8b95-11e5-8be4-3506bf20cc2b>

⁸²⁸ See Banco de Portugal, *Application of a resolution measure to Banco Espírito Santo, S.A.*, December 29, 2015 [Accessed on October 20, 2017], available at: <https://www.bportugal.pt/en-US/OBancoeoEurosistema/ComunicadoseNotasdeInformacao/Pages/comb20151229-2.aspx>

“The selection by Banco de Portugal of the bonds transferred back to BES was based on grounds of public interest and aimed to safeguard financial stability and ensure compliance with the purposes of the resolution measure applied to BES.”⁸²⁹

While the reasoning emphasizes public interest and financial stability, it does not shed much light on the cherry-picking process carried out by the Bank of Portugal, although it also implied that the aim was to ensure that the costs associated with the “clean off” of Novo Banco were not borne out by the taxpayers. In other words, if the Bank of Portugal had not decided to do it, it might not have been able to sell Novo Banco and the losses ensuing from the valuation adjustments would have been borne out by the resolution fund and ultimately by the Portuguese taxpayers.

At the first glance, the decision seemed to be capable of attaining the very goal Bank of Portugal was aiming at as it resumed the Novo Banco sale process interrupted in 2015. However, it has since struggled to woo any investors that would be willing to pay amount sufficient to set-off the costs associated with the rescue. It was in part due to the swarm of lawsuits from international investors propelled by the re-transfer of Novo Banco bonds.⁸³⁰ In particular, investors are claiming that the re-transfer of just five out of total 52 unsecured senior bonds breached the *pari passu* principle of equal treatment, a cornerstone of international debt issuances and an internal part of the new BRRD/SRM Regime.

At the same time, however, it is not impossible to “discriminate” among creditors, but it just has to be justified by legitimate reasons. Concerning the reported reasons for singling out these five bonds, the Bank of Portugal mentioned that these five were issued under Portuguese law and mostly held by retail investors. That, however, does not seem to be a very sophisticated legal explanation but more a political one.

First it is not clear why retail investors should be afforded better treatment than institutional ones in case they bought the same debt instrument. By the same token, the mere fact that some bonds were issued under Portuguese law is not a legitimate reason for different treatment, although could help the Bank of Portugal to avoid having to deal with foreign legal proceedings. In any case and even if the re-transfer did not unfairly discriminate between Novo Banco’s creditors, it definitely did not help to finish the Novo Banco’s sale process. As a result,

⁸²⁹ See Banco de Portugal, *Banco de Portugal approves decisions that complete the resolution*, December 29, 2015 [Accessed on October 20, 2017], available at: <https://www.bportugal.pt/./OBancoeoEurosistema/./combp2015>

⁸³⁰ See Simon Jessop, Andrei Khalip, *Fund firms sue Portugal's central bank over Novo Banco debt*, the Reuters, September 7, 2015, [Accessed on December 10, 2017], available at: <http://www.reuters.com/article/funds-lawsuit-novo-banco/fund-firms-sue-portugals-central-bank-over-novo-banco-debt-idUSL5N1781TN>.

the maximum two-year statutory period for which Novo Banco (or any other bridge bank) could be established had to be renewed several times.

The Bank of Portugal launched an auction process in January 2017, but only one bidder with a symptomatic name, i.e. Lone Star, a US based private equity firm, was willing to go forward without an explicit state guarantee. Under the final agreement signed in October 2017, the resolution fund agreed to sell a 75 % stake in exchange for a €1 billion of capital injection into Novo Banco. Furthermore, the resolution fund agreed to put up any outstanding amount if Novo Banco fails to raise €400m in Tier 2 capital, a condition to the takeover.⁸³¹ While the sale eventually went through despite the attempts to block it by the bailed-in bondholders led by US hedge funds Pimco and Blackrock, the Novo Banco still faces a number of significant lawsuits relating to its resolution.⁸³²

Even though the process was not carried out in accordance with the BRRD it was handled in accordance with the very principles and objectives that are intrinsic to the new regime. The resolution of BES and the subsequent process provides important lessons. First, even when resolution is carried out over the weekend, the subsequent processes, especially a sale of the “good bank”, or its assets could take years and ensue in protracted litigation. Second, valuation of an institution under resolution and its assets will be crucial to ensure that the new “good bank” does not have to be liquidated itself. Also, despite the clear command to treat creditors equally, it will be extremely hard to ensure in practice and some creditors will most likely be more equal than others. There will also likely be the tendency to protect retain or other “unsophisticated” creditors, given the political ramifications associated with bailing them in. However, any departure from the equal treatment of creditors should be thoroughly substantiated, in any event much more thoroughly than in the presented case, especially given the sweeping discretion of regulators and the very intrusive nature of resolution actions. Courts should draw clear lines in this respect to ensure that stressing “higher good” and public interest does not suffice. Finally, resolution actions and especially discriminating against creditors can be detrimental to business but also individual Member States trying to attain new investments or issue debt in the international capital markets.

⁸³¹ See Wise Peter, Lone Star seals deal for stake in rescued Novo Banco after three-year process, November 15, 2017, [Accessed on December 10, 2017], available at: <https://www.ft.com/content/55eb0869-3f89-387b-9e06-9cbd78ffa99a>

⁸³² See Wise Peter, Hale Thomas, *Asset managers to seek injunction to block sale of Portugal's Novo Banco*, April 3, 2017, [Accessed on December 10, 2017], available at: <https://www.ft.com/content/0cee46b5-57a1-33cb-a98e-fe7289e296d9> and Novo Banco S.A. 2019 Annual Report, available at: https://www.novobanco.pt/site/cms.aspx?labelid=ar_nb

5.4 Addressing Moral Hazard with New Forms of Debt

Governments all around the world used taxpayers' money to rescue banks and financial institutions deemed to be too big to fail. While these actions might have been successful in preventing collapse of the global financial system, they reinforced moral hazard, one of the most excruciating pains of the financial sector, banking in particular. As long as some banks or financial institutions remains to be perceived as too big to fail given their size or role in the financial sector, the temptations to "freeride" at the expense of taxpayers cannot be properly addressed. This is why the new crisis management (resolution) framework has been established. However, the new framework is only one part of the equation, while the other of the same or even greater importance is to ensure that banks and other institutions have adequate internal financial resources and structure their capital and liabilities in a way that does not undermine feasibility and operability of the new framework. In particular, to make bank resolution effective and credible, new forms of capital, hybrid and debt instruments were introduced to force shareholders and creditors to internalize the burden of bank failure, thus minimizing moral hazard and risks to taxpayers.

Even though hybrid capital instruments had been known and issued before the 2007-8 crisis, the crisis brought about major changes to their structuring and made their issuances more rampant. In particular, in December 2010, the Basel Committee on Banking Supervision put out the so-called Basel III framework providing for a comprehensive overhaul of rules relating to, among other things, bank capital and laying down conditions under which CoCos could be counted towards regulatory capital. The new framework is a direct result of the recent financial crisis, and an effort to address weaknesses of its predecessors.

In particular, the 1974 turmoil in international and currency banking markets market the beginning of the "Basel Accords" era and led to adoption of the 1975 Basel Concordat, which laid out basic principles for cooperation in the area of cross-border banking supervision and most notably the today well-embraced principle of supervision of "home" authorities of bank branches operating across its home borders. The 1975 Concordat has since been "revised" several times, usually as a response to some form crisis. Specifically, the first Basel Accord was a reaction to the Latin American debt crisis of 1980' with the aim of removing the differences in national standards as regards definition of capital, weighted approach to measurement of risk and a minimum ratio of bank capital to its risk-weighted assets.⁸³³ The calculation of capital adequacy according to riskiness of assets and in particular the automatic

⁸³³ See Basel Committee on Banking Supervision, *International Convergence of Capital Measurement and Capital Standards*, Basel, July 1988, [Accessed on December 10, 2015], available at: <https://www.bis.org/publ/bcbs04a.pdf>

zero-risk weight of sovereign exposures has since been subject to ongoing debates and critique. Despite the criticism, Basel Accords had soon become the cornerstone of international banking regulation, and capital requirements the primary regulatory tool and concern. On the other hand, diverging criticism also started emerging. On the one hand, one group argued that the Basel regulatory set-up was not enough to maintain sound banking and pushed for stricter rules. On the other hand, others argued that increasing capital requirements created incentives for banks to engage in regulatory arbitrage and pushed credit intermediation outside commercial banking into a new parallel and unregulated shadow banking industry. In the United States alone it had grown to approx. \$21 trillion between the first Basel and the financial 2007-8 crisis.⁸³⁴ Basel II adopted in 2004 and implemented in early 2008 echoed the first group. The Basel “evolution” evidences the changes banking regulation has undergone in the last forty years. The difference in length of these accords is striking as the 1975 Concordat had only four pages while Basel III is leaning towards two hundred, which is moreover just “amendment” to Basel II which has over two hundred pages itself, not to mention that the accords set out principles implementation of which into legal acts represents additional hundreds of pages in new rules and literally thousands other in technical standards and implementing guidelines. While the third Basel recognizes some of the lessons from the recent financial crisis, most notably the fact that sufficient level of capital is not panacea and even well-capitalized firms can experience severe distress if their liquidity is not managed prudently, the strong focus on bank regulatory capital and tendency to increase capital requirements remains intact.

In the EU, the new capital rules provided for in the third Basel accord are implemented through CRR/CRD IV adopted in 2013. The new rules were soon embraced by the market participants and in the same year in which the new rules were adopted, the Spanish lender BBVA issued the first CRR compliant CoCos.⁸³⁵ Since then, the market for CoCos has been steadily growing and recently crossed a €200 billion threshold globally.⁸³⁶ Moreover, the market for CoCos can be expected to grow further especially since implementation of the MREL and

⁸³⁴ See Tresor Economics May 2013, *The Shadow Banking System in the United States: Recent Developments and Economic Role*, [Accessed on September 20, 2015], available at: <https://www.tresor.economie.gouv.fr/Ressources/File/388661>

⁸³⁵ It was an issue of \$1.5 billion AT1 bonds with 9 % coupon with multiple issuer based (accounting) loss-absorption triggers. See Jan De Spiegeleer, Wim Schoutens, Cynthia Van Hulle, *Handbook of Hybrid Securities: Convertible Bonds, CoCo Bonds, and Bail-In*, Wiley, 1st edition, May 19, 2014. ISBN: 978-1-118-45002-4, at p. 308.

⁸³⁶ The \$200 billion represents aggregate face value of CoCos issued. Also, EBA reviewed in total 56 issuances of CoCos issued by EU bank for a total amount of almost €45 billion between 2015 and 2018. See Alice Gledhill, *Quick Take: Contingent Convertibles*, Bloomberg, August 12, 2020, [Accessed on September 1, 2020], available at: <https://www.bloomberg.com/quicktake/contingent-convertible-bonds>

TLAC requirements, which will force banks to issue more of them, are contemplated to be fully phased-in by 2023.⁸³⁷

5.4.1 Contingent Convertibles or “CoCos” in EU Law

One of the new forms of innovative hybrid debt-capital instruments are contingent convertible bonds, often colloquially referred to as “CoCos”. CoCos are said to protect financial stability by either absorbing losses or converting into equity and recapitalizing an institution in times of crisis when raising fresh capital may prove to be difficult or impossible. It is also argued that CoCos address the moral hazard issue by aligning risk-taking with responsibility by providing an additional layer of capital that could absorb losses and thus serve as a “voluntary” tool for an institution’s internal recapitalization. In other words, negative consequences of risky activities will be borne out by institutions’ insiders and/or investors who are rewarded for it during the good times. This is achieved by specific contractual provisions governing CoCos, which provide for their automatic conversion into shares or a write-down of their principal if a predetermined crisis scenario occurs. Thus, CoCos enables automatic recapitalization of the institution concerned in times when its financial health starts deteriorating. Whether this is the case will center around their design and main features.

In EU law, CoCos have the form of AT1 instruments, the design of which must observe conditions provided for in CRR if institutions want to use them to fulfill regulatory capital requirements. Specifically, CRR envisions that the trigger event for their conversion or write-down occurs when a bank’s CET1 capital ratio falls below 5.125 % or a higher level where specified by governing terms of such instruments.⁸³⁸ In addition to the CET1 mandatory trigger, institutions may specify other trigger events. These may broadly speaking be issuer-based, such as generation of losses, or market-based, such as widening spreads on CDS or credit ratings downgrades. This contractual conversion or write-down of AT1 instruments should, however, be distinguished from the statutory power of resolution authorities to write-down or convert capital instruments and the bail-in tool provided for in BRRD and the SRM Regulation, although there are similarities.

In particular, the contractual conversion or write-down of AT1 instruments should take place ahead of the statutory write-down or conversion of capital instruments since the latter discretionary power of resolution authorities can be exercised only if the institution concerned

⁸³⁷ For details, see chapter 5.5.2.

⁸³⁸ See Art. 54(1) of CRR.

reached the point of non-viability (e.g. when it no longer fulfills conditions for authorization). In this respect, the statutory power may be exercised even if no contractually predetermined trigger event occurred, though if the CET1 trigger is set at high enough level, it will most likely happen after contractual conversion or write-down of AT1 instruments took place, but the institution concerned nevertheless reaches the point of non-viability. At the same time, the scope of the statutory power is broader as it may concern write-down or conversion of both AT1 and Tier 2 instruments. Finally, the bail-in tool is applied only after contractual and statutory write-down and conversion has been fully utilized and concern write-down and conversion of other subordinated and unsubordinated liabilities.

In sum, CoCos serve as an automatic early recapitalization tool aiming to preserve a going-concern state and viability of an institution when its financial position starts deteriorating, while statutory write-down and/or conversion of capital instruments is a discretionary power of resolution authorities to either ensure institution's return to viability or a precondition to use bail-in when institution may no longer be preserved as a going-concern.

CRR provides for a long list of requirements equity and debt instruments must fulfil in order to constitute AT1 instruments and for institutions to count them towards regulatory capital. These requirements relates primarily to who may be their purchaser, their subordination and perpetual status, and the possibility to make distributions to their holders.

First, CRR compliant AT1 instruments must be fully paid-up and their purchase may not be in any form directly or indirectly financed the issuing institution. Accordingly, they may not be purchased by either the institution, its subsidiaries or affiliates.⁸³⁹ In essence this rule is an outright prohibition of financial assistance, which is now generally allowed under general corporate law, provided the so-called white-wash is carried out.

A novelty brought about by the third Basel Accord is the so-called layered subordination, which provides for a sequenced hierarchy of claims during both going and the gone concern. Specifically, it stresses that CET1 capital is more subordinated than AT1 capital, which is in turn subordinated to Tier 2 capital. In respect of CET1 instruments, CRR stresses that the instruments rank below all other claims in the event of insolvency or liquidation of an institution.⁸⁴⁰ By mentioning only insolvency and liquidation, CRR, however, does not address the fact that subordination may also be exhibited in the order in which distributions are being made on the respective type of capital instrument. AT1 instruments are "next in line" and as

⁸³⁹ See Art. 52(1) of CRR.

⁸⁴⁰ See Art. 28(1)(j) of CRR.

such may not be subject to any arrangement (contractual or otherwise) that enhances their seniority in insolvency or liquidation.⁸⁴¹ Even though the subordinated nature of claims under AT1 instruments is expressly mentioned only for the gone concern scenario of an institution, other provisions of CRR, namely the provisions stressing that any distribution thereon may be made only out of distribute items (e.g. profit), implicitly confirm that AT1 instruments are junior to Tier 2 instruments and all other unsecured creditors at all times. Moreover, the going-concern subordination of AT1 instruments can also be evidenced by the requirement of institutions to have access to cancelled payments on AT1 instruments to meet their obligations in respect of other (less subordinate) creditors.⁸⁴² On the other hand, the subordination hierarchy may not always be as straightforward as one would expect, especially in the going-concern scenario. For example, if a CET1 trigger for principal write-down of AT1 instruments were to be set at high enough level, AT1 holders would suffer losses ahead of equity (common share) holders. Moreover, given the required absence of dividend pushers and stoppers, the coupons on AT1 instruments can be cancelled even if dividends to common and preferred equity holders are paid out.⁸⁴³ Finally, the layered subordination is cemented by the prohibition in any manner to enhance the seniority of claims under each of CET1, AT1 or T2 instruments.

Another important equity-like feature of CoCos is that they have no maturity to be available to the institution at all times for loss-absorption purposes. Accordingly, CRR requires AT1 instruments to be issued with no maturity and does not allow their redemption, save for exceptional circumstances and only with the prior approval of the respective supervisory authority. According to CRR, supervisory authorities shall grant permission for redemption of CET1, AT1 or T2 instruments only if it replaces the redeemed instruments with capital instruments of equal or higher quality at terms that are sustainable for its income capacity or demonstrates that its capital would, following the redemption exceed the minimum requirement by a margin necessary to capture risks to which the institution is or might be exposed.⁸⁴⁴ Moreover, the repurchase or redemption may not be carried out earlier than five years after

⁸⁴¹ See Art. 52 (1)(d)(f) of CRR.

⁸⁴² See Art. 52(1)(l) of CRR.

⁸⁴³ Dividend stoppers prevent an issuer from making a dividend payment on its common/preferred shares if a coupon is not paid on CoCos. To the contrary, dividend pushers requires the issuer to make a coupon payment every time a dividend payment is made to common/preferred shareholders. For more on the dividend pushers and stoppers, see also Basel Committee on Banking Supervision, *Basel III definition of capital -Frequently asked questions*, September 2017, [Accessed on October 5, 2018], available at: <https://www.bis.org/bcbs/publ/d417.pdf>

⁸⁴⁴ Sustainable for the income capacity means that the profitability of the institution continues to be sound and will not be negatively affected in the foreseeable future. See Article 78(1) of CRR and Art. 27 of Commission Delegated Regulation (EU) No 241/2014 of 7 January 2014 supplementing Regulation (EU) No 575/2013 of the European Parliament and of the Council with regard to regulatory technical standards for Own Funds requirements for institution.

their issue unless there is, *inter alia*, change in their regulatory or tax classification, which in both cases was not reasonably foreseeable at the time of their issue.⁸⁴⁵ Additionally, even though the provisions governing AT1 instruments may include one or more call options, it must be ensured that the option may be exercised at the sole discretion of the institution (and not of the bondholders), and the terms governing the instruments does not contain neither language suggesting their redemption in the future nor any incentives to do so. In this respect, the Commission provided some guidance on what an incentive to redeem might look like.⁸⁴⁶ In general, the incentives to redeem is any feature that creates an expectation that the capital instrument is likely to be redeemed. More specifically, it would concern any call option combined with some form of negative consequences in case it is not exercised, such as coupon increase or mandatory conversion at the option of the investor. Similarly, no step-up clauses will be allowed.⁸⁴⁷

Regarding coupon payments on CoCos, these are in general discretionary and subject to similar rules regarding profit distributions on common and preferred shares. In this respect, terms of AT1 instruments may not provide for coupon increase or any other additional payout as a “penalty” for deteriorating financial position of the issuer, or in case of a missed payment. The issuer must have full discretion to cancel coupon payments so that the deferred funds are available for payouts to its senior creditors.⁸⁴⁸ Accordingly, the cancellation must not result in imposition of any restriction of the institution, including restriction on dividend distribution, cross-default or acceleration of any other obligation of the issuer.

Finally, CRR also contains a catch-all provision stipulating that the terms governing the instruments shall include no feature that could hinder an institution’s recapitalization.⁸⁴⁹ In this respect, the loss-absorption capacity, although arguably the most significant feature of CoCos,

⁸⁴⁵ See Article 78(4) of CRR.

⁸⁴⁶ See Art. 20 *et seq.* of the Commission Delegated Regulation (EU) No 241/2014 of 7 January 2014 supplementing Regulation (EU) No 575/2013 of the European Parliament and of the Council with regard to regulatory technical standards for Own Funds requirements for institutions.

⁸⁴⁷ Some market participants seem to have found a way of increasing coupon on outstanding AT1 instruments. Namely, AT1 notes issued by Deutsche Bank in 2014 contained a 6 % fixed rate coupon, which would be reset on the fifth anniversary of the issue to a new fixed rate calculated as a pre-determined swap rate and credit spread. It was successfully argued that this mechanism constitutes neither a fixed-to-floating rate change (which is deemed to be an incentive to redeem) nor a step-up clause as investors would not be able to determine the direction in which the coupon rate will be moving. See Kamil Liberadzki, Marcin Liberadzki. *Hybrid Securities: Structuring, Pricing and Risk Assessment*, Palgrave Macmillan Publishing, 1st edition, 2016, ISBN: 9781137589705, at p. 224 and Deutsche Bank, Investor Relations, [Accessed on May 5, 2018], available at: https://www.db.com/ir/en/download/DB_ISIN_DE000DB7XHP3_and_ISIN_XS1071551474.pdf

⁸⁴⁸ Therefore, the cancelled payment may not be substituted by a payment in any other form. See Art. 53(c) of CRR.

⁸⁴⁹ See Art. 52(1)(o) of CRR.

is not provided for in CRR as a separate category. On the other hand, most of the above outlined features of AT1 instruments are designed to ensure their loss-absorption capacity and the catch-all provision affords flexibility to supervisory authorities. Unfortunately, the technical standards implementing this provision provide only one example of features that could hinder the recapitalization, namely a provision that requires the institution to compensate existing holders of capital instruments where a new capital instrument is issued.⁸⁵⁰

5.4.2 Other Forms of Loss-absorbing Debt at EU and International Level

While Contingent convertibles or CoCos, are thought to be the first and “voluntary” line of defense in times of a looming crisis, it is not the only one. The relatively high equity trigger of CoCos under EU law should ensure that conversion or write-down takes place sufficiently early when an institution can be recapitalized on a going-concern basis without having to cease any of its activities. In case conversion or write-down of CoCos does not suffice to ensure institution’s viability, resolution authorities were equipped with new discretionary statutory powers that should ensure either institution’s return to viability, or its orderly resolution by ensuring continuity of its critical functions without recourse to public funds. Write-down or conversion of capital instruments and bail-in of subordinated and senior creditors are the tools serve for these purposes. In order for these tools to fulfil their purpose, BRRD introduced the minimum requirement for own funds and liabilities, or MREL, a new loss-absorption buffer, set by resolution authorities as a percentage of total liabilities and own funds in respect of each individual institution. Broadly speaking, the MREL concept mirrors the total loss-absorbing capacity, or TLAC concept introduced by the Financial Stability Board in 2015.

Both MREL and TLAC were developed with the same objectives and are built on the same principles, most notably that institutions should maintain at all times sufficient loss-absorption and recapitalization capacity. On the other hand, there are notable differences, which will be highlighted, among other things in the following paragraphs.

⁸⁵⁰ See Art. 23 of the Commission Delegated Regulation (EU) No 241/2014 of 7 January 2014 supplementing Regulation (EU) No 575/2013 of the European Parliament and of the Council with regard to regulatory technical standards for Own Funds requirements for institutions.

5.4.2.1 Minimum Requirement for Own Funds and Eligible Liabilities

Similarly to CRR in respect of AT1 instruments, BRRD sets a relatively long list of requirements for MREL-eligible liabilities to ensure that their conversion and/or write-down can be carried out with minimum legal and operational risks. Broadly speaking, institutions can count towards MREL only equity or debt instruments issued and fully paid-up with a remaining maturity of more than one year, which are not owed to, or financed, secured or guaranteed by, the institutions themselves. Also, liabilities relating to derivatives or arising from deposits with some form of preferential status in the insolvency hierarchy are MREL-illegible. Finally, liabilities governed by the law of a non-EU country will in most cases require inclusion of contractual recognition clauses in order to be accepted as MREL.⁸⁵¹ Broadly speaking, the same instruments as counted towards satisfaction of the minimum capital requirements, i.e. CET1, AT1 or Tier 2 instruments could be used to satisfy MREL.

While there are unified rules regarding the types of capital and debt instrument that may be counted towards MREL, BRRD does not provide for a harmonized common MREL institutions should maintain, as for example is the case with capital requirements. Instead, the level of MREL is set on a case-by-case basis by resolution authorities in respect of individual institutions while taking into account their resolvability and capital adequacy, systemic importance, risk profile, business and funding model and overall resolvability.⁸⁵² The level of MREL is therefore also a key component of resolution plans.

Specifically, when deciding on the amount of MREL in respect of individual institutions, resolution authorities will follow a formula developed by EBA and the Commission, which specifies that MREL is made up of two components, namely

- (i) a **loss-absorbing amount**; and
- (ii) a **recapitalization amount**.⁸⁵³

The first of the two components should reflect the losses that the institutions will incur in resolution and be set high enough to absorb them. As a baseline scenario, the loss-absorbing amount should equal to the amount of regulatory capital requirements (both pillar 1 and pillar 2) and capital buffers applicable to individual institutions as these should be set at a

⁸⁵¹ See Art. 45(4) of BRRD.

⁸⁵² See Art. 45(5) of BRRD.

⁸⁵³ See Commission Delegated Regulation (EU) 2016/1450 of 23 May 2016 supplementing Directive 2014/59/EU of the European Parliament and of the Council with regard to regulatory technical standards specifying the criteria relating to the methodology for setting the minimum requirement for own funds and eligible liabilities (C/2016/2976).

level to absorb unexpected losses of a given institution.⁸⁵⁴ However, resolution authorities, in consultation with supervisory authorities responsible for setting the prudential capital requirements, have the discretion to decide that some components of capital requirements are not suitable for inclusion and adjust the loss absorbing amount both upwards and downwards, taking into account results of SREP.⁸⁵⁵

The second element of MREL can further be broken down into two components. The first should ensure that the institution meets the conditions for authorization after the preferred resolution strategy detailed in the resolution plan has been implemented, while the second is to secure sufficient market confidence in the institution emerging from resolution. Practically, this means that an institution, immediately after resolution, would have to comply, at a minimum, with the 8 % total capital ratio requirement and any pillar 2 capital requirement that the authorities have set, including capital buffers. The resolution authority may, however, decide that some components of capital requirements, such as capital buffers, would not be applicable in the aftermath of resolution. This will most likely be measured against capital levels of the institution's peers, which should also ensure sufficient market confidence. In this respect, the recapitalization amount will only apply to those institutions for which liquidation under normal insolvency processes is assessed not to be feasible and credible.

5.4.2.2 Total Loss-Absorbing Capacity

TLAC is an international standard developed by the Financial Stability Board in consultation with the Basel Committee on Banking Supervision in 2015 with the aim of reducing both the probability and impact of failure of global systemically important banks (“**G-SIBs**”). Analogously to MREL, the TLAC standard is to ensure that if a G-SIB fails, it has sufficient loss-absorbing and recapitalization capacity available to implement an orderly resolution that minimizes impacts on financial stability, ensures the continuity of critical functions, and avoids exposing public funds to loss. For this purpose, the TLAC standard defines a minimum requirement for the instruments and liabilities that should be readily available for bail-in within resolution at G-SIBs.⁸⁵⁶

⁸⁵⁴ Specifically, the combined capital buffer as the sum of the capital conservation buffer, the countercyclical capital buffer, the systemic risk buffer and the capital buffer for other systemically important institutions. See Art. 128 *et seq.* of CRD IV.

⁸⁵⁵ The calculation has to also take into account whether the resolution plan envisages exclusion of some liabilities or classes of liabilities, which will not be able to contribute to the absorption of losses or recapitalization. If this contingency is envisaged in the resolution plan, the MREL needs to be increased accordingly. See Art. 44 of BRRD.

⁸⁵⁶ See, Financial Stability Board, *Total Loss-Absorbing Capacity (TLAC) Principles and Term Sheet*, November, 9, 2015, [Accessed on May 10, 2016], available at: <https://www.fsb.org/2015/11/total-loss-absorbing-capacity-tlac-principles-and-term-sheet/>

Despite the same purpose, there are, however, significant divergences. Specifically, the BRRD MREL requirement applies to banks and investment firms and other entities covered by BRRD, while the TLAC requirement covers only G-SIBs. On the other hand TLAC represents a common minimum (pillar 1) amount applicable to all G-SIBs, regardless of their risk profile or business model and must be at least 18 % of the resolution group's RWAs and 6.75% of the newly introduced Basel III leverage ratio exposure. An additional, discretionary, pillar 2 requirement may be set on a bank-by-bank basis. Also, Basel III capital buffers must be met on top of the TLAC requirement. In contrast, MREL is set on a case-by-case basis as a percentage of own funds and total liabilities and includes capital buffers. MREL also does not differentiate between pillar 1 and pillar 2 requirements and does not include a common minimum requirement.

Regarding eligibility of instruments, TLAC eligible instruments must be subordinated to and exclude operational liabilities and all other liabilities that cannot be written down or converted into equity by the relevant resolution authority to avoid the risk of breaching the no creditor worse off principle. BRRD, however, does not require mandatory subordination of MREL liabilities and allows bail-in exclusion of certain liabilities on an *ad hoc* basis.

Importantly, the TLAC concept distinguishes between an external and internal TLAC requirement, depending on whether instruments are issued to external investors or to entities within a group. Simplifying somewhat, external TLAC will be issued to investors by a predetermined "resolution entity" within a group (most often a parent company, an intermediate or ultimate holding company), which will be subject to resolution and act as a source of loss-absorbing capacity for its material sub-group (a group of subsidiaries outside the resolution entity's jurisdiction that are not resolution entities themselves). To ensure that external TLAC absorbs losses, eligible instruments must be subordinated (contractually, statutorily or structurally) to liabilities on the balance sheet of the resolution entity that will not be subject to bail-in. In contrast, internal TLAC refers to loss-absorbing capacity that resolution entities issue to their material sub-groups. Each material sub-group must maintain internal TLAC of 75% to 90% of the external TLAC requirement that would apply to the material sub-group if it were a group subject to resolution.

The Commission's recently introduced Banking Package introduces the TLAC standard into EU law. To prevent complexities due to a potentially parallel application of MREL and TLAC, which have the same aim, the newly introduced regime will merge them, by incorporating the TLAC standard into the currently applicable MREL regime to create a single framework as at 28 December 2020.

In line with the TLAC regime developed by the Financial Stability Board, the new framework introduces the concepts of “resolution entity” and “resolution group”, that is an entity to which resolution actions could be applied, or a resolution entity together with subsidiaries that belong to it, respectively. In this respect, the new regime continues to recognize both the SPE resolution strategy and the MPE resolution strategy. Under the SPE resolution strategy, only one group entity, usually the ultimate parent undertaking, will be resolved, whereas other group entities, usually operating subsidiaries, will not be put under resolution, but their losses will be up streamed to the entity to be resolved so that they can continue providing critical services. Under the MPE resolution strategy, more than one group entity might be resolved. Resolution entities will have to issue external TLAC/MREL to external investors. Specifically, resolution entities that are part of EU G-SIIs will have to maintain external (pillar 1) TLAC/MREL equivalent to the greater of 18% RWAs and 6.75 % of the Basel III leverage ratio exposure as of 2022.⁸⁵⁷ At the same time, internal TLAC/MREL will have to be allocated by non-EU G-SIIs to material non-resolution subsidiaries located in the EU so that they could upstream their losses without the need to be placed in resolution themselves.⁸⁵⁸ Generally speaking, the revised EU regime for both G-SIIs and non-G-SIIs will be much more aligned with the loss-absorption and recapitalization concept developed by the Financial Stability Board.

5.4.3 The Good and the Bad about Convertible Capital

CoCos are a direct result of the recent financial crisis and while banks and other institutions issue CoCos primarily to meet the demand of regulators for going-concern recapitalization capacity, they benefit from them too. First, the tax deductibility of coupon payments, and the discretion not to pay coupon at all, make the instruments cheaper than common and preferred shares. The value of CoCos is also disregarded for the purposes of balance sheet insolvency determination under national laws. At the same time, they are more attractive than the run-of-the-mill debt instruments, which require regular interest payments and repayment of which may be subject to cross-default and acceleration clauses.⁸⁵⁹ In addition, they are said to incentivize their holders to engage in management risk monitoring to

⁸⁵⁷ Also, to align denominators that measure the loss-absorbing and recapitalization capacity of institutions and entities with those provided for in the TLAC standard, the MREL will be expressed as a percentage of the total risk exposure amount and of the total exposure measure of the relevant institution or entity.

⁸⁵⁸ For details of the revised régime see Directive of the European Parliament and of the Council amending Directive 2014/59/EU as regards the loss-absorbing and recapitalization capacity of credit institutions and investment firms and Directive 98/26/EC and Regulation of the European Parliament and of the Council amending Regulation (EU) No 806/2014 as regards the loss-absorbing and recapitalization capacity of credit institutions and investment firms.

⁸⁵⁹ See Art. 52(1)(m) of CRR.

avoid CoCos being triggered. Finally, investors will like them too despite the less-favorable terms since they in most cases provide much higher coupons, at least in comparison with other debt instruments. All in all, taxpayers financed bailouts can be avoided and all involved parties seem to be better off.

So, what is not to like about them?

One stream of criticism is based on the argument that hybrid securities such as contingent convertibles are complex in design and hard to value. Moreover, write-down and conversion mechanisms may place extraordinary demands on regulators in crisis situations and present many implementation issues. As a result, some of the opponents see no compelling rationale for introducing CoCos as “substitutes” for equity in capital regulation, when simple equity will provide a more reliable cushion without the need for an *ex post* trigger, which could furthermore leave a room manipulation. In addition, plain vanilla capital does not distort lending due to the debt overhang problem and has a well-established liquid market.⁸⁶⁰ The same opponents also refute the industry arguments that high capital levels raise costs, which in turn translates into a decline in lending activity. In particular, the industry arguments are seen as incorrect due to, *inter alia*, confusion between private costs to banks and their shareholders rather than social costs to the public. Social costs associated with higher capital requirements, that is the downsides to taxpayers and creditors, are very small, if any.⁸⁶¹

While these concerns can be seen as generally valid, their relevance will be greatly depended by a structure and features of a particular instrument. First, while the European regulatory landscape is becoming increasingly complex, the design of AT1 instruments, the true sense “CoCos”, and specifically, the automatic trigger seems to be rather straightforward and free of potential implementation issues. On the other hand, the possibility to write-down and/or convert AT1 instruments into common shares pursuant to CRR it is only the first “line of defense”, and the write-down and/or conversion of capital instruments and senior debt contemplated by BRRD is based on discretionary powers of resolution authorities. However, both the automatic and discretionary triggers have cons and pros, so their combination seems to be a sensible middle ground. In particular, the automatic conversion trigger, while more transparent, runs the risk of being pulled too early and may give the false impression that the issuer is having difficulties. Consequently, even nearing the trigger point may spur a broad

⁸⁶⁰ See Admati Anat, DeMarzo Peter, Hellwig Martin, Pflleiderer Paul, *Fallacies, Irrelevant Facts, and Myths in the Discussion of Capital Regulation: Why Bank Equity is Not Socially Expensive*, Stanford Graduate School of Business, Working Paper No. 2065, October 22, 2013, at p. 44 *et seq.*, [Accessed on September 1, 2015], available at: <https://www.gsb.stanford.edu/faculty-research/working-papers/fallacies-irrelevant-facts-myths-discussion-capital-regulation-why>

⁸⁶¹ See *Id.* at p. 19 *et seq.*

sell-off and become a “self-fulfilling prophecy”. On the other hand, relying entirely upon discretionary triggers does not seem to be optimal either as regulators may be tempted to wait too long due to concerns it may have on the institution concerned or the overall financial sector, especially in times of financial stress. This concern may be even more pertinent in Europe where the use of such powers requires a failing or likely to fail determination by authorities tasked with micro-prudential supervision.

On the other hand, one reprimand could be directed towards the fact that almost all past CRR compliant issuances have chosen principal write-down as their loss-absorption mechanism, though this is not a fault of the regulatory set-up as CRR provides for both write-down and conversion loss-absorption mechanisms.⁸⁶² Specifically, the possibility of AT1 write-downs will not incentivize shareholders to monitor management’s risk taking activities since the potential losses would be borne out by AT1 investors. Consequently, the additional buffer of AT1 loss-absorption capacity could weaken management monitoring by shareholders and make them more indifferent since they would reap benefits of the risk taking in the form of dividends, while potential losses would be felt by AT1 investors in the form of either coupon cancellation, or principal write-down of their investment. In contrast, the equity conversion mechanism and the threat of dilution of shareholders’ investments could incentivize shareholders to exert pressure over the management not to take disproportionate risks. In particular, a highly dilutive conversion rate provided for in terms of AT1 instruments could serve as a private sector alternative, or more likely a supplement to, regulatory oversight.

In respect of issuing equity as an alternative, “private” costs associated with higher capital requirements, should not be entirely left out of public policy considerations, especially not in Europe, where negative interest rates, new regulations and sluggish economy is a major threat to bank profitability in the region. In particular, a preliminary assessment of impact of the full implementation of the latest (fourth) Basel reform package carried out by EBA shows that, under conservative assumptions, European banks would face a capital shortfall of approx. €135 billion (€91.1 billion in terms of CET1).⁸⁶³ This is moreover in situation where US banks

⁸⁶² While the first CoCos issued by the Lloyds Bank in 2009 had an equity conversion feature, almost all Cocos issued thereafter maintained a write-down feature. See *Contingent Convertible Bonds (Cocos) Issued by European Banks*, Norges bank 2014, ISSN 1504-2596, at p. 11., available at https://www.norges-bank.no/contentassets/7e3b516fc71a4f0aad2d4fd471d2282e/staff_memo_19_2014.pdf and European Banking Authority, *Report on the Monitoring of Additional Tier 1 (AT1) Instruments of European Union Institutions – Third Update*, July 20, 2018, [Accessed on September 1, 2018], available at: <https://eba.europa.eu/documents/10180/2087449/AT1+report+Q2+2018+update.pdf>

⁸⁶³ The new rules are to be phased in between 2022 and 2027. See European Banking Authority, *Press Release: EBA advises the European Commission on the implementation of the final Basel III framework*, August 5, 2019, [Accessed on September 1, 2019], available at: <https://www.eba.europa.eu/eba-advises-the-european-commission-on-the-implementation-of-the-final-basel-iii-framework>

already generate on average about 10 % more in returns on their equity than their European peers, not to mention impacts from the COVID-19 fallout.⁸⁶⁴ Finally, the argument that high capital requirements have little or no downsides for the taxpayers might underestimate the overall impact of the exuberant rule-making price tag, which may ensue in further growth of the shadow banking sector.

On the other hand, concerns also emerged as to the ability of CoCos, or bail-in able securities in general to handle a systemic crisis.⁸⁶⁵ Specifically, it was argued that while bail-inable securities could help to address idiosyncratic bank failures where the circumstances are unique to one institution, confidence in the system is not at risk, and the scope for contagion is limited, they could serve as a risk amplifier during a system-wide crisis. In essence, the fear is that in times of deteriorating market confidence, triggering of even one CoCo of a distressed bank could quickly spread a contagious market reaction driving down their yields across the entire CoCo market.

This concern was partly validated in 2016 by the market reaction to Deutsche Bank's announcement of preliminary 2015 €6.8 billion loss.⁸⁶⁶ The reported loss, however, did not mean that Deutsche's CoCos would be written-down, but "only" that the bank would not have sufficient amount of available distributable items, which determine whether the payment of AT1 coupons could be made.⁸⁶⁷ Despite a reassuring statement that coupons would continue to be paid, prices of not only Deutsche's AT1 instruments but also of other European banks, most notably, Santander and UniCredit, plunged.⁸⁶⁸

⁸⁶⁴ In 2019, the average return on equity for North American banks was 16 % compared to 6.5 % for their western European competitors in 2018. See Cow David, *European banks run out of options to protect profits*, the Financial Times, October 22, 2019, [Accessed on September 1, 2019], available at: <https://www.ft.com/content/09469d28-f410-11e9-b018-3ef8794b17c6>

⁸⁶⁵ See Avinash D. Persaud, *Why Bail-In Securities Are Fool's Gold*, Peterson Institute for International Economics, Policy Brief No. PB14-23, November 2014, [Accessed on May 5, 2016], available at: <https://www.piie.com/publications/policy-briefs/why-bail-securities-are-fools-gold>

⁸⁶⁶ See Deutsche Bank, *Press Release: Deutsche Bank reports 2015 fourth quarter net loss of € 2.1 billion and full year net loss of € 6.8 billion*, January 28, 2016 [Accessed on May 5, 2016], available at: https://www.db.com/newsroom_news/2016/medien/deutsche-bank-reports-2015-fourth-quarter-net-loss-of-€-2-1-billion-and-full-year-net-loss-of-€-6-8-billion-en-11378.htm

⁸⁶⁷ See Thomas Hale, Joel Lewin, Katie Martin, *Eurozone bank coco bonds extend slide*, the Financial Times, February 8, 2016 [Accessed on May 5, 2016], available at: <https://www.ft.com/content/f921e592-d0af-11e5-831d-09f7778e7377>

⁸⁶⁸ In particular, a Bank of America index for the entire CoCo market dropped by 8 %, while Deutsche's CoCo fell below 71 %. CoCos sold by UniCredit and Banco Popular slid to 75 %. See Thomas Hale, *Music stops for buyers of bank coco debt*, the Financial Times, February 11, 2016 [Accessed on May 5, 2016], available at: <https://www.ft.com/content/f921e592-d0af-11e5-831d-09f7778e7377>

These fears however did not materialize after a complete write-down of €1.25 billion of AT1 bonds of Banco Popular in June 2017. In particular, after the failing or likely to fail determination by the ECB, the SRB decided that it was in the public interest to write-down all common shares and AT1 instruments of the ailing bank, convert its Tier 2 instruments into common shares and sell them to Banco Santander for €1.⁸⁶⁹

Some argued that the case of Banco Popular was a litmus test of the market for bail-inable securities.⁸⁷⁰ While the write-down in this case, did not have any systemic consequences, it could be argued that it was rather isolated event in times of low or no market volatility and as such could not be used as a benchmark for the future. Also, in this case, the automatic trigger in effect coalesced with the discretionary write-down by the SRB, which was part of a broader resolution action, which did not concern bail-in of senior creditors.

At the end of the day, the market for CoCos, or bail-inable securities in general, is novel and untested territory and the risk of a system-wide negative contagion effects on prices of these instruments in times of evaporating confidence cannot be ruled out. As one could witness in the run-up to the recent financial crisis in respect of the novel securitized products, price discovery in tumultuous times might be nearly impossible as prices of such instruments dive not because of their non-performance, but because of an all-encompassing panic. Only time will show whether these novel instruments and the new powers regulators have been equipped with will finally addressed the moral hazard associated with too-big-to-fail, or paradoxically, whether they end up creating an entirely new source of systemic risk. In any event, there is no reason for complacency.

⁸⁶⁹ See Single Resolution Board, Press Release: The Single Resolution Board adopts resolution decision for Banco Popular, June 7, 2017 [Accessed on May 10, 2018], available at: <https://srb.europa.eu/en/node/315>

⁸⁷⁰ See Robert Smith, *Coco bond contagion contained after Banco Popular wipeout*, the Financial Times, June 7, 2017 [Accessed on August 10, 2017], available at: <https://www.ft.com/content/f921e592-d0af-11e5-831d-09f7778e7377>

6 EUROPEAN CRISIS MANAGEMENT MECHANISM – GOOD START, BUT FAR FROM IDEAL

In the first two chapters, it was illustrated that the last three major financial crises were in many aspects alike and did have similar forerunners. Specifically, in all the described crises, thinly regulated credit intermediaries which had grown rapidly were at the heart of the problem, though in the 1930s to a lesser extent. Accordingly, initial problems were rooted in and the crises started off outside the traditional banking system but transpired there due to a close relationship between banks and these highly leveraged intermediaries which were not licensed as banks and had remained in the shadows of regulatory oversight. Once the contagion of fear started spreading and depositors in the shadow banking system in droves run to withdraw their “deposits”, shadow banks could not turn to lender of last resort for emergency liquidity. This soon affected their shadow peers which had not previously had problems. Problems of a few became quickly problems of many. In this respect, the phrase “bank run” is a bit misnomer since runs are clearly not reserved to just banks. At the same time, once the panic started spreading, the banking sector could not insulate itself from the negative consequences of the shadow banking crisis, although the reasons why that was so changed over the time. In the crises of both 1907 and 1930s, it was a largely result of the inherent weaknesses of the fractional reserve system, which makes all banks fragile and susceptible to runs when confidence and trust in the system evaporate. With no deposit insurance and lender of last resort, or lender of last resort unwilling to provide liquidity, the only option left was to turn to the taxpayer despite a widely-held view that banks in the first two crises were on the balance only illiquid and not insolvent. Thus, having a properly acting lender of last resort could have stopped the contagion of fear from spreading and insulated the banking sector from a system-wide crisis. Had a lender of last resort stepped in vigorously and provided enough liquidity, banks would not have had to sell their assets, prices would not have declined, and their capital would not have been impaired. The failure of a few would not have caused failures of many. Paradoxically, the mark-to market accounting repealed in 1938 by President Roosevelt due to its strong pro-cyclicality during the times of market distress had been re-instated in the run-up to the recent financial crisis. In contrast, in 2007, there was a system-wide deposit insurance and a very pro-active lender of last resort, which set out to take a number of unprecedented actions. On the other hand, unlike in 1907 or the 1930s, commercial banks were in many cases much closely interwoven with the shadow banking sector. Some of them even run their own off-balance sheet shadow banks. Also, unlike in the previous two episodes, many banks were insolvent and not just illiquid, although it was hard

or impossible to differentiate between the two due to the size and complexity of their balance sheets. **The overarching takeaway stemming from the comparison is that any part of the financial system that heavily relies on maturity transformation is a potential source of systemic risk, no matter what form or license market participants have there. At the same time, a crisis of the shadow banking sector will almost certainly take a heavy toll on the banking sector, which should be kept in mind when designing a new regulation.**

The structural changes that took place in the American financial system in the decades prior to the 2007-8 financial crisis evidence how vital is to understand not only what led to a crisis but why it happened before a far-reaching regulatory reform is implemented. Poor management, bad practices, speculating with other people's money and excessive behavior in the banking sector in general were thought to be the primary cause of the crises of the 1930s, which they were not, or at least not alone. While some reforms of the 1930s were successful, such as the introduction of the world first insurance of bank deposits, others, such as the tight separation of investment and commercial banking, were not. Specifically, bank deposits were shielded from risky securities dealings and the thinly-regulated investment banks were afforded a monopoly over capital markets. Moreover, the ceiling on interest commercial banks could pay to depositors prevent them also from competing among themselves. As a result, bank failures became increasingly rare. On the other hand, investment banks, most prominently, but also other financial institutions were allowed to operate and compete aggressively not only among themselves but also with commercial banks while remaining in the shadows of banking regulation and beyond regulatory reach. In particular, investment banks and other financial institutions were free to come up with innovative deposit-like high-yielding products commercial banks could not compete with such as money market mutual funds. Although these deposit-like products were not insured, they were widely perceived as safe investments given the requirement to invest into the US treasuries or highly-rated commercial papers, repos and other liquid securities. The increasing investor enthusiasm about mutual funds resulted in heavy deposit-outflows from commercial banks and decreased their ability to provide credit, which in turn forced corporations to turn to commercial paper and repo market for short-term funding. It worked for everybody but for commercial banks since mutual funds could earn a solid return, corporations could borrow cheaply, and investment banks could earn fees for putting the deals through. As a result, credit intermediation moved from the banking sector into a new parallel one, which provided bank-like activities but without bank regulatory oversight. The demise of bank lending forced banks to look for new business opportunities, which they soon found in the then nascent securitization and derivative markets. While the policy of divided market was formally abandoned in 1999 with the repeal of the Glass-Steagall Act, it was practically gone years earlier.

In sum, *divide et impera* may well apply in politics but not in financial markets given the propensity of the financial sector to adopt organizational forms to circumvent any regulation. Regulators and regulation need to focus much more on nature of activities market participants carry out rather than on the form in which such activity is performed. As the old saying goes, if it looks like a duck, quacks like a duck and acts like a duck, it is probably a duck. In other words, if an institution looks like a bank and acts like a bank, it should be regulated as a bank even though it is a shadow bank. This does not mean that the regulation should mirror the banking regulation, but that there must be some form of regulatory oversight to ensure that shadow banks can be wind-down orderly and that a failure of a few of them do not bring down the entire financial system. **This in turn will require a much more holistic approach towards financial regulation with the need to have a broader understanding of the way financial markets function and of their interconnectedness with the real economy.** The fact that the recent financial crisis came unheeded was in part due to the increasing complexity of financial markets and specialization within particular fields. In other words, many experts lost sight of the forest for the trees. In globalized financial markets, **much more emphasize must be put on systemic risk and interconnectedness of the various parts of the financial system. Pressing too much one part of the financial system can and most likely will have a rippling effect somewhere else.**

In the first three, but primarily in the third chapter, it has been demonstrated that **central bank is an indispensable part of any crisis management framework *largo sensu* since in a systemic crisis when trust and confidence evaporate, markets are not able to stabilize themselves and the only authority with enough credit is the central bank and, in some cases, also the taxpayer.** On the other hand, the originally perceived lender of last resort authority to make emergency loans to solvent but temporarily illiquid banks at penalty rates against high-quality collateral requires some retooling. Accordingly, while both the Fed and the ECB clearly surpassed the contours of the traditional lender of last resort concept and arguably also of their legal mandates during the recent financial crisis, their authorities should be adjusted to the reality of financial markets in the 21st century. Drawing on the lessons from the recent financial crisis, **expansion of the scope of central bank emergency liquidity assistance should be considered since in a market-based financial system many types of financial institutions engage in credit intermediation with a significant maturity mismatch between long-term assets and short-term liabilities, not just deposit taking banks like in the “old days”.** Given the growing regulatory burden in the banking sector the likelihood of continuation of the trend of migration of credit intermediation from the banking to the shadow banking part of the financial system can be expected. Therefore, the experience

from the last three major financial crises suggests that the shadow banking sector will likely be the source of crises to come with potentially severe ramifications for the wider financial system and the real economy. At the same time, in a systemic crisis, the importance of some shadow banks for the market would sooner or later likely result in their access to lender of last resort to ensure that their problems are not spilled-over into the banking system. This was evidenced during the most recent financial crisis by the Fed's assistance to a wide range of non-bank but also non-financial institutions spanning from investment banks to money market mutual funds or corporate commercial paper issuers. While the ECB did not initially go as far as the Fed due to the structural differences between the American and the European financial system, it eventually also set out to massive government and corporate sector asset purchases, so it is most likely that it would not hesitate to do "whatever it takes" if a severe crisis in the shadow banking sector was on the horizon. On the other hand, expanding the lender of last resort authority to the shadow banking sector would expose central banks to potential large financial risks and incentivize moral hazard if not coupled with development of a proper regulatory oversight to reduce the likelihood of having to resort to such authority in the first place. Without filling the regulatory gaps, such expansion of powers would most likely do more harm than good. Regardless of the scope, another important lesson from the recent financial crisis is that lender of last resort emergency lending can only be a useful for preserving financial stability if banks (or shadow banks) are willing to use it, which they are often not, especially not during a widespread panic and unfolding crisis. In other words, resorting to lender of last resort bears stigma which may further exacerbate beneficiaries' liquidity position even if it has no real foundations. Charging penalty rates may have the same effect as the fear of stigmatization. Although it has a good rationale to serve as a "firewall" against excessive reliance on central bank credit, its benefits may be outweighed in a system-wide crisis since it may both discourage banks to use it in times where needed the most or to further deteriorate their financial position when utilized. The latter case was most clearly demonstrated in the case of AIG, though as later also acknowledged by the court, the assistance was rather a government takeover than secured lending.

The other two conditions relating to the requirement to lend only to temporary illiquid and not insolvent banks against sufficient collateral are related and uneasy to practically grasp. Again, in theory, these are sensible conditions as the first guarantees that a central bank truly is a lender and not investor of last resort, while the latter bars from bailing out insolvent banks and incentivizing moral hazard. At the same time, these principles are highly intertwined as distinguishing between insolvency and illiquidity boils down to asset valuation, which will also show whether a bank has sufficient collateral for secured lending. While solvency should be a fairly simple concept designating as insolvent any firm assets of which are worth less than its

liabilities, distinguishing liquidity and solvency during a financial turmoil with frozen markets and scarce liquidity may not be as straightforward as often portrayed, especially due to complexity of some structured finance products as CDOs or CDS. The demise of Lehman Brothers is a good example as neither the markets nor the government officials could decisively conclude whether the firm was illiquid or insolvent before it was let file for bankruptcy. But this is more broadly applicable, as bank assets might be worth much less if sold-off during a crisis, not because of their lower intrinsic value, but because of volatile or even irrational markets. Since markets may stay irrational way longer than bank solvent, lender of last resort should step in and provide assistance to prevent illiquidity from transpiring into insolvency. To make things more complex, although a (shadow) bank run is the classic example of a liquidity crisis, which if not handled properly may soon transpire into a solvency crisis, in a market-wide panic, it is very hard to tell whether the (shadow) bank depositors are not running because they think that balance sheets of the (shadow) banks are not credible since their assets are in fact worth a lot less than officially reported.

Therefore, in a systemic crisis, central banks should be afforded enough discretion to provide lending to institutions, solvency of which might be questionable, although they should do so in a predictable manner and ensure a broad-based and non-discriminatory eligibility for assistance. Two cases from the recent financial crisis could serve as a good example of where boundaries should be drawn. First, central bank should not be allowed to provide emergency liquidity to a clearly insolvent bank to pay-off its bank-creditors due to the fear of what imposition of losses on such creditors might have for the rest of the banking system as was the case of the Anglo-Irish bank's "rescue" by the ECB and the Irish central bank. Second, it is not justifiable to provide a broad-based unsecured financial backstop to non-financial corporations while declining to provide assistance to a firm on the basis that its collateral might be insufficient for secured lending, as the Fed did in the case of Lehman Brothers. Moreover, the turmoil following the Fed's decision to let Lehman Brothers fail suggests that trying to contain moral hazard by expressing the readiness to withhold emergency assistance to a major financial institution in the midst of a crisis may not be a credible option.

While an expansion of central bank mandates should be considered, broadening powers with a wide margin of discretion should go hand-in-hand with adequate accountability, which is obviously the elephant in the room. Central banks have historically been afforded a strong independence on other branches of government and there is a wide consensus that there was (and still is) a good reason for doing so. While the necessity to insulate monetary policy from short-term political pressures remains a valid public policy

goal, mandates of some central banks expanded significantly either by law or *via facti* or by both ways. In Europe, political elites put focus on new central bank microprudential and macroprudential policies, while the ECB positioned itself into the role of guardian of financial stability. In fact, the ECB was largely managing the financial but also the subsequent Eurozone sovereign debt crisis. In particular, not only did the ECB provide unlimited liquidity to the banking sector, it also became lender of last resort to, and crisis manager of, the whole Eurozone. While the ECB's sovereign bond purchases provided an indirect relief to the European banking sector due to the "doom-loop" between banks and sovereigns, it was a step outside the traditional central bank role in terms of both scope and purpose. The fact that it became investor of last resort was most notably demonstrated on the approximately €43 billion investment into the Greek government bonds with significant credit risk, something lender of last resort should be shielded against. Moreover, the subsequent Greek debt restructuring demonstrated that this was not just a theoretical possibility and if the ECB had not been given preferential status and the other Greek creditors had not been discriminated against, it would have faced losses of about €33 billion. This made the contours of the ECB's legal mandate much murkier and clouded the otherwise strict division between monetary and fiscal policy. The pledge to do "whatever it takes to preserve the euro" and in particular the sovereign bonds purchases seem to be more of fiscal than of monetary policy nature though. Leaving aside that the beneficiaries were not banks, Greece and Ireland seem to have been facing solvency, not liquidity crises.

While the legal status of the ECB's sovereign bond purchases is not a clear cut, from an economic point of view, it is hard not to see that the ECB in fact monetized public spending of some Eurozone sovereigns, especially since it seems unlikely that it could terminate the various purchase programmes and easily unwind the billions worth of government bonds any time soon. Not without pushing their yields sky-high. However, if all proceeds from maturing bonds were to be reinvested into new issuances, then the ECB's support could potentially lead to moral hazard and monetary financing. Since the ECB's profit is transferred back to its shareholders, that is to the Eurozone national central banks, which in turn often times hand it over back to their respective governments, long term holdings of sovereign bonds by the ECB would essentially mean that national governments borrow and spent the central bank money for free. **Therefore, unlike with the potential expansion of lender of last resort authority to the shadow banking sector, there are significant impediments to consider the same extension also in respect to the Eurozone sovereigns. The reason is that supervision of sovereigns is much harder to achieve in practice as demonstrated on the now almost permanent non-observance of the so-called fiscal compact by numerous Member**

States. Until the asymmetry in the design of the EMU is corrected and Eurozone becomes a fiscal union, risks of moral hazard will be hard to address.

In fact, given the very close connection between the Eurozone banking sector and sovereigns, even the current ECB's involvement in the new crisis management mechanism creates potentially significant conflict of interest. Specifically, the ECB's involvement in negotiations of the EU-IMF Greek and Irish economic adjustment programmes, most notably its strong opposition against imposition of losses on senior creditors, such as German and French banks, despite recommendation to do so from the IMF. **The question on whom losses will be imposed is one of the most fundamental policy questions in a banking crisis, thought, not a one that should be within the purview of central bank.** The Irish banking crisis also showed that the ECB may potentially exert pressure on Eurozone governments asking for financial assistance since the ECB has a very broad discretion whom liquidity support will be provided and while there are limits to that discretion, as demonstrated on the case of the Anglo-Irish bank, their significance might in practice be rather limited. Moreover, the ECB will be on both sides of virtually any future Eurozone sovereign debt restructurings, given its large sovereign debt exposure. In such cases, assent to any debt restructuring could amount to monetary financing as the ECB would in effect agree to cancel its claims. At the same time, since access to some of the ECB's sovereign debt purchase programmes is conditional on participation in economic adjustment programmes, the ECB may end up making the provision of liquidity conditioned on a decision it will be a part of. In any event, the potential for conflicts of interest are numerous. **In other words, while the ECB should be part of the new crisis management framework it should not spearhead it.**

The **fourth chapter** provides ample evidence that this very **"special relationship" between banks and sovereigns in Europe, often referred to as the sovereign-bank doom-loop must be discontinued for any European crisis management framework to work. While the advantageous regulatory treatment of sovereign debt has been the tenet of the international banking regulation in the last three decades, the Eurozone sovereign debt crisis provides ample evidence that sovereign debt is not risk-free.** Broadly speaking, since about the 1980s banking regulation mandated banks to hold minimum ratio of capital against assets according to their riskiness. At the same time, sovereign debt of "developed" countries was automatically treated as risk-free, so banks did not have hold any capital against it, no matter how large their sovereign exposure was. While this rather straightforward rule was abandoned in 2004 with the second Basel Accord, it left room for national discretion and allowed banks to continue the practice of treating exposures to their "home" sovereigns as risk free. This naturally led to the tendency of banks to have large

exposures to their “home” sovereigns. But this was the primary reason that made the Eurozone sovereign debt crisis almost impossible to deal with as any government-funded bank bailout very quickly circled back to banks’ balance sheets. The cases of Greece and Ireland show how daunting the sovereign-bank doom-loop issue can be during a financial crisis. In particular, the collapse of the Irish banking system caused the fiscal failure of the Irish sovereign and necessitated the sovereign bail-out programme. On the other hand, in Greece the fiscal crisis of the sovereign spilled over to the banking system most notably through effectuation of the sovereign debt restructuring. If the EU-IMF Greek assistance programme had not earmarked approximately €33 billion for capital injections into the Greek banking sector, the sector would most likely have collapsed as evidenced by the Cypriot banking sector was forced to turn for the ESM financial assistance after the Greek debt restructuring.

When the financial crisis hit, the EU and in particular Eurozone was ill-prepared and did not have either institutional framework or a sound legal basis for provision of financial assistance to Member States. Although, three new mechanisms with a variety of tools to assist Eurozone sovereigns in difficulties were introduced at the height of the crisis, namely, the EFSM, the EFSF and the ESM, the capability of either to address the sovereign-bank doom-loop was rather limited. In essence, the most recent of the three mechanisms, the ESM, could only provide aid in the form of credit lines or loans, which would, however, in practice further reinforced the doom-loop as highly indebted beneficiaries would be taking on more debt and in consequence worsening their credit ratings and value of outstanding bonds. While these potential drawbacks could have been in part offset by simultaneous purchases of sovereign bonds of such beneficiaries on the secondary markets with the aim to prop-up their prices, another tool available, this could potentially distort market price formation, especially given the already significant ECB’s presence in the sovereign debt secondary markets. In this respect and quite counterintuitively, high EU courts saw in comport with EU law, in particular with the separation of powers, that both the ECB as the central bank and the ESM as the crisis management authority could buy sovereign bonds in the secondary markets, as long as the former stipulates that it is in furtherance of monetary and not economic policy as this objective is reserved for the latter. On the other hand the new direct recapitalization tool added to the ESM toolkit in 2015 has the potential not to reinforce the sovereign-bank doom-loop. In essence, €60 billion out of the total €500 billion ESM lending capacity was earmarked for the purposes of direct recapitalization of banks in Eurozone if needed for preservation of financial stability of Eurozone as a whole and of its Member States, or alternatively if other alternatives, such as ESM loans, would have the effect of endangering the continuous market access of its members. While the direct recapitalization tool is a necessary one for the ESM to break the sovereign-bank doom loop, its utilization necessitates fulfillment of patchwork of conditions,

which could lessen its operability. Especially the rather intrusive surveillance powers of the Commission and the possibility to request major changes in the domestic financial sector may lead to a tedious and time-consuming negotiations, which could, however, undermine the purpose of this instrument. Also, the €60 billion capacity would clearly not be sufficient to deal with a Eurozone-wide crisis, but not with crises of Italy, Spain or some other larger Member States.

A more subtle peril of the ESM design might be its preferred creditor status. Although the IMF enjoys similar status in multilateral lending to ensure that its resources are safe even when other creditors of a distressed country face substantial uncertainty about debt repayment, its preferred status is *de facto* rather than *de jure* since it is not provided for in any of the IMF's founding documents. This was also likely the reason why in the midst of the Eurozone sovereign debt crisis ISDA concluded that the IMF loan to Ireland did not constitute debt restructuring in the form of subordination of the existing bondholder claims via the privileged position of the IMF. Since the IMF's privileged status was not legally binding, it meant no "credit event" under the ISDA documentation and no drain on liquidity reserves of European banks and other protection sellers in the form of payouts to holders of CDS referencing outstanding Irish sovereign debt. However, in contrast, the ESM founding treaty, although only in recital, stipulates the preferred creditor status of the ESM, which could potentially entail the risk that any time the ESM grants a loan to a Member State or to its banks, it would, by virtue of its preferred creditor status subordinate claims of all the other creditors of the recipient. Such subordination event could be then used as a basis for a trigger event under the respective CDS referencing the recipient's debt, or for a loan acceleration due to a claimed breach of *pari passu* treatment.

In respect of the old pains of the Basel perception that sovereign debt is risk-free, the third Basel Accord adopted in 2010 as a response to the recent financial crisis and the way it is implemented into EU law in essence follows the previous framework. Specifically, while CRR does not grant a zero risk-weight to sovereign debt (as neither the third Basel does), it provides for the same discretion to consider banks' exposure towards their "home" sovereigns as risk-free. Not only that, the exemption is implemented in EU law more loosely than the revised Basel accord contemplates. **If the EU was not able to change the risk-free status-quo of sovereign debt after nearly a breakup of Eurozone, it will likely never be. This is just a really good crisis wasted.**

On the other hand, introduction of enabling legal framework for the development of SBBS might be an alternative to changing the sovereign debt risk-free status, though it will not eliminate the issue entirely. Specifically, the proposal from the Commission that

would introduce a favorable regulatory treatment for ABS issued by a private sector special purpose vehicles and referencing a pool of sovereign bonds issued by the Eurozone Member States, has the potential to weaken the “home bias” of the European banking sector. While SBBS is a securitization product, it does not seem to carry risks similar to the typical securitization products stemming from their complex and opaque structure and information asymmetry between originators and investors, so there is no reason for alignment of their regulatory regimes. Moreover, assuming that the zero-risk weight treatment of the euro area sovereign bonds would not be changed, there seems to be no reason why the mere fact that zero-risk assets are “bundled” together should make them more opaque or risky. In other words, combining zero-risk assets together does not make them riskier. To the contrary, bank portfolios would be more diversified by holding SBBS instead of “home” sovereign bonds and in consequence also less risky. While critics fear that the current proposal could lead to an implicit mutualization of sovereign debt if ECB was to purchase the riskiest tranches of SBBS, the ECB is already buying sovereign bonds, so buying even the riskier SBBS would not cross any further lines. Buying SBBS could be even less controversial since the ECB would not be able to target specific countries and affording them preferential treatment. In any case, these concerns should not be a reason for halting this new initiative even before it started.

The most ambitious, yet the most challenging European project with the aim of preventing crisis of the sorts the EU and in particular Eurozone underwent in the years following the collapse of Lehman Brothers is the Banking Union project. The European experience from the past decade is particularly intriguing source of study and reveals how many elements have to be taken into account when designing a new institutional framework and regulatory landscape for the financial sector in a monetary union that is not a fully-fledged political union. Although the blueprint for the Banking Union project acknowledged that a well-functioning monetary union must be built upon four building blocks, namely, integrated financial framework, integrated budgetary framework, integrated economic policy framework and strengthened democratic legitimacy and accountability, noticeable progress has been made primarily within the first category. Progress in the others, especially in the last one, has been lagging behind.

The new European crisis management mechanism is centered around three pillars, namely, centralized supervision within the SSM, centralized resolution mechanism within the SRM and a common resolution fund, the SRF. In addition, the Commission has a key role within the new framework as an authority responsible for discretionary decisions within the resolution process.

The SSM was the first step towards the creation of the Banking union and a necessary condition for a direct recapitalization of Eurozone banks through the ESM. Within the SSM, the ECB is exclusively competent to carry out prudential supervision in relation to all Eurozone banks, including their chartering, approving recovery plans and conducting early intervention measures with the aim to be prepared for and address any potential problems early on, so that the special resolution process need not to be commenced. However, national supervisors assist the ECB in carrying out the tasks in relation to less significant banks, while the ECB directly supervises only about 120 significant banks and banking groups. To avoid potential conflicts of interest between monetary and prudential supervision authority, a new body within the ECB's internal structure, the Supervisory Board, was established. Since there was no political will to change the EU founding Treaties, which would, however, be required to create a new body that could make decisions with effects vis-à-vis third parties, the Supervisory Board may only prepare decisions in the area of prudential supervision, which must then be formally adopted by the Governing Council, a body already responsible with monetary policy decisions. The SSM also envisages processes for their mutual interactions and settlement of potential disagreements.

Centralized supervision at the EU-level is undoubtedly necessary for the proper functioning of the single market for financial services and a long-term stability of the European banking sector and Eurozone as a whole. In this context, the establishment of the SSM can be seen as a largely successful story since installing an impartial supervisor between national regulators with home bias and the respective banking sectors they supervise has the potential to weaken the sovereign-bank doom-loop. On the other hand, the integration process is far from over and challenges remain. The three areas deserving the most attention and further reforms concern the decision-making process, the separation of monetary policy and supervisory functions of the ECB and the overall scope of the SSM.

First, the potential for diverging views between the Supervisory Board and the Governing Council raises concerns regarding operability of the whole decision-making process and its streamlining would be warranted. If political agreement on conferral of decision-making powers on the Supervisory board is not reached, the streamlining could, *inter alia*, concern eliminating the high number of internal panels issuing non-binding opinions involved in the interaction between the Governing Council and the Supervisory Body.

Second, the current set-up does not clearly delineate accountability of the two involved bodies, although the ultimate decision-maker effectively the Governing Council. The fact that the ultimate decision-maker is the Governing Council and not the Supervisory Board may limit

the ECB's accountability in the area of prudential supervision and be an impediment for an effective separation of the ECB's monetary policy and supervisory functions. Regarding the former, the strong emphasis on independence of the Supervisory Board and of the members of the ECB decision-making bodies in EU law, although warranted for monetary policy purposes, is not desirable in the context of prudential supervision. Given the ECB's important role in, *inter alia*, early stages of a bank resolution and its exclusive competence to determine that a bank is failing or likely to fail, a necessary condition for the commencement of resolution process under the new framework, its decisions have the potential to materially affect rights of banks and its creditors, shareholders or managers. While the SSM Regulation stipulates that the ECB shall be accountable to the European Parliament and to the Council for implementation of its decisions in the area of prudential supervision, all actions of the Supervisory Board are ultimately subject to a formal adoption of the Governing Council and in consequence also its discretion. This governance structure also limits effectivity of "Chinese Walls" between the ECB's monetary and supervisory roles since the ultimate decision about both monetary and supervisory actions rests with the Governing Council. The fact is, however, that available options, which could address this issue are severely limited unless there is a political agreement to change the EU founding treaties.

Finally, taken from a high-level perspective, the biggest weakness of the SSM is its scope. In particular, the new supervisory regime addresses only one segment of the European financial system, although an important one, and generally speaking does not at all concern financial services firms that do not fall into a relatively narrow category of credit institution and certain financial holding companies. Other entities that do not have formal bank licenses, but nevertheless engage in bank-like activities, provide key wholesale market services and engage in maturity transformation very much like banks, such as securities firms or various securitization vehicles, are left out of the SSM's scope. While it is true that Eurozone but the EU as a whole is predominantly financed by banks, in contrast with for example the US, the significance of shadow banking in the EU is growing and can be expected to grow with the underway Capital Markets Union project. The newly introduced prudential regime for investment firms which in essence forces systematically important investment firms to have a bank license so that they would fall under the direct supervision of the ECB is a good step forward. Nevertheless, this new regime again relates to only one particular business form. Systemic risk posed by, for example money market funds or clearing houses, is a pressing issue on both sides of the Atlantic. Given the interconnectedness of the various segments of the financial sector, if such risks were to materialize, its negative effects would soon spill over into the banking sector. This is clearly one of the lessons that should have been learnt from the near collapse and the subsequent US government takeover of AIG, an insurance company

with business seemingly remote from that of banking. The fear that its demise would spur a domino-like effect and bring down other financial services firms was a major impetus behind the takeover. The SSM does not have competence to regulate any of these risks. Other, but related issue is that the SSM focuses solely on prudential regulation and leaves the other areas of banking business to national regulators and/or EBA, ESMA and EIOPA, which runs the risk of exposing a group with diversified bank-related businesses to a patchwork of different EU-level and national regulators.

Further, one of the most important lessons from the recent financial crisis is that micro-prudential supervision, the traditional focus of regulators, is not sufficient for preservation of financial stability. While micro-prudential supervision may prevent failure of an individual financial institution, or at least ring-fence negative effects associated therewith, and thus prevent a domino-like effect in the financial system, it falls short of spotting or preventing the build-up of systemic risks. **Systemic risk is, however, not regulated adequately within the new European framework. First, the ECB has no competence in regulating systemic risk and rather limited competence in the area of macro-prudential supervision. At the same time, the only EU-level authority with tasks relating to regulation of systemic risks, the ESRB, is a soft law institution issuing non-binding warnings and recommendations and no enforcement powers. While its creation is a step towards the right direction, its design is a missed opportunity.** Specifically, it cannot directly intervene in financial markets and must rely on its ability to persuade other authorities at the EU and national level of its views, which would then have to take necessary actions. Also, the composition of its only decision-making body seems to be strongly influenced by the fact that it emerged in the midst of the Eurozone sovereign debt crisis and is dominantly composed of central bankers, which may impede its ability to focus on the impact of central bank actions on financial stability. Yet, the prolonged ultra-accommodative monetary policies from the ECB and its numerous asset purchase programmes resulting in its almost €7 trillion balance sheet is probably one of the most challenging issues with potential implications for financial stability of this time. Specifically, the €7 trillion question is whether to continue to inflate the debt bubble or to stop now. While the latter approach would most likely ensue in economic contraction, the former runs the risk to create even greater problems in the future, assuming that inflation would sooner or later start picking up and the ECB would have to taper its loose policies. In any event, the current zero or even negative interest rate environment does not seem to be sustainable in the long-term and the basic logic tells that if something is unsustainable, it won't be sustained.

On the other hand, the American model of dealing with systemic risk could serve as an inspiration to EU legislators. Specifically, like the American FSOC, the ESRB could be authorized to designate non-bank financial institutions and financial market utilities that perform payment, clearing, or settlement activities for an umbrella heightened regulatory scrutiny and oversight carried out by the ESRB itself or by the ECB. The authority of the umbrella regulator could also include the power to require the designee to restrict or cease certain activities, or even divest certain assets in cases where these would pose a threat to the financial stability of the EU as a whole. On the other hand, the designation should focus on identifying and regulating systemically important activities rather than focusing on the form in which these are performed so that substance is elevated over the form. The activity-based approach could address the potential of unnecessary or duplicate regulation and limit the effort to escape the oversight within new organizational forms. It could also at least partially fill in the shadow corners of the regulatory system and allow to address emerging systemic threats currently outside the regulatory perimeter regardless of their form, such as central clearing or a technology-based provision of financial services.

Another important yet costly lesson from the recent financial crisis is that there needs to be a special regime for winding-down distressed banks and other institutions carrying out bank-like activities. Although supervisors should, without a doubt, keep playing an important role in safeguarding financial markets by preventing development of vulnerabilities in the first place, crises will inevitably come, no matter how effective and well-functioning supervision is. **Therefore, the EU has to have EU-level authorities entrusted with appropriate crisis intervention powers to ensure that even too-big-to-fail banks and other financial institutions can, and if needed will, be wind-down swiftly and orderly without rippling through and disrupting the entire financial system.**

Answers to questions regarding how too-big-to-fail banks should be organized, what instruments should be employed to wind them down in an orderly manner without taxpayer money while maintaining continuity of their vital economic functions can be found in the new resolution framework provided for in the SRM Regulation and BRRD. The new institutional framework in particular concerns the ECB in its supervisory capacity responsible for recovery planning and taking early intervention measures to prevent the need for banks to be wind-down in the first place, and the SRB responsible for resolution actions if an early intervention is not capable to ensure return of a bank to viability. **While the adoption of BRRD and the SRM Regulation and the creation of the SRM is a major step towards ensuring resilience and financial stability of the euro area, the framework remains incomplete and some of its features pose challenges to a swift and orderly resolution.**

First, the SRM was established to address the misalignment between the centralized EU-level supervision over significant banks and groups and the national treatment of the same entities when failing or likely to fail, which emerged following the establishment of the SSM. In other words, SRM should minimize the potential conflicts stemming from either lack of coordination between the various national resolution authorities, or from diverging national interests, or from both, when dealing with failing cross-border operating banking groups. While it is correct to assume that supervision and resolution are two complementary aspects of the internal market for financial services, the new framework does not ensure this entirely. In particular, the SRB's scope is broader than that of the ECB since it is directly responsible for resolution of certain investment firms, financial institutions and cross-border banking groups not supervised by the ECB on either consolidated or individual basis. **The partial asymmetry in the design of the SRB and the ECB might bring about drawbacks to effective resolution since actions of resolution and supervisory authorities during, but also prior to, resolution are interwoven and to some extent mutually dependent.** Most notably, the respective supervisory authorities are responsible for deciding whether an institution is failing or likely to fail, which is, among other things, necessary condition for taking resolution action by the respective resolution authorities. In practical terms, if the SRB were to take a resolution action in respect of a cross-border banking group outside the ECB's remit, it would have to consult with, and seek the failing or likely to fail determination from, national supervisors of each of the members of such group, be it central banks, securities regulators or other agencies.

Second, the resolution decision-making process is too complex, which may lead to potential delays in taking resolution actions when time is of the essence. The decision-making process within the SRM involves the ECB in its supervisory capacity, the SRB, the Commission, the Council but also the national resolution and supervisory authorities. Broadly speaking, the SRB may adopt a resolution action in cases where an entity or group is failing or likely to fail, there is no reasonable prospect that any alternative private sector measure would prevent its failure within a reasonable timeframe and there is public interest for taking resolution action. Once the ECB has made the failing or likely to fail determination, the SRB may go ahead with resolution action if it sees the other two conditions satisfied. However, once the resolution action is adopted by the SRB, it must be immediately passed along to the Commission, which may either endorse it or to object it with regard to its discretionary aspects. Moreover, the Commission may propose the Council to object the resolution action on the grounds of the failure to meet the public interest test. In case of an objection, the SRB must modify its proposed action, save for the cases where the Council objection is based on the failure to meet the public interest test, in case of which, the resolution process is stopped and the entity or group concerned would be liquidated in accordance with national insolvency

procedures. Provided there are no objections, the resolution action is deemed to have been adopted and may be implemented by the relevant national resolution authorities in accordance with instructions of the SRB. The rather complex decision-making process within the SRM tries to go around the fact that only EU treaty-based institutions may establish an EU (resolution) policy, while EU agencies established by the secondary legislation, such as the SRB, may not be making policy choices and scope of their activities should be of purely technical and advisory nature. Whether the current decision-making procedure goes far enough to be compliant with the separation of powers provided for in the EU founding treaties is not easy to definitively conclude but there are good arguments that it does not. Moreover, the Commission and the Council are not involved in all of the SRB's decision-making processes where the SRB enjoys a considerable portion of discretion. One of the most obvious example is the power of the SRB to determine that an institution's business model, operational or legal structure constitutes a material impediment to the effective application of resolution actions, in case of which it may, *inter alia*, order the institution or a group to limit or cease specific activities. In sum, the operational complexity and the surrounding legal uncertainty of the decision-making process should be addressed. The best way to achieve this would be to designate the SRB as an EU institution in the EU founding treaties.

The SRF, a centralized pool of funds at the disposal of the SRB to help finance resolution is an important element of the new centralized EU-level resolution framework. Nonetheless, the SRF remains incomplete and likely insufficient to deal with system-wide financial crises. In particular, the SRF is being built up by annual contributions from the Eurozone banking sector with the aim to reach a target level of about €55 billion by the end of 2023. At this point, it will stop growing. Contributions are being collected by national resolution funds and are transferred to the SRF based on an intergovernmental agreement between the Member States. During the transitional period, the contributions collected at the national level remain separated in "national compartments" of the SRF to ensure that in the case of resolution involving only one Member State's bank, the funds collected by that Member State are depleted entirely before using funds in the compartments of the other Member States. The design should ensure that Member States with relatively fragile banking sectors, such as Italy, do not "freeride" on the money of Member States. The national compartments of the SRF are being progressively mutualized and will cease to exist by the end of 2023. The situation where the financial means available in the SRF are not sufficient during the transitional period can be addressed by *ex-post* contributions, and if not immediately accessible, by a bridge financing provided either by the Member States or by the ESM. However, the SRF may only be utilized once losses have been imposed on the failing bank's shareholders and/or creditors and may not exceed 5% of such bank's total liabilities. In sum, the possibility to use an *ex-ante*

industry-funded SRF during resolution subject to imposition of losses on shareholders and creditors is a significant improvement from the pre-crisis state of play. However, the SRF's size will most likely be insufficient even after the target level is reached in 2023, especially to deal with a system-wide crisis. To compare with, in the period from 2008 to 2014, the Commission authorized approximately €3 trillion of state aid to the financial sector. Therefore, the fact that the SRF will stop growing after the target is reached should be reconsidered. On the other hand, the latest proposal from the Eurozone leaders to establish a common financial backstop to the SRF in the form of a credit line of "last resort" from the ESM in the amount of up to €55 billion could in part address this issue.

Finally, a proper institutional EU-level crisis management framework is necessary, but not sufficient condition to address moral hazard of too-big-to-fail banks and other financial institutions and prevent taxpayer-funded rescues Europe saw during the recent financial crisis. No matter how a crisis mechanism is designed, losses stemming from non-performing assets of individual institutions, or in a system-wide crisis of the whole financial sector, have to be allocated somehow within the financial system. Losses can be borne out by the bank or by its shareholders and/or creditors or by the taxpayer. A clear *ex ante* codified "pecking order" is necessary to ensure that the taxpayer is not among the first on the list and that this sensitive issue is not being decided *ad hoc* in a discriminatory manner in the midst of a crisis. Burden-sharing by bank's shareholders and creditors is clearly a preferable option. To ensure that losses of a failing institution are not imposed on taxpayers as has historically been the case, the SRM Regulation entrusts the SRB with the so-called bail-in tool, undoubtedly the cornerstone of the new post-crisis crisis management framework. In essence, with this tool, the SRB may impose losses on institutions' shareholders and/or creditors by cancelling their shares and claims, respectively. Alternatively, creditor claims may be converted into bank shares so that they would become new owners of the bank that emerged from resolution. Both the SRM Regulation and BRRD tries to ensure this pecking order by exclusion of some creditor claims from the scope of the bail-in tool, such as claims of bank depositors and employees, or claims of commercial and trade creditors. Claims preferred by law, such as social security, tax and other are also protected. In addition, in exceptional circumstances, the SRB may wholly or partially exclude certain other claims/liabilities from the bail-in tool on an *ad hoc* basis to, *inter alia*, avoid widespread contagion, in particular as regards to small and medium-sized enterprises. Given the relatively long-list of claims/liabilities exempted from the bail-in scope, the new framework requires institutions to issue *ex ante* sufficient amount of novel capital-like or debt instruments to ensure that they have sufficient loss-absorption capacity, that is enough claims/liabilities that can be canceled and/or converted prior to or in a crisis. In other words, institutions have to ensure that they have built-

up adequate internal financial resources up-front for crises to come. Systematically important institutions have to issue larger volumes of such instruments to ensure that systemic risk is priced in. Since they are vital for credibility of the new resolution framework, EU law incentivizes their issuances, which can most notably be demonstrated on the so-called contingent convertibles (or AT1 instruments in the parlance of EU law). Contingent convertibles are designed to be automatically cancelled and/or converted into bank shares upon a pre-determined event, such as declining level of capital ratio to ensure viability and continuance of the bank as a going concern. By recapitalizing banks in times of a crisis when raising fresh capital may prove to be difficult or impossible, contingent convertibles are seen as capable to protect financial stability. Thus, EU law provides for tax deductibility of coupon payments on these instruments, and the discretion not to pay coupon at all, which makes them cheaper than common and preferred shares. Also, the value of contingent convertibles is also disregarded for the purposes of balance sheet insolvency determination under national laws. At the same time, they are more attractive than the run-of-the-mill debt instruments, which require regular interest payments the repayment of which may be subject to cross-default and acceleration clauses, which may not apply to contingent convertibles. Investors like them too despite the less-favorable terms since they provide at least some coupons in the environment of zero or negative interest rates. On the other hand, there are valid concerns as to the ability of contingent convertibles, or bail-inable securities in general, to handle a systemic crisis, where they could even serve as a risk amplifier. In essence, in times of deteriorating market confidence, triggering of even one contingent convertible instrument of a distressed bank could have a rippling effect and quickly spread a contagious market reaction across the entire market. This concern was partly validated in 2016 by the market reaction to Deutsche Bank's announcement of preliminary losses, which some investors interpreted as the possibility for cancellation of the bank's contingent convertibles, which spurred a market sell-off and brought down prices of the entire contingent convertible market by about a third despite the fact that this was just an isolated incident and no claim was eventually cancelled. **At the end of the day, the market for contingent convertibles, or bail-inable securities in general, is novel and untested territory and the risk of a system-wide negative contagion effects on prices of these instruments in times of evaporating confidence cannot be ruled out.** As one could witness in the run-up to the recent financial crisis in respect of the novel securitized products, price discovery in times of high market volatility might be nearly impossible as prices of such instruments dive not because of their non-performance, but because of an all-encompassing panic. **Only time will show whether these novel instruments and the new powers regulators have been equipped with will finally addressed the moral hazard associated with too-big-to-fail, or paradoxically, whether they end up creating an**

entirely new source of systemic risk. In any event, there is no reason for complacency. As Mark Twain said, it ain't what you don't know that gets you into trouble. It's what you think you know and that just ain't so.

In conclusion, while the nascent pan-European crisis management mechanism concerns primarily the new resolution framework provided for in the SRM Regulation and BRRD, crisis management framework should encompass much broader array of elements and should take into account the specificities of the supranational and quasi-federative nature of the EU. **In an ideal case, the zero-risk regulatory perception of sovereign debt would be changed, a more robust regulation of systemic risk within a new umbrella regulator would be pursued and the contours of the lender of last resort authority would be reshaped. In addition, macro-prudential supervision would encompass all sectors of the financial system, not just banking. Whether or not the sovereign-debt zero-risk status-quo is changed, the enabling framework for SBBS should be pursued.**

While, the preceding paragraphs highlighted in more detail some of the weaknesses of the new crisis management framework under the SRMR and BRRD, its biggest weakness lies within the fact that **the new pan-European agencies or authorities were in all cases established by secondary EU law, which significantly limits their decision-making powers, taints the whole institutional framework and brings significant uncertainty about how the new framework would stand out in a systemic crisis. It also means that basically every step forward further in the Banking Union project can and most likely will be challenged at high EU courts.** In many instances, if it had not been for a very broad reading of the EU founding treaties by the EU courts, the whole project would have already come to a halt. Therefore, **while the European banking sector was at the heart of the recent crisis and has also been at the center of the recent initiatives establishing the new European financial system architecture, deeper political integration is most likely a *conditione sine qua non* for its proper functioning.** Yet, there has so far been only a little progress in these areas, which permeates through-out the whole new framework. **An ideal European crisis management framework would comprise of EU-level or “federal” authorities ensuring sound and swift supervision and crisis resolution with appropriate decision-making powers, which is, however, hardly possible to attain without revisions of the EU founding treaties.** Especially an EU-level resolution mechanism whereby cross-border operating institutions are to be taken over, restructured and sold without or in most cases against the will of their shareholders and creditors scattered across the EU need robust political support and surrendering of sovereignty towards the new EU-level agencies. **Until this is changed the true potential of the Banking Union project will not be utilized.**

Abbreviations

APP	Asset Purchase Programme
ABS	Asset-Backed Security
ABCP	Asset-Backed Commercial Paper
BRRD	Bank Recovery and Resolution Directive
CDO	Collateralized Debt obligation
CDS	Credit Default Swap
CP	Commercial paper
CMOs	Collateral Mortgage Obligations
CRA	Credit Rating Agency
CLO	Collateralized Loan Obligation
CRD IV	Capital Requirements Directive
CRR	Capital Requirements Regulation
ESFS	European System of Financial Supervision
ESM	European Stability Mechanism
EMU	European Monetary Union
EFSM	European Financial Stabilization Mechanism
ESM	European Stability Mechanism
ESFS	European System of Financial Supervision
EBA	European Banking Authority
ESMA	European Securities and Markets Authority
EIOPA	European Insurance and Occupational Pensions Authority
ESAs	European Supervisory Authorities
ESRB	European Systemic Risk Board
FDIC	Federal Deposit Insurance Corporation
FRBNY	Federal Reserve Bank of New York

FSOC	Financial Stability Oversight Council
GSE	Government-Sponsored Enterprise
G-SIIs	Global Systematically Important Institutions
G-SIBs	Global Systemically Important Banks
IHC	Intermediate Holding Company
IGA	Intergovernmental Agreement
ISDA	International Swap and Derivatives Association
MREL	Minimum Requirement for Own Funds and Eligible Liabilities
MBS	Mortgage-Backed Security
MMMF	Money Market Mutual Fund
MPE	Multiple-Point of Entry
OTC	Over-the-counter
OMT	Outright Monetary Transactions
PSI	Private Sector Involvement
PDCF	Primary Dealer Credit Facility
PSPP	Public Sector Purchases Programme
QE	Quantitative Easing
SMP	Secondary Market Purchase Programme
SIFI	Systematically Important Financial Institution
SPE	Single-Point of Entry
SRM	Single Resolution Mechanism
SRB	Single Resolution Board
SRF	Single Resolution Fund
TLAC	Total Loss-Absorption Capacity

Used Resources

1. Literature

- (1) FRIEDMAN, Milton, SCHWARZ, Anna J. *A Monetary History of the United States, 1867-1960*, Princeton University Press, September 2, 2008, ISBN-13: 987-0691003542.
- (2) CARR, Sean D., BRUNER, Robert F. *The panic of 1907: Lessons Learned from the Market's Perfect Storm*, 1st Edition, Hoboken, 2007, New Jersey: John Wiley & Sons, ISBN 978-0-470-15263-8.
- (3) SHAW, Christopher W. *Money, Power, and the People: The American Struggle to Make Banking Democratic*, the University of Chicago Press, Chicago 2019, ISBN-13: 978-0-226-63633-7-0.
- (4) MARKHAM, Jerry W. *A Financial history of the United States: From J.P. Morgan to the institutional investor (1900-1970)*, M.E. Sharpe, Volume II, ISBN 0-7656-0730-1.
- (5) MOEN, Jon R. TALLMAN, Ellis W. *The Bank Panic of 1907: The Role of Trust Companies*. *The Journal of Economic History*, vol. 52, Issue, 3, September 1992.
- (6) POZSAR, Zoltan, ADRIAN, Tobias, ASHCRAFT, Adam and BOESKY, Hailey. *Shadow Banking, Staff Report 458*, Federal Reserve Bank of New York, July 2010.
- (7) TODD, T. et al. *The Balance of Power: The Political Fight for an Independent Central Bank, 1790 – Present*, The Federal Reserve Bank of Kansas City, Second Edition, June 2012.
- (8) CARNELL, Richard Scott, MACEY Jonathan R., MILLER Geoffrey P. *The Law of Financial Institutions*, Fifth Edition (Aspen Casebook) 5th Edition, November 2014 ISBN-13: 978-1454809944.
- (9) HETZEL, Robert L., RICHARDSON, Gary. *Money, Banking, and Monetary Policy from the Formation of the Federal Reserve Until Today*, Working Paper No. 16-01, January 2016.
- (10) PHILLIPS, Michael J. *The Lochner Court, Myth and Reality: Substantive Due Process from the 1890s to the 1930s*, ISBN 0-275-96930-4, November 30, 2000.
- (11) KYVIG, David E. *Daily Life in the United States, 1920-1939: Decades of Promise and Pain*, November 30, 2001, ASIN : B000PY3HBK.
- (12) WHITE, Eugene N., SNOWDEN, Kenneth, FISHBACK, Price V. *Housing and Mortgage Markets in Historical Perspective, National Bureau of Economic Research*, The University of Chicago Press, ISBN: 13-978-0-226-07384-2.
- (13) FRIEDMAN, Milton, SCHWARTZ, Anna J. *The Great Contraction, 1929-1933*, Princeton Classic Editions, Princeton University Press 1965.
- (14) BERGER, Allen N., MOLYNEUX Phillip, WILSON O.S. John. *The Oxford Handbook of Banking*, Third Edition, Oxford University Press, 2019, ISBN: 978-0-19-882463-3.
- (15) Danny Busch, Guido Ferrarini, et al. *European Banking Union (Oxford EU Financial Regulation)*, Oxford University Press; 2nd edition, March 4, 2020, ISBN-13: 978-0198827511, p. 736.
- (16) CAPRIO, Gerard, VITTAS Dimitri. *Reforming Financial Systems: Historical Implications for Policy*, Cambridge University Press, January 25, 2007.
- (17) MILLER, Geoffrey P., MACEY, Jonathan R. *Double Liability of Bank Shareholders: History and Implications*, 1992, Yale Law School Legal Scholarship Repository Series.
- (18) SELIGMAN, Joes. *The Transformation of Wall Street: A History of the Securities and Exchange Commission and Modern Corporate Finance*, 3rd Edition, Walters Kluwer, Law and Business 2012, ISBN: 0735544352
- (19) The Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States, January 2011, U.S. Government Printing Office, Washington D.C., ISBN: 978-0-16-087983-8.

- (20) WHEELOCK, David C. *The Federal Response to Home Mortgage Distress: Lessons from the Great Depression*, Federal Reserve Bank of St. Louis Review, May/June 2008, 90 (Part 1).
- (21) FETTER, Daniel, ROSE, Jonathan, and SNOWDEN, Kenneth. *The Oxford Handbook of American Economic History, Housing in American Economic History*, vol. 2, Oxford University Press, 2018.
- (22) CLAESSENS, Stijn and KOSE, Ayhan M. *Financial Crises: Explanations, Types, and Implications*, IMF Working Paper, Research Department, January 2013.
- (23) LAEVEN, Luc and VALENCIA, Fabian. *Systemic Banking Crises*, IMF Research Department, September 2012.
- (24) KEYNES, J. M. *The General Theory of Employment, Interest and Money*, Stellar Classics, May 5, 2016, ISBN-10: 198781780X
- (25) SHILLER, Robert, J. *Irrational Exuberance*, Princeton University Press, March 2000, ISBN 0691050627, p. 396.
- (26) CARNELL, Richard Scott, MACEY Jonathan R., MILLER Geoffrey P. *The Law of Financial Institutions*, Fifth Edition (Aspen Casebook) 5th Edition, 2014, Wolters Kluwer Law & Business, ISBN-13: 978-1454809944, p. 698.
- (27) SCOTT, E. Kenneth. *Uncertain Course of Bank Deregulation*, AEI Journal on Government and Society, Vol. 5, No 3, 1981.
- (28) WHITE, Eugene N. *The Comptroller and the Transformation of American Banking, 1960-1990*, Washington, DC: Comptroller of the Currency, June 1, 1992.
- (29) Office of the Comptroller of the Currency, National Banks and the Future: Report of the Advisory Committee on Banking to the Comptroller of the Currency, U.S. Treasury Department, 1962.
- (30) LANGEVOORT, Donald C. *Statutory Obsolescence and the Judicial Process: The Revisionist Role of the Courts in Federal Banking Regulation*, Michigan Law Review 672, Volume 85, issue 4, 1987, p. 655.
- (31) Federal Deposit Insurance Corporation, *History of the Eighties, lessons for the future, Volume I: An Examination of the Banking Crises of the 1980s and Early 1990s*, Washington, DC, 1997, p.434.
- (32) BOND, Robert J., MCKENZIE, Dennis J., FESLER John, BOONE Rick. *California Real Estate Finance*, South-Western Educational Pub; 9 edition, June 9, 2010, ISBN-10: 0538798327.
- (33) FABOZZI, Frank J., MODIGLIANI Franco. *Mortgage and Mortgage-Backed Securities Markets*, Harvard Business School Press Series in Financial Services Management, May 1, 1992, Boston, MA, ISBN-10: 0875843220.
- (34) MCKENNA, William F., HILLS, Carla A. et al. *The Report of the President's Commission on Housing*, Washington D.C., April 29, 1982.
- (35) GETEY, Pedro, ZECCHETTO, Franco. *Mortgage Design and Slow Recoveries. The Role of Recourse and Default*, October 2018.
- (36) The Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States, January 2011, U.S. Government Printing Office, Washington D.C., ISBN: 978-0-16-087983-8.
- (37) Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States, January 2011, U.S. Government Printing Office, Washington D.C., ISBN: 978-0-16-087983-8.
- (38) OMAROVA, Saule T. *The Quiet Metamorphosis: How Derivatives Changed the "Business of Banking"*, July 2009, Cornell Law Faculty Publications.
- (39) Comptroller of the Currency. *Risk Management of Financial Derivatives*, Comptroller's Handbook, January 1997.
- (40) BIDYUT, Sen. *Derivatives for Decision Makers: Strategic Management Issues*, Wiley, 22nd edition, August 10, 1996, ISBN 978-0471129943.

- (41) Securities and Exchange Commission, *Report on the Role and Function of Credit Rating Agencies in the Operation of the Securities Markets: As Required by Section 702(b) of the Sarbanes-Oxley Act of 2002*, W. S. Hein & Co. Publishing, April 1, 2004, ISBN-13: 978-1575888217.
- (42) KROSZNER, Randall, S. and RAGHURAM, Rajan G. *Is the Glass-Steagall Act Justified? A Study of the U.S. Experience with Universal Banking Before 1933*, the American Economic Review, Vol. 84, No. 4, September 1994.
- (43) EUGENE, White N. *Before the Glass-Steagall Act: An Analysis of the Investment Banking Activities of National Banks*, Explorations in Economic History 23, no. 1, 1986.
- (44) SEGALA, John P. *A Summary of the International Banking Act of 1978*, Federal Reserve Bank of Richmond Economic Review, January/February 1979.
- (45) REINICKE, Wolfgang H. *Banking, Politics and Global Finance: American Commercial Banks and Regulatory Change, 1980-1990*, Edward Elgar Publishing, 1995, ISBN: 978 1 85898 176 5.
- (46) FENDER, Ingo, SCHEICHER Martin. *The Pricing of Subprime Mortgage Risk in Good Times and Bad Evidence from the ABX.HE Indices*, Working Paper Series No 1056, May 2009.
- (47) US Department of Housing and Urban Development Office of Policy Development and Research, *Report to Congress on the Root Causes of the Foreclosure Crisis*, January 2010.
- (48) The Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States, January 2011, U.S. Government Printing Office, Washington D.C., ISBN: 978-0-16-087983-8.
- (49) KACPERCZYK, Marcin, SCHNABL, Philipp. *When Safe Proved Risky: Commercial Paper during the Financial Crisis of 2007–2009*, Journal of Economic Perspectives, Volume 24, Number 1, 2010.
- (50) BERNANKE, Ben S. *The Economic Outlook*, testimony before the Joint Economic Committee, US Congress, 110th, March 28, 2007.
- (51) HUMPHREY, Thomas. *Lender of Last Resort: The Concept in History*, the Federal Reserve Bank of Richmond, Economic Review, March/April 1999.
- (52) BAGEHOT, Walter. *Lombard Street: A Description of the Money Market 1873*, Wiley 1st edition, April 1999, ISBN-13 : 978-0471345367.
- (53) WESSEL, David. *In FED We Trust: Ben Bernanke's War on the Great Panic*, August 3, 2010, ISBN-13:978-0307459695, p. 398.
- (54) PAULSON, Henry M. *On the Brink, Onside the Race to Stop the Collapse of the Global Financial System*, Business Plus, 1.Edition, 2010, ISBN: 0446561932, p. 345.
- (55) SCHELLER, Hanspeter K. *The European Central Bank, History, Role and Functions*, Second Revised Edition, 2006, ISBN 92-899-0027-9, p. 467.
- (56) GRAUWE, Paul, JI, Yuemei. *Mispricing of Sovereign Risk and Macroeconomic Stability in the Eurozone*, Journal of Common Market Studies, Volume 50, Number 6, 2012
- (57) STIGLITZ, Joseph E. *New Theoretical Perspectives on the Distribution of Income and Wealth Among Individuals*, National Bureau of economic research.
- (58) STIGLITZ, Joseph E. *Inequality and Growth: Patterns and Policy*. International Economic Association Series. Palgrave Macmillan, London, ISBN, 978-1-137-55453-6.
- (59) PETRAKIS, Panagiotis E., KOSTIS, Pantelis C., VALSAMIS, Dionysis G. *European Economics and Politics in the Midst of the Crisis, From the Outbreak of the Crisis to Fragmented European Federation*, Springer, ISBN 978-3-642-41343-8.
- (60) GRAUWE, Paul. *Design Failures in the Eurozone - can they be fixed?*, April 2013, ISBN 978-92-79-28573-8.
- (61) AHEARNE, Alan. *Political-Economic Context in Ireland, in Special Report 21, Resolving the European Debt Crisis*, Peterson Institute for International Economics and Bruegel, March 2012, ISBN: 9780881326420.

- (62) MENELAOS, Markakis. *Accountability in the Economic and Monetary Union: Foundations, Policy, and Governance*, Oxford University Press, ISBN-13: 9780198845263.
- (63) ACHARYA, V. Viral et al., *Regulating Wall Street: The Dodd-Frank Act and the New Architecture of Global Finance*, Wiley; 1st edition, November 9, 2010, ISBN-13: 978-0470768778, p. 592.
- (64) GRUNDMANN, Stefan, MICKLITZ, Hans W. *The European Banking Union and Constitution Beacon for Advanced Integration or Death-Knell for Democracy?* 1st edition, ISBN: 9781509907564, January 24, 2019.
- (65) SPIEGELEER, Jan De., SCHOUTENS, Wim, HULLE, Cynthia Van. *The Handbook of Hybrid Securities: Convertible Bonds, CoCo Bonds, and Bail-In*, ISBN: 978-1-118-45002-4, August 2014.
- (66) LIBERADZKI, Kamil, LIBERADZKI, Marcin. *Hybrid Securities: Structuring, Pricing and Risk Assessment*, Palgrave Macmillan Publishing, 1st edition, 2016, ISBN: 9781137589705.
- (67) BRUNI, Franco and LLEWELLYN, David T. et al. *The Failure of Northern Rock: A Multi-Dimensional Case Study*, The European Money and Finance Forum, Vienna 2009, ISBN-13: 978-3-902109-46-0.
- (68) DEMARY Markus, MATTHES Jurgen. *An Evaluation of Sovereign-backed Securities (SBSs) Potentials, Risks and Political Relevance for EMU Reform*, Cologne Institute for Economic Research, June 23, 2017, ISBN: 9781137589705, p. 246.

2. Internet Resources

- (1) Tresor Economics May 2013, *The Shadow Banking System in the United States: Recent Developments and Economic Role*, [Accessed on September 20, 2015], available at: <https://www.tresor.economie.gouv.fr/Ressources/File/388661>
- (2) FRYDMAN, Carole, HILT, Eric and ZHOU, Lily Y. *Economic Effects of Runs on Early “Shadow Banks: Trust Companies and the Impact of the Panic of 1907*, *Journal of Political Economy* 123, University of Chicago Press, No. 4, August 2015, [Accessed on September 15, 2015], available at: <https://www.journals.uchicago.edu/doi/abs/10.1086/681575>
- (3) AMADEO, Kimberly, *1920s Economy, What Made the Twenties Roar, The Balance*, [Accessed on April 12, 2020], available at: <https://www.thebalance.com/roaring-twenties-4060511>
- (4) Measuring Worth, *Daily Closing Value of the Dow Jones Average*, May 20, 2016, [Accessed on May 30, 2018], available at: <https://www.measuringworth.com/datasets/DJA/result.php>
- (5) BERNANKE, Ben. *Causes of the Recent Financial and Economic Crisis*, Statement by Ben S. Bernanke, Chairman, Board of Governors of the Federal Reserve System, before the Financial Crisis Inquiry Commission, Washington D.C., September 2, 2010, available at: <https://www.federalreserve.gov/newsevents/testimony/bernanke20100902a.htm>
- (6) MOEN Jon R., TALLMAN Ellis W. *Federal Reserve History, The panic of 1907*, December 4, 2015, [Accessed on February 15, 2016], available at: <https://www.federalreservehistory.org/essays/panic-of-1907>
- (7) *First Inaugural Address of Franklin D. Roosevelt*, Saturday, March 4, 1933, Yale Law School, Lilian Goldman Law Library, [Accessed on July 22, 2016], available at: https://avalon.law.yale.edu/20th_century/froos1.asp
- (8) The United States Senate, *Subcommittee on Senate Resolutions 84 and 234* [Accessed on May 13, 2016], available at: <https://www.senate.gov/>
- (9) Inflation and CPI Consumer Price Index 1930-1939, [Accessed on May 24, 2016], available at: www.inflationdata.com
- (10) RICHARDSON, Gary, *Federal Reserve History: Banking Panics of 1930-31*, Federal Reserve Bank of Richmond, November 22, 2013, [Accessed on May 5, 2015], available at: <https://www.federalreservehistory.org/essays/banking-panics-1930-31>
- (11) RICHARDSON, Gary, KOMAI, Alejandro, GOU, Michael and PAR, Daniel, *Federal Reserve History: Stock Market Crash of 1929*, November 22, 2013, [Accessed on May 5, 2015], available at: <https://www.federalreservehistory.org/essays/stock-market-crash-of-1929>
- (12) ENGEMANN, Kristie M., *Federal Reserve History: Banking Panics of 1931-33*, Federal Reserve Bank of St. Louis, November 22, 2013, [Accessed on May 5, 2015], available at: <https://www.federalreservehistory.org/essays/banking-panics-1930-31>
- (13) SABLIK, Tim. *Federal Reserve History: Recession of 1981-82*, Federal Reserve Bank of Richmond, [Accessed on May 5, 2015], available at: <https://www.federalreservehistory.org/essays/recession-of-1981-82>
- (14) COLTON, Kent, *Housing Finance in the United States: The Transformation of the U.S. Housing Finance System*, Joint Center for Housing Studies, Harvard University W02-5, 2002, [accessed on May 20, 2016], available at: www.jchs.harvard.edu/publications/finance/W02-5_Colton.pdf
- (15) International Swap and Derivatives Association, *Press Release: Greek Sovereign Debt Q&A (Update)*, New York, July 25, 2011, [accessed on May 11, 2016], available at: <https://www.isda.org/2011/07/25/greek-sovereign-debt-qa-update/>
- (16) The Financial Stability Board, *Strengthening Oversight and Regulation of Shadow Banking, An Overview of Policy Recommendations*, August 29, 2013, [Accessed on September 15, 2016], available at: http://www.fsb.org/wp-content/uploads/r_130829a.pdf

- (17) BORIO, Claudio, Bank for International Settlement Speech: *Low Inflation And Rising Global Debt: Just A Coincidence?* August 1, 2018, Basel Switzerland, [Accessed on September 10, 2018], available at: <https://www.bis.org/speeches/sp180802.pdf>
- (18) High-Level Group on Financial Supervision in the EU, *Report*, Brussels, February 25, 2009, [Accessed on May 12, 2015], available at: https://ec.europa.eu/info/system/files/de_larosiere_report_en.pdf
- (19) The U.S. Justice Department, *1968 Merger Guidelines*, [Accessed on July 26, 2016], available at: <https://www.justice.gov/sites/default/files/atr/legacy/2007/07/11/11247.pdf>
- (20) ZWEIG, Jason, *Lessons of May Day 1975 Ring True Today: The Intelligent Investor*, the Wall Street Journal, April 30, 2015, [Accessed on August 7, 2015], available at: <https://www.wsj.com/articles/lessons-of-may-day-1975-ring-true-today-the-intelligent-investor-1430450405>
- (21) ANDERSON, Richard G., GASCON, Charles S., *The Commercial Paper Market, the Fed, and the 2007-2009 Financial Crisis*, Federal Reserve Bank of St. Louis Review, November/December 2009, 91(6), [Accessed on September 2, 2016], available at: <https://files.stlouisfed.org/files/htdocs/publications/review/09/11/Anderson.pdf>
- (22) WOOLLEY, John T., PETERS, Gerhard, *Lyndon B. Johnson, Remarks Upon Signing Order Establishing the National Advisory Commission on Civil Disorders*, July 29, 1967, The American Presidency Project, Santa Barbara, California, University of California [accessed on July 6, 2016], available at: <https://www.presidency.ucsb.edu/documents/remarks-upon-signing-order-establishing-the-national-advisory-commission-civil-disorders>
- (23) *Summary Report of the National Advisory Commission on Civil Disorders*, United States, Printing Government Office 1968, [Accessed on July 6, 2016], available at: <https://www.hsdl.org>
- (24) U.S. Government Accountability Office, *Fannie Mae and Freddie Mac: Analysis of Options for Revising the Housing Enterprises' Long-term Structures*, September 2009, [accessed on July 28, 2016], available at: www.gao.gov/new.items/d09782.pdf
- (25) KENNETH, Robinson J., *Federal Reserve History: Savings and Loan Crisis*, Federal Reserve Bank of Dallas, November 22, 2013 [accessed on July 6, 2016], available at: https://www.federalreservehistory.org/essays/savings_and_loan_crisis
- (26) MCCONNELL, John J., BUSHNER, Stephen A., *The Origins and Evolution of the Market for Mortgage-Backed Securities*, Annual Review of Financial Economics, August 19, 2011, [Accessed on May 12, 2016], available at: <https://doi.org/10.1146/annurev-financial-102710-144901>
- (27) PACKER Frank, WOOLDRIDGE, Philip D., *International banking and financial market developments*, BIS Quarterly Review, September 2003, [accessed on July 15, 2016], available at: https://www.bis.org/publ/qtrpdf/r_qt0309.pdf
- (28) BABA, Naohiko, MCCAULEY, Robert N., RAMASWAMY, Srichander., *US dollar money market funds and non-US banks*, BIS Quarterly Review, March 2009, [Accessed on September 16, 2015], available at: https://www.researchgate.net/publication/227346844_US_dollar_money_market_funds_and_non-US_banks
- (29) KING, Michael, R., HORDAHL Peter, *Developments in repo markets during the financial turmoil*, BIS Quarterly Review, December 2008, [Accessed online on September 2, 2016], available at: https://www.bis.org/publ/qtrpdf/r_qt0812e.htm
- (30) CURRY Timoty, SHIBUTT Lyn, *The Cost of the Savings and Loan Crisis: Truth and Consequences*, Federal Deposit Insurance Corporation Banking Review, [accessed on July 16, 2016], available at: <http://www.workingre.com/wp-content/uploads/2013/08/cost-of-SL.pdf>
- (31) SEGOVIANO Miguel, JONES Bradley, LINDNER Peter, and BLANKENHEIM Johannes, *Securitization: Lessons Learned and the Road Ahead*, IMF Working Paper WP/13/225, November 2013, [Accessed on September 16, 2016], available at: <https://www.imf.org/external/pubs/ft/wp/2013/wp13255.pdf>
- (32) United States Senate Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs, *WALL STREET and THE FINANCIAL CRISIS: Anatomy of a Financial Collapse*, Majority and Minority Report, February 25, 2011, Washington D.C., [Accessed on August 17, 2016], available at: <https://www.govinfo.gov/app/details/GPO-FCIC>

- (33) U.S. Government Accountability Office, *NONPRIME MORTGAGES: Analysis of Loan Performance, Factors Associated with Defaults, and Data Sources*, Report No. GAO-10-805, August 24, 2010, [Accessed on September 16, 2016], available at: <https://www.gao.gov/assets/310/308845.pdf>
- (34) FRAME, Scott W., FUSTER, Andreas, TRACY, Joseph, VICKERY, James, *The Rescue of Fannie Mae and Freddie Mac*, Federal Reserve Bank of New York Staff Reports, Staff Report No. 719 March 2015, [Accessed on September 20, 2016], available at: https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr719.pdf
- (35) Federal Register, Vol. 69, No. 211, November 2, 2004, *Rules and Regulations*, Office of the Federal Register, National Archives and Records Administration, Washington, D.C., at p. 63645, [Accessed on September 18, 2016], available at: <https://www.govinfo.gov/content/pkg/FR-2004-11-02/pdf/FR-2004-11-02.pdf>
- (36) EDWARD, Pinto, J., *Government Housing Policies in the Lead-up to the Financial Crisis: A Forensic Study*, August 14, 2010, [Accessed on September 18, 2016], available at: https://fcic-static.law.stanford.edu/cdn_media/fcic-docs/2010-08-14%20Pinto%20Government%20Policies.pdf
- (37) STOUT, Lynn A., *How Deregulating Derivatives Led to Disaster, and Why Re-Regulating Them Can Prevent Another*, Cornell Law Faculty Publications 2009, Paper 723, [Accessed on September 14, 2016], available at: <http://scholarship.law.cornell.edu/facpub>
- (38) Bank for International Settlements, *The global OTC derivatives market at end-June 1998*, December 23, 1998, [Accessed on September 2017], available at <https://www.bis.org/press/p981223.htm>
- (39) Bank for International Settlements, *OTC derivatives market activity in the first half of 2008*, November 2008, Basel Switzerland, [Accessed on September 2017], available at: https://www.bis.org/publ/otc_hy0811.pdf
- (40) ARMSTRONG, Jim, KIFF, John, *Understanding the Benefits and Risks of Synthetic Collateralized Debt Obligations*, Bank of Canada Financial System Review 53–61 June 2005, [Accessed on September 15, 2016], available at: <https://www.bankofcanada.ca/2005/06/fsr-june-2005/>
- (41) WHITE, Lawrence J., *A Brief History of Credit Rating Agencies: How Financial Regulation Entrenched this Industry's Role in the Subprime Mortgage Debacle of 2007–2008*, George Mason University, Mercatus on Policy, No. 59, October 2009, [Accessed on September 16, 2016], available at: https://www.mercatus.org/system/files/59_CRA_history_%28web%29.pdf
- (42) Organization for Economic Co-operation and Development, *Hearings of Competition Committee: Competition and Credit Rating Agencies*, DAF/COMP (2010)(29), October 5, 2010, [Accessed on September 16, 2016], available at: <http://www.oecd.org/daf/competition/sectors/46825342.pdf>
- (43) The SEC's 2019 Annual Report on Nationally Recognized Statistical Rating Organizations, [Accessed on September 16, 2020], available at: www.sec.gov
- (44) The ESMA's 2019 Report on Annual Market Share Calculation for EU Registered Credit Rating Agencies, [Accessed on September 15, 2020] available at: www.esma.europa.eu
- (45) HERRING, Richard J., *Policy Issues Concerning the Reform of the Credit Rating Agencies*, Pew Financial Reform Project, Briefing Paper No. 14, 2009, [Accessed on September 16, 2016], available at: <https://www.pewtrusts.org/-/media/assets/2008/11/19/frpherringcareform.pdf>
- (46) Federal Reserve Bank of New York, *MBS Ratings and the Mortgage Credit Boom*, Staff Report No. 449, May 2010, [Accessed on September 16, 2016], available at: https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr449.pdf
- (47) Rating the Raters: Enron and the Credit Rating Agencies, *Hearings Before the Senate Committee on Governmental Affairs*, 107th Congress 471, March 20, 2002, [Accessed on September 16, 2016], available at: <https://www.sec.gov/news/studies/credratingreport0103.pdf>
- (48) DAY, Kathleen, *Greenspan Calls for Repeal of the Glass-Steagall Bank Law*, the Washington Post, November 19, 1987, [Accessed on September 12, 2015], available at: <https://www.washingtonpost.com/archive/business/1987/11/19/greenspan-calls-for-repeal-of-glass-steagall-bank-law/ef97566b-be70-4527-b6df-6e7cbd6c0761/>

- (49) LIPIN Steven, *Travelers Agrees to Acquire Salomon for \$9 Billion in Stock*, the Wall Street Journal, September 25, 1997, [Accessed on September 3, 2015], available at: <https://www.wsj.com/articles/SB875135981983573000>
- (50) SICONOLFI Michael, *Travelers and Citicorp to Merge In Megadeal Valued at \$83 Billion*, the Wall Street Journal, September 25, 1997, [Accessed on September 3, 2015], available at: <https://www.wsj.com/articles/SB891818705198998500>
- (51) REED Danielle, SHRIVASTAVA Anusha, *Mortgage Sector Withstands Subprime's Fallout*, The Wall Street Journal, December 9, 2006, [Accessed on May 12, 2016], available at: <https://www.wsj.com/articles/SB116559501589944722>
- (52) SCHOLTES Saskia, BEALES Richard, *New Century files for Chapter 11*, the Financial Times, April 3, 2007 [Accessed on May 12, 2016], available at: <https://www.ft.com/content/3681fec0-e13d-11db-bd73-000b5df10621>
- (53) BEALES Richard, SCHOLTES Saskia, *Freddie Mac refuses some subprime loans*, the Financial Times, February 28, 2007, [Accessed on May 12, 2016], available at: <https://www.ft.com/content/ebc40808-c696-11db-8f4f-000b5df10621>
- (54) THOMAS Matthew, DAMMERS Chris, DURAND Helene, *Fire brigade called to IKB but losses hidden in smoke*, Global Capital, August 2, 2007, [Accessed on May 12, 2016], available at: <https://www.globalcapital.com/Article/k51wqxts5c/fire-brigade-called-to-ikb-but-losses-hidden-in-smoke>
- (55) WILSON James, *Ex-IKB chief guilty of market manipulation*, the Financial Times, July 14, 2010, [Accessed on May 12, 2016], available at: <https://www.ft.com/content/f332dba0-8f24-11df-a4de-00144feab49a>
- (56) Parvest Dynamic ABS, *BNP Paribas ABS €IBOR and BNP Paribas ABS EONIA*, August 9, 2007, [Accessed on May 12, 2016], available at: <https://group.bnpparibas/en/press-release/bnp-paribas-investment-partners-temporarily-suspends-calculation-net-asset-funds-parvest-dynamic-abs-bnp-paribas-abs-euribor-bnp-paribas-abs-eonia>
- (57) CECCHETTI, Stephen G., *Looking Back: The Financial Crisis Began 10 Years Ago This Week*, Money and Banking August 7, 2017, [Accessed on May 1, 2018], available at: <https://www.moneyandbanking.com/commentary/2017/8/6/looking-back-the-financial-crisis-began-10-years-ago-this-week>
- (58) GORTON, Gary B., *The Panic of 2007*, NBER Working Paper No. 14358, September 2008, [Accessed on May 1, 2018], available at: <http://www.nber.org/papers/w14358>
- (59) TETT, Gillian, MILNE, Richard, GUHA, Krishna, *ECB injects €95bn to help markets*, the Financial Times, August 10, 2007, [Accessed on May 1, 2018], available at: <https://www.ft.com/content/a8c5829a-466e-11dc-a3be-0000779fd2ac>
- (60) European Central Bank, *The ECB's additional open market operations in the period from August 8, 2007 to September 5, 2007*, Monetary and monetary developments, [Accessed on May 1, 2018], available at: <https://www.ecb.europa.eu/mopo/devel/html/index.en.html>
- (61) Bank of Canada, Press Release: Bank of Canada issues statement on provision of liquidity to support the stability and efficient function of financial markets, August 9, 2007, [Accessed on May 1, 2018], available at: <https://www.bankofcanada.ca/2007/08/bank-canada-issues-statement-provision-liquidity-support-stability/>
- (62) LIIKANEN, et al., *High-Level Expert Group on Reforming the Structure of the EU Banking Sector*, October 2, 2012, [Accessed on December 2, 2015], available at: http://www.ec.europa.eu/internal_market/bank/docs/high-level_expert_group/report_en.pdf
- (63) Bank for International Settlement, *Re-thinking the lender of last resort*, BIS Papers No 79, September 15, 2014, [Accessed on May 1, 2018], available at: <https://www.bis.org/publ/bppdf/bispap79.htm>
- (64) Board of Governors of the Federal Reserve System, *Press Release: FOMC Statement*, November 3, 2010, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20101103a.htm>
- (65) Board of Governors of the Federal Reserve System, *Recent Balance sheet trends*, November 17, 2020, [Accessed on November 7, 2020], available at: https://www.federalreserve.gov/monetarypolicy/bst_recenttrends.htm

- (66) Board of Governors of the Federal Reserve System, *Federal Reserve press Release*, September 23, 1998, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/boarddocs/press/BHC/1998/19980923/19980923.pdf>
- (67) European Central Bank, *Press release, Technical features of Outright Monetary Transactions*, September 6, 2012, [Accessed on May 1, 2018], available at: https://www.ecb.europa.eu/press/pr/date/2012/html/pr120906_1.en.html
- (68) Federal Reserve Bank of Cleveland, *Credit Easing: A Policy for a Time of Financial Crises*, February 12, 2019, [Accessed on May 1, 2018], available at <https://www.clevelandfed.org/en/newsroom-and-events/publications/economic-trends/economic-trends-archives/2009-economic-trends/et-20090212-credit-easing-a-policy-for-a-time-of-financial-crisis.aspx>
- (69) WILLARDSON, Niel, *Actions to Restore Financial Stability, A summary of recent Federal Reserve initiatives* the Federal Reserve Bank of Minneapolis, December 1, 2008, [Accessed on September 14, 2015], available at: <https://www.minneapolisfed.org/article/2008/actions-to-restore-financial-stability>
- (70) LABONTE, Marc, MAKINEN, Gail E., *Federal Reserve Interest Rate Changes: 2000-2008*, SCR Report for Congress, March 19, 2008, [Accessed on September 1, 2015], available at: www.hsdl.org
- (71) Board of Governors of the Federal Reserve System, *Press Release: Federal Reserve announces two initiatives to address heightened liquidity pressures in term funding markets*, March 7, 2008, [Accessed on September 1, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080307a.htm>
- (72) ARMANTIER, Olivier, KRIEGER, Sandy, MCANDREWS, James, *The Federal Reserve's Term Auction Facility*, Current Issues in Economics and Finance, Volume 14, No. 5, July 2008, [Accessed on September 14, 2015], available at: https://papers.ssm.com/sol3/papers.cfm?abstract_id=1169282
- (73) Board of Governors of the Federal Reserve System, *Press Release: Federal Reserve and other central banks announce measures designed to address elevated pressures in short-term funding markets*, December 12, 2007, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/monetarypolicy/20071212a.htm>
- (74) Federal Reserve Bank of New York. *Primary Dealers*, [Accessed on September 13, 2015], available at: <https://www.newyorkfed.org/markets/primarydealers>
- (75) Federal Reserve Bank of New York, *Press Release: New York Fed Announces Modifications to Terms and Conditions of Term Securities Lending Facility*, March 20, 2008, [Accessed on September 14, 2015], available at: <https://www.newyorkfed.org/newsevents/news/markets/2008/rp080320>
- (76) Federal Reserve Bank of New York, *Press Release: Federal Reserve Board announces several initiatives to provide additional support to financial markets, including enhancements to its existing liquidity facilities*, September 14, 2008, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080914a.htm>
- (77) Board of Governors of the Federal Reserve System, *Press Release: Federal Reserve and other central banks announce specific measures designed to address liquidity pressures in funding markets*, March 11, 2008, [Accessed on September 1, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080311a.htm>
- (78) Periodic Report Pursuant to Section 129(b) of the Emergency Economic Stabilization Act of 2008: *Update on Outstanding Lending Facilities Authorized by the Board Under Section 13(3) of the Federal Reserve Act*, December 29, 2008, [Accessed on September 14, 2015], available at: www.federalreserve.gov
- (79) HAUBRICH Joseph G., *Some Lessons on the Rescue of Long-Term Capital Management*, Federal Reserve Bank of Cleveland Policy Discussion Papers, Number 19, April 2007, [Accessed on September 14, 2015], available at: <https://www.clevelandfed.org/newsroom-and-events/publications/discontinued-publications/policy-discussion-papers/pdp-0719-some-lessons-on-the-rescue-of-long-term.aspx>
- (80) Form 10-K of Bear Stearns Companies Inc., [Accessed on September 14, 2015], available at: <https://www.sec.gov/edgar/searchedgar/companysearch.html>

- (81) FCIC memo of staff interview with Robert Upton, Bear Stearns, *United States: Financial Crisis Inquiry Commission*, April 13, 2010, [Accessed on September 14, 2015], available at: <https://ypfs.som.yale.edu/library/fcic-memo-staff-interview-robert-upton-bear-stearns>
- (82) SHORTER, Gary, BEAR, Stearns, *Crisis and "Rescue" for a Major Provider of Mortgage-Related Products*, CRS Report for Congress, March 19, 2008, [Accessed on September 14, 2015], available at: <https://digital.library.unt.edu/ark:/67531/metadc815502/>
- (83) JACKSON Paul, *BEAR Stearns Completes Acquisition of ECC Capital, the Housing wire*, February 12, 2007, [Accessed on September 14, 2015], available at: <https://www.housingwire.com/articles/bear-stearns-completes-acquisition-ecc-capital/>
- (84) COPELAND, Adam, DUFFIE, Darrell, MARTIN, Antoine, MCLAUGHLIN, Susan, *Key Mechanics of Tri-Party Repo Markets*, June 2011, Economic Policy Review, Federal Reserve Bank of New York, [Accessed on September 14, 2015], available at: <https://www.newyorkfed.org/research/epr/2012/1210cope.html>
- (85) KELLY, Kate, IP, Greg, SIDEL, Robin, *Fed Races to Rescue Bear Stearns In Bid to Steady Financial System, the Wall Street Journal*, March 15, 2008, [Accessed on September 14, 2015], available at: <https://www.wsj.com/articles/SB120550108028136579>
- (86) Federal Reserve Bank of New York, *Press Release: Summary of Terms and Conditions Regarding the JPMorgan Chase Facility*, March 24, 2008, [Accessed on September 14, 2015], available at: <https://www.newyorkfed.org/aboutthefed/annual/annual08/MaidenLanefinstmt2009.pdf>
- (87) Ailing Firm Sold, *J.P.Morgan Buys Bear in Fire Sale, As Fed Widens Credit to Avert Crisis*, the Wall Street Journal, March 17, 2008, [Accessed on September 14, 2015], available at: <https://www.wsj.com/articles/SB120569598608739825>
- (88) Board of Governors of the Federal Reserve System, *Press Release: Federal Reserve announces two initiatives designed to bolster market liquidity and promote orderly market functioning*, March 16, 2008, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080316a.htm>
- (89) Federal Reserve Bank of New York, *Press Release: Federal Reserve Board announces several initiatives to provide additional support to financial markets, including enhancements to its existing liquidity facilities*, September 14, 2008, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080914a.htm>
- (90) CHEN, Qianying, FILARDO Andrew, HE DONG, Zhu Feng, *Hong Kong Monetary Authority and Bank for International Settlements, International spillovers of central bank balance sheet policies*, BIS Papers No 66, November 2011, [Accessed on September 10, 2016], available at: [ww.bis.org](http://www.bis.org).
- (91) HOROWITZ Jed, *Lehman's Fuld: 'Worst is behind us;' markets still difficult*, Dow Jones Newswires, April 15, 2008, [Accessed on September 20, 2015], available at: <https://www.marketwatch.com/story/lehmans-fuld-worst-is-behind-us-markets-still-difficult>
- (92) Eoddata, *Historical Data, Lehman Brothers Holdings Inc.*, [Accessed on September 10, 2016], available at: <http://www.eoddata.com/StockQuote/NYSE/LEH.htm>
- (93) Report of Anton R. Valukas, Examiner, Lehman Brothers Holdings, Inc. et al. Debtors. March 11, 2010, Volume 1 of 9 Sections I & II: *Introduction, Executive Summary & Procedural Background*, [Accessed on September 20, 2016], available at: <https://web.stanford.edu/~jbulow/Lehmandocs/origIndex.html>
- (94) Lehman Brothers Holdings Inc., *Form 10-K 2007 Report*, [Accessed on September 20, 2016], available at: https://www.sec.gov/Archives/edgar/data/806085/000110465908005476/a08-3530_110k.htm#Item6_SelectedFinancialData_003911
- (95) Lehman Brothers Holdings Inc., *Form 10-Q for the quarterly period ended May 31, 2008*, [Accessed on September 20, 2016], available at: https://www.sec.gov/Archives/edgar/data/806085/000110465908045115/a08-18147_110q.htm
- (96) Lehman Brothers Holdings Inc., *Q2 2008 Earnings Conference Call, June 16, 2008*, [Accessed on September 20, 2016], available at: https://web.stanford.edu/~jbulow/Lehmandocs/docs/DEBTORS/LBHI_SEC07940_1139550-1139578.pdf

- (97) Linklaters, *Legal Opinion to Lehman Brothers International (Europe) on Repurchase Transactions under a Global Master Repurchase Agreement*, May 31, 2006, [Accessed on September 20, 2016], available at: <https://web.stanford.edu/~jbulow/Lehmandocs/docs/DEBTORS/LBEX-LBIE%20000001-000009.pdf>
- (98) WILCHINS, Dan, *Lehman may have to raise capital if sells assets*, August 4, 2008, [Accessed on September 20, 2016], available at: <https://www.reuters.com/article/us-lehman-assets/lehman-may-have-to-raise-capital-if-sells-assets-idUSN0144737620080804>
- (99) CARNEY, Brian, *Bernankels Fighting the Last War*, the Wall Street Journal, October 18, 2008, [Accessed on September 20, 2016], available at: <https://www.wsj.com/articles/SB122428279231046053>
- (100) CRAIG, Susanne, MCCracken, Jeffrey, LUCCHETTI Aaron and KELLY Kate, *The Weekend That Wall Street Died*, the Wall Street Journal, September 19, 2008, [Accessed on September 20, 2016], available at: <https://www.wsj.com/articles/SB123051066413538349>
- (101) HAUBRICH, Joseph G., *Some Lessons on the Rescue of Long-Term Capital Management*, Federal Reserve Bank of Cleveland Policy Discussion Papers, Number 19, April 2007, [Accessed on September 14, 2015], available at: <https://www.clevelandfed.org/newsroom-and-events/publications/discontinued-publications/policy-discussion-papers/pdp-0719-some-lessons-on-the-rescue-of-long-term.aspx>
- (102) STEMPEL, Jonathan, COMLAY, Elinor, *Bank of America takeover to end independent Merrill*, September 15, 2008, [Accessed on September 2, 2016], available at: <https://www.reuters.com/article/us-merrill-bankofamerica/bank-of-america-takeover-to-end-independent-merrill-idUSN1445019920080915>
- (103) Barclays Press release, *Barclay announces agreement to acquire Lehman Brothers North American investment banking and capital markets businesses*, September 17, 2008 available at: https://newsroom.barclays.com/r/1435/barclays_announces_agreement_to_acquire_lehman_brothers
- (104) Board of Governors of the Federal Reserve System, *Press Release: Federal Reserve Board announces two enhancements to its programs to provide liquidity to markets*, September 19, 2008, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20080919a.htm>
- (105) U.S. Department of the Treasury, *Press release: Treasury Announces Guaranty Program for Money Market Funds*, October 2010, [Accessed on September 14, 2016], available at: <https://www.treasury.gov/press-center/press-releases/Pages/hp1147.aspx>
- (106) Board of Governors of the Federal Reserve System, *Press Release: Board announces creation of the Commercial Paper Funding Facility (CPFF) to help provide liquidity to term funding markets*, October 7, 2008, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20081007c.htm>
- (107) Board of Governors of the Federal Reserve System, *Press Release: Federal Reserve announces the creation of the Term Asset-Backed Securities Loan Facility (TALF)*, November 25, 2008, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20081125a.htm>
- (108) See Board of Governors of the Federal Reserve System, *TALF Terms and conditions*, November 25, 2008, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/newsevents/pressreleases/monetary20081125a.htm>
- (109) Board of Governors of the Federal Reserve System, *Press Release: Federal Reserve Board, with full support of the Treasury Department, authorizes the Federal Reserve Bank of New York to lend up to \$85 billion to the American International Group (AIG)*, September 16, 2008, [Accessed on September 14, 2016], available at: <https://www.federalreserve.gov/newsevents/pressreleases/other20080916a.htm>
- (110) United States Government Accountability Office, Report to Congressional Committee, *Troubled Asset Relief Programme, Status of Government Assistance Provided to AIG*, September 2009, [Accessed on September 2, 2016], available at: <https://www.gao.gov/new.items/d09975.pdf>
- (111) Moody's Research: *Moody's downgrades AIG (Senior to Aa3) and certain subsidiaries*, May 22, 2008, [Accessed on September 2, 2016], available at: https://www.moodys.com/research/Moodys-downgrades-AIG-senior-to-Aa3-and-certain-subsidiaries--PR_156099

- (112) The Waal Street journal, *S&P Downgrades AIG, Citing 'Reduced Flexibility'* [Accessed on September 2, 2016], September 15, 2008, available at: <https://blogs.wsj.com/wallstreetcrisis/2008/09/15/sp-downgrades-aig-citing-reduced-flexibility/>
- (113) Report Pursuant to Section 129 of the Emergency Economic Stabilization Act of 2008: *Securities Borrowing Facility for American International Group, Inc.*, [Accessed on September 14, 2015], available at: <https://www.federalreserve.gov/monetarypolicy/files/129aigsecborrowfacility.pdf>
- (114) Board of Governors of the Federal Reserve System, *Report Pursuant to Section 129 of the Emergency Economic Stabilization Act of 2008: Secured Credit Facility Authorized for American International Group, Inc.* September 16, 2008, [Accessed on September 14, 2016], available at: <https://fraser.stlouisfed.org/title/reports-pursuant-section-129-emergency-economic-stabilization-act-2008-5295/secured-credit-facility-authorized-american-international-group-inc-september-16-2008-533970>
- (115) Board of Governors of the Federal Reserve System, *Press Release: Board authorizes Federal Reserve Bank of New York to borrow securities from certain regulated U.S. insurance subsidiaries of AIG*, October 8, 2008, [Accessed on September 14, 2016], available at: <https://www.federalreserve.gov/newsevents/pressreleases/other20081008a.htm>
- (116) U.S. Department of the Treasury, Office of Financial Stability, *Troubled Asset Relief Program (TARP): Two Year Retrospective*, October 2010, [Accessed on September 14, 2016], available at: www.treasury.gov
- (117) U.S. Department of the Treasury, Office of Financial Stability, *Asset Guarantee Program*, [Accessed on September 14, 2016], available at: <https://www.treasury.gov/initiatives/financial-stability/TARP-Programs/bank-investment-programs/agp/Pages/contracts.aspx>
- (118) U.S. Department of the Treasury, Office of Financial Stability, *Capital Purchase Program*, [Accessed on September 14, 2016], available at: <https://www.treasury.gov/initiatives/financial-stability/TARP-Programs/bank-investment-programs/cap/Pages/default.aspx>
- (119) U.S. Department of the Treasury, Office of Financial Stability, *Targeted Investment Program*, [Accessed on September 14, 2016], available at: <https://www.treasury.gov/initiatives/financial-stability/TARP-Programs/bank-investment-programs/tip/Pages/default.aspx>
- (120) Congressional Oversight Panel, *January Oversight Report: Exiting TARP and Unwinding Its Impact on the Financial Markets*, January 13, 2010, [Accessed on September 14, 2016], available at: <https://fraser.stlouisfed.org/title/exiting-tarp-unwinding-impact-financial-markets-5020>
- (121) Board of Governors of the Federal Reserve System, *Regulatory Reform, American International Group (AIG), Maiden Lane II and III*, Transaction Data, December 1, 2010, [Accessed on September 14, 2016], available at: <https://www.federalreserve.gov/regreform/reform-aig.htm>
- (122) U.S. Department of the Treasury, *Press release: Treasury Announces TARP Capital Purchase Program Description*, October 14, 2008, [Accessed on September 14, 2016], available at: <https://www.treasury.gov/press-center/press-releases/Documents/document5hp1207.pdf>
- (123) BERNANKE, Ben S., *Remarks before the Committee on Banking, Housing, and Urban Affairs*, U.S. Senate, September 23, 2008, [Accessed on September 20, 2016], available at: <http://www.federalreserve.gov/newsevents/testimony/bernanke20080923a1.htm>
- (124) JONUNG, Eoin Drea, *The euro: It can't happen, It's a bad idea, It won't last. US economists on the EMU, 1989-2002*, European Economy - Economic Papers 2008 - 201, Directorate General Economic and Financial Affairs, European Commission, 2009, 20 [Accessed on September 2, 2016], available at: https://www.researchgate.net/publication/46447646_The_euro_It_can%27t_happen_It%27s_a_bad_idea_It_won%27t_last_US_economists_on_the_EMU_1989-2002
- (125) SCHUKNECHT, Ludger, MOUTOT, Philippe, ROTHER, Philipp and STARK, Jürgen, *The Stability and Growth Pact Crisis and Reform*, Occasional Paper Series No 129, September 2011, [Accessed on September 09, 2016], available at: <http://www.ecb.europa.eu>
- (126) TRICHET, Jean-Claude, *The ECB's enhanced credit support*, Keynote speech at the University of Munich, July 13, 2009, [Accessed on May 1, 2018], available at: <https://www.ecb.europa.eu/press/key/date/2009/html/sp090713.en.html>

- (127) TUMPEL-GUGERELL, Gertrude, *The European response to the financial crisis*, Speech at Bank of New York Mellon Headquarter, New York, October 16, 2009, [Accessed on May 1, 2018], available at: https://www.ecb.europa.eu/press/key/date/2009/html/sp091016_1.en.html
- (128) European Central Bank, *Press Release: Supplementary longer-term refinancing operation*, August 22, 2007, [Accessed on May 1, 2018], available at: <https://www.ecb.europa.eu/press/pr/date/2007/html/pr070822.en.html>
- (129) European Central bank, *Press Release: ECB announces measures to support bank lending and money market activity*, December 8, 2011, [Accessed on May 1, 2018], available at: https://www.ecb.europa.eu/press/pr/date/2011/html/pr111208_1.en.html
- (130) CHEUN, Samuel, Von KÖPPEN-MERTES, Isabel, WELLER, Benedict, *The collateral frameworks of the Eurosystem, the Federal Reserve System and the Bank of England and the financial market turmoil*, European Central Bank, Occasional Paper Series 107, December 2009, [Accessed on May 1, 2018], available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1325248
- (131) TRICHET, Jean-Claude, *The financial crisis and the response of the ECB*, Speech at the Ceremony conferring the honorary title of Doctor Honoris Causa at the University of National and World Economy, Bulgaria, Sofia June 12, 2009, [Accessed on May 1, 2018], available at: <https://www.ecb.europa.eu/press/key/date/2009/html/sp090713.en.html>
- (132) TRICHET, Jean-Claude, *The ECB's response to the recent tensions in financial markets*, Speech and the 38th Economic Conference of the Oesterreichische National Bank, Vienna, May 31, 2010, [Accessed on May 1, 2018], available at: https://www.ecb.europa.eu/press/key/date/2010/html/sp100531_2.en.html
- (133) WEBER, Axel A., *Monetary policy after the crisis – a European perspective*, Keynote speech by Professor Axel A Weber, President of the Deutsche Bundesbank, at the Shadow Open Market Committee (SOMC) symposium, New York City, October 12, 2010, [Accessed on May 1, 2018], available at: https://www.bis.org/author/axel_a_weber.htm
- (134) WILSON, James, WIGGLESWORTH, Robin, GROOM, Brian, *ECB ready to do whatever it takes*, the Financial Times, July 26, 2012, [Accessed on May 1, 2016], available at: <https://www.ft.com/content/6ce6b2c2-d713-11e1-8e7d-00144feabdc>
- (135) European Central Bank, *Verbatim of the remarks made by Mario Draghi*, speech by Mario Draghi, President of the European Central Bank at the Global Investment Conference in London, July 26, 2012, [Accessed on May 1, 2016], available at: <https://www.ecb.europa.eu/press/key/date/2012/html/sp120726.en.html>
- (136) European Central Bank, *Press Release: Technical Features of Outright Monetary transactions*, September 12, 2012, [Accessed on May 1, 2016], available at: <https://www.ecb.europa.eu/press/govcdec/otherdec/2012/html/gc120921.en.html>
- (137) European Central Bank, *Press Release: Consolidated financial statement of the Eurosystem as at 7 September 2012*, September 11, 2012, [Accessed on May 1, 2018], available at: <https://www.ecb.europa.eu/press/pr/wfs/2012/html/fs120911.en.html>
- (138) GROS, Daniel, ALCIDI, Cinzia, GIOVANNI, Alessandro, *Central Banks in Times of Crisis: The FED vs. the ECB*, CEPS Policy Brief, No. 276, July 11, 2012, [Accessed on May 1, 2018], available at: www.ceps.eu
- (139) European Central Bank, *Press Release: ECB announces expanded asset purchase programme*, January 15, 2015, [Accessed on May 1, 2016], available at: https://www.ecb.europa.eu/press/pr/date/2015/html/pr150122_1.en.html
- (140) European Central Bank, *Implementation aspects of the public sector purchase programme (PSPP)*, March 17, 2015, [Accessed on May 1, 2016], available at: <https://www.ecb.europa.eu/mopo/implement/app/html/pspp.en.html>
- (141) CŒURÉ, Benoît, *Embarking on public sector asset purchases*, Speech at the Second International Conference on Sovereign Bond Markets, March 10, 2015, [Accessed on May 1, 2016], available at: https://www.ecb.europa.eu/press/key/date/2015/html/sp150310_1.en.html
- (142) CLAEYS, Grégory; LEANDRO, Álvaro; MANDRA, Allison, *European Central Bank quantitative easing: The detailed manual Bruegel Policy Contribution*, No. 2015/02, March 2015, [Accessed on May 1, 2016], available at: <https://www.bruegel.org/publications/>

- (143) European Central Bank, *Account of the monetary policy meeting of the Governing Council of the European Central Bank*, January 21-22, [Accessed on May 1, 2016], available at: <https://www.ecb.europa.eu/press/accounts/2015/html/mg150219.en.html>
- (144) COHEN-SETTON, Jérémie, *the ECB as a lender of last resort to sovereigns*, Bruegel Blog Post, November 25, 2011, [Accessed on May 1, 2018], available at: <https://www.bruegel.org/2011/11/the-ecb-as-a-lender-of-last-resort-to-sovereigns/>
- (145) STUBBINGTON, Tommy, *European banks load up on government bonds, raising concerns over 'doom loop'*, the Financial Times, September 21, 2020, [Accessed on October 1, 2020], available at: <https://www.ft.com/content/0696b32b-936d-4d96-81db-c131d5bd8d9d>
- (146) RANASINGHE, Dhara, *REFILE-Euro zone 'doom loop' between government bonds, banks has weakened, study shows*, Reuters, November 10, 2020, [Accessed on December 1, 2020], available at: <https://in.reuters.com/article/europe-bonds-qe/refile-euro-zone-doom-loop-between-government-bonds-banks-has-weakened-study-shows-idUKL8N2HW2E3>
- (147) The European Central Bank, *Press Release: ECB announces €750 billion Pandemic Emergency Purchase Programme (PEPP)*, March 18, 2020, [Accessed on March 20, 2020], available at: https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200318_1~3949d6f266.en.html
- (148) BARBER, Tony, *Greece vows action to cut budget deficit*, the Financial Times, October 20, 2009, [Accessed on May 1, 2018], available at: <https://www.ft.com/content/3e7e0e46-bd47-11de-9f6a-00144feab49a>
- (149) MELANDER, Ingrid, PAPADIMAS, Lefteris, *UPDATE 2-Fitch rating cut piles pain on troubled Greece*, Reuters, December 8, 2009, [Accessed on May 1, 2018], available at: <https://www.reuters.com/article/greece-fitch/update-1-fitch-rating-cut-piles-pain-on-troubled-greece-idUSGEE5B70TN20091208>
- (150) KELL, John, *S&P Downgrades Greece to Junk Status*, the Wall Street Journal, April 27, 2010, [Accessed on May 1, 2018], available at: <https://www.wsj.com/articles/SB10001424052748704471204575210063379043320>
- (151) AARON, Smith, *Greek crisis fears deepen*, CNN Money, April 28, 2010, [Accessed on May 1, 2018], available at: https://money.cnn.com/2010/04/28/news/international/greek_bonds/
- (152) Eurostat, *Euro area and EU27 government deficit at 6.3% and 6.8% of GDP respectively*, News release 55/2010, April 22, 2010, the Economist, April 23, 2010, [Accessed on May 1, 2018], available at: <https://ec.europa.eu/eurostat/news/news-releases>
- (153) International Monetary Fund, *Press Release: Joint Statement on Greece by EU Commissioner Olli Rehn and IMF Managing Director Dominique Strauss-Kahn*, May 2, 2010, [Accessed on May 1, 2018], available at: <https://www.imf.org/en/News/Articles/2015/09/14/01/49/pr10177>
- (154) European Commission, *Financial Assistance to Greece*, [Accessed on May 1, 2018], available at: https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/financial-assistance-eu/which-eu-countries-have-received-assistance/financial-assistance-greece_en#first-programme-for-greece
- (155) *Franco-German declaration: Statement for the France-Germany-Russia Summit*, Deauville, October 18, 2010, [Accessed on May 1, 2018], available at: https://www.eu.dk/~media/files/eu/franco_german_declaration.ashx?la=da
- (156) European Stability Mechanism, *Safeguarding the Euro in Times of Crisis, The Inside Story of ESM*, Luxembourg, 2019, ISBN 978-92-95085-33-6, [Accessed on May 1, 2018], available at: <https://op.europa.eu/en/publication-detail/-/publication/615e3a9c-8d86-11e9-9369-01aa75ed71a1/language-enPI>
- (157) International Monetary Fund, *Greece: Fourth Review Under the Stand-By Arrangement and Request for Modification and Waiver of Applicability of Performance Criteria*, IMF Country Report No. 11/175, July 2011, [Accessed on May 1, 2018], available at: <https://www.imf.org/en/Countries/GRC>
- (158) European Council, *Statement by the euro area heads of state or government and EU institutions of July 21, and Statement by the EU heads of state or government*, of October 26, 2011, [Accessed on May 15, 2018], available at: <https://www.consilium.europa.eu/en/european-council/euro-summit/documents-2010-2018/>

- (159) European Commission, *Background document on the offer by the International Institute of Finance (IIF) and on Debt Buy Back (DBB)*, July 27, 2011, [Accessed on May 15, 2018], available at: https://ec.europa.eu/economy_finance/articles/financial_operations/2011-07-27-psi_en.htm
- (160) Statement by Vice-President Rehn at the Eurogroup of February 21, 2011, [Accessed on May 15, 2018], available at: https://ec.europa.eu/commission/presscorner/detail/en/MEMO_12_122
- (161) Ministry of Finance of the Hellenic Republic, *Press Release of February 24, 2012*, [Accessed on May 15, 2018], available at: http://blogs.reuters.com/felix-salmon/files/2012/03/Greek.Min-Fin-Press_Release_Feb.24-2012.pdf
- (162) DARROW Peter, HANS Richard, *A Greek odyssey: Greece's sovereign debt restructuring and its impact on holders of Greek bonds*, DLA Piper Finance Alert, March 26, 2012, [Accessed on May 15, 2018], available at: https://www.dlapiper.com/en/us/insights/publications/2012/03/a-greek-odyssey-greeces-sovereign-debt-restructu_/#_edn5
- (163) COTTERILL Joseph, *PSI, the Greek details*, the Financial Times, February 21, 2012, [Accessed on May 15, 2018], available at: <https://www.ft.com/content/e217e642-e92d-3399-9879-95e4b0812606>
- (164) TREBESCH Christoph, ZETTELMEYER Jeromin, *ECB Interventions in Distressed Sovereign Debt Markets: The Case of Greek Bonds*, Peterson Institute for International Economics Working Paper No. 18-1, January 22, 2018, [Accessed on May 15, 2018], available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3106769
- (165) European Central Bank, Press conference of February 9, 2012, *Introductory statement to the press conference (with Q&A)*, [Accessed on May 15, 2018], available at: <https://www.ecb.europa.eu/press/pressconf/2012/html/is120209.en.html>
- (166) ZETTELMEYER, Jeromin, TREBESCH, Christoph and GULATI, Mitu, *The Greek Debt Restructuring: An Autopsy*, Working Paper Series WP 13-8, August 2013, Peterson Institute for International Economics, [Accessed on May 15, 2016], available at: https://www.researchgate.net/publication/264618936_The_Greek_Debt_Restructuring_An_Autopsy
- (167) European Stability Mechanism, Financial Assistance, Programme Database, Disbursement, [Accessed on May 15, 2019], available at: <https://www.esm.europa.eu/assistance/programme-database/disbursements>
- (168) International Swap and Derivatives Association, *News Release: ISDA EMEA Determinations Committee: Restructuring Credit Event Has Occurred with Respect to The Hellenic Republic*, March 9, 2012, [Accessed on January 10, 2016], available at: <https://www.isda.org/2012/03/09/isda-emea-determinations-committee-restructuring-credit-event-has-occurred-with-respect-to-the-hellenic-republic/>
- (169) International Swap and Derivatives Association, *News Release: ISDA EMEA Determinations Committee: CDS Auction relating to The Hellenic Republic*, March 19, 2012, [Accessed on January 10, 2016], available at: <https://www.isda.org/2012/03/19/isda-emea-determinations-committee-cds-auction-relating-to-the-hellenic-republic/>
- (170) International Monetary Fund, *Greece: First and Second Reviews Under the Extended Arrangement Under the Extended Fund Facility, Request for Waiver of Applicability, Modification of Performance Criteria, and Rephasing of Access—Staff Report. Staff Supplement; Press Release on the Executive Board Discussion; and Statement by the Executive Director for Greece*, IMF Country Report No. 13/20, January 2013, Accessed on May 15, 2018], available at: <https://www.imf.org/en/Publications/Search?series=IMF%20Staff%20Country%20Reports&when=During&year=2013>
- (171) STEVENS, Laura, TORRY, Harriet, HENNING, Eyk, *Greek Bond Deal Makes German Banker See Red*, the Wall Street Journal, February 24, 2012, [Accessed on January 10, 2016], available at: <https://www.wsj.com/articles/SB10001424052970203960804577240570332762612>
- (172) International Swap and Derivatives Association, *News Release: ISDA Statement on CDS Credit Event Process*, October 31, 2011. [Accessed on July 1, 2016], available at: <https://www.isda.org/2011/10/31/isda-statement-on-cds-credit-event-process/>
- (173) BOWMAN, Louise, *ISDA: 50% Greek haircut 'voluntary', likely no credit event for CDS*, October 27, 2011, [Accessed on July 1, 2016], available at: <https://www.euromoney.com/article/b12kjfhmd2654z/isda-50-greek-haircut-39voluntary39-likely-no-credit-event-for-cds?copyrightInfo=true>

- (174) Letter from the ECB president Mario Draghi to Mr Nikolaos Chountis of October 10, 2017, [Accessed on July 1, 2018], available at https://www.ecb.europa.eu/pub/pdf/other/ecb.mepletter171010_Chountis.en.pdf?ca00752c61bdb4df6c227f4f3c62b98a
- (175) European Commission, *Questionnaire supporting the own initiative report evaluating the structure, the role and operations of the 'troika'* (Commission, ECB and the IMF) actions in euro area programme countries, December 16, 2013, [Accessed on May 1, 2015], available at: www.europarl.europa.eu
- (176) International Monetary Fund, *The Fund's Lending Framework and Sovereign Debt – Further Considerations*, IMF Policy Paper, April 9, 2015, [Accessed on May 12, 2018], available at: <https://www.imf.org/en/News/Articles/2015/09/28/04/53/sopol120815a>
- (177) BUCHHEIT, Lee C., GULATI, Mitu G., TIRADO, Ignacio, *The Problem of Holdout Creditors in Eurozone Sovereign Debt Restructurings*, January 24, 2013 [Accessed on May 1, 2016], available at: <https://papers.ssrn.com/sol3/papers.cfm>
- (178) Economic Stabilization Advisory Group, *Governmental Assistance to the Financial Sector: an Overview of the Global Responses*, February 27, 2009, [Accessed on May 12, 2018], available at: www.sherman.com/media/NewsInsights
- (179) MOURMOURAS I. J., *On Emergency Liquidity Assistance: theory and evidence*, Speech in Oxford on February 27, 2017, [Accessed on May 12, 2018], available at: <https://www.bankofgreece.gr/en/news-and-media/press-office/news-list/news?announcement=c91acffb-3322-4472-82a0-90d17fc17cce>
- (180) European Central Bank, *Statistical Data Warehouse*, [Accessed on May 12, 2018], available at: <https://sdw.ecb.europa.eu/browseSelection.do?DATASET=1&node=9689430>
- (181) Bank of Greece, *The institutional framework for resolution*, [Accessed on May 12, 2018], available at: <https://www.bankofgreece.gr/en/main-tasks/resolution/the-institutional-framework-for-resolution>
- (182) Bank of Greece, *Chronicle of the Great Crisis, The Bank of Greece 2008–2013*, Centre for Culture, Research and Documentation, September 2014, ISBN: 978-960-7032-65-2, [Accessed on December 2, 2019], available at: www.bankofgreece.gr
- (183) World Bank Group, *Bank resolution and bail-in in the EU : selected case studies pre and post BRRD*, Washington, D.C., April 18, 2017, [Accessed on December 2, 2019], available at: <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/731351485375133455/bank-resolution-and-bail-in-in-the-eu-selected-case-studies-pre-and-post-brrd>
- (184) International Monetary Fund, *IMF Lending Case Study: Ireland*, May 2019, [Accessed on December 2, 2019], available at: <https://www.imf.org/en/Countries/IRL/ireland-lending-case-study>
- (185) European Commission, *Press Release: Commission approves revised Irish support scheme for financial institutions*, October 13, 2008, [Accessed on December 2, 2019], available at: https://ec.europa.eu/commission/presscorner/detail/en/IP_08_1497
- (186) European Central Bank, *Agreement on emergency liquidity assistance*, [Accessed on December 2, 2019] available at: <https://www.ecb.europa.eu/mopo/ela/html/index.en.html>
- (187) PISANI-FERRY Jean, SAPIR André, WOLFF Guntram, *EU-IMF assistance to euro-area countries: an early assessment*, Bruegel Blueprint 19, Volume XIX, ISBN: 978-90-78910-30-5, [Accessed on December 15, 2015], available at: <https://www.bruegel.org/2013/06/eu-imf-assistance-to-euro-area-countries-an-early-assessment/>
- (188) CONNOR, Gregory, FLAVIN, Thomas and O'KELLY, Brian, *Restructuring and Recovery of the Irish Financial Sector: An Economic Case History*, Working Paper., April 2015, [Accessed on December 2, 2019], available at: <http://mural.maynoothuniversity.ie/6076/>
- (189) BROWN John, *Dublin nationalizes Anglo Irish Bank*, the Financial Times, January 16, 2009, [Accessed on December 15, 2019], available at: <https://www.ft.com/content/964f2e9e-e33f-11dd-a5cf-0000779fd2ac>
- (190) European Commission, *Press Release: Commission approves revised Irish support scheme for financial institutions*, November, 11, 2009, [Accessed on December 2, 2019], available at: https://ec.europa.eu/commission/presscorner/detail/en/MEMO_09_564

- (191) EICHENGREEN, Barry, *The Irish Crisis and the EU from a Distance*, University of California, Berkeley, January 2015, [Accessed on December 2, 2019], available at: <https://www.elibrary.imf.org/view/IMF087/22904-9781513587363/22904-9781513587363/ch09.xml?language=en>
- (192) Irish Department of Finance, Irish Bank Resolution Corporation (IBRC), January 23, 2018, [Accessed on December 15, 2019], available at: <https://www.gov.ie/en/publication/97fb9b-irish-bank-resolution-corporation-ibrc/>
- (193) COTTERILL, Joseph, *Luck of the Irish... promissory notes*, Opinion FT Alphaville, the Financial Times, [Accessed on December 15, 2016], available at: <https://www.ft.com/content/92c7e7cd-10a2-324e-80aa-66287aec0782>
- (194) WHELAN Karl, *ELA, Promissory Notes and All That: The Fiscal Costs of Anglo Irish Bank*, The Economic and social review, December 2012, [Accessed on December 15, 2015], available at: https://www.researchgate.net/publication/239810599_ELA_Promissory_Notes_and_All_That_The_Fiscal_Costs_of_Anglo_Irish_Bank
- (195) European Central Bank, *Introductory statement to the press conference (with Q&A)*, February 7, 2013, [Accessed on December 15, 2015], available at: <https://www.ecb.europa.eu/press/pressconf/2013/html/is130207.en.html>
- (196) European Central Bank, *Media: Irish Letters*, November 6, 2014, [Accessed on December 15, 2015, then December 2, 2019], available at: <https://www.ecb.europa.eu/press/html/irish-letters.en.html>
- (197) Council of the European Union, *Press Release: Extraordinary Council meeting Economic and Financial Affairs*, Brussels, May 9, 2010, [Accessed on May 1, 2015], available at: https://ec.europa.eu/commission/presscorner/detail/en/PRES_10_108
- (198) Letter from Jean-Claude Trichet to Brian Lenihan Tánaiste, dated November 19, 2010, [Accessed on December 15, 2015], available at: <https://www.ecb.europa.eu/press/html/irish-letters.en.html>
- (199) Letter from Mario Draghi to Matt Carthy, Member of the European Parliament, dated February 17, 2015, [Accessed on December 15, 2015], available at <https://www.ecb.europa.eu/press/html/irish-letters.en.html>
- (200) European Commission, *Financial Assistance to Ireland*, [Accessed on December 15, 2015], available at: https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/financial-assistance-eu/which-eu-countries-have-received-assistance/financial-assistance-ireland_en
- (201) Comptroller and Auditor General, *Special Report 102 - National Asset Management Agency - Second Progress Report*, July 26, 2018, [Accessed on August 15, 2018], available at: <https://www.audit.gov.ie/en/find-report/publications/special%20reports/special-report-102-national-asset-management-agency-second-progress-report.html>
- (202) European Commission, *Overview of EFSM financial assistance operations*, [Accessed on December 15, 2015], available at: https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/financial-assistance-eu/funding-mechanisms-and-facilities/european-financial-stabilisation-mechanism-efsm_hr#efsmprogrammes
- (203) Council of the European Union, *Press Release: EFSM: Council approves €7bn bridge loan to Greece*, [Accessed on December 15, 2015], available at: <https://www.consilium.europa.eu/en/press/press-releases/2015/07/17/efsm-bridge-loan-greece/#>
- (204) European Stability Mechanism, *Financial Assistance*, [Accessed on December 15, 2020], available at: <https://www.esm.europa.eu/financial-assistance>
- (205) The European Council, *Factsheet, Treaty establishing the European Stability Mechanism*, February 2, 2012, [Accessed on December 15, 2015], available at: https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ecofin/127788.pdf
- (206) European Stability Mechanism 2019, *Annual Report*, [Accessed on July 15, 2020], available at: <https://www.esm.europa.eu/sites/default/files/esm-annual-report-2018.pdf>

- (207) WALL, Denis, *Monti Pushes for ESM Banking License*, the Wall Street Journal, August, 1, 2012 [Accessed on July 15, 2015], available at: <https://www.wsj.com/articles/SB10000872396390444320704577563140539189060>
- (208) MORGENSON, Gretchen, *Scare Tactics in Greece*, the New York Times, November 19, 2011, [Accessed on July 15, 2016], available at: <https://www.nytimes.com/2011/11/20/business/credit-default-swaps-as-a-scare-tactic-in-greece.html>
- (209) ISDA EMEA Determinations Committee, March 15, 2011, [Accessed on July 15, 2016], available at: www.isda.org
- (210) ISDA's analysis of the senior status of the IMF with respect to its loans to the Republic of Ireland, January 18, 2011, [Accessed on July 15, 2016], available at: www.isda.org
- (211) European Parliament resolution on the Commission communication on implementing the framework for financial markets: Action Plan (COM)(1999) 232, April 13, 2000, [Accessed on December 4, 2015], available at: <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT%2BTA%2BP5-TA-20000180%2B0%2BDOC%2BXML%2BV0//EN>
- (212) European Parliament resolution on prudential supervision rules in the European Union (2002/2061(INI)), [Accessed on December 4, 2015], available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52002IP0568&from=EN>
- (213) World Bank National Accounts Data, and OECD National Accounts data files, *GDP growth (annual %) - European Union*, [Accessed on December 4, 2015], available at: <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2017&locations=EU&start=2017&view=bar>
- (214) European Commission, *Press Release: High Level Expert Group on EU financial supervision to hold first meeting on 12 November*, November 11, 2008, [Accessed on December 4, 2014], available at: http://europa.eu/rapid/press-release_IP-08-1679_en.htm
- (215) European Commission, *Communication from the Commission - European financial supervision COM/2009/0252716*, [Accessed on December 4, 2014], available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52009DC0252>
- (216) European Banking Authority, *Archive: Results of 2010 EU wide stress testing exercise*, [Accessed on July 15, 2015], available at: <https://www.eba.europa.eu/risk-analysis-and-data/eu-wide-stress-testing/2010>
- (217) European Banking Authority, *Archive: 2011 EU-wide stress test results*, [Accessed on July 15, 2015], available at: <https://www.eba.europa.eu/risk-analysis-and-data/eu-wide-stress-testing/2010>
- (218) Towards a Genuine Economic and Monetary Union, *Report by President of the European Council*, Brussels June 26, 2012, [Accessed on May 6, 2015], available at: <https://www.consilium.europa.eu/media/33785/131201.pdf>
- (219) Communication from the Commission to the European parliament and the council: „*A Roadmap towards a Banking Union*“. Brussels, September 12, 2012, [Accessed on March 3, 2015] available at: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0510:FIN:EN:HTML>
- (220) European Central Bank, *Aggregate Report on Comprehensive Assessment*, October 2014, [Accessed on May 6, 2015], available at: https://www.bankingsupervision.europa.eu/banking/tasks/comprehensive_assessment/html/2014_index.en.html
- (221) European Central Bank, *List of supervised entities (as of 1 December 2019)*, January 7, 2020, [Accessed on February 1, 2020], available at: <https://www.bankingsupervision.europa.eu/press/publications/html/index.en.html?skey=list>
- (222) ENRIA, Andrea, *Fragmentation in banking markets: crisis legacy and the challenge of Brexit*, Speech at BCBS-FSI High Level Meeting for Europe on Banking Supervision, September 17, 2018, [Accessed on December 3, 2018], available at: www.eba.eu/documents

- (223) G20 Leaders' Statement at the Pittsburgh Summit, 24 – 25 September 2009, [Accessed on August 16, 2015], available at: <https://www.fsb.org/source/g20/>
- (224) Financial Stability Board, *Key Attributes of Effective Resolution Regimes for Financial Institution*, October 2011, [Accessed on August 16, 2015], available at: <https://www.fsb.org/work-of-the-fsb/policy-development/effective-resolution-regimes-and-policies/key-attributes-of-effective-resolution-regimes-for-financial-institutions/>
- (225) European Commission Services, *State Aid Scoreboard 2018 - Aid in the context of the financial and economic crisis*, [Accessed on August 1, 2015], available at: https://ec.europa.eu/competition/state_aid/scoreboard/index_en.html#crisis
- (226) European Central Bank, *Press release, ECB will directly supervise 117 banks in 2020*, December 4, 2019, [Accessed on February 1, 2020], available at: <https://www.bankingsupervision.europa.eu/press/pr/date/2019/html/ssm.pr191204~45bda0701a.en.html>
- (227) EDOARDO, Martino, *The Bail-in Beyond Unpredictability: Creditors' Incentives and Market Discipline*, European Business Organization Law Review, May 8, 2020, [Accessed on July 15, 2020], available at: <https://link.springer.com/article/10.1007/s40804-020-00188-7>
- (228) The application of a resolution measure to Banco Espírito Santo, SA [Accessed on October 17, 2017], available at: <https://www.bportugal.pt/en-US/OBancoEurosistema/ComunicadoseNotasdeInformacao/Pages/comb20151229-2.aspx>
- (229) Norges bank, *Contingent Convertible Bonds (Cocos) Issued by European Banks*, Norges bank 2014, ISSN 1504-2596, [Accessed on September 1, 2018], available at https://www.norges-bank.no/contentassets/7e3b516fc71a4f0aad2d4fd471d2282e/staff_memo_19_2014.pdf
- (230) European Banking Authority, *Report on the Monitoring of Additional Tier 1 (AT1) Instruments of European Union Institutions – Third Update*, July 20, 2018, [Accessed on September 1, 2018], available at: <https://eba.europa.eu/documents/10180/2087449/AT1+report+Q2+2018+update.pdf>
- (231) Basel Committee on Banking Supervision, *Basel III definition of capital -Frequently asked questions*, September 2017, [Accessed on October 5, 2018], available at: <https://www.bis.org/bcbs/publ/d417.pdf>
- (232) Deutsche Bank, *Investor Relations*, [Accessed on May 5, 2018], available at: https://www.db.com/ir/en/download/DB_ISIN_DE000DB7XHP3_and_ISIN_XS1071551474.pdf
- (233) Deutsche Bank, *Press Release: Deutsche Bank reports 2015 fourth quarter net loss of € 2.1 billion and full year net loss of € 6.8 billion*, January 28, 2016 [Accessed on May 5, 2016], available at: https://www.db.com/newsroom_news/2016/medien/deutsche-bank-reports-2015-fourth-quarter-net-loss-of-€-2-1-billion-and-full-year-net-loss-of-€-6-8-billion-en-11378.htm
- (234) Proposal for a Regulation of the European Parliament and of the Council on sovereign bond-backed securities, 2018/0171 (COD), Brussels, 24.5.2018, [Accessed on December 5, 2019], available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018PC0339>
- (235) SCHADLER, Susan, *The IMF's Preferred Creditor Status: Does It Still Make Sense after the Euro Crisis?* Centre for International Governance Innovation, Policy Brief No. 37, March 2014, [Accessed on July 15, 2016], available at: <https://www.cigionline.org/publications/imfs-preferred-creditor-status-does-it-still-make-sense-after-euro-crisis>
- (236) Banco de Portugal, *Press Release of Banco de Portugal on the application of a resolution measure to Banco Espírito Santo, S.A.*, August 3, 2014, [Accessed on July 10, 2017], available at: <https://www.bportugal.pt/en/comunicado/press-release-banco-de-portugal-application-resolution-measure-banco-espírito-santo-sa>
- (237) European Commission, *Press Release: State aid: Commission approves resolution aid for Portuguese Banco Espírito Santo*, August 4, 2014, [Accessed on July 10, 2017], available at: http://europa.eu/rapid/press-release_IP-14-901_en.htm *Portugal's Novo Banco completes BESI sale to China's Haitong*
- (238) BUGGE Axel, *Portugal's Novo Banco completes BESI sale to China's Haitong*, the Reuters, September 7, 2015, [Accessed on December 10, 2017], available at: <http://www.reuters.com/article/novobanco-haitong/update-1-portugals-novo-banco-completes-besi-sale-to-chinas-haitong-idUSL5N11D32720150907>

- (239) Banco de Portugal, *Banco de Portugal approves decisions that complete the resolution*, December 29, 2015 [Accessed on October 20, 2017], available at: <https://www.bportugal.pt/./OBancoeoEurosistema/./combp2015>
- (240) JESSOP, Simon, KHALIP, Andrei, *Fund firms sue Portugal's central bank over Novo Banco debt*, the Reuters, September 7, 2015, [Accessed on December 10, 2017], available at: <http://www.reuters.com/article/funds-lawsuit-novo-banco/fund-firms-sue-portugals-central-bank-over-novo-banco-debt-idUSL5N1781TN>
- (241) LABONTE Marc, *Federal Reserve: Emergency Lending*, Congressional Research Service, January 6, 2016, [Accessed on June 5, 2016], available <https://ypfs.som.yale.edu/node/2665>
- (242) ARANTXA, Jarque, KARTIK, Athreya, *Understanding Living Wills*, Federal Reserve Bank of Richmond Economic Quarterly, Third Quarter 2015, vol. 101, no. 3, [Accessed on May 15, 2016], available at: https://www.richmondfed.org/publications/research/economic_quarterly/2015/q3/jarque
- (243) Financial Stability Oversight Council, Press Release: Financial Stability Oversight Council Makes First Designations in Effort to Protect Against Future Financial Crises, July 18, 2012, [Accessed on July 5, 2016], available at: <https://www.treasury.gov/press-center/press-releases/Pages/tg1645.aspx>
- (244) U.S. Department of the Treasury, *FSOC Designations*, [Accessed January 5, 2020], available at: <https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/fsoc/designations>
- (245) Financial Stability Oversight Council, *Basis for the Financial Stability Oversight Council's Rescission of Its Determination Regarding GE Capital Global Holdings, LLC*, June 28, 2016, [Accessed January 5, 2020], available at: <https://home.treasury.gov/system/files/261/GE%20Capiatl%20Global%20Holdings%2C%20LLC%20%28R%20ecission%29.pdf>
- (246) MANN Ted, TRACY Ryan, *GE Capital Sheds 'Systemically Important' Label*, the Wall Street Journal, June 29, 2016 [Accessed on July 15, 2016], available at: <https://www.wsj.com/articles/ge-capital-sheds-systemically-important-label-for-too-big-to-fail-firms-1467205963>
- (247) KRESS Jeremy, *The Last SIFI: The Unwise and Illegal Deregulation of Prudential Financial*, Stanford Law Review, Volume 71, December 2018, [Accessed on August 20, 2019], available at: <https://www.stanfordlawreview.org/online/the-last-sifi-the-unwise-and-illegal-deregulation-of-prudential-financial/>
- (248) Financial Stability Oversight Council, *Authority To Require Supervision and Regulation of Certain Nonbank Financial Companies*, December 30, 2019, [Accessed on March 5, 2020], available at: <https://www.federalregister.gov/documents/2019/12/30/2019-27108/authority-to-require-supervision-and-regulation-of-certain-nonbank-financial-companies>
- (249) Nordea, *Press Release: Why we propose to move into the Banking Union*, March 18, 2018, Accessed on November 20, 2018], available at: <https://www.nordea.com/en/press-and-news/news-and-press-releases/news-group/2018/why-we-propose-to-move-into-the-banking-union.html>
- (250) ROSENDAHL, Jussi, KAURANEN, Anne, *Nordea sees room for 'tactical' M&A after HQ move: CEO*, Reuters, October 2, 2018, [Accessed on November 20, 2018], available at: <https://www.reuters.com/article/us-nordea-finland-idUSKCN1MB26R>
- (251) ARNOLD, Martin, MILNE, Richard, *Nordea headquarters move seen to boost profits by up to €330m*, the Financial Times, May 8 2017, [Accessed on January 20, 2018], available at: <https://www.ft.com/content/4fc74af4-33f6-11e7-bce4-9023f8c0fd2e>
- (252) European Commission, *Press release: Frequently Asked Questions: Capital requirements (CRR/CRD IV) and resolution framework (BRRD/SRM) amendments*, November 23, 2016, [Accessed on December 20, 2016], available at: https://ec.europa.eu/commission/presscorner/detail/en/MEMO_16_3840
- (253) Board of Governors of the Federal Reserve System, *Supervisory Policy and Guidance Topics: Foreign Banking Organization (FBO) Supervision and Regulation*, October 20, 2019, [Accessed on December 1, 2019], available at: https://www.federalreserve.gov/supervisionreg/topics/fbo_supervision.htm

- (254) IGAN, Deniz, MOUSSAWI, Hala, TIEMAN, Alexander F., ZDZIENICKA, Aleksandra, DELL'ARICCIA, Giovanni, MAURO, Paolo, *The Long Shadow of the Global Financial Crisis: Public Interventions in the Financial Sector*, IMF Working Paper, WP/19/164, July 2019, [Accessed on August 16, 2019], available at: <https://www.elibrary.imf.org/view/Journal/IMF001.xml?language=en&redirect=true>
- (255) DAGHER, Jihad, *Regulatory Cycles: Revisiting the Political Economy of Financial Crises* International Monetary Fund, IMF Working Paper 18/8, January 2018, [Accessed on August 16, 2019], available at: <https://www.elibrary.imf.org/view/Journal/IMF001.xml?language=en&redirect=true>
- (256) European Commission, *Debt to GDP Comparison by Countries*, July 2, 2015, [Accessed on August 1, 2015] available at: <http://ec.europa.eu/eurostat/documents/2995521/7235991/2-21042016-AP-EN.pdf>
- (257) Single Resolution Board, *Banks under the SRB's Remit*, [Accessed on February 1, 2020], available at: <https://srb.europa.eu/en/content/banks-under-srbs-remit>
- (258) KACZYŃSKI, Piotr Maciej, KURPAS, Sebastian, Ó BROIN, Peadar, *Ratification of the Lisbon Treaty Ireland is not the only problem*, European Policy Institutes Network, Working Paper No. 18, September 2008, [Accessed on May 5, 2015], available at: https://www.researchgate.net/publication/228151213_Ratification_of_the_Lisbon_Treaty_Problems_Not_Only_in_Ireland
- (259) Statement of the Euro Summit, 29 June 2018, [Accessed on December 28, 2019], available at: <https://www.consilium.europa.eu/en/press/press-releases/2018/06/29/20180629-euro-summit-statement/>
- (260) European Stability Mechanism, *Terms of reference of the common backstop to the Single Resolution Fund*, December 4, 2018, [Accessed on December 28, 2019], available at: https://www.consilium.europa.eu/media/37268/tor-backstop_041218_final_clean.pdf
- (261) EBA/GL/2015/03, May 8, 2015, [Accessed on January 5, 2016], available at: <https://www.eba.europa.eu/regulation-and-policy/recovery-and-resolution/guidelines-on-early-intervention-triggers>
- (262) EBA/GL/2015/07, 26 May 2015, [Accessed on October 10, 2015], available at: <https://www.eba.europa.eu/regulation-and-policy/recovery-and-resolution/guidelines-on-failing-or-likely-to-fail>
- (263) Technical advice by the European Banking Authority on classes of arrangements to be protected in a partial property transfer, August 14 2015, [Accessed on October 12, 2015], available at: <https://www.eba.europa.eu/eba-publishes-technical-advice-on-protected-arrangements-in-a-resolution-situation>
- (264) EBA/GL/2015/04, 20 May 2015, [Accessed on October 5, 2015], available at: <https://www.eba.europa.eu/regulation-and-policy/recovery-and-resolution/guidelines-on-the-sale-of-business-tool>
- (265) JOHNSON, Miles, WISE, Peter, September, *Banco Espírito Santo: Family fortunes*, the Financial Times, September 11, 2014, [Accessed on November 20, 2014], available at: <https://www.ft.com/content/a63a4a56-32c0-11e4-93c6-00144feabd0>
- (266) WISE, Peter, *Portugal's Novo Banco told to fill €1.4bn capital shortfall*, the Financial Times, November 15, 2015, [Accessed on July 10, 2017], available at: <https://www.ft.com/content/2cfa3f1e-8b95-11e5-8be4-3506bf20cc2b>
- (267) WISE, Peter, *Lone Star seals deal for stake in rescued Novo Banco after three-year process*, November 15, 2017, [Accessed on December 10, 2017], available at: <https://www.ft.com/content/55eb0869-3f89-387b-9e06-9cbd78ffa99a>
- (268) WISE, Peter, HALE, Thomas, *Asset managers to seek injunction to block sale of Portugal's Novo Banco*, April 3, 2017, [Accessed on December 10, 2017], available at: <https://www.ft.com/content/0cee46b5-57a1-33cb-a98e-fe7289e296d9>
- (269) Novo Banco S.A. 2019 Annual Report, [Accessed on December 10, 2017], available at: https://www.novobanco.pt/site/cms.aspx?labelid=ar_nb

- (270) GLEDHILL, Alice, *Quick Take: Contingent Convertibles*, Bloomberg, August 12, 2020, [Accessed on September 1, 2020], available at: <https://www.bloomberg.com/quicktake/contingent-convertible-bonds>
- (271) Financial Stability Board, *Total Loss-Absorbing Capacity (TLAC) Principles and Term Sheet*, November, 9, 2015, [Accessed on May 10, 2016], available at: <https://www.fsb.org/2015/11/total-loss-absorbing-capacity-tlac-principles-and-term-sheet/>
- (272) ADMATI, Anat, DEMARZO, Peter, HELLWIG, Martin, PFLEIDERER, Paul, *Fallacies, Irrelevant Facts, and Myths in the Discussion of Capital Regulation: Why Bank Equity is Not Socially Expensive*, Stanford Graduate School of Business, Working Paper No. 2065, October 22, 2013, [Accessed on September 1, 2015], available at: <https://www.gsb.stanford.edu/faculty-research/working-papers/fallacies-irrelevant-facts-myths-discussion-capital-regulation-why>
- (273) European Banking Authority, *Press Release: EBA advises the European Commission on the implementation of the final Basel III framework*, August 5, 2019, [Accessed on September 1, 2019], available at: <https://www.eba.europa.eu/eba-advises-the-european-commission-on-the-implementation-of-the-final-basel-iii-framework>
- (274) COW David, *European banks run out of options to protect profits*, the Financial Times, October 22, 2019, [Accessed on September 1, 2019], available at: <https://www.ft.com/content/09469d28-f410-11e9-b018-3ef8794b17c6>
- (275) AVINASH, Persaud D., *Why Bail-In Securities Are Fool's Gold*, Peterson Institute for International Economics, Policy Brief No. PB14-23, November 2014, [Accessed on May 5, 2016], available at: <https://www.piie.com/publications/policy-briefs/why-bail-securities-are-fools-gold>
- (276) HALE, Thomas, LEWIN, Joel, MARTIN, Katie, *Eurozone bank coco bonds extend slide*, the Financial Times, February 8, 2016 [Accessed on May 5, 2016], available at: <https://www.ft.com/content/f921e592-d0af-11e5-831d-09f7778e7377>
- (277) SMITH, Robert, *Coco bond contagion contained after Banco Popular wipeout*, the Financial Times, June 7, 2017 [Accessed on August 10, 2017], available at: <https://www.ft.com/content/1b26153a-4b7c-11e7-a3f4-c742b9791d43>
- (278) Basel Committee on Banking Supervision, *International Convergence of Capital Measurement and Capital Standards*, Basel, July 1988, [Accessed on December 10, 2015], available at: <https://www.bis.org/publ/bcbs04a.pdf>
- (279) European Stability Mechanism, *Before the ESM*, [Accessed on December 15, 2020], available at: <https://www.esm.europa.eu/efsf-overview>.
- (280) Board of Governors of the Federal Reserve board, *Supervisory Capital Assessment Program*, May 7, 2009, available at: <https://www.federalreserve.gov/newsevents/files/bcreg20090507a1.pdf>
- (281) Statement of Eurogroup and ECOFIN Ministers on the SRM backstop, December 18, 2013, [Accessed on May 15, 2016], available at: <https://www.consilium.europa.eu/media/21899/20131218-srm-backstop-statement.pdf>
- (282) VERÓN, Nicolas, *The challenges of Europe's fourfold union*, Bruegel, August 2012, [Accessed on December 1, 2015], available at: http://bruegel.org/wp-content/uploads/imported/publications/pc_2012_13_senate.pdf
- (283) Basel Committee on Banking Supervision, *Re-thinking the lender of last resort*, May 2014, [Accessed on May 15, 2015], available at: <https://www.bis.org/publ/bppdf/bispap79.htm>
- (284) Scott E. Kenneth, *Uncertain Course of Bank Deregulation*, AEI Journal on Government and Society, Vol. 5, No 3, 1981, p. 155, [Accessed on December 1, 2016], available at: www.jgs.com
- (285) Statement by the president of the Eurogroup, June 10, 2014, [Accessed on May 15, 2016], available at: <https://www.consilium.europa.eu/media/28065/143163.pdf>
- (286) Resolution of the Board of Governors of the European Stability Mechanism, December 8, 2014, [Accessed on May 15, 2016], available at: https://www.esm.europa.eu/sites/default/files/20141208_establishment_of_the_instrument_for_the_direct_recapitalisation_of_institutions.pdf

- (287) European Stability Mechanism, Guideline on Financial Assistance for the Direct Recapitalization of Institutions, December 8, 2014, [Accessed on May 15, 2016], available at https://www.esm.europa.eu/sites/default/files/20141208_guideline_on_financial_assistance_for_the_direct_recapitalisation_of_institutions.pdf
- (288) WRIGHT, William, ASIMAKOPOULOS, Panagiotis and HAMRE, Eivind Friis, *Report: The New Financial Global Capital Markets Growth Index*, Unlocking Capital Markets, January 2019, [Accessed on May 15, 2020], available at: <https://newfinancial.org/report-the-new-financial-global-capital-markets-growth-index/>
- (289) The International Monetary Fund, *Iceland: Financial System Stability Assessment Update*, the IMF Country Report No 08/368, December 2008, available at: <https://www.imf.org/en/Publications/CR/Issues/2016/12/31/Iceland-Financial-System-Stability-Assessment-Update-22529>
- (290) Bundesverfassungsgericht, Order of the Second Senate of 14 January 2014 - 2 BvR 2728/13 -, July 11, 2012, [Accessed on May 1, 2018], available at: http://www.bverfg.de/e/rs20140114_2bvr272813en.html
- (291) Communiqué G20 Leaders' Summit – Cannes – 3-4 November 2011, Section 13, available at: <https://www.oecd.org/g20/summits/cannes/Cannes%20Leaders%20Communiqu%C3%A9%204%2020November%202011.pdf>
- (292) Explanatory memorandum to the proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on sovereign bond-backed securities, 2018/0171 (COD), Brussels, 24.5.2018, available at: [https://www.europarl.europa.eu/RegData/docs_autres_institutions/commission_europeenne/com/2018/0339/COM_COM\(2018\)0339_EN.pdf](https://www.europarl.europa.eu/RegData/docs_autres_institutions/commission_europeenne/com/2018/0339/COM_COM(2018)0339_EN.pdf)
- (293) Commission Notice on the notion of State aid as referred to in Article 107(1) of the Treaty on the Functioning of the European Union (2016/C 262/01), available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52016XC0719%2805%29>
- (294) Communication from the Commission on the application, from 1 August 2013, of State aid rules to support measures in favor of banks in the context of the financial crisis ('Banking Communication'), available at <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52013XC0730%2801%29>
- (295) Communication from the Commission - The application of State aid rules to measures taken in relation to financial institutions in the context of the current global financial crisis (2008/C 270/02), available at: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52008XC1025%2801%29>
- (296) Communication from the Commission — *The recapitalization of financial institutions in the current financial crisis: limitation of aid to the minimum necessary and safeguards against undue distortions of competition* (2009/C 10/03), available at: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52009XC0115%2801%29>
- (297) Communication from the Commission on the treatment of impaired assets in the Community banking sector (2009/C 72/01); available at: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52009XC0326%2801%29>
- (298) Mehra Alexander, Legal Authority in Exigent and Unusual Circumstances: The Federal Reserve and the Financial Crisis, *University of Pennsylvania Business Law Review*, March 2, 2011, Accessed on May 1, 2016], available at: www.upenn.law.edu
- (299) Commission Communication on the return to viability and the assessment of restructuring measures in the financial sector in the current crisis under the State aid rules (2009/C 195/04); available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52009XC0819%2803%29>
- (300) Communication from the Commission on the application, from 1 January 2011, of State aid rules to support measures in favor of banks in the context of the financial crisis (2010/C 329/07); available at: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52010XC1207%2804%29>
- (301) Communication from the Commission on the application, from 1 January 2012, of State aid rules to support measures in favor of banks in the context of the financial crisis (2011/C 356/02); available at: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52011XC1206%2802%29>

- (302) European Commission Press Release: *State aid: Commission's new on-line state aid benchmarking tool shows less aid to banks*, Brussels, December 20, 2013, [Accessed on May 10, 2016], available at: https://europa.eu/rapid/press-release_IP-13-1301_en.htm
- (303) Senate Committee on Banking and Currency, *Operation of the National and Federal Reserve Banking Systems*, the US Senate Report No 77 of May 15, 73rd Congress 1st Session, 1933, available at: https://fraser.stlouisfed.org/files/docs/historical/congressional/1933_bankingact_senrep77.pdf
- (304) United States Government Printing Office, Washington 1934, available at: <https://fraser.stlouisfed.org/title/stock-exchange-practices-87/report-pursuant-s-res-84-s-res-56-s-res-97-33979>
- (305) U.S. Department of Housing and Development, *The National Homeownership Strategy: Partners in the American Dream*, May 2, 1995, Washington D.C., available at: https://www.globalurban.org/National_Homeownership_Strategy.pdf
- (306) Annual Information Statement of the Federal National Mortgage Association for the year ended December 31, 1994, available at: <https://www.fanniemae.com/media/27241/display>
- (307) Annual Information Statement of the Federal National Mortgage Association for the year ended December 31, 2000, available at: <https://www.fanniemae.com/media/27136/display>
- (308) U.S. Department of Housing and Urban Development, Press Release, January 19, 2004, available at: <https://archives.hud.gov/news/2004/pr04-006.cfm>
- (309) *The role of Fannie Mae and Freddie Mac in the financial crisis: Hearing before the Committee on Oversight and Government Reform, House of Representatives, One Hundred Tenth Congress, second session, December 9, 2008*, available at: <https://www.govinfo.gov/content/pkg/CHRG-110hrg50808/pdf/CHRG-110hrg50808.pdf>

3. Legal Acts

- (1) Federal Reserve Act [December 23, 1913].
- (2) Emergency Banking Act [March 9, 1933].
- (3) Dodd-Frank Wall Street Reform and Consumer Protection Act [July 21, 2010].
- (4) Banking Act of 1933 [June 16, 1933].
- (5) Banking Act of 1935 [August 23, 1935].
- (6) Securities Act of 1933 [May 27, 1933].
- (7) Securities and Exchange Act of 1934 [July 6, 1934].
- (8) Commodity Exchange Act of 1936 [June 15, 1936].
- (9) Commodity Futures Trading Commission Act of 1974 [October 23, 1974].
- (10) Commodity Futures Modernization Act of 2000. [December 21, 2000].
- (11) Sarbanes-Oxley Act of 2002 [July 30, 2002].
- (12) Credit Rating Agency Reform Act of 2006 [September 29, 2006].
- (13) Gramm-Leach-Bliley Act. [November 12, 1999].
- (14) Regulation of the European Parliament and of the Council amending Regulation (EU) No 575/2013 as regards the leverage ratio, the net stable funding ratio, requirements for own funds and eligible liabilities, counterparty credit risk, market risk, exposures to central counterparties, exposures to collective investment undertakings, large exposures, reporting and disclosure requirements.
- (15) Directive of the European Parliament and of the Council amending Directive 2013/36/EU as regards exempted entities, financial holding companies, mixed financial holding companies, remuneration, supervisory measures and powers and capital conservation measures.
- (16) Directive of the European Parliament and of the Council amending Directive 2014/59/EU as regards the loss-absorbing and recapitalization capacity of credit institutions and investment firms.
- (17) Regulation of the European Parliament and of the Council amending Regulation (EU) No 806/2014 as regards the loss-absorbing and recapitalization capacity of credit institutions and investment firms.
- (18) Regulation of the European Parliament and of the Council of 27 November 2019 on the prudential requirements of investment firms and amending Regulations (EU) No 1093/2010, (EU) No 575/2013, (EU) No 600/2014 and (EU) No 806/2014.
- (19) Directive of the European Parliament and of the Council of 27 November 2019 on the prudential supervision of investment firms and amending Directives 2002/87/EC, 2009/65/EC, 2011/61/EU, 2013/36/EU, 2014/59/EU and 2014/65/EU.
- (20) Regulation (EU) 2015/63 of 21 October 2014 supplementing Directive 2014/59/EU of the European Parliament and of the Council with regard to ex ante contributions to resolution financing arrangements.
- (21) Regulation (EU) 2016/1075 of 23 March 2016 supplementing Directive 2014/59/EU of the European Parliament and of the Council with regard to regulatory technical standards specifying the content of recovery plans, resolution plans and group resolution plans, the minimum criteria that the competent authority is to assess as regards recovery plans and group recovery plans, the conditions for group financial support, the requirements for independent valuers, the contractual recognition of write-down and conversion powers, the procedures and contents of notification requirements and of notice of suspension and the operational functioning of the resolution colleges.
- (22) Directive 97/9/EC of the European Parliament and of the Council of 3 March 1997 on investor-compensation schemes.

- (23) Regulation (EU) 2016/1450 of 23 May 2016 supplementing Directive 2014/59/EU of the European Parliament and of the Council with regard to regulatory technical standards specifying the criteria relating to the methodology for setting the minimum requirement for own funds and eligible liabilities (C/2016/2976).
- (24) Council Regulation (EU) No 407/2010 of 11 May 2010 establishing a European financial stabilization mechanism.
- (25) European Council Decision of 25 March 2011 amending Article 136 of the Treaty on the Functioning of the European Union with regard to a stability mechanism for Member States whose currency is the euro (2011/199/EU).
- (26) Regulation (EU) No 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/78/EC.
- (27) Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC.
- (28) Regulation (EU) No 1094/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/79/EC.
- (29) 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.
- (30) Directive 2014/51/EU of 16 April 2014 amending Directives 2003/71/EC and 2009/138/EC and Regulations (EC) No 1060/2009, (EU) No 1094/2010 and (EU) No 1095/2010 in respect of the powers of the European Supervisory Authority (European Insurance and Occupational Pensions Authority) and the European Supervisory Authority (European Securities and Markets Authority).
- (31) Regulation (EU) Regulation (EU) No 513/2011 of the European Parliament and of the Council of 11 May 2011 amending Regulation (EC) No 1060/2009 on credit rating agencies and Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories.
- (32) 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.
- (33) Regulation (EU) No 1022/2013 of the European Parliament and of the Council of 22 October 2013 amending Regulation (EU) No 1093/2010 establishing a European Supervisory Authority (European Banking Authority) as regards the conferral of specific tasks on the European Central Bank pursuant to Council Regulation (EU) No 1024/2013.
- (34) Regulation (EU) No 468/2014 of the European Central Bank of 16 April 2014 of 16 April 2014 establishing the framework for cooperation within the Single Supervisory Mechanism between the European Central Bank and national competent authorities and with national designated authorities (the "SSM Framework Regulation).
- (35) Regulation (EU) No 673/2014 of the European Central Bank of 2 June 2014 concerning the establishment of a Mediation Panel and its Rules of Procedure (ECB/2014/26).
- (36) Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012, of the European Parliament and of the Council.
- (37) Regulation (EU) No 806/2014 of the European Parliament and of the Council of 15 July 2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund and amending Regulation (EU) No 1093/2010, as amended.

- (38) Regulation (EU) No 236/2012 of the European Parliament and of the Council of 14 March 2012 on short selling and certain aspects of credit default swaps, as amended.
- (39) Regulation (EU) 2015/81 of 19 December 2014 specifying uniform conditions of application of Regulation (EU) No 806/2014 of the European Parliament and of the Council with regard to ex ante contributions to the Single Resolution Fund.
- (40) Opinion of the European Central Bank of 6 November 2013 on a proposal for a Regulation of the European Parliament and of the Council establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Bank Resolution Fund and amending Regulation (EU) No 1093/2010 of the European Parliament and of the Council (CON/2013/76).

4. Case Law

- (1) Supreme Court justice Joseph McKenna, in *Hall v. Geiger Jones Co.*, 242 U.S. 539 (1917).
- (2) *Crédit Mutuel Arkéa v ECB* (Case T-712/15).
- (3) *United States v. Philadelphia National Bank*, 374 U.S. 321 (1963).
- (4) *MetLife, Inc. v. Financial Stability Oversight Council*, 177 F. Supp. 3d 219 (2016).
- (5) *Investment Company Institute v. Camp*, 401 U.S. 617 (1971).
- (6) *Federal Communications Commission v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009).
- (7) *Nations Bank of North Carolina N.A. et al v. Variable Annuity Life Insurance Co. et al*, 513 U.S. 2251 (1995).
- (8) *Silvio Berlusconi and Fininvest v. Banca d'Italia* (Case C-219/17).
- (9) Opinion of advocate general Jääskinen from 12 September 2013 (Case C-270/12).
- (10) *Board of Governors of Federal Reserve System v. Investment Company Institute*, 450 U.S. 46 (1981).
- (11) *Securities Industry Association v. Board of Governors of the Federal Reserve System*, 468 U.S. 137 (1984).
- (12) *Securities Industry Association v. Board of Governors of the Federal Reserve System*, 807 F.2d 1052 (D.C. Circuit 1986).
- (13) *Securities Industry Association v. Board of Governors of the Federal Reserve System*, 839 F.2d 47 (1988).
- (14) *Securities Industry Association v. Clarke*, 885 F.2d 1034 (2nd Cir. 1989).
- (15) *Starr Int'l Co. v. United States*, 121 Fed. Cl. 428, 430–31 (2015).
- (16) *Irwin v. Williar*, 110 U.S. 499 (1884).
- (17) *Federal Reserve Bank of Richmond v. Malloy* (1924).
- (18) *Compare Swift & Courtney & Beecher Co. v. United States* (1884).
- (19) *Starr Int'l Co. v. Fed. Reserve Bank of N.Y.* (2012).
- (20) *FDIC v. Linn*, (1987).
- (21) *Koontz v. St. Johns River Water Mgmt.* (2013).
- (22) *Suwannee S.S. Co. v. United States* (1960).
- (23) *In re: Lehman Brothers Holdings Inc*, U.S. Bankruptcy Court, Southern District of New York, Case No. 08-13555.
- (24) *Starr Int'l Co. v. United States*, 121 Fed. Cl. 428, 430–31 (2015).
- (25) Judgment of the Court of Justice of 2 July 1974, *Italian Republic v Commission of the European Communities* (Case 173/73).
- (26) Judgment of the Court (Grand Chamber), 5 June 2012, *European Commission v Électricité de France (EDF)* (Case C-124/10 P).
- (27) Judgment of the Court of First Instance (Second Chamber, extended composition) of 6 March 2003, *Westdeutsche Landesbank Girozentrale and Land Nordrhein-Westfalen v Commission of the European Communities* (Joined cases T-228/99 and T-233/99).
- (28) *Starr International Co. v. U.S.*, Federal Circuit Court of Appeals, No. 2015-5103 (Fed. Cir. 2017).

- (29) Judgment of the Court of 13 June 1958, Meroni & Co., Industrie Metallurgiche, SpA v High Authority of the European Coal and Steel Community (Case 9-56).
- (30) Judgment of the Court (First Chamber) of 14 May 1981, Giuseppe Romano v Institut national d'assurance maladie-invalidité (Case 98/80).
- (31) Judgment of the Court (Grand Chamber), 22 January 2014, United Kingdom of Great Britain and Northern Ireland v European Parliament and Council of the European Union (Case C-270/2012).
- (32) Judgment of the Court (Grand Chamber) of 16 June 2015 Peter Gauweiler and Others, case C-62/14.
- (33) Judgment of the Court (Grand Chamber) of 11 December 2018, Weiss and Others, case C-493/17.
- (34) Judgment of the European Court of Human Rights in the case of Mamatas and Others v. Greece (application nos. 63066/14, 64297/14 and 66106/14).
- (35) Judgment of the Court (First Chamber) of May 8, 2019, Landeskreditbank Baden-Württemberg - Förderbank v European Central Bank (Case C-450/17 P).
- (36) Constitutional judgement of the Supreme Court No 3-4-1-6-12 of July 12, 2012.
- (37) BVerfG, Judgment of the Second Senate of 12 September 2012 - 2 BvR 1390/12.
- (38) VfGH Judgement No. SV 2/12 of February 25, 2013.
- (39) Judgment of the Court (Full Court), 27 November 2012, Thomas Pringle v Government of Ireland and Others, Case C-370/12.
- (40) Court of Appeals Of Brussels, September 26, 2000, in re Elliott Associates, L.P., General Docket No. 2000/QR/92.
- (41) NML Capital, Ltd. v. Argentina, 699 F.3d 246, 264, 2d Circuit 2012.
- (42) General Court of the European Union, Alessandro Accorinti and Others v ECB(Case T-70/13).
- (43) Poštová banka, a.s. and ISTROKAPITAL SE v. Hellenic Republic, ICSID Case No. ARB/13/8.
- (44) Office of the Comptroller of the Currency. Interpretive Letter No. 494, December 20, 1989.
- (45) Office of the Comptroller of the Currency. Interpretive Letter No. 684, August 4, 1995.
- (46) Office of the Comptroller of the Currency. Interpretive Letter No. 652, September 13, 1994.
- (47) Board of Governors of the Federal Reserve System, Federal Reserve Bulletin 9, 1937.
- (48) Bankers Trust New York Corporation, 75 Federal Reserve Bulletin, 1989.
- (49) Bankers Trust New York Corporation, 83 Federal Reserve Bulletin 780, 1997.
- (50) Citicorp, J.P. Morgan & Co. Incorporated and Bankers Trust New York Corporation, 73 Federal Reserve Bulletin 473, 1987.

Ideal Crisis Management Mechanism for Credit Institutions and Investment Firms in the European Union

Abstract:

The 2007-8 financial crisis brought about the most severe economic contraction since the Great Depression. Regulators on both sides of the Atlantic were taken aback and soon realized that they had no tools to deal with distressed banks and other financial services firms failure of which could undermine financial stability not only within individual states but also on a global scale. As a result, central banks of in particular the United States and the Eurozone became the most important actors in the fight against the unfolding crisis and *de facto* the only “governmental agencies” capable of swift and decisive measures. Their timely and vigorous reaction most likely warded off the collapse of the global financial system, though it was not without controversies. These controversies are analyzed in this dissertation in order to find out what role should central bank have during financial crisis.

Governments followed central banks with massive bank bailouts. In many countries, governments went beyond liquidity provision and nationalized their banks, which threatened their own solvency. Although the global financial system has been largely restored in the last decade, it has been achieved at huge costs, massive taxpayer-funded bailouts and surging indebtedness. Although there are not that many certainties in life, one can be sure that another financial crisis will sooner or later come, though probably in the form and at time least expected. Before it happens, a credible crisis management framework should be put in place to reduce moral hazard and ensure that crises to come are handled properly and without resort to taxpayer money. To figure out how such crisis management framework should (or should not) look like is the primary goal of this dissertation.

Although the dissertation is primarily centered around the current European framework, its scope is broader since financial markets are increasingly global in nature and can hardly be contained within national (or regional) borders. This dissertation shows that regulators were caught off guard in 2008 despite similar crises in the past. Accordingly, although people usually hold a firm belief that financial crises are things that happen to other people in other countries at other times since they are doing things better, are smarter and have learnt from the past mistakes, it is shown that European legislators have not learnt from all their past mistakes.

The severity of the crisis in Eurozone and only a limited success in taming it despite massive government and central bank interventions highlighted the need to accelerate

integration at the institutional level. The result was a broad new quasi-federative institutional framework, the European System of Financial Supervision introduced in 2011. Although the creation of the new pan-European financial market infrastructure was a step towards the right direction, the subsequent “voluntary” Greek debt restructuring evidenced that the new framework did nothing to address the link between sovereign debt and bank solvency.

The Banking Union is the new EU institutional framework that has been developing in the last decade to prevent crises like Eurozone went through about a decade ago from happening again. Although some aspects are still a going concern, clear contours of the new structure can be discerned. It is a logical consequence of the fact that regulation within the EU is harmonized so there should be an EU-level institutional framework ensuring also unified enforcement. The dissertation also assesses this new institutional framework in order to find out whether it will be enough to finally address the pains of the “old framework”.

Key words:

Banking Union, Single Resolution Mechanism, Single Supervisory Mechanism, European Central Bank, Credit Institution, Too-Big-to-Fail, Financial Crisis.

Ideální model resolučního mechanismu pro banky v Evropské unii

Abstrakt:

Finanční krize, která vypukla mezi lety 2007 až 2008 přinesla nejméně ekonomický pokles od tzv. velké hospodářské krize v třicátých letech minulého století. Regulátoři na obou stranách Atlantiku byli zaskočeni a brzy se ukázalo, že nemají vhodné nástroje, s jejichž pomocí by bylo možné účinně zacházet se selhávajícími bankami či finančními institucemi jejichž selhání by mohlo narušit finanční stabilitu nejen na úrovni států ale celosvětově. Důsledkem bylo, že se centrální banky zejména ve Spojených státech a eurozóně staly nejdůležitějšími aktéry v boji proti finanční krizi a *de facto* jedinými „vládními agenturami“ schopnými rychle reagovat a přijímat rozhodná opatření. Jejich včasná reakce s největší pravděpodobností odvrátila kolaps globálního finančního systému, i když se to neobešlo bez kontroverzí. Nejvýznamnější z těchto kontroverzí jsou v této disertační práci analyzovány s cílem zjistit, jakou roli by měla mít centrální banka během finanční krize.

Vlády následovaly centrální banky s obrovskými bankovními sanacemi za použití peněz daňových poplatníků. V mnoha zemích šly vlády nad rámec poskytování likvidity a banky a finanční instituce znárodňovaly, což v mnoha případech ohrožovalo jejich vlastní solventnost. Přestože byl globální finanční systém v posledním desetiletí do značné míry obnoven, bylo toho dosaženo s obrovskými náklady, sanacemi z kapes daňových poplatníků a prudkým nárůstem zadlužení. I když v životě není tolik jistot, je jisté, že dříve nebo později další finanční krize přijde, i když pravděpodobně ve formě a v době, v jaké to bude nejméně očekáváno. Než k tomu dojde, měl by být zaveden vhodný rámec pro řešení krizí, aby se snížil morální hazard a zajistilo se, že budoucí krize budou řešeny bez použití peněz daňových poplatníků. Primárním cílem této disertační práce je zjistit, jak by takový rámec krizového řízení měl (nebo neměl) vypadat.

Přestože je disertační práce primárně zaměřena na současný evropský rámec, její rozsah je širší, protože finanční trhy mají stále více globální povahu a lze je stěží obsáhnout v národních (nebo regionálních) regulatorních perimetrech. Tato disertační práce ukazuje, že regulátoři byli v roce 2008 i přes podobné krize v minulosti zaskočeni. I když tedy lidé obvykle pevně věří, že finanční krize jsou jevy, které se stávají jiným lidem v jiných zemích a v jiných časech, protože oni dělají věci lépe, jsou chytřejší a poučili se z minulých chyb, tato disertační práce poukazuje na to, že evropští zákonodárci se ze všech svých minulých chyb nepoučili.

Závažnost krize v eurozóně a pouze omezený úspěch při jejím usměřování navzdory masivním zásahům vlády a centrálních bank podtrhly potřebu urychlit integraci na institucionální úrovni. Výsledkem byl nový kvazi-federativní institucionální rámec, Evropský systém finančního dohledu v roce 2011. Ačkoli vytvoření nové celoevropské infrastruktury byl krok správným směrem, následná „dobrovolná“ restrukturalizace řeckého dluhu prokázala, že nový rámec neudělal nic pro přetnutí vazby mezi státním dluhem a platební schopností bank.

Bankovní unie je nový institucionální rámec EU, který se vyvíjí v posledním desetiletí, aby zabránil opakování krize, kterou prošla eurozóna zhruba před deseti lety. I když některé aspekty tohoto nového rámce se stále vyvíjejí, kontury nové struktury již lze rozeznat. Je to logický důsledek harmonizace Evropské regulace, se kterou by měl jít ruku v ruce institucionální rámec na úrovni EU zajišťující také jednotné vymáhání. Disertační práce rovněž hodnotí tento nový institucionální rámec, s cílem zjistit, zda již konečně byly překonány bolesti „starého rámce“.

Klíčová slova:

Bankovní unie, Jednotný mechanismus řešení krize, Jednotný mechanismus dohledu, Evropská centrální banka, Úvěrová instituce, Too-big-to-fail, Finanční krize.