

THE MACROPRUDENTIAL SUPERVISION IN THE AFTERMATH OF THE  
2008 GLOBAL FINANCIAL CRISIS: THE US EXAMPLE

A THESIS SUBMITTED TO  
THE GRADUATE SCHOOL OF SOCIAL SCIENCES  
OF  
MIDDLE EAST TECHNICAL UNIVERSITY

BY

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR  
THE DEGREE OF MASTER OF SCIENCE  
IN  
THE DEPARTMENT OF POLITICAL SCIENCE AND PUBLIC  
ADMINISTRATION

SEPTEMBER 2015



Approval of the Graduate School of Social Sciences

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## **ABSTRACT**

### **THE MACROPRUDENTIAL SUPERVISION IN THE AFTERMATH OF THE 2008 GLOBAL FINANCIAL CRISIS: THE US EXAMPLE**

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September 2015, 131 Pages

In 2008, the world economies have come across with a severe economic depression which is one of the biggest economic crises in the history. In the aftermath of the 2008 Global Financial Crisis, the role of the surveillance mechanisms on the provision of financial robustness and soundness has been discussed by many scholars. In this period, the significance of monitoring, assessing and controlling the systemic risk has been emphasized by the policymakers. On the other hand, it has become a current issue that strengthening policies and using macroprudential measures which are used to monitor the financial system in a holistic way would be important to provide financial stability. In the post-crisis period, in the US as a direct

response to the crisis, new supervisory institutions have been established and a comprehensive Act named Dodd-Frank Wall Street Reform has been put into action. In order to promote financial stability and soundness, the US authorities have made structural changes to bring macroprudential approach in the market. In this thesis, the emergence of the macroprudential approach on the aversion of prospective financial crises will be examined in the US case in the aftermath of the 2008 Global Financial Crisis.

**Keywords:** Financial crisis, economic crisis, 2008 Global Financial Crisis, macroprudential supervision, Dodd-Frank Wall Street Reform

## ÖZ

### 2008 KÜRESEL MALİ KRİZİ SONRASINDA UYGULANAN MAKRO İHTİYATİ TEDBİRLER: ABD ÖRNEĞİ

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Tez Yöneticisi: Doç. Dr. Galip Yalman

Eylül 2015, 131 Sayfa

2008 yılında dünya ekonomileri, tarihteki en büyük ekonomik krizlerden biriyle karşı karşıya gelmiştir. 2008 Küresel Mali Krizi'nin akabinde mali dayanıklılık ve istikrarın sağlanması bağlamında denetleme ve izleme mekanizmalarının rolü de akademik çevrelerde oldukça tartışılmıştır. Bu dönemde sistemik risklerin düzenli olarak izlenmesinin, ölçülmesinin ve kontrol edilmesinin oldukça önemli olduğu farklı siyasetçiler tarafından da dile getirilmiştir. Diğer yandan, mali istikrarın güçlendirilmesi için, konuyla ilgili politikaların güçlendirilmesi ve mali sistemin bütüncül olarak denetim altında tutulmasını sağlayacak makro ihtiyati tedbirlerin kullanılması da sıklıkla vurgulanmıştır. Kriz sonrası dönemde, ABD'de yeni denetleme mekanizmaları oluşturulmuş ve Dodd-Frank Wall Street Reformu adında kapsamlı bir düzenleme yürürlüğe konmuştur. Mali istikrarın ve dayanıklılığın sağlanması için ABD'deki otoriteler tarafından yapılan bu değişiklikler makro ihtiyati tedbirlerin hayata geçirilmesi için krize cevap niteliğinde tasarlanmıştır. Bu



tezde, 2008 Kresel Mali Krizi sonrası dnemde ykseliŖe geen makro itiyati tedbir kullanımı ABD rneęi baęlamında ele alınmaktadır.

**Anahtar Kelimeler:** Mali Kriz, Ekonomik kriz, 2008 Kresel Mali Krizi, Makro İhtiyati Tedbirler, Dodd-Frank Wall Street Reformu

*To my father...*

## **ACKNOWLEDGMENTS**

First and foremost, I would like to express a deep sense of gratitude to my advisor Assoc. Prof. Galip Yalman for the continuous support, encouragement and guidance. As a role model of mine, he always motivated me to proceed and if he would not have believed in me, this thesis would not be finalized. It was a privilege to be supervised by him.

I would like to express my sincere thanks to the members of my thesis committee, Assist. Prof. Dr. Hasan Cömert and Assoc. Prof. Dr. Gökçer Özgür for the constructive criticism, valuable feedbacks, motivation and sincerity.

I would like to express my sincere gratitude to my parents for their endless love and support. I am thankful for having a great family that has always been there for me.

I would like to thank Merve Kayaduvar, Deniz Geçim and Belde Duru Yazıbakan for their support and patience.

## TABLE OF CONTENTS

PLAGIARISM.....	iii
ABSTRACT .....	iv
ÖZ.....	vi
DEDICATION .....	viii
ACKNOWLEDGMENTS.....	ix
TABLE OF CONTENTS .....	x
LIST OF TABLES .....	xii
LIST OF ABBREVIATIONS .....	xiii
CHAPTER	
1. INTRODUCTION.....	1
1.1 The Scope of the Thesis .....	2
1.2 The Motivation of the Thesis .....	3
1.3 The Configuration of the Thesis.....	5
2. THE DYNAMICS OF THE 2008 GLOBAL FINANCIAL CRISIS.....	6
2.1 Different Approaches Towards the Economic Crisis.....	8
2.1.1. The Historical Materialist Approach.....	8
2.1.2. The Neoclassial Approach.....	14
2.1.3. The Regulatory Approach .....	19
2.2. The Causes of the 2008 Global Financial Crisis .....	25
2.3. The Consequences of the 2008 Global Financial Crisis .....	39
3. THE MACROPRUDENTIAL SUPERVISION .....	47
3.1 The Macroprudential Orientation as a Crisis Aversion Recipe.....	48
3.2 The Concept of Macroprudential Approach.....	54
3.3 The Difference Between the Microprudential Approach and the Macroprudential Approach .....	56
3.4 The Role of Macroprudential Approach on Averting Financial Crises .....	60

3.4.1	The Relationship Between the Systemic Risk and Economic Crises.....	62
3.4.2	The Role of the Macroprudential Supervision on the Aversion of Systemic Risk.....	67
4.	THE EMERGENCE OF THE MACROPRUDENTIAL SUPERVISION IN THE US IN THE AFTERMATH OF THE 2008 GLOBAL FINANCIAL CRISIS .....	81
5.	CONCLUSION .....	103
	REFERENCES.....	110
	APPENDICES	
A.	Turkish Summary.....	120
B.	Tez Fotokopisi İzin Formu.....	131

## LIST OF TABLES

### TABLES

Table 1 The Distinction Between Macroprudential and Microprudential Approaches.....	57
Table 2 Macroprudential measures to cope with systemic risk .....	73
Table 3 The Agencies of the Macroprudential Approach.....	74
Table 4 The Macroprudential tools agents should use.....	75
Table 5 The Pillar 1 strategy to cope with systemic risk.....	78
Table 6 The Pillar 2 strategy to cope with systemic risk.....	78
Table 7 The Members of the Financial Stability Oversight Council .....	89

## **LIST OF ABBREVIATIONS**

BFIS	Bank and Financial Institutions
CFPB	Consumer Financial Protection Bureau
DFA	Dodd-Frank Wall Street Reform
FED	The Federal Reserve
FSB	Financial Stability Board
FSOC	Financial Stability Oversight Council
IMF	International Monetary Fund
LISC	Large Institution Supervision Committee





## **CHAPTER 1**

### **INTRODUCTION**

In 2008, the US economy came across with a severe economic downturn that has ultimately transformed into a global economic meltdown. Policymakers and scholars considered the 2008 Global Financial Crisis as the biggest economic crisis in history after the Great Depression. In the aftermath of the crisis, the causes and consequences of the global economic downturn have been analyzed in depth by many scholars, policymakers and institutions, and the different aspects which caused the economic imbalances have been discussed in detail in different ideological frameworks. Liberals, neo-Keynesians and historical materialists have discussed the impacts of the 2008 Global Financial Crisis in different ways. The way how the economic crises have been perceived in different schools of thought has varied and over time, the global financial crisis discussion became a discussion on the dynamics and the checks and balances mechanism of the economic system. In the literature, while some scholars have considered the 2008 Global Financial Crisis as a rupture or breakpoint, some others considered it as one of the recurrent economic crises. The financial crisis has given birth to a fruitful discussion on the efficiency of the market mechanisms, the ideal role of the state in the market and the ideal regulatory layout for the free market economy. While some scholars have considered the economic crisis as a sign which points to the malfunctioning of the current economic system, some others have pointed out that under current circumstances an optimal regulatory layout should be provided for the system to be working on an efficacious ground.

With the eruption of the 2008 Global Financial Crisis, the role of the state in the context of financial stability has been questioned by many scholars and the importance of macroprudential supervision for providing financial stability has been voiced by policymakers. The relationship between the systemic risk evaluation and

financial stability has been emphasized by the authorities and monitoring, evaluating and controlling systemic risks have been considered in the context of financial stability. Specifically in the aftermath of the global financial crisis, the relationship between the systemic risk mitigation and financial stability has been analyzed by scholars and the role of strong surveillance mechanisms and supervisory boards in the market along with the use of effective prudential instruments, which are used to mitigate the risk level of the financial system have been examined on a wider ground.

### **1.1. The Scope of the Thesis**

In the aftermath of the 2008 Global Financial Crisis, the configuration of the economic system which would make the system more resilient towards the economic crises has been discussed by different authorities. By means of putting this discussion in the center of our thesis, in this thesis we will focus on the emergence of the use of macroprudential measures in the US in the aftermath of the 2008 Global Financial Crisis. With the eruption of the 2008 Global Financial Crisis, the concept of macroprudential supervision has come into prominence. As policymakers and scholars have strongly pointed out, to provide financial stability and robustness, the systemic risks should be monitored, assessed and controlled on a regular basis by macroprudential supervision mechanisms. Furthermore new surveillance mechanisms should be established and new policies should be implemented. In this thesis, we will provide a basis for the 2008 Global Financial Crisis. We will focus on the causes and consequences of the 2008 Global Financial Crisis and we will discuss the dynamics of macroprudential supervision. Finally, we will examine the emergence of macroprudential supervision in the US in the aftermath of the 2008 Global Financial Crisis. We will ultimately show that in the aftermath of the 2008 Global Financial Crisis, a macroprudential layout was enacted to apply supervision measures for financial stability and robustness. In this thesis, the critical role of macroprudential supervision on averting systemic risk-based financial crisis will be analyzed in detail.

Furthermore, the conversion of the supervisory boards in the US from microscaled to macroscaled will be given to support through the concept of macroprudential supervision has gained importance in the aftermath of the 2008 Global Financial Crisis. On the other hand, it will be emphasized that due to the new understanding that to avert financial crises, the establishment of macroprudential layout is required, a new macroprudential layout should be provided, new macroprudential measures are taken and new macroprudential policies are implemented in the aftermath of the crisis. Despite the fact that the thesis will examine the relationship between macroprudential supervision and the economic crisis, the main concern of this thesis is to establish this relationship in the aftermath of the 2008 Global Financial Crisis, specifically in the US as the core country where the crisis began.

## **1.2. The Motivation of the Thesis**

It has been seven years since the global financial crisis has happened and there is rich literature on the crisis. Despite the fact that there is also a literature on macroprudential supervision in general, there are many publications forming a relationship between the financial crisis and macroprudential supervision specifically. This thesis aims to represent a basis and a point of departure for the further research on the relationship between macroprudential supervision and the 2008 Global Financial Crisis. Since the current literature is based on the ‘tangible’ causes and consequences of the global financial crisis, the more structural causes of the financial crises are overseen. This thesis aims to clarify the emerging trends on the surveillance mechanisms and rather than solely emphasizing the conjunctural causes and consequences of the global financial crisis, it aims to cover the 2008 Global Financial Crisis in more holistically.

The concept of macroprudential supervision has become more of an issue in the last years. Since the importance of monitoring, assessing and controlling systemic risks by the supervisory boards has been noticed, policymakers and scholars have been discussing the new ways of configuring economic systems to make them more

transparent and accountable, simultaneously more resilient towards prospective economic crises. We anticipate that many scholars will study the concept of macroprudential supervision in the near future and the literature on the economic crisis will contain more studies based on the relationship between economic crises and macroprudential supervision.

In this thesis, first of all, we will find answers to the questions related with the 2008 Global Financial Crisis specifically. “What are the generic causes and consequences of the 2008 Global Financial Crisis?” will be the question we will give a detailed answer in the second chapter. After analyzing the generic causes and consequences of the crisis, we will give a detailed answer to: “What are the different approaches towards the economic crises, specifically the 2008 Global Financial Crisis?”. By answering this question, we will focus on different ideological backgrounds which addressing the concept of economic crisis in different ways. The third chapter will be based on: “What is the macroprudential approach?” and “What are the characteristics of the macroprudential approach?”. After defining the macroprudential approach in detail, we will give an answer to the question that “What is the difference between the microprudential approach and macroprudential approach?”. After specifying the macroprudential regulations and approach, we will focus on: “What is the role of the macroprudential approach in averting systemic risk and financial bubble?” and define systemic risk. Finally, we will give a detailed answer to the question that “What are the macroprudential tools which can be used to mitigate systemic risk?”. The fifth chapter will conclude by answering: “Has the macroprudential supervision been on the rise in the US in the aftermath of the 2008 Global Financial Crisis?” and “What are the measurements taken by the government institutions to promote macroprudential supervision in the US?”. This thesis is framed on the answers for these main questions.

### **1.3. The Configuration of the Thesis**

In this thesis, the relationship between the macroprudential supervision which enables the systemic risk in the financial markets to be monitored holistically and the 2008 Global Financial Crisis will be addressed. Before concentrating on the macroprudential supervision and prudential measures in a specific way, we will focus on the dynamics behind the 2008 Global Financial Crisis. First of all, the generic causes and consequences of the 2008 Global Financial Crisis will be covered. Afterwards, different perspectives on the financial stability and economic crises will be provided. In these explanations, the concept of macroprudential supervision will be emphasized and the relationship between the macroprudential supervision, systemic risk and financial stability will be elaborated. Subsequently, the emergence of macroprudential supervision in the US in the aftermath of the 2008 Global Financial Crisis will be examined in a detailed way to prove that macroprudential supervision is on the rise.

In the second chapter, generic, structural and compromised causes and consequences of the 2008 Global Financial Crisis will be elaborated. The opinions of scholars from different backgrounds will be discussed in this chapter. Approaches from the perspectives of historical materialist, neoclassical and regulatory schools will also be given in this chapter. We will establish macroprudential supervision in the context of financial stability by providing different approaches towards financial stability. The third chapter will establish the thesis by discussing the concept of macroprudential supervision and defining the relationship between the systemic risk, financial stability and macroprudential supervision. Finally, in the fourth chapter, the emergence of the macroprudential supervision in the US will be elaborated. The regulatory changes in the aftermath of the 2008 Global Financial Crisis will be examined.

## **CHAPTER 2**

### **THE DYNAMICS OF THE 2008 GLOBAL FINANCIAL CRISIS**

In September, 2008 the collapse of Lehman Brothers has changed the balance of the financial system of the world. The sequence of the collapse has led to one of the biggest financial crises of the history. With the emergence of the crisis, the banking system of the world has fallen into a catastrophe and the world economies have experienced a severe downturn. The crisis-driven credit crunch has tried to be eased by both the monetary and fiscal interventions.

The 2008 Global Financial Crisis has been considered as one of the biggest economic crises of the history. Krugman (2010) points out that until the 2008 Global Financial Crisis, two major economic depressions have been come through in the world history. The first economic depression was the slump experienced in 1873. During this depression period, massive deflation and economic instability were the biggest problems. The other economic depression was the Great Depression of 1929 - 31 which has ended up in 'mass unemployment'. Krugman states that the 2008 Global Financial Crisis is the third economic depression of the world history. According to Krugman, the economic cycle is producing recessions but the depressions created by the economic cycles occur on a rare base. The economic depressions do not have to create non-stop decline but the initial slump occurred on the economic cycle damages the reproduction ability of the cycle for a while, hence at this point the depression acquires a different character compared to the recession. Krugman is not the only economist who thinks that the 2008 Global Financial Crisis is one of the worst economic depressions experienced in the world history. Some other economists as Nouriel Roubini, Kenneth Rogoff and Nariman Behravesch also consider the 2008 Global Financial Crisis as the worst financial crisis after the Great Depression (Pendery, 2009). As Mckibbin and Stoeckel (2009) has denoted, with the emergence of the 2008 Global Financial Crisis, the world economies have faced with "the largest and sharpest drop in global economic activity of the modern era".

In this chapter, we will discuss the dynamics of the 2008 Global Financial Crisis. Despite the fact that different ideological perspectives consider the causes and consequences of the crisis in different ways, there are structural causes and compromised consequences of the crisis which are depicted by different ideological perspectives in a same way. In this chapter, first of all the causes of the 2008 Global Financial Crisis will be elaborated, afterwards the consequences of the crisis will be given in a detailed way. Before concentrating on the most generic causes and consequences of the 2008 Global Financial Crisis, first of all we will focus on different ideological approaches towards both the economic crisis concept and the 2008 Global Financial Crisis.

Different ideological perspectives consider the economic crises in a different way. While according to one school of thought, the economic crisis would refer to a rupture point in the system, another school of thought would regard it as a routine part of the accumulation cycle. Before concentrating on the importance of the regulation on managing financial imbalances in the latter chapters, in this chapter we will focus on the way how different approaches see the economic crises. In this chapter, we will examine the concepts of financial stability and economic crisis from the perspectives of historical materialist, neoclassical and regulatory schools. First of all, we will concentrate upon the historical materialist approach towards the concept of financial crisis to focus on the internal conflicts of the capitalist mode of production by means of anatomizing the accumulation dynamics of the system which create a proper ground for the financial crisis. By means of revealing the characteristics of the internal conflicts of the capitalist mode of production, we will underline the reality of business cycle of the capitalist system which is consisted of the altering periods of expansion and recession.

The neoclassical approach will be based on the argument that the capitalist system is self-regulating, smooth, efficient and harmonious under the circumstances that the government intervention would not be made, while in the regulatory approach, the argument that the government policies, regulation and intervention are important to

provide financial stability, robustness and resilience in the system. Considering different approaches towards the concept of financial stability will be an initial point to focus on the importance of the macroprudential supervision which will be covered in the latter chapters. After analyzing the economic crisis concept of the each approach, we will make connection between the way how different approaches see the 2008 Global Financial Crisis and then we will specifically concentrate on both the generic causes and consequences of the 2008 Global Financial Crisis in detail.

## **2.1 Different Approaches Towards the Economic Crisis**

### **2.1.1 . The Historical Materialist Approach**

In the historical materialist approach, the economic crisis is defined as ‘a generalized set of failures in the economic and political relations of capitalist reproduction’ (Wolfe, 1986, p. 219). This crisis definition can be linked to the classical meaning of the crisis. Wolfe states that:

In classical Greek historiography and drama, a crisis was used to denote a turning point or moment of decision in the life of an individual or society, when the capacity of the individual or society to reproduce itself was placed in jeopardy (ibid., p. 226).

In the historical materialist literature, it has been strictly pointed out that the capitalist accumulation cycle is always exposed to internally and externally generated disturbances and dislocations (Shaikh, 1978, p. 219). Thereby, in this approach the economic crisis can be regarded as the Achilles’ heel of the system itself. ‘The crisis’ can be considered as a distortion which paralyses the capitalist system in many ways. The system always produces inefficiencies, defects and failures and during the economic crisis periods, the flaws produced by the system are crystallized and the sterility comes out. The vicious capitalist economic cycle is consisted of the altering periods of recession and expansion and despite the well-being of the economy in the expansion times, the failures produced by the system itself ultimately drives the capitalist system in the wall periodically. J. Winternitz



(1949) points out that from the times of Adam Smith and Ricardo up to recent times the prevalent opinion among the liberal economists was the following:

The ‘free enterprise’ system was self-regulating, automatically adapting supply and demand, and crises were just exceptional disturbances like floods and earthquakes, the explanation of which was not the business of economists who had proved to their satisfaction that such a thing as general overproduction could not exist” (ibid., p.1).

J. Winternitz adds to that, any of the liberal theories explains “why from the very conditions of capitalist production periodical crises arise from necessity” (ibid.). The Marxist Crisis Theories represent the basis of the historical materialist crisis theories. Richard Wolff (1987) also points out that “Marx’s theory addresses itself less to when, where, and how than to why an ever-latent crisis can and does become actuality.” He also adds to that the “Marxian crisis theory articulates no formulas which produce a rigidly periodic cycle” (ibid., p. 48). Despite the fact that the Marxist Crisis Theory is found deficient by the scholars when it comes to provide a concrete basis to analyze economic crises, the crisis-relating concepts provided by the Marx as such as the tendency of profits to fall, the crisis of accumulation and actualization problems are still used to examine the current financial crisis. Richard Brenner (2011, p. 12) points out that the recent global financial crisis is the actualization of what Marx has prognosticated. In the Crisis Theory of Marx, it is strictly emphasized that the economic crises are intrinsic to the capitalist system and the system has a mechanism which ultimately ends in the economic crisis. Wolfe (1986) emphasizes that “the concept of crisis is central to Karl Marx’s theory of capitalist development”. Winternitz (1949) summarizes the basic ideas in Marx’s crisis analysis as the following:

A. Capitalist crisis is an expression of the underlying basic contradiction of capitalist society; the social character of production and the private character of appropriation and consequently the tendency of boundless, rapid expansion of production on the one hand, the limitations of consumption on the other hand.

B. The internal contradictions involved in the tendency of the rate of profit to fall, find expression in crises (p. 2).

According to Winternitz (1949, p.3) these basic ideas are ‘closely interconnected’ with each other which are “two aspects of one clear-cut” economic theory. In his analysis, Winternitz states that according to Marx, “the crises are precisely always preceded by a period in which wages rise generally and that this relative prosperity of the working class occurs always only as a harbinger of a coming crisis”.

In the Marxian way of analyzing economic crisis, the law of tendency the rate of profit to fall is regarded significant. Hodgson (1974, p. 1) emphasizes that Marx puts the law of tendency the rate of profit to fall in the center of his critique towards capitalism. In this theory, it is basically assumed that the capitalist system is tend to “stagnate or fall into crisis” due to the fall of the rates of profit. But according to Marx, there are some counterbalancing mechanisms in the system which might delay this stagnation or economic crisis. Due to these counter-balancing mechanisms which are intrinsic to the system, the crises do not occur ‘persistently’ or ‘uninterruptedly’. In the theory, it is claimed that the “gradual growth of constant capital in relation to variable capital must necessarily lead to a gradual fall of the general rate of profit” (Marx, 1974, p. 208; Hodgson, 1974). The changes on the organic composition of capital would ultimately create ‘periodic fluctuations’ in the system and the fall of the profit rates is inevitable. Hodgson points out that this theory “explains the demise of capitalism” (Hodgson, 1974, p. 77).

Wolff (1987) summarizes the conceptual basis of Marx’s theory as the following:

‘Accumulation’, like ‘commodity’, ‘capital’, ‘labor’ and so forth appear in Marx’s work as contradictory unities of opposites. The movement of these unities comprises the sequential phases of unity-disunity-unity-disunity, etc of the opposites. In the case of accumulation, Marx speaks of the unity of production and circulation, of extracting surplus value and of realizing it. Crisis is finally the disruption of accumulation.

Makoto Itoh (1978) emphasizes that the crisis theory of Marx represents a ground for Marx’s “systematic critique of classical economics that considers the capitalist economy as the “ultimate natural order of human society”. Besides, Itoh puts forward that Marx’s systematic crisis theory manifests “the contradictory nature of capitalist

economy” by means of interrelating its historical dynamics and mechanisms. In addition to it, James Devine (1987, p. 20) points out that the internal contradictions of economic modes of production are the basis of Marx’s crisis theory. According to Itoh (1978, p. 129), for Marx, the idea behind developing a crisis theory was proving the “inevitability of cyclical crises” and his crisis theory has taken its roots from the typical cyclical crises “in the middle of the 19th century”. Sweezy (1972 ) also points out that, in the first volume of the Capital, Marx has comprehensively developed a crisis theory which is based on the statement that capitalism is a “self-contradictory system which generates increasingly severe difficulties and crises”.

In the literature, the economic crisis is defined in various ways. According to Panitch and Gindin (2009), “the term ‘crisis’ is commonly used to refer to interruptions in the process of capital accumulation and economic growth”. Panitch and Gindin also point out that Marx’s crisis theory is centered around the idea that “permanent crises do not exist”, which was created by Marx at the end of the crisis of 1857 – 1858 (1975, p. 497 ) despite the fact that Marx adds to his statement that the capitalism would throw up new and repetitive crises. To a certain degree, the recession period would be lasted, yet since the interruptions are self-correcting due to the potential devaluations on the excess of capital or the state comes into the scene and the stimulus packages are injected into the system, the expansion period starts. Gindin and Panitch (2009) point out that the societal impacts of the economic crises diminish in importance due to the counter-balancing factors which delay the crises. According to Panitch and Gindin, some crises occur due to stronger causes and they do not easily “come and go”. These multi-dimensional structural crises create long-term economic uncertainty and lead to significant changes on both political and social levels. In the modern era of capitalism, this kind of economic crisis can be come across once in an each generation. They emphasize that the structural crises represent “turning points of a certain kind”.

Weisskopf (2011) emphasizes that in the historical materialist approach, the crisis is correlated with the decline on the real output and increase on the unemployment rate.

On the other hand, as it is depicted by the historical materialist scholars, the cyclical crises occur on a regular basis and during the recession times the production declines and unemployment rate increases. Until the economic recession and high unemployment rate would be terminated by the structural changes, the recession period would be lasted. Weiskopf points out that since the profit is the ultimate goal to reach in the capitalist order, the decreasing rates of profit would represent a threat to the system and it would create a ground for the economic crisis. In the free market economy, “the average profit rate” would determine the level of aspiration of capital owners to do investment in order to generate more capital. The historical materialist crisis theories basically consider the profit levels to fall in the long run. In addition to that, the historical materialist theories emphasize that the counter-cyclical attempts of the government authorities would be effective to avert the recession periods in the short run, but due to the organic composition of capital, in the long run the economy would ultimately end up in the recession period. According to Alcaly (2011), the history has shown that the government intervention in the market would not have been successful to stabilize the economy on a continuous basis. The government intervention would avert the negative effects of the economic crisis in the short run, but the economic cycle ultimately leads to economic crisis. In addition to that, Alcaly denotes that in the capitalist cycle, no crisis would be lasted permanently and the each crisis would create a ground of profitable production in the end.

As it is strictly pointed out in the historical materialist approach, Izquierdo (2012) emphasizes that in the economic crisis history of the US it has been regarded that the “cyclical decline of the profit rates” determined the plausible cause of the economic crises experienced in the post-war term in the US, Kotz (2009a, p. 306) points out that the 2008 Global Financial Crisis can also be regarded as a link of the chain of the systemic crises experienced in the history. The history of economics has shown that “the capitalism periodically undergoes a systemic crisis” during a specific time period, the system produces ‘high profits’ and ‘economic expansion’, but due to the factors intrinsic to the capitalist cycle, the system goes into a systemic crisis. Kotz points out that in the cases that the profits grow more than the wages, the financial

imbalances would occur. In the economic atmosphere of 2000s, the financial institutions mostly focused on having more profits from the mortgage loans and the ratio of profit rates over wages has gained an enormous increase. Kotz (2010, p. 1) also points out that the historical materialists think that the capitalism produces two types of economic crises. The system routinely produces 'periodic business cycle crisis' and it also creates 'long-lasting economic crisis' that requires significant restructuring. Kotz implies that the 2008 Global Financial Crisis can be considered under the roof of the second type of the economic crisis. The historical materialist crisis theories mostly state that the capitalist system has a conflictual nature which creates a base for the economic crisis. "The growing inequality between 'wages and profits', 'the financial bubble' and 'risky and speculative financial transactions' which were intrinsic to the system, created a ground for the recent crisis (ibid.) In the historical materialist approach, the 2008 Global Financial Crisis is considered as a breaking point in the accumulation cycle. Historical materialist scholars have regarded the economic crisis as a 'rupture in the neoliberal era' (McNally, 2011).

To conclude, the historical materialist approach considers the economic crisis as a rupture in the expansion period. According to the historical materialist scholars, the capitalist accumulation cycle comes across with both internal and external disturbances as Shaikh (1978) points out. Furthermore, according to the approach the capitalist system produces inefficiencies, defects and failures by its own dynamics. In the approach, it is strictly emphasized that the every recession period would end up in the expansion period, but the expansion period would not be lasted permanently. The dynamics intrinsic to the capitalist system ultimately makes the system face with an economic crisis. The historical materialist approach criticizes the liberal ideal that the market forces 'always' find an equilibrium point and the system regulates itself by its own mechanism. Additionally, according to the historical materialists, the system represents a danger itself and puts the system into a stalemate which compresses system into the vicious cycle of expansion and recession.

In the historical materialist approach, Marx's theory of the tendency of profit rates to fall is put into the center and it is emphasized that, in the system during the expansion times high amounts of profit rates are reached, however, in the long run the profit rates fall and the system is led to an economic crisis. It is also pointed out that this vicious cycle manifests the contradictory nature of the capitalist accumulation cycle. This falling rate reality of the system makes the recurrent crises occur in a monotonous way. The self-contradictions of the system create economic severities and crises and it makes the expansion period to be interrupted. However, it is also emphasized that in the long run, the system recovers itself and the recession period would end up in the expansion period. The capitalist system is depicted as the system which is limited and trapped by its own dynamics. The system is limited by the system itself and the capitalist production and accumulation cycles set a trap to prevent the system expanding in a linear way.

### **2.1.2. The Neoclassical Approach**

If the neoclassical approach would be taken as a monolithic view, it can be clearly regarded that, the liberal scholars interpret the economic system in a different way. The neoclassical approach positions the individual behavior in the center of the study and it is regarded that the economy is the aggregation of the end products of the individuals. The individuals try to maximize their utilities by means of consuming goods and services. In the neoclassical paradigm, three economic acts are considered significant. These economic acts are owning, buying and selling. The market is regarded as the most ideal place where economic actions happen. Moreover, the market is depicted as the best probable institution where individuals meet to maximize their utilities by means of performing economic actions. In the neoclassical view, markets are not solely examined but celebrated. It is claimed that the maximum wealth for all of the citizens can be reached under the circumstances that an ideal, free and fully competitive economic ground – market – is provided. On the other hand, the prices in the markets should not be manipulated and the private property should be legally enforced (Wolff and Resnick, 1987).

The neoclassical approach describes the capitalist system as the most ideal system where human beings perform economic activities in harmony with their wealth accumulating nature and the system is portrayed as the best social system which enables the producers to make maximum gains and the consumers to satisfy their economic needs. In today's world, the neoclassical approach is leading the economic agendas of politicians worldwide. The focal point of the scholars is how the market players would reach at the efficiency and optimality. In this approach it is strictly pointed out that in the unfree markets, efficiency or optimality cannot be reached. In order the markets to be operated in a just, impartial and equitable way; the market should be purified from the government intervention, laws, traditions and legal sanctions that can hinder the economic actors to mutually benefit from the market. In a pure, ideal economic environment, it is assumed that the interaction of the economic agents would provide a ground where producers, consumers and investors make mutual gains (ibid.).

The neoclassical hypothesis asserts that the government regulations pose an obstacle towards the economic efficiency and stability. As an important representative of the Austrian school, Boettke (2012) emphasizes that the state intervention violates the social interaction ground - which is designed for the individuals to have gains - and dissipates the opportunity of free individuals to make more profit. As many of the liberal scholars do, Boettke attributes this opinion to Adam Smith's work. Smith had claimed that 'the power of self-interest in the market' is really strong that it can defeat 'a hundred impertinent obstructions with which the folly of human laws too often encumbers its operations' (ibid., p. 38). According to Boettke, "the great material progress" created by the free market economy has been made in spite of the government regulations. He emphasizes that by means of limiting the market operations with legal sanctions, the governments run deficits, accumulate public debt and ultimately drive the economies into bankruptcy. Boettke comes to the conclusion that, the 2008 Global Financial Crisis is an outcome of the persistent and drastic government policies of the US which generate "deficit, debt and debasement" and

the roadmap which can take the world economies out of the crisis should be based on the ‘creative energy of the free market economy’ (ibid., p. 42).

In the neoclassical approach, it is assumed that the naturally stable market structure comes across with random shocks on a regular basis. Vestergaard (2009, p. 230) uses Philip Mirowski’s concept to define this approach. According to Mirowski, the liberal economic tradition makes a connection between the economic crises and the ‘exo-economic’ phenomena. According to Resnick and Wolff (1987), in the neoclassical paradigm, the economic deviations are considered as the endogenous factors and the economic shocks are positioned out of the system. Vestergaard (2009) points out that the early institutionalist economists who are Thorstein Veblen and Wesley Clair Mitchell have also pointed out that the orthodox neoclassical theory is counterproductive to explain macroeconomic deviations. It is possible to claim that the economic crisis depiction of the neoclassical approach parallels with the classical meaning of the crisis in history. Minoves-Triquell (2009) points out that the competition that the liberal economic system can offer can take the world economies out of the economic crisis since the competition would ultimately lead to innovation.

As a representative of the liberal wing, Eisenring (2009) states that even that the world economies would suffer from the negative impacts of the economic crisis, the regulation would be the last choice to vitalize the economy. He points out that to revitalize the economies, the market forces should be consulted, the competition in the market should be given incentives to create competitive pressure in the market. He emphasizes that in an environment where there is no competitive pressure, new ‘products or solutions’ would not be created. He denotes that even under the crisis conditions, the state should not regard itself as the sole responsible mechanism and it should stop over-regulating the market and give a chance to market players to take initiative and save the market.

There are some other scholars who think that the crisis should not be regarded a rupture in the system. According to Melnik (2008), the 2008 Global Financial Crisis should not be regarded as a paradigm shift or a rupture in the liberal paradigm. The



crisis should not be labeled as “a manifestation of the bankruptcy of liberal ideas and policies”. Melnik points out that to avert the cost of a crisis, the transparency and accountability should be provided and the market should maintain its ‘self-regulating’ characteristics. He claims that the less government intervention would create a stable financial atmosphere. The crisis of the financial sector should not be correlated with a prospective failure of capitalism or free market economy as a whole. As a representative of the liberal school, Melnik points out that to promote prosperity in the market, the level of state intervention should be decreased and it should be regarded that the financial institutions have their own supervisory mechanisms, hence the supervisory or regulatory attempts of the state should be eliminated. Melnik does not agree on the idea that the business entities have not been aware of the systemic risk, hence the external regulatory boards should be overseeing the market holistically to mitigate systemic risk. He claims that the business entities have a good understanding of the market conditions and the systemic risk. He also points out that the banking sector has been regulated sufficiently by the government institutions and the state should be blamed for the occurrence of the crisis since it has been intervening in the market more than it should do. He adds to that despite the fact that the liberal institutions have warned the government institutions on a prospective financial crisis, the state authorities did not consider the warnings of these institutions. Furthermore, he comes to the conclusion that the solution to the economic crisis should not be correlated with the idea of imposing more regulation but changing the direction and the structure of the regulation itself.

In the liberal paradigm, the financial crises are considered as external to the system. However, despite the fact that the system can not be operated in a decent way during the recession periods, the liberals extremely defend the idea that in order the system to be run on a smooth ground, the free market principles should be embraced. In the Liberal International’s Special Global Financial Crisis Edition<sup>1</sup>, Honorary President Otto Graf Lambsdorff’s opinion upon the financial crisis is given. Lambsdorff’s view

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<sup>1</sup> Retrieved from [http://www.liberal-international.org/editorial.asp?ia\\_id=1732](http://www.liberal-international.org/editorial.asp?ia_id=1732)

upon the financial crisis summarizes the perspective of the liberal scholars on the financial crisis.

The market economy is the most successful economic system which the world has seen. This historic fact has not changed because of the weaknesses of the system which we have seen in the crisis of the financial system. If your engine does not work properly, you try to repair or replace it. You do not throw away the car.

As Lambsdorff has pointed out, the liberals do not blame the system due to the occurrence of the crisis. They do not blame the car, if its engine does not work properly. They think that the financial system's dynamics are not responsible for the financial crisis. However, the solution to the financial crisis should not be based on strengthening the regulatory measures and increasing the involvement level of the government into the market.

To conclude, in the neoclassical view, the capitalist system is regarded as the most ideal system which produces efficiency all the time. In this system, the maximum gain and maximum wealth would be reached, the consumer satisfaction would be provided and the market optimality based targets would be achieved. It is strictly pointed out that under the circumstances that the regulatory mechanisms would take an active role in the market, the ground where producers, consumers and investors acquire mutual gains would be damaged. In order to promote stability, efficiency and optimality, it is pointed out that the government regulations, sanctions and codes would be restricted or withdrawn. It is emphasized that if the free market operations of the market stakeholders would be limited, the economy would not be run on a decent ground. The liberal scholars regard the economic crisis as an external random shock and according to them in order to minimize the effects of an economic crisis, the free market ideals should be strengthened and the regulations should be minimized. In this sense, the 2008 Global Financial Crisis is regarded as a failure sourced by the mispractices or excessive use of interventionist instruments. The regulatory approach and the government stimulous packages are considered as the 'last resort' to save the market

On the other hand, in the liberal paradigm it is pointed out that any economic crisis would not refer to the ‘end of an economic system’. The system might be exposed to several economic crises which may have impacts on the system but the crisis should not be correlated with the bankruptcy of the liberal ideals or dynamics. The argument that the business entities should be supervised in an effective way to mitigate systemic risk, hence the economic crisis is also rejected by the liberal scholars. In the paradigm, it is defended that the business entities are capable of assessing market risks and if they are allowed to move in a free way in the market, the market optimality could be reached. The key reference point of the approach is that the government policies and codes should be out of the game and the market players should be allowed to lead their operations without severe restrictions.

### **2.1.3. The Regulatory Approach**

By the eruption of the 2008 Global Financial Crisis, the role of the government and the regulatory mechanisms in the market have been questioned by policymakers and scholars. Both the scholars who support the interventionist policies and the ones who solely support the regulatory role of the state have emphasized that the state’s role is important in the market. While some scholars favor the state’s regulatory role in the market that the institutions matter for the operational excellence of the free market economy, some others support the strong interventionist policies of the states. Some of the scholars conclude that “the institutions matter for economic performance” which is the underlying idea of the new institutional approach (Furubotn and Richter, 2008, p. 1). Among most of the scholars it has been put into words that before the 2008 Global Financial Crisis has occurred, the market regulations were deficient, specifically in the US (Hanson, Kashyap and Stein; 2011) and the supervisory boards were not complete in every respect when it comes to the stabilization of the market. Since the influence of the economic crisis was visible in every aspect, the role of the regulation and intervention upon the financial stability has become a current issue.

Minsky's arguments on the role of the government in the market is important to understand the scholars who defend the interventionist policies. Minsky (2008, p. 7) states that the "economic systems are not natural systems". The central determinant of the economic system is the policy which can shape the overall characteristics of the economy. He emphasizes that the actual economic processes depend on economic and social institutions and 'our economic destiny is controllable' as Keynes had denoted before (ibid., p. 8). Despite the fact that the free market economy does not determine who would benefit from the potential outcome gains, the well regulated system can permit 'for whom' the prospective gains would be produced and 'what kind of' outcomes are permissible to be produced (ibid., p. 9). The ideal economic system is responsible for bringing economic efficiency, social justice and liberty and these goals can solely be achieved under the circumstances that the government institutions can make interventions that can influence on the results of decentralized market processes. Minsky (2008, p. 9-10) points out that:

When the difficulties encountered by giant corporations and financial institutions are central to the instability that plagues the economy, the very largest concentrations of private power should, in the interest of efficiency as well as stability, be reduced to more manageable dimensions.

Minsky advocates an economic order which is managed by a well designed central mechanism. The direction of his opinions on the free market ideals parallel with Marx. Minsky agrees on Marx's arguments on the conflictual nature of the capitalist order and he points out that the major problem of the capitalist economic order is that it is unstable, moreover the instability of the capitalist system is not grounded upon neither the external shocks nor the incompetence but the internal dynamics of the system. According to Minsky 'the complex, sophisticated and evolving financial structures' of the capitalist system lead to economic depressions and the cure of taking our economies out of depression is the institutional practices and policy responses. Minsky states that to stabilize instability, we need an efficient government intervention on the economic order and if and only if a good institutional layout is designed, the market can work in an efficient way.

On the other hand, Minsky has a counter-argument with Boettke that the reason why the free market economy frequently falls into catastrophe is not the existence of the government in the market but the ‘endogenous destabilizing forces’ (ibid., p. 320) of the capitalism. According to Minsky the normal functioning of the economy creates “financial trauma and crises, inflation, currency depreciations, unemployment and poverty” and the complex structure of the economic system is designed in a flawed way.

Minsky rejects the neoclassical argument that without any other intervention, the market and the banking system can work in an efficient way if – solely - the monetary policies of the central banks are implemented. According to Minsky (2008, p. 252-253), the market cannot solely be protected with the monetary instruments of the central banks due to its limited effect. In a banking environment which is complex, dynamic and diverse, the supervision of the central banks should not be considered sufficient to minimize the aggregate market risk. On the other hand, he recites Basil Moore’s argument that the money is endogenously determined variable, therefore it cannot be controlled by the Federal Reserve (Moore, 1979). In this context, Minsky (2008, p. 221) criticizes the lack of the banking supervision in the US and he points out that in the different historical epoches, the US institutions as the Federal Reserve (FED) or the Federal Deposit Insurance Corporations did not strongly supervise or manage ‘the bank assets’, ‘liabilities’ and ‘the ratio of bank assets to equity’ which have represented critical importance on the stability of the market, but the supervision of the market and the banking system has been confined with the monetary policies of the central bank. In order to lead the banking operations, the banks should play the role designed for them by the legal authorities. The bankers are supposed to be ‘liquid and solvent’ and the banking operations should be prudent in order the banking system to be working on a smooth ground.

According to Minsky the current economic system does not motivate the big financial institutions to play safe in the market. The big financial institutions have always had a confidence that if they would go bankruptcy, the government would

bail-out them to maintain economic stability. This motivation has led them to operate their banking transactions out of the legal ground and unfortunately the history has proven that they were right. In every economic recession, the government has taken measurements to protect big financial institutions whose operations could have been classified as risky until the crisis occurred. By means of stating that, Minsky strongly underlines the fact that the over-protectionism is also as dangerous as the lack of regulations. In order the market to be working on an efficient ground, effective, market-friendly and well-balanced, regulations should be made. It is possible to claim that the negative impacts of today's economic system does not solely fail in the post-crisis periods, but the lack of regulatory basement puts the system into the risk cycle on a frequent basis.

Minsky is not the only scholar who thinks that the unrestraint market conditions foster the systemic risk in the market and the systemic risk created in the market would ultimately lead to economic crisis, Vestergaard (2009) points out that the Chinese scholars have also explained their concerns toward the supervision of Western governmental bodies in the post-crisis period. In 2009, the chairman of the China Banking Regulatory Commission, Liu Mingkang has explained that the US regulators "ignored their duty for prudential supervision and their job of preventing misbehavior" (May, 2008). According to Mingkang, in order to promote global financial prosperity and stability, effective supervision mechanisms should be built to protect market mechanism. On the other hand, the head of the general office of the China Banking Regulatory Commission, Liao Min has also explained that the western governments should strengthen their supervision authorities. He stated that "the western consensus on the relation between the market and the government should be reviewed" and he also added that "In practice, they tend to overestimate the power of the market and overlook the regulatory role of the government and this warped conception is at the root of the subprime crisis" (Vestergaard, 2009, p. 227).

According to Crockett (2000, p. 8), the history of economic crises has shown us that the initial assumption of the economists which is "the economic processes are the

replications of the individual markets” has been proven wrong and as it was realized afterwards the policymaking and macroeconomic supervision represent a critical importance on the stabilization of financial markets. In order to provide financial stability in the markets in long periods, a strong supervisory and regulatory framework which would have ‘macro-prudential orientation’ is required. The financial instability may be unavoidable due to the business cycle but the effects of the financial instability can be minimized. Financial instability means waste of resources. It has influence upon the market since it affects the consumption and investment decisions of the market players. It creates a ground that the economic resources are misallocated and wasted. A potential tenseness in the market can have negative effects on both the markets and financial institutions and in the long run the ability of the reproduction of the capitalist cycle comes to harm. Under the unstable economic conditions, the use of the macroeconomic tools, policies and instruments cannot be as efficient as it is in the expansion periods (Crockett, 2000, p. 4).

As it was covered in this thesis before, in the neoclassical approach, it is strictly pointed out that the crises factors are exogenous to the economic system. And the prescription of the financial stability is formulated that under the circumstances the government institutions would not intervene in the market, the market can go back to its own equilibrium point and the financial stability can be provided. However as Crockett (2000, p. 5) emphasizes, the failure of an economic system may be rooted in the failure of a single institution due to the firm-specific factors or the economic crises may be rooted in the unforeseen risk factors which are exogenous to financial processes, but the actual reasons of the economic instability is the endogenous factors in the economic system.

Furthermore, some scholars emphasize that in order an economy to be operated in an efficient way, the government should be active in the market with its institutions. Acemoğlu (2009, p. 4) points out that with the emergence of the economic crisis, economists started to think on “what went wrong” in the market. He states that the economists have assumed that “the markets miraculously monitored opportunistic

behavior” and disregarded the “institutional foundations of the market”. According to Acemoğlu, the main mistake the economists have made was that the free markets were considered as equal to unregulated markets. Despite the fact that it was always considered that to have a good free market mechanisms, some rules and laws should be imposed by the government authorities. However, in practice the role of the institutional structure in the market and the regulations have been disregarded by the scholars. Acemoğlu emphasizes that with the emergence of the crisis, both on theory and practice, the importance of the institutional structure in the market has been noticed. According to Acemoğlu, ‘the greed’ which might be considered as one of the underlying motives of the free market idea can solely be tamed if a proper institutional layout which can check this motive is established. If the greed would be controlled by the supervisory boards, the greed of the market players would lead to “innovation and economic growth”. On the other hand, the greed would cause to ‘rent-seeking’ , ‘corruption’ and ‘crime’. In addition to that, according to Acemoğlu, the recent crisis has shown us that the risk monitoring capabilities of the individual institutions is another important subject to consider. With the occurrence of the crisis, the relationship between the risk monitoring and the role of regulatory institutions have attracted economists’ attention.

To conclude, with the emergence of the 2008 Global Financial Crisis, the role of the government in the market has been questioned by many scholars. The regulatory approach puts the government policies and intervention in the center of the economic management. According to regulatory approach, the institutions are important for the stability of the whole economic system. The core idea behind the approach is that the economic systems are not natural systems and to achieve the equilibrium point in the market, the government should involve in the market and the role of the government institutions should be clear. In order to promote social justice, efficiency and economic liberty, the regulations should be made, the ‘economic destiny’ should be controlled by the state authorities. In the approach, it is strictly pointed out that under the circumstances that the business entities would be allowed to run their business activities by their own, the efficiency would not be provided.



In the approach, the economic atmosphere is considered as complex and sophisticated, for this reason the state mechanisms are regarded as critical organs which provide stability, efficiency and optimality for the whole market by means of designing an efficient institutional layout to intervene in the market. The scholars advocate that the capitalist system has endogenous destabilizing dynamics which should be eliminated by the supervisory or regulatory bodies in order the market to be allowed to work on a smooth ground. Some scholars criticize the free market ideals which equate the unregulated markets with the free markets. The recent global crisis has exacerbated the discussion on the role of the state in the market specifically in the field of systemic risk aversion. The policymaking, policy implementation and designing an inclusionary structural layout are considered significant. It is claimed that the market should not be distant from the institutional foundations and if the free market would be tamed by the institutions, the market can produce efficiency and the economic growth would occur.

## **2.2. The Causes of the 2008 Global Financial Crisis**

In the aftermath of the 2008 Global Financial Crisis, the causes of the crisis have been elaborated by many scholars from different ideological backgrounds. Most scholars have compromised on similar causes which have had significant roles on the outbreak of the economic crisis. The irresponsible mortgage lending practices, low interest rates, massive capital inflows, excessive risk taking and over-leveraging in the market, the complex financial atmosphere and lack of regulations have been considered as the main causes of the 2008 Global Financial Crisis that the scholars have mostly based on.

In the aftermath of the crisis, it has been emphasized that the mortgage lending practices in the US have set the stage for the Global Financial Crisis. According to the Economist, “the flood of irresponsible mortgage lending in America” has represented the ground for the crisis (The Economist, 2013). In the pre-crisis period, mass amounts of loans could not be repaid by their borrowers. During this period,

the solvency ability of borrowers was not considered in depth by the financial institutions. The excessive provision of loans for the NINJA group (the abbreviation used to define the borrowers that have no income, no job and no assets) has created an unstable system (Lagoa, Leão and Barradas; 2014). The financial institutions have provided large amounts of loans without considering the repayment ability of the borrowers. Ultimately, the faulted loans reserved for subprime borrowers with poor credit histories have been passed unto big financial institutions who tried to convert the subprime debt into low-risk securities and keep them in mortgage pools (The Economist, 2013).

Coping with unpaid mortgage loans in the pre-crisis period was problematic. All unpaid mortgage loans were kept in a “debt pool” to turn them into low-risk securities. However “the chosen methodology” to rescue the non-paid mortgage debt was faulty as the pooling would work under the circumstances where the risks of the components of the pool were correlated. This was in spite of attempts to separate mortgage loans to reduce risk. However, the separate mortgage loans have tried to be kept in the same mortgage pool and the risk which is supposed to be reduced has enormously risen. The predicted impact of keeping all mortgage loans in the same pool was that since the present condition of the local property markets would differ from the each other, the risk of non-repaid mortgage loans to impact on the ‘across-the-board level’ would have been reduced. However, the crisis has proven that this assumption was not right and the local property markets were interrelating (The Economist, 2013). “Pooling” and “reselling” unpaid debt was considered as a cure for systemic risk.

Pooling and reselling methods did not decrease the aggregate risk level in the pre-crisis market. The new banking model designed to spread the risks of securities by pooling and reselling has “backlashed” and pooling securities has increased the risk of a prospective housing bubble. This banking model has been named as “originate and distribute model” by Brunnermeier (2008). It is based on repackaging loan debts and passing them onto third parties. It was considered as a safe model that transfers

the risk of assets into other financial investors who can bear the risk and take the advantage of these securities. However, this securitization model encouraged people to invest in these collateralized debt securities to make gains in the short run which prepared grounds for bank liquidity shortage. The “liquidity crunch” emerged as a result of demand for financial instruments with short-run maturities. Although bank operations were mostly in long-term mortgage loans, demand towards securitized products with short-term maturity created an abundance of cheap credit that threatened bank operations (Brunnermeier, 2008). The focus of financial institutions over short-term securities has made the institutional monitoring ability over long-term loans weaken for several reasons. First of all, the “originate and distribute model” was widely implemented with expectations to reduce the risk of long-term loans. This artificial securitization model created a delusion that financial institutions would be ultimately insured under any circumstance, independent of credit quality. Secondly, Lenders operated under the assumption that the financial competence of borrowers would not be important in collecting mortgage loans, since housing prices would increase over time and the value of the loan would increase (Brunnermeier, 2008). The “originate and distribute model” did not decrease aggregate risk level in the market, but was considered as one of the main causes of the crisis that increased the risk in the market and created a liquidity shortage.

The “originate and distribute model” created an unstable economic atmosphere in the US. According to the Economist (2013), the use of unpaid mortgage loans to support collateralised debt obligations (CDOs) triggered for the global economic meltdown. Investor motivation to purchase these “transformed mortgage accounts” was to achieve an ideal margin of the interest rates, as the instrument’s returns were very high. On the grounds that interest rates were low and the returns over the securities were high, the risk appetite of hedge funds, banks and investors was not taken into consideration and the risk limitation was exceeded. All of the negative factors take effect, in the US the house prices have suddenly declined and the housing bubble has occurred. The slump of mortgage-back securities has affected the house market in a

negative way and since the domino effect has occurred, the credit crunch-based sectoral decline has been grown into the economic downturn (The Economist, 2013).

Aside from the negative impacts of irresponsible mortgage lending practices, the low interest rate atmosphere also affected the economic system in the US. In the pre-crisis period, the low interest rates and high returns had made investors willing to take unbearable risks. The combination of low interest rate atmosphere and the high returns have made the US economic system more fragile. Brunnermeier (2008) points out that the housing bubble has emerged due to the 'low interest rate atmosphere'. Posner (2009) points out that in addition to the aggressive marketing of mortgage loans, the low interest rates facilitated financial crisis. According to Lagoa, Leão and Barradas (2014) "low interest rates", "political pressures on promoting house ownership", "lower construction costs" and "population growth" have caused the high-risk group of consumers to demand more loans which have ultimately ended up in the liquidity problems. Since the interest rates were not kept in a margin and high returns could not be controlled, the system has become more fragile which has created a systemic risk for the whole system. The external capital inflows have been another trigger for the 2008 Global Financial Crisis. Brunnermeier (2008) points out that in addition to the lax interest rate policy of the Fed, the external capital inflows specifically from far eastern countries have played a significant role on the housing bubble.

As it was covered above, irresponsible mortgage lending practices, low interest rate atmosphere and massive capital inflows have created a fragile system. In addition to these significant causes of the crisis, by all means, the excessive risk taking behaviour of the market players and the deficiency of the market mechanisms to avert this behaviour have played a vital role on the eruption of the financial crisis. The incentives on 'excessive risk taking' have represented the basis of the crisis (Stiglitz, 2009). According to Stiglitz, the borrowers did not consider systemic risk and assumed the mortgage pool would not depreciate. Borrowers assumed that financial system stakeholders that included large financial institutions represented

joint interests with low risk of fail. However, he emphasizes that this risk aversion method is limited to circumstances of risk correlation. In a mortgage pool that different types of securities (in terms of scale and volume) are stacked and the risk value of the each security would not parallel, the systemic risk would critically increase. In the pre-crisis period, the systemic risk was not monitored on a regular basis and both the over leveraging in the market and the complex financial atmosphere have created a ground for the crisis.

It is obvious that in today's complex financial architecture, the way how financial institutions try to manage the risk has been erroneous in many different ways. Since the financial tools have become more complicated and the financial transactions have become more complex, the way how the risk should be managed has been changed. Due to the complexity of the financial instruments used in the market, the aggregate risk in the market has increased in a dramatic way. In the pre-crisis period, the financial institutions have tried to leave an impression in the market that in this complex financial atmosphere they were not taking excessive risks. Blackburn (2008, p. 72) points out that in the pre-crisis period the biggest financial institutions of the world used the shadowy banking system to leave an impression on the market that they do not take unbearable risks. This secondary financial structure has allowed big financial institutions such as Merrill Lynch, HSBC and Deutsche Bank to take high amounts of credits and provide loans for the non-credible borrowers. The financial institutions based their revenue stream of secondary banking transactions of high-risk securities. As a response to the outburst of the housing bubble and the mortgage crisis, the central banks of the world injected more money supply into the system, however these temporary attempts could not resolve the permanent liquidity problem of the banks. Blackburn thinks that the financial crisis has occurred due to "the chain of irresponsibilities". The US deficits or the monetary policy of FED were the visible causes of the financial crisis but according to Blackburn, the incentives carrying high risks, the complex financial structure, over-extended financial intermediation were the real causes of the crisis. He gives attention to the tremendous increase on the

number of subprime mortgage borrowers between 2001 and 2006. While the total subprime loans were \$160 billion in 2001, it has increased to \$600 billion in 2006.

Blackburn stresses that the financial cycle based on the grey capital (artificially created corporate savings) represents a risk for the whole economy and with the outburst of the crisis, this risk has been realized. A mechanism grounded upon “unsustainable debt clusters” would ultimately unbalance the stability of the macroeconomy. The “originate and distribute model” provides profitability for banks in the short run by distributing banks’ aggregate risk to borrowers. The model thrives on gains from short run transactions, making securities with short run maturities preferable to long-term loans by banks. However, according to Blackburn, ‘the grey market conditions’ would disrupt the market mechanism and market forces. The dependency of the market economy upon short term securities would create an insecure and uncertain market environment open to abusements, misuses and higher amounts of unjustified benefits (Blackburn, 2008).

The new, complex financial architecture has made it easier to make speculative gains and due to the complexity of the system, the aggregate risk level has increased. Foster and Magdoff (2008, p. 92) point out that the global slump was the unavoidable result of the establishment of the new financial architecture which is based on the huge speculative gains. They emphasize that the 2008 Global Financial Crisis was a case which has proven that “the long term pattern of monopoly finance capital is not stable”. The economists agree on the statement that in this complex financial architecture, multiple factors which would cause the economy to fall into recession have simultaneously occurred during this period. Posner (2009) points out that the 2008 economic crisis is ‘the outgrowth of the bursting of an investment the downturn’. The complex financial architecture and the excessive use of complex financial instruments have created a fragile economic atmosphere and in this atmosphere multiple factors which could lead to an economic crisis have played a significant role on the occurrence of the crisis. The 2008 Global Financial Crisis can be considered as “the first structural crisis of the 21st century” (Leo and Panitch,

2009). If the crisis which can be regarded as the first structural crisis of this century would be analyzed within the historical context, it would be noticed that the crisis is the outcome of the previous phases experienced in the 20th century. In the latter phases of the 20th century, the capitalism has changed its form and it has turned itself into the “predominantly financialized capitalism”. The financialized capitalism has revealed as a result of the greater mobilization of capital across sectors, space and time. The transformation of the physical capital into the abstract capital has created a “speculative”, “parasitic” or “rentier” system (ibid.).

Despite the fact that this ‘over-leveraging’ and ‘excessive risk-taking’ system’s failures have been tolerated by the market and the finance was not “functional” but “essential”, the global expansion of capital and production triggered by the support of finance has eventually decelerated. Leo and Panitch emphasize that “in the short run”, the finance has made the market more profitable, “allocated more capital across the businesses”, supported “mergers and acquisitions”, hence both the productivity growth and the rate of exploitation has increased. The “computerized banking and IT systems” have led the financial dynamics to vitalize the capital accumulation. The “emergence of the derivative markets”, “the spread of hedging”, the “volatility arising from the globalization” of finance combined with “speculation and competition” have been creating the series of financial bubbles which ultimately result in financial crises. Leo and Panitch state that the globalization of the financial markets have made funds flow into the US market and it has created competition between both the domestic and external lenders. The far-reaching credit allocation and the increase on money supply have created asset inflation on stocks and bonds (2009).

By means of analyzing the dynamics of the economic crisis, Leo and Panitch put the weakness of the working class in the center. In the complex financial architecture, the working families have become more vulnerable. Leo and Panitch strongly point out that the lack of powerful trade unionism in the US has led the corporations to make more profits but the US working force to lose much more. In an environment

that the working class is struggling with the financial debts and not protected by the state mechanism combined with the case that the corporations make more profits, most of the financial debts would solely belong to the working class. Leo and Panitch see the housing bubble as a natural outburst of the financial weakness of the American middle class families. From “mortgage debts to construction business, furniture or automotive industries”, the financial weakness of the American families has played a significant role in the downturn and sparked a domino effect in the economy ( *ibid.*).

The new complex financial architecture has made the system more fragile and the uncertainty in the market has created a ground for the financial crisis. Dumenil and Levy (2011) point out that the fragile structure of the US economy and unsustainable global economic conjuncture have led the US economy to experience an economic crisis. According to them, similar causes that lead to any economic crisis as ‘the deficient profit rates and insufficient purchasing power of wages’ have influenced on the US economy to come across with a recession. However, according to Dumenil and Levy, the main causes of the 2008 Global Financial Crisis were different. They state that “the quest for high income, financialization and globalization” represent the ground of the financial crisis. The “quest for profits, capital gains and income” were not realistic. Dumenil and Levy think that the expectations of the economy were beyond the sustainable limits, consequently the 2008 Global Financial Crisis was the crisis of neoliberalism. On the other hand, since in 2008 the global economy was not at its equilibrium point and the global imbalances occurred during this time period, the US economy was open to external shocks. The economy was not able to compensate its domestic losses from the international trade. Besides, the concrete cause of the crisis is regarded as the domestic debt of the households which has created the housing bubble. Dumenil and Levy imply that the US growth model did not work efficiently since it was consumption-oriented. This consumption model was not in behalf of US producers since it has increased the level of imports and disrupted the trade balance (2011). On the other hand, in a state of world that the purchasing power of the working class is damaged, the consumption-based growth



model has ultimately ended up in the case that working class could not afford their mortgage payments and the loans were passed on the financial institutions (2011).

Many scholars compromise on the statement that the 2008 Global Financial Crisis was a systemic crisis and the new complex financial architecture and market dynamics have led to the crisis. Many scholars also point out that the 2008 Global Financial Crisis was the natural outcome of the lack of regulations in the market. With the emergence of the crisis, the role of the institutions in the market and regulations' area of influence have been discussed on a wider ground.

Kevin Rudd points out that the 2008 Global Financial Crisis can be regarded as the natural outcome of the “free market fundamentalism, extreme capitalism and excessive greed” (Rudd, 2009). He defines the crisis as the biggest regulatory failure in the modern history. According to Rudd, this economic crisis was the greatest in three-quarters of century, and in respect of its sphere of influence, it cannot be degraded into a sole financial crisis due to its complex nature. This crisis has occurred in the financial markets and affected the biggest financial institutions of the world in different ways, however Rudd states that this multi-faceted crisis has simultaneously occurred in “credit markets, debt markets, derivative markets, property markets and equity markets – notwithstanding the importance of each of these”. This systemic crisis has been blossomed in the financial markets, but it has ended up in general economic crisis, hence the employment crisis, even social and political crises in many countries. According to Rudd, the characteristics of the 2008 Global Financial Crisis underscore the magnitude of the crisis. He states that the 2008 Global Financial Crisis is concurrently “individual, national and global”. The crisis draws a unique pattern in terms of its sphere of influence. It has influenced on both the core and periphery countries. It is an institutional crisis since the regulatory mechanisms have failed to overcome the crisis dynamics, yet it has intellectual and ideological roots. It has led people to question the efficiency of the ‘neoliberal economic orthodoxy’ which was based on the theories of Hayek and von Mises.

Rudd strongly emphasizes that the spontaneous order, ideally depicted by the liberals, which arises after individuals pursue their own utilities under the state regulations has been questioned owing to the crisis. The magic of the market referred by Ronald Reagan has disappeared. According to Rudd, in the times of major economic crisis series, the economic system which is tend to fall into recession would have been stabilized easily with the true attempts of the states, yet rather than focusing on the dynamics of the new financial architecture, the players of the system has chosen to use short-term monetary policies and blamed external, provisional and temporal factors which were considered as the ‘trigger of the crises’ (Rudd, 2009 ). Crotty has similar arguments with Rudd. According to Crotty, the real cause of the 2008 Global Financial Crisis is the flawed institutions and practices. This globally integrated financial system which is consisted of giant bank conglomerates, investment banks, hedge funds and special investment vehicles is creating inefficiencies and dragging the economic system into the chaos. On the other hand, Crotty points out that the mortgage bubble is artificially created by the bankers since they sold more mortgage loans to gain more fees in return of it. This artificial housing demand has overwhelmed the housing market and due to the chaining effect, the world economy has fallen into recession (2008). Crotty is not the only scholar who thinks that the institutional practices have failed in the pre-crisis period. Levine (2011) points out that the weakness of the financial system can be centered in the occurrence of the economic crisis. Levine (*ibid.*, p. 40) denotes that

The crisis does not only reflect unsustainable global macroeconomic imbalances, the proliferation of toxic financial instruments, euphoric financiers, and unclear lines of regulatory authority...Rather failures in the governance financial regulation helped cause the crisis by producing and maintaining bad policies.

According to Levine, the regulatory boards in the US were not designed to stabilize the financial system in the long run, rather they were based on short-term interests. The regulatory mechanisms mostly consider the interests of the private financial institutions. Levine points out that under the circumstances that the economic activities of credit rating agencies and other financial institutions were not supervised

by the regulatory boards sufficiently, “a systemic failure of financial regulation” (ibid., p. 55) has revealed. Levine strictly emphasizes that despite the fact that financial regulators were able to define, assess and monitor systemic risks, design policies to stabilize market as a whole, since they have favored the single financial institutions, a regulatory gap has occurred in the system. Claessens, Kose and their colleagues (2013) have agreed on Levine and came to the conclusion that due to the lack of lending standards, low leverage level, ineffective regulation in general, bad institutional and supervisory layout, the 2008 Global Financial Crisis has occurred. They point out that during the pre-crisis period in the US the regulatory approach was not designed well to provide financial stability and the macroprudential supervision was insufficient. Besides, they point out that in the US, “the financial institutions, merchant banks, investment banks and commercial banks” (ibid., p. 3) were not regulated properly. On the other hand, the derivative markets and the overseas activities of financial institutions were not supervised fully. They come to the conclusion that the systemic risk occurred in the market and the conflict of interest was neglected by regulatory mechanisms and credit rating agencies. Furthermore, the lack of ‘intervention mechanisms’ has caused the crisis to be spread and it has increased the cost level of the economic crisis.

In the pre-crisis period the speculative gains have been made and the state authorities were not able to prevent speculative gains. In the pre-crisis period, the descending regulation of the state, the speculative rising on security returns (or investment returns in general) have sparked the economic crisis (Posner, 2009). Posner makes an analogy between the 2008 Global Financial Crisis and the Great Depression and he comes to the conclusion that as it was experienced before, the solvency of the institutions have been damaged with the outburst of the bubble. In 2006, the total amounts of individuals’ mortgage debt had reached to \$11 trillion, it should have been interpreted as a strong signal for the arrival of the recession period (Posner, 2009). Despite the fact that there was a strong signal for the crisis, since strong measurements were not taken by the regulatory authorities, the 2008 Global Financial Crisis has occurred. Stiglitz (2009) emphasizes that the mismanagement

over financial markets would play a catalytic role on triggering big financial crises once in a decade which would normally come on the scene once in a century. In the pre-crisis period of 2008 Global Financial Crisis, the lack of regulation over the financial market has led the markets to go into chaos one more time. According to Stiglitz, the financial structure which was based on the fraudulent behaviour has created a ground for the crisis. He states that some mortgage loans were not matching with the value of the houses and they were actually over-priced. He reproaches on the governmental bodies which should have considered the reality that the abnormal incentives would end up in the abnormal consequences. However, the measurements were not taken on time. In the pre-crisis period, the financial intermediaries were rewarded by commission per mortgage account that they sell, herewith thanking to this incentive, even people who do not have a decent job or saving were found eligible to make use of the mortgage loans. The lax banking regulation of the US which traces back to 1960s made it possible the poor people to take mortgage loans that should have been repaid in big amounts in the long run. 'The teaser rates' deceived the middle class families of the US and most of them went bankrupt (Blackburn, 2008).

Evans (2014) points out that the most visible cause of the crisis was the failure of the security based mortgage loans. Since the government authorities have allowed the loans to be provided for the people that did not have sufficient income to make the loan payments, the system became unsustainable. The eagerness of the banks to make more profits, repackaging of the mortgage loans into new securities, hence the failure on the risk management have caused the crisis to erupt. In addition to that, Evans also emphasizes that the excessive use of the monetary policies in the market has also destabilized the market. According to Evans, the role of the government should have been different to promote stability in the market. He recites from different scholars' academic works and comes to the conclusion that the real cause of the Global Financial Crisis was the deregulation in the US financial structure. He denotes that that there was no heavy restriction on the banking transactions before the crisis, which has naturally allowed the riskier ways of lending to become

common. The greed of making higher returns on the capital has increased the speculative gains. The complex financial instruments can stretch the potential gain for a while, but the speculative gains would not be lasted forever. After a while, it would represent a threat towards the stability of the financial system.

The incompetence of the regulatory mechanisms on assessing systemic risk and averting a prospective financial crisis has been put into words by many scholars. Under the circumstances that the mortgage loans have been provided in an irresponsible way and the financial bubble has occurred, due to the deregulation of the market and the complex layout of the financial structure, the crisis has become more impactful. According to Stiglitz (2010), a ‘deregulated market, low interest rates, the real estate bubble and skyrocketing subprime lending’ would represent a toxic combination for an economy, above all the trade deficit and the unstable global economy would accelerate the arrival of the recession. Stiglitz points out that the misjudgment and mispricing of the market can lead to a catastrophe under the circumstances that the state mechanism would not intervene in the market at the right time. The wreckage of the sliced, diced, packaged and repackaged mortgage loans did not only affect on the domestic market of the US, but the securitization of the mortgage loans has also affected the financial institutions at the overseas. The lack of quality control and the absence of the market discipline has led to a chaos. The complex financial instruments have changed the structure of the market, but the financial institutions did not know to avert the risks created by these financial instruments. According to Stiglitz (ibid., p. 14) in the Wall Street new risky products have been launched into the market, but there was no mechanism to “manage the monster they had created.” During the crisis period it was understood that the system was in need of strong surveillance mechanisms and if many related causes occur simultaneously, it would create a hazardous combination for the whole economy.

Since many interlinked causes have simultaneously occurred and the immune system of the economy was weak, a strong economic downturn has been experienced. There are many causes which have led to the 2008 Global Financial Crisis, but the

significant point which was the underlying reason of the magnitude of the economic crisis is the synchrony and the ‘toxic combination’ (Stiglitz, 2010) of the interlinked causes. Jickling (2010) states that there are many causes which led to the 2008 Global Financial Crisis. The ‘imprudent mortgage lending’, ‘housing bubble’, ‘global imbalances’, ‘lack of transparency’ in the market, ‘deregulatory legislation’ and the defects on the risk management practices and the lack of regulation over the systemic risk can be counted as the significant causes of the 2008 Global Financial Crisis. The toxic combination of the causes that are the housing bubble, the appetite of risk-taking in the market, the insufficiency of the regulatory framework in the US have influenced on the stabilizing dynamics of the economic system. In addition to that, the rising inequality in the market and the increasing volume of banking have deepened the impacts of the crisis (Beachy, 2012, p. 8-9).

Claessens and Kodres (2014, p. 5) emphasize the underlying ground of the ‘interlinked causes’ of 2008 Global Financial Crisis. According to them the crisis has ‘multiple’ and ‘interlinked’ causes. They make a difference between the causes and categorize them into two piles. In the first pile, they gather the common causes which might be seen in any economic crisis and in the second pile, they gather the unique causes which are specific to the 2008 Global Financial Crisis. They point out that ‘the credit boom’, ‘asset price appreciation’, ‘the creation of new financial instruments’ and ‘financial liberalization and deregulation’ represent the four main causes of the economic crisis. Besides, they point out that the crisis has unique causes as ‘the rise on the household leverage’, ‘defaults on mortgage loans’, ‘complexity and opacity in the financial structure’ and ‘international financial integration’. Despite the fact that in the pre-crisis period it was assumed that the financial structure was robust and sound to cope with a potential shock or distress and the regulatory mechanisms were regarded fully credible to monitor and intervene in the systemic risks, if necessary, it was understood that the financial structure was not strong enough to cope with the systemic risk and the systemic risks were not well diversified. They point out that the lack of a systemwide perspective was ultimately considered by scholars. With the occurrence of the crisis, the need for supervision

was considered as a vital part of the regulatory framework which would provide financial robustness and soundness.

To conclude, most of the scholars have compromised on common causes of the 2008 Global Financial Crisis. Scholars have come to the conclusion that the way how the mortgage lending was provided in the US was problematic. The borrower profile has not been analyzed in a detailed way and the mortgage loans have been given in an irresponsible way. The way how the non-repaid mortgage loans have been pooled and resold was another problematic point since different types of mortgage loans have been put in the same pool which has risen the aggregate risk level. Furthermore, the over-extended intermediation has created another aggregate risk for the whole system. The increase on the speculative gains created a systemic risk, hence the financial bubble. Since the return levels on CDOs and the interest rates could not be managed on a limited margin, the complex financial system has become fragile. During the pre-crisis period, the interest rates were enormously low, but the return rates over CDOs were enormously high. In addition to that, the level of external capital inflow in the US was also high. The inconsistency between the excessive demand over long-term mortgage loans and short term maturities has created a liquidity shortage in the system. The excessive risk taking of the players of the system and the lack of regulations and incompetence of the surveillance system which would avert the systemic risk has created a proper ground for the economic crisis. The over-leveraging and excessive risk taking have led to an economic crisis on the point that the system's balance mechanisms could not manage to avert systemic risk to turn into a financial bubble. Since the US market was not regulated in a sufficient way and the supervisory layout of the US was not established in a proper way, the financial structure has failed at one point.

### **2.3. The Consequences of the 2008 Global Financial Crisis**

The 2008 Global Financial Crisis has brought about heavy consequences for both the US economy and the rest of the world. Mishkin (2011) divides the 2008 Global

Financial Crisis into two phases. He states that, in the first phase which traces to the period between August, 2007 and August, 2008 a small fraction of the US financial system has entered into a mild recession. Due to the hit over the residential mortgages, the US housing sector has been disrupted. Despite the fact that the housing sector was in recession, the American economy was still growing on a decreasing rate. The increase on the unemployment rate and the slowing rate of the growth were signals that the US economy was at the doorstep of a recession. However, Mishkin strongly emphasizes that the Congressional Budget Office's estimation over the unemployment and growth rates was still optimistic.

By September, 2008 the crisis pattern has dramatically changed. The bankruptcy of Lehman Brothers has changed the direction of the crisis. It can be pointed out that the following events have played a significant role on deepening the crisis. The collapse of AIG and the run on the Primary Fund have deepened the crisis' area of influence and the bankruptcy of the strong financial institutions have shown the weakness of the system. The collapse of the financial institutions has created a chain reaction which has tipped the US economy over the cliff (Mishkin, 2011). This chain reaction has influenced on credit cards, bonds, commercial mortgage lending and auto loans. As a result of the outburst, the employment rate has fallen, the household consumption has declined, production and profits have decreased and the big businesses have delayed their investment plans. On February 25, 2008 Alan Greenspan has made a historical speech and stated that the growth rate of the US economy was zero (Foster and Magdoff, 2009, p. 92 ). Even afterwards the big slump, the influence of the crisis over the US economy was still alive. According to Paul Krugman (2009), even in 2009 "the key economic performance indicators as world trade, world industrial production were falling faster" than before compared to the Great Depression of 1929. The US unemployment rate declared by the US government institutions was over 9 percent and if the discouraged unemployed people and the ones who were looking for part-time jobs would have been taken into consideration, the real unemployment rate of the US was equivalent to the two times of the declared number (Foster & McChesney, 2009).



As of January 22, 2009 the number of unemployed people in the US has reached at 14.9 million people. During the 2008 Global Financial Crisis, 8.4 million jobs were lost, the total percent of the people who have looked for a job has reached to 6,1 percent while the unemployment rate was around 9.7 percent. 2.2 million jobs based in manufacturing have been lost while 1.9 million jobs based in construction have been lost. In 2008, the number of people who did not have health coverage in the US was 46,3 million (Turner, 2010). Hurd and Rohwedder (2010) point out that 40 percent of American households have been affected by the negative impacts of the economic crisis as unemployment and mortgage payment problems.

After the 2008 Global Financial Crisis has occurred, the home prices in the US have fallen, the crisis has led to a 'flood of defaults' and the US consumption has dropped. As a result of the crisis, the financial distress has become common in the market, the financial panic has been spread to any sector in the US. 'Commercial papers', bonds, loans and credit cards have been affected in a negative way. The US financial institutions, US banks and hedge funds have been influenced by the crisis deeply. The US employment level has enormously fallen, the US consumption and production have decreased (Foster and Magdoff, 2009). In an atmosphere that the banks stop lending each other due to the contagious risk, the business entities could not manage to invest in production inputs to sustain their economic activities. In the aftermath of the crisis, the US firms could not easily purchase supplies, machinery to produce outputs or provide services. Due to the decreases on the production level, the profits have decreased and most of people have been laid-off. The financial crisis which has occurred on the Wall Street has spread to the 'real street'. The construction sector was the sector which was mostly hit by the crisis due to the decreasing demand towards the housing sector. In the US the unemployment rate in the manufacturing industry has increased from 4.3% in 2007 to 12.1% in 2009 (Beachy, 2012, p. 37).

The 2008 Global Financial Crisis has created a significant cost for the US auto industry. After the financial crisis has occurred, the car sales in the US have

significantly dropped. The sales of US assemblers have fallen more than 50 per cent while the sales of foreign assemblers have fallen more than 40 per cent. In 2009, the aggregate car sales in the US have dropped to 10.4 million vehicles which is equal to the sales level of 1980's in the US. During this time, big auto companies as Chrysler and General Motors have gone bankruptcy. In the end of 2008, these companies have declared total losses around \$40 billion. The crisis has created a chain reaction for the auto industry and "assemblers, suppliers, dealers workers and the communities who depend on them" have been affected in a negative way (Aschoff, 2011, p. 2).

Luttrell, Atkinson and Rosenblum (2013) point out that the crisis has created an output loss around \$6 trillion to \$14 trillion which is equal to cost of \$50,000 to \$120,000 for the each US household. Furthermore, this loss is equal to 40 to 90 percent of the aggregate output of one year's economic output. In their study, Luttrell, Atkinson and Rosenblum point out that the future trends may not be as bright as it should be and the world economies may not be as good as it was during the pre-crisis level. According to this worst-case scenario, if the output level of the world economies may not go back to the pre-crisis levels, the cost of the 2008 Global Financial Crisis would be increased to \$14 trillion output loss and the financial effect of the global financial crisis would be equal to double of what currently is. On the other hand, in the study it is pointed out that the crisis has consumed the human capital and the housing wealth in the US. Average wage level has been decreased and the consumption path has radically changed. Hence, due to the tension in the market the level of government intervention has been increased and the unemployment has risen. They point out that in the US, the economic trend has been on the same pace in the period of 1984 and 2007. During this period, the average growth rate of the GDP has been around 2.1 percent. If the crisis would not have occurred, the economic stabilization would have been on the track. In the aftermath of the global financial crisis, "nonfarm payrolls fell more than 8.7 million, or 6.3 percent and the number of unemployed climbed to 14.7 million" (ibid., p. 2). The number of discouraged unemployed people have been estimated to reach at 12 million. In the study, it is pointed out that in 2013, after 5 years of the crisis, the

number of unemployed people was still around 11,5 million and the number of discouraged people who have given up looking for job has been reached at 10.6 million. In total, the economic crisis has created a huge downturn on 'economic output, consumption and financial wealth' in the US (ibid., p. 4). During the period of 2007-2009, the output per capita in the US has decreased around 4.4 percent while the consumption per capita in the US has declined around 2.1 percent. During this time period, real per capita GDP has declined around 7.2 percent (Ohanian, 2010).

Due to the excessive involvement of the US government into the market, the position of the US on the Fraser Institute's Index of Economic Freedom has been changed from "second in 2000 to 18th in 2012" (ibid., p. 3). Excessive bailouts of big financial institutions, the monetary incentives and financial assistance towards bankruptcies have made the position of the US government controversial. Despite the fact that the market regulations, codes and practices which are made to protect market players are also praised to a certain degree in the liberal system, the practices applied in the aftermath of the global financial crisis have been discussed on a wider scale (Luttrel, Atkinson and Rosenblum, 2013).

In the report of 'Better Markets' which is written by Kelleher, Hall and Bradley (2012), it is pointed out that the estimated cost of the Global Financial Crisis on the loss of GDP is equal to \$12.8 trillion due to the excessive GDP loss. In the report, it is emphasized that if the public spending would not have been made, the cost of the economic crisis would have been more destructive. In the aftermath of the crisis, the number of unemployed people has reached at 17.5 percent which refers to 26.9 million Americans. On the other hand, in the report it is stated that the real household wealth in the US has declined from \$74 trillion to \$55 trillion.

Another significant data was shown in the report as well. It is pointed out that in the 3rd anniversary of the global financial crisis, it has been estimated that 46.2 million Americans were considered as 'poor' and this number has been regarded as the

biggest number in the last 52 years in the US. During the time period between 2008 and 2011, GDP gap – the deviation from actual to potential GDP - has risen from \$3.6 trillion to \$7.6 trillion. In order to compensate the market failures, the government has made additional spending which was about \$5.2 trillion. During this period, the value of homes in the US has been fallen around 34 percent. It is estimated that more than 3.7 million homes' value has been depreciated. A US family's median family income has fallen around 7.7 percent. (It was \$49,600 before the crisis but turned out to \$45,800 in the aftermath of the crisis ). In the report, it is also pointed out that the US stock market has depreciated around 50 percent during the crisis period. Solely, retirement accounts have lost around \$3,4 trillion while the total market has lost around \$11 trillion. In the report, it is emphasized that the “depth, breadth and the durability” (ibid., p. 68) of the crisis has been postponing the recovery period to be ended. It is estimated that until 2018 the GDP level would not be on the ideal position. If the parameters as the national debt and stock market losses would be taken into consideration, it would be possible to say that the recovery period would be lasted than it was presumed before. Moreover, in the latter phases, the financial crisis has exceeded the territorial limits of the US and became global, affected the Eurozone, East Asia and the emerging markets. The financial crisis has broadened its scope of influence and the ‘real economy’ is also affected by the crisis.

With the emergence of the crisis the welfare of the world has been declined. Durmuş (2010) attributes this statement to the report of the World Bank<sup>2</sup> which has emphasized that with the emergence of the crisis, more than 130 million people have grown poorer and more than 44 million children have been exposed to malnutrition. McNally (2009) points out that from construction sector to auto-industry, electronics sector to manufacturing industries, the traces of the crisis became visible. With the emergence of the crisis, the world trade has shrunk for the first time since 1982, while the US trade has declined around 43 percent and the import rate of China has

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<sup>2</sup> Durmuş recites the financial crisis-oriented report of the World Bank which was published on 3.9.2009

declined around 43 percent, simultaneously the export rates of Japan and Taiwan have declined around 45 percent. In general, the US economy has contracted around 6 percent.

The real problem that the crisis has brought about was neither the unemployment nor the temporary economic stagnation, but the risk over sustainability of the financial bubble. The economic cycle can regenerate the altering periods of recession and expansion but the length of the each phase might differ from the each other. Under the circumstances that the balance point of the economy would be moved from the production to the finance to minimize the effects of the recession in the long run, the financial bubble would get bigger and the recession period would be lasted longer. Rather than trying to increase the production level and making structural changes, trying to recover the financial markets with financial instruments might be preferred in the long run due to its effortlessness. However, this choice can deeper the structural problems and solely postpone the effects of the crisis in the short run. The focal point is that under the circumstances that financial bubble would not be destroyed, the influences of the financial crisis would be seen in the long run (Foster and McChesney, 2009).

To put it in a nutshell, with the eruption of the 2008 Global Financial Crisis, the US housing market has fallen into a depression. The crisis has caused some strong financial institutions to go into bankruptcy. The collapse of strong financial institutions has triggered a domino effect and the area of influence of the crisis has been widened. This domino effect has influenced upon credit cards, bonds, mortgage and auto loans. In the US, unemployment rate has enormously risen, total volume of manufacture has fallen and specifically the middle class families in the US have been hit by financial problems. The crisis has also impacted on the consumption. In addition to that in order not to take risk, investors have stopped investment activities. The financial crisis has caused the financial risk factors to be questioned in a deep way. It was understood that the real problem behind the economic crises is not the level of unemployment or economic stagnation but the fragility caused by the

systemic risk factors which distrupts the stability of the financial system in the long run. In the following chapters we will focus on under which circumstances that the level of financial distress and systemic risk would be eliminated, but first of all in the following chapter we will concentrate upon different perspectives towards financial stability.

## **CHAPTER 3**

### **THE MACROPRUDENTIAL SUPERVISION**

In the previous chapter, we provided a framework which is consisting of different approaches towards financial stability and economic crises. With the 2008 Global Financial Crisis, many scholars have delivered opinions on the financial stability and economic crises. Many scholars from different ideological backgrounds and approaches have been involved in this theoretic discussion. As it was covered in the previous chapter, liberal scholars have defended the argument that to promote financial stability, prosperity and efficiency, the state institutions should be phased out of the market and business entities should be permitted to run their business activities independently. Liberal scholars think that malpractice in the use of monetary instruments by state authorities have unstabilized the economy. The liberal paradigm emphasizes that market forces should be left independent of the state authorities.

On the other hand, historical materialist scholars have delivered more radical explanations and pointed out that the current economic system produces inefficiencies and defects and due to the distorted nature of the accumulation cycle, the system comes across with repetitive, recurrent and periodic crises which put the system in a vicious cycle of expansion and recession. According to historical materialist scholars, the dynamics of the 2008 Global Financial Crisis match with the economic crisis description of the historical materialist approach. Despite the fact that both the liberal and historical materialist schools of thought expressed the coherency between the recent financial crisis and their own ideological basis, during the aftermath of the crisis, the prominent side in this ideological clash has become the regulatory approach. While some scholars accused advocates of state intervention in the market, the lack of regulation in the current system and the importance of the macroprudential supervision have emerged. Most scholars concluded that macroprudential supervision is important for systemic risk aversion, hence the

financial stability. Furthermore, the state institutions should play an active role in the market to a certain degree and regulate market conditions for a stable market.

In this chapter, we will frame the importance of the macroprudential supervision. First of all, the importance of macroprudential supervision in the context of the 2008 Global Financial Crisis will be provided. Afterwards, the concept of macroprudential supervision will be elaborated and the difference between microprudential supervision and macroprudential supervision will be emphasized and the role of macroprudential supervision on the aversion of financial crises and the mitigation of systemic risk will be discussed in detail.

### **3.1. The Macroprudential Orientation as a Crisis Aversion Recipe**

The history of economic crises has shown that for the financial stability to emerge, state institutions should provide a regulatory framework for the market. Most academics and policymakers have concluded that with the 2008 Global Financial Crisis, the importance of financial policies and regulations of the states have been noticed. They have agreed on the idea that government orientation is required to avert systemic risk and corresponding the financial crises. Beau, Clerc and Mojon (2011, p. 2) point out that the “great contraction in the world economy” in 2008 has caused enormous costs and produced an unstable financial system which forced both monetary and fiscal measures to be taken by the government authorities in order to stabilize the world economy. Hence, the 2008 Global Financial Crisis has made the review of financial stability policies a current issue and macro-financial stability is given prominence. One of the most important outcomes of the financial crisis is that governments bring the issue of strengthening policies and instruments related with the macro-financial stability on their agenda.

With 2008 Global Financial Crisis, the role of the state in market has been discussed by many scholars. In the aftermath of the economic crisis, most scholars and policymakers have changed their approaches towards the role of the state in the market and regulations have been considered important to provide stability and the



idea that the “financial regulation needs to move in a macroprudential direction” is in consensus (Hanson & Kashyap & Stein; 2011, p. 1). According to Kawai and Pomerleano (2010, p. 2), all economic crises have some characteristics in common. The countries suffering from economic crises make “serious policy mistakes and accumulate significant structural vulnerabilities and financial imbalances.” Financial robustness emerges through regulation. While in the pre-crisis period, the economic crises were related with the exogenous factors, in the post-crisis periods the dynamics of the system have been cross-examined by scholars. According to Korinek (2012) the 2008 Global Financial Crisis has exposed the vulnerability of modern economies. The falling asset prices, “deteriorating balance sheets, financial constraints and fire sales” have created an aggregate risk for the whole system. Korinek points out that in the aftermath of the global financial crisis, many policymakers and scholars discuss the importance of the financial regulations which have a macroprudential focus. Regulations have vital importance on averting systemic risk.

As we have covered before, while some scholars defend the regulatory role of the state, some others think that the regulation would match up with intervention. Therefore, regulations are not favored by liberal scholars. However, in the aftermath of the crisis, the ideal regulatory role of the state has been emphasized by many scholars and the layout of state institutions responsible for regulating market has come into question. Hirtle, Schuermann and Stiroh (2009) state that 2008 Global Financial Crisis has shown that the supervision and regulation of financial firms in isolation which is a microprudential orientation is insufficient to provide financial stability and macroprudential orientation which evaluates the systemic risks and stabilizes the financial system as a whole should be acquired to maintain financial stability. Neuberger and Rissi (2012) harmonise with the opinions of other scholars. They emphasize that the global financial crisis has proven microprudential regulatory measures designed to decrease the cost of failure of individual institutions do not provide financial stability. At the doorstep of the 2008 Global Financial Crisis, Borio and Shim (2007) warned the authorities that the economic conjuncture was fragile

and vulnerable to financial imbalances, economic weaknesses or potential shocks due to the lack of a strong regulatory framework. Hence, they stated that economic measures on financial imbalances would lead to strong economic crises, disinflation in 2 to 5 years with increases in credit and asset prices. They strongly emphasize that prudential apparatuses and effective implementation tools should have been strengthened to support international financial structures. In the case of averting the risks of a prospective financial crisis, they suggest “the macroprudential orientation of the framework” is strengthened.

The lack of regulation in the market creates a risk of fragility. To avert procyclicality and fragility, a strong surveillance mechanism should be established. Agur and Sharma (2013) emphasize that the financial crisis has provided an important lesson on the management of the financial system. This lesson is related with the reality that financial system needs macroprudential regulation and supervision. They denote that the “traditional macroeconomic stabilization and microprudential policies are not sufficient” and the use of these policies creates a regulatory gap in the system. This regulatory gap is created by the externalities of individual firms. As a result of the regulatory gap created by the system’s own dynamics, “procyclicality” and systemic fragilities arise and systemic risk occurs. In order to minimize the effects of this regulatory gap which would lead to a financial crisis, a system-wide vision should be acquired, truly effective regulatory structure should be built and macroprudential policies should be implemented. The 2008 Global Financial Crisis can be linked with multi-causes. There are many tangible causes which led to the financial crisis as we have covered before. However the regulatory failures in the system underlie the basis of the crisis. According to Schooner (2010), despite the fact that the Global Financial Crisis has a variety of causes as “the imbalances upon the savings and borrowings” on a global scale, “low-level of interest rates”, “market discipline failure”, “the faultiness on the management of the mortgage loans” etc, the regulatory failure represents the basis of the crisis. The lack of the “statutory”, “regulatory” and “supervisory” structure, the cost of the economic crisis has enormously risen.

On the other hand, not only the lack of regulation has made the markets more fragile, but also the interlinkage of the markets made them more fragile. Rajan (2005) points out that “technological change”, “market liberalization” and “institutional change” extended the risk-sharing among different countries. Since the world markets are more interlinked in the contemporary world, the fragility of the financial markets has increased. The fragility based economic crises would influence many countries since this economic interlinkage has made the world economies less immune to potential financial shocks. Rajan denotes that at this case the risk management orientation towards the financial regulation would be important to avert systemic risk which would lead to economic crisis. The flexibility of our economies should be valued, but to create a sustainable basis for financial stability, an intergenerational risk-sharing mechanism should be built. Rajan emphasizes that the power of monetary policies and macroprudential measures can save the world economies from systemic risk. The macroprudential measures would not solely protect the local markets, but due to the global domino effects, it can also provide stability for the interrelating markets. If we would focus on the positive sides of the story, we would say that the economic crisis is an opportunity to evaluate market efficiency. Though, in the pre-crisis period it was also discussed in detail that the regulations were not sufficient to promote efficiency in the market, strong measurements were not taken by the state authorities.

With 2008 Global Financial Crisis, the macroprudential measures have been discussed solemnly and serious proposals have been presented. Eric Rosengren (2010), who is the chief executive officer at the Federal Reserve Bank of Boston pointed out that the positive side of the 2008 Global Financial Crisis was that in the aftermath of the crisis policymakers have focused on macroprudential supervision and regulation. According to Rosengren, the financial shocks or the systemic risk which would lead to financial crisis can be analogous to the “great fires” that “plague” the cities. He emphasizes that to avoid great fires, the fire-prevention structure of a city should be strengthened. He further claims that to avoid from a great fire, the housing settlement rules of a city can be rearranged to permit less flammable building materials. Furthermore, the fire department of the city may hire

more professional firemen equipped with fire extinguishing instruments to avert a potential great fire which would spread to the whole city. The firemen's access to water may be eased to make them better respond to fire. Rosengren denotes that if a person would like insure their home against fire, a few questions are posed to him / her by the insurance company. The nearliness of the house to the fire station or fire hydrant and the likelihood that a prospective fire started at the neighbor's home to spread and impact of other homes can be questioned and the insurance premium can be calculated based on these variables. Rosengren points out that when it comes to the financial crisis, the variables are exactly the same direction with the fire scenario. In order to minimize the effects of a prospective financial crisis, the response time, the instruments and elements of the intervention have a crucial significance. The robustness of the financial structure and the effectiveness of the financial regulation can prevent crises from occurring or minimize the effects of the financial crises. He points out that the macroprudential supervision of the governmental bodies have crucial role on averting economic crises.

Gauthier, Lehar and Soussi (2010) point out that the global financial crisis has shown that due to misregulation, the financial intermediation system of the world has come across with difficulties. In order to get over the adverse effects of the financial crises, new regulations with a holistic and systemic perspective should be decreed. Hence, the banking regulation system which is currently designed for regulating the banks on the individual level should be made immune to the externalities which are intrinsic to the financial system. Gauthier, Lear and Soussi emphasize that in order to avert the systemic risk which would lead to financial crises, the financial regulation system should have a macroprudential perspective. They propose that in order for financial markets to be stabilized, the system should be adjusted to the new capital requirements.

Landau (2009a) points out that the financial crises have shown that strong political measurements should be taken to fight with the financial instability. In order to avert the prospective crisis in the future, or at least to minimize the costs of a potential

crisis, new regulations and orientations should be acquired to fix the systemic risk problems. According to Landau, the 2008 Global Financial Crisis has come up with two certainties. The first certainty is that ‘the macroprudential supervision is preemptive by nature and it aims to avoid crises because crises are costly’ and secondly ‘a macro approach to financial supervision must encompass the whole financial system’. According to Hoenig (2004), in the market driven financial system which is consisted of interlinked institutions and complex instruments, the financial risks should be supervised on a system-wide basis. Besides, Park (2012) points out that both the economic crises experienced in 1990s and the recent global financial crisis have shown that during the crises times, the financial systems could not manage the crises in a proper way. By means of analyzing the causes and consequences of the financial crises, many scholars have compromised on the idea that in order to avert the prospective financial shocks which would create financial imbalances on the market, a new financial layout should be constructed. Park emphasizes that if the financial system’s foundation would be strengthened through new policy instruments, the system would be resilient on the financial shocks. Using both monetary and fiscal policies with a macroprudential approach, the financial stability would be provided. In order to create a healthy and safety ground for the financial system and to prevent future crises, the systemic risk created by system’s own dynamics should be “assessed, monitored, analyzed and formulated” (ibid., p. 4) by the regulatory and surveillance authorities and if an intervention is required, true policy measures should be taken.

The policymakers and scholars come to the conclusion that the new financial architecture should be based on macroprudential orientation rather than microprudential orientation to provide financial stability. Most scholars point out that the systemic risks and accumulated financial imbalances can solely be eliminated under the macroprudential supervision. The macroprudential oriented policies and surveillance are considered as the important components of the “formula on financial crisis aversion”. In November 2010, the G20 leaders have declared that the most important priority of the financial architecture in the aftermath of the global

financial crisis is strengthening macroprudential orientation of the regulatory framework (The G20 Seoul Summit Leaders' Declaration, 2010). In the summit, it has been declared that in order to avert the risk and provide sustainable growth on a global scale, a new financial regulatory framework should be provided. In the summit, the member countries have agreed upon the statement that international organizations as IMF, FSB or BIS should work on strengthening macroprudential approach and the regulatory or supervisory capacity of financial markets should be advanced. Hence, in the summit it has been arrived at a consensus that the regulation upon shadow banking should be strengthened and the level of regulation and supervision of derivative markets should be enhanced. It has been emphasized that to promote financial stability worldwide, new regulatory reforms should be proposed and the systemic risk should be overviewed by the supervisory bodies (ibid.). The use of macroprudential measures and establishing new macroprudential bodies have been regarded critical when it comes to provide financial stability for the whole market. In the following section, we will focus on the concept of macroprudential approach in detail to stress the importance of the concept.

### **3.2. The Concept of Macroprudential Approach**

Hanson, Kashyap and Stein (2011) define the macroprudential approach towards financial regulation as following:

Macroprudential approach is an effort to control the social costs associated with excessive balancesheet shrinkage on the part of multiple financial institutions hit with a common shock (p. 5).

While microprudential approach is based on providing efficiency solely on a specific part of the market and averting the financial damages that might occur due to the fail of a "single financial institution", the macroprudential approach is based on providing "positive general equilibrium effects and supervising the market holistically" (Hanson, Kashyap and Stein; 2010). Gjerdem (2005, p. 75) also points out that macroprudential approach is based on the financial system as a whole and it

aims at “limiting system-wide distress and avoiding output costs” while the microprudential approach solely concentrates upon limiting “the single risk factors of individual institutions”. In the common report of different international regulatory bodies (FSB, IMF, BFIS; 2011), the macroprudential policy is defined as the policy which aims to “limit the incidents of disruptions in the provision of key financial services” which might have negative effects on the real economy.

Gauthier and St-Amant (2005, p. 48) describe the macroprudential approach as “an analysis that encompasses the entire financial system, rather than focusing on a particular element.” The concept which was firstly proposed by BIS economists has become an important approach in economics and most central banks have been using this approach. Clement (2010) points out that the term ‘macroprudential’ is firstly used by the Cooke Committee and it was used to connote “the systemic orientation of regulation and supervision linked to the macroeconomy”. On the other hand, ‘macroprudential policy’ is designed to support the health of the system as a whole (Borio, 2009 & Galati; Moessner, 2010). The macroprudential approach has been corresponded with the robustness of the system. According to Galati and Moessner (2010), the term ‘macroprudential’ has gained a new meaning after the analysis of Crockett and macroprudential regulation has been matched with the financial stability of the system. Financial stability definition draws the limits of the macroprudential regulation. “The robustness of the financial system to external shocks” determines its stabilization level (Allen and Wood, 2006). As Schinasi (2006) points out the financial stabilization refers to “system’s resilience to the financial shocks or distress” (Galati and Moessner, 2010, p. 5). The macroprudential approach is mainly considered vital to promote system-wide robustness. The resilience of the system is matched with having a macroprudential supervision.

### **3.3. The Difference Between the Microprudential Approach and the Macroprudential Approach**

In the aftermath of the crisis, the difference between the macroprudential approach and the microprudential approach has been discussed by many scholars. According to Gauthier and St-Amant (2005, p. 45- 46), the difference between the microprudential and macroprudential approaches is that while the microprudential approach focuses on “the contracts, organizations, investors and depositors” on a single level, the macroprudential approach “treats the financial system as a whole, and its ultimate goal is to limit systemic risk”. While the macroprudential approach deals with the system monolithically, the microprudential approach deals with the system partially.

The microprudential approach can be considered in the framework of neoclassical approach since it aims to protect individual agents that are exposed to risk rather than measuring risk for the whole system. On the other hand, in this approach financial shocks or imbalances are considered as externalities. If it would be taken into consideration that the neoclassical approach regards the economic crisis as an external shock, as an earthquake or flood, it is possible to denote that the microprudential approach has the same direction with the neoclassical approach when it comes to the economic crisis. The microprudential approach does not aim to minimize the systemic risk, besides there is no systemic risk perception in it. In the microprudential approach, the systemic risk is considered as the aggregation of the individual risks. Thereby, as a starting point it is aimed the individual agents or firms to be protected from risk. Since the microprudential approach does not have holistic view, which considers the financial system as a whole and provides steadiness for the whole system, it is not interested in the relationship between the single agents or individuals in the market. The approach claims that the stability of the financial system is based on the individual soundness of the each agent (ibid.). The macroprudential approach does not deal with the system on the individual level, but it deals with the system on the aggregate level.



The aggregation of single risks would represent a threat for the whole system and the overall effect of the total of single risks would be more destructive than the single risks. According to Borio (2003), while macroprudential approach limits the financial tension on the “overall level”, the microprudential approach solely focuses on the “individual firms”. While the macroprudential approach considers the financial instability, the microprudential approach solely considers the individual costs. Borio’s (2003) distinctions between the macroprudential and microprudential approaches can be regarded on the following table:

**Table 1:** The Distinction Between Macroprudential and Microprudential Approaches (Borio, 2003)

	<b>Macroprudential</b>	<b>Microprudential</b>
<b>Policy objective</b>	Limit financial system-wide distress	Limit distress of individual firms
<b>Ultimate goal</b>	Avoid output (GDP) costs linked to financial instability	Consumer (depositor/ investor/ policyholder) protection
<b>Characterisation of risk</b>	Dependent on collective behaviour; endogenous	Independent of individual agents’ behaviour; exogenous
<b>Correlations and common exposures across firms</b>	Important	Irrelevant
<b>Calibration of prudential controls</b>	In terms of system-wide risk; top-down	In terms of firm risks; bottom-up

Both macroprudential and microprudential approaches perceive the system in different ways. According to Gjerdem (2005), the main difference between microprudential and macroprudential approaches is their perception of systemic risk. The solvency or liquidity problems of a bank might trigger a distress in the market and this distress may lead to a systemic risk. However this case is always omitted in the microprudential approach. Gjerdem points out that in the macroprudential approach, “the correlation” and “common exposures” across different firms or organizations are considered. The chain reaction of systemic risk is considered by macroprudential approach. The occurrence of high level of risk in a financial single institution would lead to massive consequences if the other institutions would also have individual risks. The aggregation of risks would create a chain reaction in market.

Under the circumstances that an inclusionary perspective is acquired and the individual risks of all the game players would be assessed in the market, financial stability would be provided on macro level. Park (2012) points out that the prudential supervision of individual institutions are important to execute financial stability function of the regulatory bodies. To a certain degree, the prudential standards, codes or rules should be used to regulate single institutions to provide financial stability. But referring to Crockett's (2000) and Goodhart's (2004) studies, Park points out that the microprudential approach is not a "rescuer" all by itself. If the financial management strategy of the regulatory bodies would be solely framed with the microprudential supervision, the aim of providing financial stabilization would not be reached. To reach this aim, the market should be managed as a whole by having an inclusionary perspective. The interlinkage among the entities should be taken into consideration. Park (2012) emphasizes that if the regulatory bodies would design their policies solely on the 'individual institutions', the macro-risk factors as "high degree of capital flows, the boom-bust cycle in the asset market, sudden changes in market sentiment" would be omitted. It should be recognized that a good macroprudential policy would also solve the 'micro-problems'. As it was denoted before, the concept of macroprudential orientation was firstly used at the Cooke Committee's meeting and at this meeting the importance of the macroprudential approach was voiced. In this meeting, the Chairman of the Bank of England who was W P Cooke during that time put this matter in the words that "microeconomic problems began to merge into macroeconomic problems at the point where microprudential problems became what could be called macroprudential ones" (Clement, 2010). On the other hand, in 1979, the chairman of the European Coal and Steel Community (ECSC) who was Alexandre Lamfalussy has also denoted that though the prudential measures are concerned with the protection of the "soundness of individual institutions", a wider perspective which takes the problems into consideration as a whole should be acquired to provide stability. It has been specifically stressed that the soundness of international financial system should be maintained by means of strengthening regulations and monitoring systemic risk

(ibid.). There is a compact relationship between strengthening policy measures and having a robust financial system.

In the aftermath of each and every international economic crisis, the macroprudential measures were discussed by authorities. In the ECSC Report prepared by G10 Governors, which was published in 1992, Clement (2010) points out that the linkages between various banks and financial institutions were given importance and the macroprudential approach was exalted. On the other hand, after the 1997 Asian Financial Crisis, the IMF Report (1998) has laid emphasize on the effective supervision of the banks and since the macroprudential approach was based on “market intelligence, macroeconomic information, asset markets and financial imbalances”, the macroprudential approach was considered as an effective approach to cope with the effects of the financial crises (Clement, 2010). IMF (2000) has declared that immediately afterwards the 1997 Asian financial crisis, strengthening the architecture of the international financial system has been given prominence and the significance of “the markets’ ability to assess strengths and vulnerabilities of financial system” has been recognized. On the other hand, in IMF’s report, it has been emphasized that the “analytical tools” which would help to assess systemic risks to protect financial stability should be used on a wider basis.

The macroprudential approach has two distinctive features. First of all, unlike the microprudential approach, it has holistic view, it concentrates upon the financial system as a whole. Moreover, the macroprudential policies are designed to limit the costs sourced by the financial distress. Secondly, the macroprudential approach is contemplating the systemic risk which would create a disruption in the system. Unlike microprudential approach, it does not consider the risk of failure of single institutions but it considers the aggregate risk created in the system by the interactions of various institutions. In the macroprudential approach, the collective behaviour of different institutions is regarded to intervene in the market on the right time to avert firesales or credit crunches. It is assumed that though the strategic decisions of individual institutions would be fair, right and rational, the aggregation

of the each rational decision of different institutions might lead to unintended consequences which might create financial fragility in the system. On the other hand, the macroprudential policies are known as system stabilizers since, they do not move on procyclical way but more of countercyclical way. During the expansion times of financial market, the real economy is also vitalized and during recession times, the real economy is affected in a negative way. The macroprudential policies are designed to mitigate risk of extreme fluctuations in the market (Clement, 2010). The macroprudential approach is regarded as an assistant rescuer when it comes to stabilize the financial market. It is vital to see the market in a holistic way and to avert aggregate risk created by many single institutions simultaneously, prudential measures should be taken. The macroprudential approach can mainly be regarded as an early warning system for a prospective financial crisis. In the following section we will discuss the importance of using macroprudential measures to avert financial crises.

### **3.4. The Role of Macroprudential Approach on Averting Financial Crises**

If the macroprudential supervision is provided during the ‘expansion times’, since the systemic connections between the credit market stakeholders would be made, the financial crises would be averted or they can be occurred on a rare and less frequent basis. In a complex and changing financial atmosphere, the firms or the other stakeholders may not make proper decisions considering the systemic risk. By means of providing policies, making regulations and using effective instruments, the state mechanism can mitigate the systemic risk or make the stakeholders aware of the riskiness of the system (Bianchi, Boz and Mendoza; 2011). If the prudential measures would be put into action by many supervisory or regulatory board, the systemic risk would automatically be mitigated. Under the circumstances that some capital limitations and transaction bans would be imposed, the systemic risk would automatically be averted.

Using effective prudential measures would be meaningful if the surveillance mechanisms would be established. According to Crockett (2000), in order the system to be working on an efficient ground, during the expansion times both the systemic risk should be assessed and a response to this systemic risk should be formulated. And during recession times, in order the risk to be mitigated, hence the institutions to be protected as a whole, the macroprudential orientation should be provided and the government institutions should measure the systemic risk of the market. In order to measure and mitigate risk, the financial cycle which provides a ground for the financial instability should be supervised by regulatory mechanisms. Crockett emphasizes that providing financial stability is a difficult and multifaceted task and it requires different perspectives and responsibilities. In order to provide financial stability, there should be a clear consensus among different government institutions, hence even the institutions that do not have a direct role but significant influence on regulating market should be taken roles to provide stability. The macroprudential regulatory approach can play a significant role on providing financial stability in the market, specifically during the crisis periods (*ibid.*). In order to provide stability and robustness in the market, different state institutions should cooperate and they should synchronously work on mitigating systemic risk.

The macroprudential approach intends to decrease the potential effects of the systemic risk and minimize the costs of the recurrent crises. It would provide stable market conditions to decrease risk during recession times. According to Brunnermeier (2009 “macro-regulation is to act as a countervailing force to the natural decline in measured risks in a boom and the subsequent rise in measured risks in the subsequent bust” (Galati and Moessner, 2010). The natural correlation between the systemic risk and financial crisis highlights the importance of the macroprudential supervision.

### **3.4.1. The Relationship Between the Systemic Risk and Economic Crises**

The most significant characteristic of the macroprudential approach is the systemic risk aversion. The macroprudential approach envisages the financial system as a whole and regards the crises as a natural component of the financial system. In macroprudential approach, the decisions made by the individual agents are considered as important determinants which can play significant role on the stability of the system. The basic or irrelevant management failures of individual institutions can damage the stability of the whole system. A management failure or the risk created by an individual agent may not harm the system immediately, but if “the same mistakes would be made by many institutions” simultaneously, the system may come across with a serious systemic risk which would lead to catastrophe. For instance, if all of the banks in the market would decide to supply mortgage loans with low interest rates as it has occurred before the 2008 Global Financial Crisis, the systemic risk occurs and it threatens the financial stability. In order the potential systemic risks to be measured and reported, the macroprudential approach is necessitated (Gauthier and St-Amant, 2010, p. 45). Kaufman and Scott (2003) define the systemic risk as following:

Systemic risk refers to the risk or probability of breakdowns in an entire system, as opposed to breakdowns in individual parts or components, and is evidenced by comovements (correlation) among most or all the parts.

If a “big shock” or “macroshock” would have an “aggregate, simultaneous and holistical effect” upon the domestic economy or the system as a whole, this shock can be named as systemic risk. If an economic shock in a system would have effect upon the all stakeholders of the system (including financial institutions and real sector components) other than solely on one or a few institutions, this shock is considered as the systemic shock (Bartholomew and Whalen, 1995; Kaufman and Scott, 2003). Kaufman and Scott recite the systemic risk definition of Mishkin (1995, p. 32) which is the following:

The likelihood of a sudden, usually unexpected, event that disrupts information in financial markets, making them unable to effectively channel funds to those parties with the most productive investment opportunities.

On the microscale, in the case that the probability of a failure of a single institution or firm to trigger other parties' failure, the systemic risk occurs. Hence, if a potential crisis in a sector would spread to another sector, the risk is still classified as systemic risk. On the macroscale, if the "banking failure clusture" in a country would have the potential to spread around the world, the systemic risk occurs. Schwarcz (2008) defines the systemic risk as an "economic shock such as market or institutional failure which would lead to increases on cost of capital and significant losses to other financial institutions." If there is a serious systemic risk threat in an economy, it simply means that the failure of a business entity would create a spillover effect on the whole economy which would lead to financial distress, hence the economic crisis. In order the systemic risk ro reveal, a trigger event should occur. The collapse of a specific institution or business entity, an economic shock or failure would trigger the systemic risk (ibid.). The chain reaction initially triggered by the collapse of a financial institution might cause the whole financial system to be distressed. In this case, the collapses of the firms may be correlated with the falling of dominoes. If a "domino would fall on other dominoes, the other dominoes will also fall on the others" (Kaufman and Scott, 2003). According to Kaufman (1995 ) the systemic risk is "the risk of a chain reaction of falling interconnected dominoes" (ibid.). Schwarcz (2008) points out that due to the systemic risk, "the world's financial system can collapse like a row of dominoes". Kaufman and Scott (2003) recite another systemic risk effect definition from Governor E. A. J. George's speech. Governor E.A.J. George (1998) points out that "through the direct financial exposures which tie firms together like mountaineers, so that if one falls off the rock face others are pulled off too". (ibid.) Bullard, Neely and Wheelock (2009) emphasize that the systemic risk creates the ground that a failure of an individual business entity would lead to impairment on other business entities or the market as a whole.

There are many negative effects of systemic risk. The systemic risk may lead to destructive consequences for the whole economy. According to Schwarcz (2008), the systemic risk might cause significant losses on financial institutions and markets, on the other hand the price volatility might occur as a result of the emergence of the systemic risk. Since the financial institutions and banks provide loans for both the consumers and investors, the systemic risk caused by a specific institution or firm's failure would create a capital shortage in the market that can deepen the effects of a financial shock. In an atmosphere that the financial institutions and banks experience an external shock, some depositors would be worried in the future of the banking system and they might be willing to withdraw their money from the system which would lead to a liquidity crisis. The systemic crisis might create a broader ground for the financial distress by means of exceeding the limits of international banking system and affecting the capital markets. Under the circumstances that there is no systemic risk, the market participants might diffuse the market risk by means of investing in different financial instruments, but if systemic crisis occurs, since all of the financial and capital markets would be affected by the systemic risk, there would be no room for depositors to be protected from the systemic risk.

The systemic risk can be linked with many contagious effects. Hellwig (2009) points out that, as soon as the systemic risk occurs, one of three mechanisms becomes visible in the market. "Domino effects through contractual relations" and "domino effects through asset prices" occur. On the other hand 'information contagion effects' also come into existence. Due to the bank run or bank panic, some investors may withdraw their money from financial institutions. The domino effects through contractual relations or asset prices may create a worry in the market. According to Hellwig, during the 2008 Global Financial Crisis, these three effects have become visible. Hellwig emphasizes that "interplay of market malfunctioning" and "insufficiency of bank equity" would create systemic risk which would lead to economic crises.



According to Bernanke (2009), in a state of economic crisis the government authorities would like to save the big institutions to prevent the systemic risk which would affect on the other institutions since the systemic risk has a potential impact upon the financial system and the market as a whole. In a case that the systemic risk occurs, since the collapse of a single institution or firm would create an unrecoravable damage to the system and destabilize the whole financial system, the excessive risk taking behaviors of firms should be supervised on a regular basis and the resilience of the financial system should be strengthened. Bernanke suggests that to determine systemic risk, the regulatory mechanisms should concentrate upon a few parameters which would be significant on assessing the systemic risk such as “the capital adequacy, liquidity management and risk management practices” of the firms and institutions. These parameters should be monitored and supervised on an enterprise level. In order to perform these tasks, the regulatory boards as the Fed would assess the way institutions perform and if a deficiency would be determined, the advancement should be required by the Fed. The financial condition and risk management practices of the institutions should be exposed to the rigid oversight procedures and strict measurements upon capital and liquidity standards should be taken. On the other hand, Bernanke points out that the big institutions which would threaten the robustness of the financial system should be exposed to a new legal practices. Thirdly, according to Bernanke a mechanism which would protect the nonbank financial institutions from a prospective collapse should be established. In a case that the systemic risk occurs, this mechanism should cover the costs of the losses.

The cost of systemic risk would be higher than the cost of the aggregation of each individual risk. According to Acharya (2009) today’s financial crises have ‘systemic’ characteristics, the simultaneous failure of a few financial institutions would create high level of macroeconomic cost to the market. In order to mitigate the systemic risk, Acharya suggests that the financial stability should be provided via some specific measurements to be taken by regulatory mechanisms. “Taxes”, “closure

policy” and “capital requirements” are considered as effective instruments to avert the systemic risk and provide financial stability. Allen and Carletti (2011) point out that the systemic risk can not be mitigated by the microprudential approach. They emphasize that the ‘common exposure to asset price bubbles’, ‘mispricing of assets’, “bank runs and panics”, “contagion”, “sovereign default” and “the currency mismatching in the system” create systemic risk which would lead to financial crises and solely under the circumstances that the macroprudential approach is acquired, the systemic risk can be eliminated. If the market conditions would allow the loans to be given on an excessive way and monetary policies would not be provided on an efficient way, the financial bubble would ultimately occur. In an environment that the interest rates are low and house prices increase on a regular base, the systemic risk naturally arises. Since the strict financial measures were not taken, some strict indicators as the “countercyclical loan loss reserve ratios were not used to assess liquidity risk”, hence the ground for the crisis was paved. The liquidity level of financial institutions should also be supervised by the macroprudential boards. Under the circumstances that the liquidity shocks are not hedged by the financial intermediaries and the financial system does not provide liquidity efficiently, the assets can be mispriced and underrated. If the deposit owners would be aware of the liquidity shortage and withdraw their money from the system, the banks would come across with the bank runs and bank panics which would ultimately lead to systemic risk, hence the crisis. The collapse of a specific financial institution would create panic and distrust towards the financial institutions and this case would end up in the contagion of the systemic risk. A collapse of a specific institution would trigger other collapses, thereby the risk of collapsing should profoundly be assessed and a prospective risk of multiply collapses should be averted by the supervisory boards (ibid.). The systemic risk may damage the whole system simultaneously. If an institution is ‘too big to fail’, the whole system might be exposed to an internal shock which would lead to an aggregate collapse.

### **3.4.2. The Role of the Macroprudential Supervision on the Aversion of Systemic Risk**

The 2008 Global Financial Crisis has shown that to avert systemic risk which might lead to economic crisis, a strong macroprudential supervision is required. Allen and Carletti (2011) point out that during the 2008 Global Financial Crisis, since the microprudential approach was dominant, the banking system could not determine the systemic risk, hence the system could not manage to maintain financial stability. Most scholars also point out that the regulatory measures, banking standards and limitations can make financial stability lasted longer compared to the case that microprudential approach is acquired and the systemic risk cannot be recognized. In the case that macroprudential policies are implemented and measures are taken, the system can be more stable and resilient towards financial shocks. In order to mitigate systemic risk in the financial system, a comprehensive approach should be acquired and the systemic risk should be fought in diverse ways (ibid., p.14).

Crockett (2000) emphasizes that the range of instruments that the supervisory boards can use to provide stability is significantly wide. In order to mitigate and measure the systemic risk, “the provisioning rules, regulatory capital, loan-to-value ratios, pricing-based tools” can be used by the governmental authorities. On the other hand, Crockett points out that in each case a different instrument should be used and a different policy should be implemented. The policies should be made in terms of the effect they create on different institutions. In the discussion report of the Bank of England (2009), it is pointed out that the aim of the macroprudential tools is to “lean against the aggregate risk and making financial system more resilient.” By means of using macroprudential tools, it is aimed to reduce the probability of financial system to go into catastrophe. In the report, it is emphasized that the aggregate risk in the system creates “collective fragility” which creates a proper ground for the economic crisis.

In the Geneva Report on the World Economy, Brunnermeier, Crocket and other scholars (2009, p. 52) point out that the financial institutions should be assessed in

terms of their risk level and all of the institutions which are exposed to systemic risk should be covered by the regulation. In addition to that, to avert the individual risk created by the single institutions some additional micro-based measures can also be taken simultaneously. In the report it has been pointed out that the macroprudential body should play an active role in the market and it should have a direct link with the 'large systemically important institutions'. Under the circumstances that the macroprudential approach which is macro, systemic and aggregate would be dominant and stable, the microprudential approach which is micro, individual and single peak can also be used to support macroprudential approach.

If the measurements would be taken during the expansion times, the prospective economic crises would be averted automatically. According to Borio and Lowe (2000), in order to ensure financial stability in the system, an appropriate macroprudential approach should be provided and if the system-wide approach would be acquired specifically during the 'good times', their effect would be visible during the 'bad times'. The only way to provide monetary stability is regarded as the use of monetary policy in an efficient way. Borio and Loewe point out that "the weakness in corporate governance, regulation and supervision, disclosure and safety nets" are potential sources of the financial instability. Under the circumstances that the international standards would be taken and a strong financial infrastructure would be established, the sources of instability would significantly be lessened. If new monetary stabilizers would be incorporated into the system, the capital standards would be re-adjusted, provisions, collateral valuations and loan-to-value ratios would be proposed and the system would be exposed to stress testing on a regular base, the vulnerabilities of the system would be eliminated (ibid., p. 24). Borio and Lowe point out that in an environment that the financial instruments are designed solely to consider firm-specific risk factors and the main interest of the government boards is the protection of the individual financial institutions, the-system wide risks cannot be mitigated. In order to mitigate the systemic risks which would lead to financial crises at the end of the day, the macroeconomic risks should not be considered as exogenous to the system (ibid.).

Having a macroprudential supervision may be compulsory. Landau (2009b, p. 3 - 5) points out that under the circumstances that the financial imbalances would occur in a long time and asset prices have an unstable trend, the significant losses might occur. In order to avert the financial imbalances which would lead to financial crises, making macroprudential supervision mandatory is both 'pragmatic' and 'legitimate'. To avert the potential crisis, 'an integrated framework of macroprudential supervision' should be established. According to Landau, to avert systemic risk, the automatic stabilizers which would limit the behaviors of institutions can be provided. The contracyclical capital requirements or dynamic provisioning can be regarded as significant examples to the automatic stabilizers. On the other hand, in addition to the automatic stabilizers, the discretionary act of the regulatory mechanisms should be strengthened. The regulatory boards should be allowed to intervene more in the market cases when the dangerous imbalances occur.

Landau points out that to regulate "the aggregate level of risk appetite inside the financial system", the government institutions should have a discretionary approach in addition to the actions of automatic stabilizers. In the case that the asset prices are high and the aggregate risk premia or credit aggregates would represent a ground for a prospective financial crisis, the macroprudential approach should be made dominant. On the other hand, the macroprudential structure should be established on the idea that the excessive risk taking of the investors which would lead to financial bubbles should be eliminated. The macro supervisors should monitor the financial system and if necessary the intervention can be made. To succeed this goal, some capital requirements should be made on the financial intermediaries. Under the circumstances that market is booming and high level of risks are taken, the banks easily finance their banking operations. However, in the bad times strong equity outflows occur and this situation would end up in liquidity shortage among the financial institutions. By means of imposing capital requirements on banks, the capital flow of the banks would be balanced (ibid., p.6).

Configuring governance structure is the key point on fighting with systemic risk. Ingves (2011) points out that the most significant part of the macroprudential approach in the case of averting systemic risk is the design of governance arrangements. In order the macroprudential approach to be successful on averting systemic risk, the macroprudential agency should have a clear mandate, acquire all the important information and it should have a capability to have all the tools required. On the other hand, according to Ingves, the macroprudential approach should be designed in harmony with the monetary policy instruments since in the case that monetary instruments and macroprudential approach would both be implemented in an aggressive way, if they have opposing aims, the policy would fail.

In the G30 Report (2009), to avert the systemic risk or the prospective economic crises, it is suggested the professionally managed public institutions to be established. In the report, the central banks are given prominence on providing financial stability in the market. Furthermore, the independent boards which concentrate upon long term economic trends are put in the center of macroprudential approach. In the report, four core recommendations are given to the authorities in order the economic crises to be averted or financial stability to be provided. Firstly, it is suggested that the gaps and weaknesses of the macroprudential approach should be eliminated. The financial institutions which have systemical importance should have a macroprudential surveillance to a certain degree. Secondly, it is suggested that the effectiveness of the macroprudential approach should be strengthened, more qualified and effective policies should be made. Thirdly, it is suggested the international crisis measures and standards to be strengthened. It is also suggested, the international policy configuration, specifically the issues on risk management, liquidity and capital requirements should be made more efficient to provide stability. And finally it is suggested the financial markets and products to be more accountable and transparent. Furthermore, in the report it is strictly pointed out that in the market the macroprudential incentives should be proposed. The robustness of the financial system and its resistance dynamics towards the aggregate risk are given prominent importance (p. 21).

Under the circumstances that macroprudential measures would be taken simultaneously, macroprudential approach's sphere of influence would be widened. According to David Green (2009) to identify and monitor systemic risks, a toolkit should be provided. Some macroprudential tools might be more structural in character compared to other ones designed to fix conjunctural financial problems. Green points out that to "move derivatives trading onto central clearing counterparties", "introducing procedures for orderly resolution", "providing more information about the distribution of risks" and "enhancing capital requirements" might be considered as macroprudential solutions to systemic risks, but their impact on the overall economy might be limited. On the other hand, Green emphasizes that if the "countercyclical capital requirements and dynamic provisioning" would be provided, "leverage and maturity" would be limited and "currency mismatches" would be averted, the macroprudential approach would work to avert systemic risk. On the other hand, specifically in the risky markets if the loan-to-value ratios would be limited, debt-to-income limits or margin requirements would be made and 'whether sectoral or currency', the lending limits would be imposed, the financial system can be stabilized.

In the discussion paper of the Bank of England (2009, p. 18-19), it is pointed out that many macroprudential tools can be effectively used to manage the systemic risk. As a representative example, it is claimed that the "top-up", "surcharge over microprudential capital requirements" can be proposed to increase marginal cost of lending of the banks. By means of doing that, the banks would be reluctant to give excessive amounts of credits to borrowers, thus if the banks would be exposed to high capital standards, the banks may prefer to preserve more capital and provide less loans. These capital restrictions may be deterrent for banks to manage their liquidity. On the other hand, in the report it is emphasized that "time-varying margins and haircuts" on the financial transactions may be regarded as important measurements to decrease the aggregate risk in the system.

According to Kawai and Pamarleano (2010) the key point of averting the systemic crisis is related with the existence of “systemic stability regulators” If “the systemic stability regulators” would “monitor”, “anticipate” and “intervene” before the economic crisis, the stability would be provided and a potential systemic risk effect would be averted. If the necessary actions would be taken on time, the systemic risks would be monitored and systemic risk deficiencies would be assessed, the impact of a prospective financial crisis would be neutralized. They also point out that possible spillover between business entities and market should be analyzed, the possible regulatory gaps should be identified and by means of implementing legislative action, taking prudential measures, advising monetary policy and intervening in the market, the state authorities can stabilize the market.

On the other hand, it has been regarded significant that the regulatory mechanisms should issue periodic reports on the current situation of the financial system. In order the stability regulator to be effective on the stability of the financial market, it should be directly correlated with systemic risk that threatens the system and the regulator should be designed with a clear objective to stabilize the economy. The role of the stability regulator should be defined in a clear way and to provide economy-wide stability the macroprudential surveillance should be provided. The systemic stability regulator should be positioned to create an immediate action plan and solution to the economic crisis when it is necessary. On the other hand, in order the stability regulators to be successful on regulating the market, hence providing stability, the regulator should have macroprudential supervisory tools, techniques and instruments and the regulator should set the standards for ‘capital, liquidity and risk management’ practices (p. 5-8).

Kawai and Pamarleano (2010) provides a list of macroprudential supervisory measures which should be activated in an economy to cope with systemic risk as the following:



**Table 2:** Macroprudential Measures to Cope with Systemic Risk (Kawai and Pamarleano, 2010, p. 8 )

Measures
<b>Competition regulation</b>
Limits on the “too big to fail” or “too interconnected to fail” problem
<b>Market conduct regulation</b>
<b>Macro prudential measures</b>
Higher standards on capital requirements and risk management for systemically important firms
Limits on financial firms leverage, such as leverage ratios, and maximum
Efforts to mitigate pro-cyclicality with automatic countercyclical provisioning, such as a form of dynamic provisioning
Limits on sectoral exposure (corporations, households)
<b>Households</b>
Loan-to-value (LTV) restrictions for mortgages
Limits on consumer debt, eg, debt-to-income ratios
<b>Corporations</b>
Limits on leverage, such as limits on debt-equity ratios
Limits on tax advantages, such as disallowing interest deductibility for leverage exceeding a certain level or foreign currency denominated loans
<b>External</b>
Limits on external debt
Limits on currency and maturity mismatches

In Basel Committee’s Response to the Financial Crisis Report (2010, p. 8), it is pointed out that the firm-specific approach would not be enough to promote financial stability. In order to promote financial stability, broader measures should be taken, the resilience towards the banking system should be strengthened and the market supervision should be provided. On the other hand, in the report it is emphasized that the level of sensitivity towards the financial innovation should be heightened to safeguard economic system against risks. It is suggested that the use of leverage ratio might reduce procyclicality by means of determining the excessive use of leverage in the system when the credit expansion occurs.

On the other hand, in the report it is strictly pointed out that ‘the establishment of capital buffer’ in the expansion times might balance the banking system during the recession times. If the capital conversation level of the banks would be equated to 2.5%, it is estimated that this level of capital buffer would decrease the level of stress in the system and it might absorb significant amount of losses that occur during the recession times. On the other hand, the Committee has proposed several capital

requirements which might be efficient to mitigate systemic risk. In the report, it is emphasized that if the ‘capital incentives for banks to use central counterparties for over-the-counter derivatives’ would be provided, ‘higher capital requirements for trading and derivative activities’ and ‘higher capital requirements for inter-financial sector exposures’ would be proposed and the liquidity requirements which penalise excessive reliance on short term assets’ would be made, the systemic risk can be mitigated.

Agur and Sharma (2013) point out that in the market, different institutions can have different roles on the macroprudential approach. In their analysis, the bank regulator and the central bank are given high importance when it comes to the macroprudential supervision. They have summarized the agencies of the macroprudential approach as following:

**Table 3:** The Agencies of the Macroprudential Approach (Agur & Sharma, p. 13)

<b>Central Bank</b> (Monetary Authority, Liquidity Provider)	
<b>Micro-Prudential Bank Regulator(s)</b> (Systemically and Non-Systemically Important Banks)	
<b>Markets Regulator</b> (Money, Capital, Derivatives)	<b>Markets Regulator</b> (Conduct of Business / Consumer Protection)
<b>Treasury / Ministry of Finance</b>	
<b>Other Regulators</b> (Insurance, Competition,.....)	

Agur and Sharma (2013, p. 16-17) emphasize that to avert the systemic risk, an authority should be placed upon these agencies. The coordination between the institutions represents a critical importance when it comes to avert the systemic risk.

They simply point out that a general macroprudential approach should be proposed by a mechanism and each and every agent should perform the task that is assigned to them. In order the agents to perform well-defined, specific and mandatory tasks, the bank regulator should be given a vital role to “formulate, calibrate and implement” macroprudential policy. They define the tools each agency should use as following:

**Table 4:** The Macroprudential tools agents should use (Agur and Sharma, p. 15)

Agency	Macro-Prudential Tools
Central bank	Bank reserve requirements Foreign exchange / reserve management
Bank regulator	Capital requirements (systemic surcharges) Liquidity requirements Leverage requirements Rules on maturity mismatches Collateral rules (e.g. LTVs) Credit growth caps Sectoral exposure caps Disclosure regulations Risk-based deposit insurance pricing Bank resolution schemes (including living wills) Accounting rules Restrictions on compensation structures
Market regulator (financial market)	Restrictions on financial contracts Collateral rules (e.g. margin requirements, haircuts) Regulations on short-selling Restrictions on trading venues (e.g. CCPs) Trading stops (e.g. circuit breakers) Disclosure requirements
Market regulator (consumer protection)	Regulation of financial contracts (e.g. terms of mortgage contracts) Rules on selling strategies (e.g. information provision to customers)
Treasury	Financial transaction and other taxes Deductibility of interest payments on certain types of debt
Insurance regulator	Regulation of systemically important insurers

According to Agur and Sharma (2013)’s role distribution, the central bank is responsible for the bank reserve requirements and management while the bank regulator is responsible for the capital, liquidity and leverage requirements. The

division of tasks is regarded significant in order the macroprudential approach to attain its goals holistically.

Moreno and Pena (2011) emphasize that to assess systemic risks, there are different macroprudential methods which would be used in today's financial architecture. They point out that by means of applying Principal Component Analysis (PCA), the risk level of credit derivatives which are the insurance defaults of certain companies would be assessed. By means of using LIBOR, the relation of the interest rate to the overnight interest swap would be assessed. On the other hand, the CDO indexes and tranches and the multivariate density would be used to monitor the system. By means of applying these methods, the credit portfolios would be assessed. The technical tools which would be used to assess systemic risk can be diversified, but the key point is that if the risk-focused supervision which addresses the risk practices of different institutions would be acquired, all of the stakeholders in the economy would be aware of the risk exposures and this way of supervising the market can be beneficial to all the institutions to survive through the economic cycle. In the case that "accounting principles, capital standards, provisioning requirements, risk-management practices and supervisory approaches" (Hoenig, 2004, p. 10) would be designed and implemented in harmony with the general principles of the macroprudential supervision, the financial stabilization would be provided.

Caruana (2009) points out that in order the macroprudential approach to be successful on averting the financial crisis, the approach should be holistic. All of the regulatory and supervisory tools should have a holistic approach. Caruana points out that "the liquidity standards, collateral and margining requirements and underwriting standards" should be proposed to save the system from the systemic risk. On the other hand the market composition should be strengthened and accounting standards should be revised. Caruana puts the adoption of the "forward-looking countercyclical loan provisioning" in the center of his suggestions. In addition to that, he thinks that the macroprudential supervision should be based on exact rules rather than discretion. He claims that the rules can be deterrent during the booms to avert

systemic risk. Furthermore, he points out that the institutional setup should be given importance. The institutional setup is important to determine macroeconomic goals and controlling policy instruments. Caruana (2010) emphasizes that to deal with the systemic risk, capital and liquidity buffers should be higher. He also agrees on the other scholars' opinions which were given before and he concludes that safety margins of capital should be proposed during expansion times, the margins can be run down during the recession periods and the balance would occur. He also suggests that the banks should be encouraged to use forward looking provisioning grounded upon expected losses rather than the backward provisioning based on the realized losses. Furthermore, he suggests that specifically in the US different norms towards the excessive use of credits can be executed.

According to Acharya (2010), the use of stress tests to provide future cases is a must when it comes to measure the systemic risk. Acharya thinks that the stress tests should be regarded as a natural component of the macroprudential supervision. The historically-grounded stress test results should be correlated with the future provision to ensure the financial stability. He thinks that the regulators should do cross-checks and independent systemic risk assessments simultaneously to avoid systemic risk.

Schoenmaker and Wiertz (2011) point out that the macroprudential approach can be used to avert systemic risk. According to them, the key point of a prospective success of the macroprudential approach is that the measurements should be taken on the international ground. They also agree on the other scholars that the countercyclical capital should be increased during the expansion times and decreased during the recession times. They think that the cyclical pillars proposed in the Basel-III can be used to stabilize the financial markets. The Pillar 1 strategy includes time-varying instruments that should be used to stabilize the economy and decrease the systemic risk. The Pillar 1 strategy of Basel-III is seen below.

**Table 5:** The Pillar 1 strategy to cope with systemic risk (Schoenmaker and Wiert, 2011)

Intermediate target	Financial imbalances		
Sub-target	Aggregate credit	Credit: Housing	Maturity mismatch
Time varying instrument	Countercyclical capital buffer	LTV ratio	Liquidity charge
Decision making	Central bank		
Interrelations	Financial Stability Committee		
Accountability	To Minister of Finance and/or Parliament		
Legal base	Activity based		

In the Pillar 1 strategy, the main focus is the price of credit which refers to the interest rate. In order to control aggregate credit level and credit housing, it is offered that the capital buffer should be higher in the case that the credit to GDP ratio is over the long term trend. By means of using countercyclical capital buffers and Loan-to-Value (LTV) ratios, it is claimed that the aggregate credit and credit housing bubbles would be averted (ibid, p.13).

**Table 6:** The Pillar 2 Strategy to Cope with Systemic Risk (Schoenmaker and Wiert, 2011)

Intermediate target	Externalities		
Sub-target	Systemically important financial institutions	Markets	Infrastructure
Instrument	Capital surcharge	Collateral based tools	Improvements to resilience
Decision making	Central bank	Central bank/ Conduct of business supervisor	Overseer payment & securities systems
Interrelations	Financial Stability Committee		
Accountability	To Minister of Finance and/or Parliament		
Legal base	Activity based		

In the Pillar 2 Strategy, the instruments addressing the systemic risks to financial stability are given. The Pillar 2 strategy offers capital surcharges to avert the threats towards the systemically important financial institutions. On the other hand, the collateral based tools are given to stabilize the markets and the improvements to

resilience is correlated with the stability of the infrastructure. Schoenmaker and Wiertz come to the conclusion that if the two pillar strategy would be operational, the each intermediate target related with the systemic risk aversion would be reached.

To conclude, with the occurrence of the 2008 Global Financial Crisis, the importance of the macroprudential supervision in the market has been understood. The economic crises have shown that the regulatory and supervisory role of the government institutions have an organic relationship with the financial stability. Many scholars have compromised on the idea that a strong macroprudential approach which is designed to supervise the systemwide distress holistically should be acquired to cope with systemic risk which would create a proper ground for a prospective economic crisis. In order to promote financial stability, a strong regulatory structure should be established and macroprudential measures should be taken to cope with the systemic risk.

The scholars emphasize that if the microprudential approach which is considering the risk relating with single financial institutions would be acquired, the systemwide distress would not be supervised, hence cannot be mitigated, thereby this case would end up in an economic crisis. In order the systemic risk to be recognized and intervened at the right time, the macroprudential supervision of regulatory bodies should be paid importance. The soundness of institutions and robustness of the financial system are correlated with the macroprudential supervision since it oversees the system holistically and monitors the systemic risk. If the macroprudential measures would be taken during the expansion times, high degree of capital outflows and the boom-bust cycle in the asset market would be monitored. By means of applying macroprudential standards, the stable market conditions would be reached and the probability of coming across with a new economic crisis would be decreased. Furthermore, imposing new policies and regulations and using prudential tools would help diminishing the level of systemic risk based costs. Scholars emphasize that the management failures of individual institutions would create a significant systemic risk which would create a domino effect in the whole economy and create an

economic catastrophe in the end. In order to avert these aggregate and simultaneous effects upon the economy, strong financial regulations should be made and new prudential tools should be used. To avert potential costs the financial institutions and markets may come across and decrease the probability of financial bubbles to occur, the macroprudential tools should be used in an efficient way. If new regulations regarding the market competition would not be made and new capital requirements would not be imposed, besides there would not be limitations on both the derivative and housing markets, the systemic risk effect would easily be transformed into a domino effect which would lead to a massive financial distress.



## **CHAPTER 4**

### **THE EMERGENCE OF THE MACROPRUDENTIAL SUPERVISION IN THE US IN THE AFTERMATH OF THE 2008 GLOBAL FINANCIAL CRISIS**

In the previous chapters, we have covered the causes and consequences of the 2008 Global Financial Crisis, the reaction of different approaches towards economic crises and the need of macroprudential supervision to be strengthened to cope with the systemic risk and financial imbalances have been discussed in a detailed way. In the previous chapter, the importance of the macroprudential supervision has been emphasized and it has been come to the conclusion that to avert systemic risk, hence the economic crises, the macroprudential measures should be taken and an effective surveillance mechanism should be structured to prevent prospective financial imbalances. In this chapter, the need of strengthening macroprudential supervision and the inclination towards taking macroprudential measurements to cope with the systemic risk in the US will be analyzed. Specifically, the acts and regulations imposed by the US government to reduce costs of the 2008 Global Financial Crisis will be elaborated and the context between the macroprudential supervision measures and financial crisis will be examined specifically on the US level.

Galati and Moessner (2010) point out that the 2008 Global Financial Crisis has highlighted the need of the financial markets to change direction from micro approach to macro-scaled regulation and supervision approach. On the other hand, they also emphasize that the influence of the crisis was widespread due to the lack of the analytical framework to predict and intervene on the financial imbalances. Before the economic crisis, the regulatory boards were not aware of the systemic risk which would jump the economic system off a cliff. There was a pure confidence on ‘self adjusting ability’(ibid., p. 1) of the system and the increasing rates of the debt and leverage have been underestimated and the housing crisis has occurred. Allen and

Carletti (2011) point out that the 2008 Global Financial Crisis has shown that the microprudential regulatory structure was not able to provide financial stability since it was not able to determine systemic risk.

During the aftermath of the global financial crisis, Ben Bernanke, the chairman of the Federal Reserve of the US had made a speech (2008) which could be regarded as a declaration of an approach shift of the Federal Reserve towards the role of the state in the market during the crisis period. In the speech, Bernanke has pointed out that in addition to the easing of the monetary policy and offering a liquidity support to the markets, the Federal Reserve has determined a new strategy which would strengthen its role as a financial regulator and supervisor. By means of determining this strategy, the Federal Reserve has aimed to cooperate with other regulators, monitor the individual financial institutions and mitigate risk in the key markets. In addition to that, the Federal Reserve has set new goals as developing new regulations specifically on governing mortgage and credit card lending. In the end of the speech, Bernanke has pointed out that the Federal Reserve would change its supervisory practices according to the recent financial experiences and the central bank of the US, the Federal Reserve would take an active role on constructing the future of the financial system in the US. The speech of Bernanke was full of significant remarks about the changing role of the regulatory mechanisms and the state itself in the US. The speech has indicated that in the aftermath of the crisis a drastic rupture has occurred on the approach of the supervisory bodies in the US. By defining Central Bank's 'new' more active, interventionist and participatory role, as a supervisory body, Bernanke has admitted that before the global financial crisis, the supreme economic board in the US did not have a macroprudential vision but the microprudential vision, however by means of pointing out the assignment of the more active role of the macroprudential bodies in the period in the aftermath of the crisis, Bernanke denoted a drastic change in the regulatory approach of the US.

US Securities and Exchange Commission Chairman, Mary Schapiro (2009) has also pointed out that in the aftermath of the crisis, US regulators have changed their role

in the market. She denotes that in the aftermath of the global financial crisis, the Commission has tried to be ‘stronger, better and a more agile regulator’ (ibid., p. 2).

Schapiro has emphasized that in the period of the aftermath of the crisis the way how the institutions have perceived the regulation has changed dramatically. However, she defends the argument that some principles should be followed to have a decent regulation mechanism. First of all, she thinks that the US regulatory mechanism should be based on the individual well-being. Despite the fact that on the macro-scale the institutions and firms are protected by the regulatory mechanism, in the aftermath of the crisis, the well-being of the investor, saver and the worker should be protected. Second of all, Schapiro points out that the idea behind making regulation in the US should be based on providing fair and efficient financial system and she emphasizes that the main idea should not be ‘supplanting’ the financial system. In order to assure the strengthness and steadiness of the system, a strong regulatory mechanism is required. However, the system should also be creating a ground for the competition of the capital. She thinks that the competitive ground for the capital makes the financial market both innovative and efficient. Finally, Schapiro denotes that the new regulatory approach should provide a trustworthy ground for the investor. She points out that there is a relationship between the confidence of the investor and the way how the markets would work in an efficient way. She comes to the conclusion that in the aftermath of the 2008 Global Financial Crisis, the new financial system should have some entities. The system should have a mechanism responsible for the regulation of the markets and capital. Thus, the other mechanisms should be responsible for regulating banking institutions, assessing systemic risks, and providing resolution for the institutions that come across with difficulties.

In another speech made in the aftermath of the global financial crisis, Bernanke (2011b) has said that “the recent financial crisis revealed critical gaps and weaknesses in the US financial system and the financial regulatory framework.” Furthermore, Bernanke has pointed out that the US Government has provided a roadmap to get over this problem and some acts have been imposed by the

government. It should be emphasized that the declaration of Bernanke is really unconventional since he is the chairman of the Federal Reserve. As the Chairman of the US Federal Reserve, he has made a confession that for the US market, there is deficiency on both the financial regulatory and the macroprudential approaches. In addition to that, by means of saying that the government has provided a 'roadmap', he has implied that the governmental authorities are also aware of this lack of prudence. Bernanke denoted that the establishment of the macroprudential approach would create an 'innovation' in nation's way of thinking on the financial regulation, and according to Bernanke the direction of the regulatory mechanism of the US regulatory system is 'constructive and necessary'. Bernanke points out that the first thing to do to establish the macroprudential mechanism in the US is creating a macroprudential oversight system for monitoring systemic risks on a frequent basis. On the other hand, Bernanke specifically points out that the current system in the US has been solely allowing the regulatory agencies to focus on a narrow side of the whole story and the designation of the surveillance authorities is representing a barrier to eliminate gaps and weaknesses in the macroprudential framework. According to Bernanke, the US regulatory boards solely concentrate upon the specific responsibilities given to them and they do not attempt to oversee the system beyond their limits.

As soon as the serious consequences of the economic crisis became visible, the governmental authorities in the US have created regulatory responses to minimize the cost of the subprime crisis. During this time period, since the public opinion and the political authorities have favored the policymakers to use more macroprudential tools to fight with the asset bubbles, systemic risk, hence the excessive credit growth, the government authorities have taken serious measurements and some regulatory acts have been proposed to regulate the financial system. (Elliott, Feldberg and Lehnert; 2013) Schooner (2010) points out that during the aftermath of the crisis, different scholars and policymakers have come up with different regulation proposals. The wreckage created by the crisis has invited a strong regulatory reform proposals. However, in the core of these proposals there were similar issues.

According to Schooner, during the aftermath of the 2008 Global Financial Crisis it was understood that the banks are not only institutions which would create systemic risk based inefficiencies but the other financial entities as investment banks or hedge funds may also create systemic crisis. In addition to that, the solvency of a single institution might not guarantee that it may not create systemic risk. Schooner comes to the conclusion that many reform proposals have something in common which is that the involment of the macroprudential focus on the regulatory boards would have a positive impact on both the financial system and the real economy.

As a direct response to the 2008 Global Financial Crisis, the Federal Reserve has demanded a new program to be provided by the Congress to find solutions to the financial problems of the system and the Congress has imposed the Emergency Economic Stabilization Act (EESA). The program has aimed to strengthen the financial authorities and mechanisms to avert the negative impacts of the systemic failure. By means of imposing this Act, the Congress has allowed new funds to be transmitted into the system and the Treasury Department has been authorized to ‘recapitalize and stabilize the banking system of the US’. In order to achieve this goal, the Treasury Department has purchased stocks from different financial institutions. The US Government has spent more than \$250 billion for this program. By means of implementing this Act, it was aimed the macroprudential bodies as Federal Deposit Insurance Corporation, the Treasury and the Federal Reserve to have a more active role in the market. This Act has strengthened the use of macroprudential tools and the ultimate goal of the Act was determined as the elimination of the systemic risk created by ‘big players’ of the system which would affect the balance of the system in a negative way. However, despite the fact that a strong reform on liquidity, interest rate policies and financial policymaking has been made with this Act and a serious amount has been subsidized, the economic outlook was not as good as it should have been (Bernanke, 2008b).

During this time, when George W Bush was still the president and the prospective wreckage of the Global Financial Crisis was not known, The US Department of

Treasury has released a 'Blueprint for a Modernized Financial Regulatory Structure' (Schooner, 2010, p. 994). On the March 26, 2009, US Department of Treasury has published an outline framework for the regulatory reform.<sup>3</sup> In this outline, it has been pointed out that the 2008 Global Financial Crisis has shown the 'critical gaps and weaknesses of the US financial structure'. In the framework, it is emphasized that since the internal risk management systems, policymakers, regulators and rating agencies did not foresee the economic crisis, the enormous losses have been come across. The key point of this declaration is that the state department of the US has made a confession that the US financial system has failed to serve American people and the regulatory system of the US should be reformed and revised 'for the 21st century'. Furthermore, it was emphasized that stronger tools should be used to prevent prospective economic crises and rebuild the systemic confidence.

The Secretary of the Treasury, Geithner has pointed out that to address the failures a comprehensive reform is necessitated on the macroprudential level. It was denoted that the simpler but more effective rules would have been put into practice to maintain the stability of the system. The comprehensive regulatory reform is based on four targets. First of all, it was emphasized that the reform should 'address the systemic risk'. Under a consistent regulatory regime, it is figured that the interconnected firms may not come across with significant costs due to the systemic risk. Secondly, the reform is aimed at protecting consumers and investors. Thirdly, it is aimed the regulatory gaps to be eliminated. In order to do it, it is aimed the key functions of the regulatory mechanism to have 'clear authority, resources and accountability'. Furthermore, finally, it is aimed the internationally recognized financial regulations specifically on "tax havens, money laundering and weakly-regulated jurisdictions" to be implemented in the US financial market. In order to attain these targets, the Department of Treasury has proposed an action framework. In the declaration, it was emphasized that the systemically important firms should be determined and their actions regarding the systemic risk should be monitored to foresee the potential costs of an economic crisis. On the other hand, in the

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<sup>3</sup> The details are visible on <http://www.treasury.gov/press-center/press-releases/Pages/tg72.aspx>

declaration it is proposed to put higher capital requirements upon financial institutions. It is stressed that the robust capital, liquidity and risk management requirements would help the economy to be stabilized. In the declaration, it is also proposed the hedge funds above a certain volume should be registered and a strong surveillance upon the OTC Derivative Market should be established. Finally, it is emphasized that a resolution regime should be established to avert the failure of complex financial institutions (Schooner, 2010).

In another speech he has made, Bernanke (2009b) has said that the reevaluation of regulatory, supervisory mechanisms of the US and the central policies of the Federal Reserve represent a significant ground for the future of the US financial system. According to Bernanke, the 2008 Global Financial Crisis has occurred on a complex ground and multicauses have led to the economic crisis, but the weaknesses of the financial system, failures on the risk-management approach and insufficient buffers on the capital and liquidity practices have played a significant role on the occurrence of the crisis. Bernanke has strictly pointed out that both the regulators and supervisors have failed to determine the risk factors which have led to the crises and they were not able to prevent the weaknesses of the system. According to Bernanke, the crisis has taught a precious lesson to the prudential authorities of the US and both the prudential standards and regulatory practices have been reviewed by the prudential authorities.

Bernanke has emphasized that the mainstream microprudential approach which was put into practice in an active way before the crisis has been augmented with new methods of surveillance that are macroprudential and systemwide that would avert the systemic threats towards the financial system. The first attempt of the Federal Reserve has been denoted as the measurements taken upon the capital requirements specifically on the big institutions which might create a domino effect in the market. It was proposed the 'too big to fail' institutions should have been monitored on a more frequent basis. In order to attain this specific goal, the capital and liquidity buffers have been established in order the financial institutions keep adequate

amount of money in their reserves. On the other hand, it was denoted that the additional measures should have been taken to protect the financial market from the risk factors created by systemically important, large and complex institutions. According to Bernanke, the supervision structure should have been consolidated and new macroprudential tools should have been developed to close regulatory gaps and creating a manageable risk atmosphere. He has demanded a comprehensive legislative action to be implemented by the Congress to regulate the financial market in a more organized way (ibid.).

The US Government has admitted that prior to the 2008 Global Financial Crisis, the US financial regulation practices were solely based on individual firms and markets in a narrow way, with the eruption of the 2008 Global Financial Crisis the ‘supervisory gaps’ and ‘regulatory inconsistencies’ have been noticed and the state authorities have taken measurements to change the regulatory layout of the United States.<sup>4</sup> In 2010, a new regulatory framework named the Dodd Frank Wall Street Reform (DFA) and Consumer Protection Act has been established to cope with the financial instability in the US financial market. With this enactment, a new supervisory mechanism named Financial Stability Oversight Council (FSOC) has been created and the Consumer Financial Protection Bureau (CFPB) has been established. On the other hand, under the roof of FED, the Large Institution Supervision Committee (LISC) has been activated (ibid.). The economic history of the US shows that the degulation has always been a problem for the US economy. In the each period of the economic history of the US, the deregulation has led to a financial crises which have ultimately ended up in strict regulatory measures to be taken. In the aftermath of the each economic crisis, in order to promote financial robustness and stability, new financial organizations have been established and new acts have been imposed. In the aftermath of the 2008 Global Financial Crisis, same

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<sup>4</sup> In the website of the US Treasury Department, the review of the American authorities upon the regulatory framework of the US can be seen.  
<http://www.treasury.gov/initiatives/fsoc/about/Pages/default.aspx>



path has been followed and new regulatory measurements have been taken (Orhangazi, 2014).

With this Act, the non-bank financial institutions have also been considered as risky institutions which might create systemic risk and unbalance the financial system. In the framework of the Act, the post-crisis management practices have been readjusted and rather than the state authorities to support ‘bailouts’, the regulatory practices have been shifted to the promotion of an ‘early warning system’. The act has been designed upon to provide practices and tools to avert financial distress and the costs which might occur due to the interconnectedness by means of supporting the macroprudential layout of the system (Small, 2012). The structure of the Council and the distribution of the members exhibit the augmenting importance of the macroprudential approach in the US. The heads of important prudential mechanisms of the market have become the voting members of the council (Murphy and Bernier, 2011).

**Table 7:** The Members of the Financial Stability Oversight Council (Murphy & Bernier, 2011 )

<b>Voting Members (Heads of)</b>	<b>Non-Voting Members</b>
Department of the Treasury	Office of Financial Research (OFR)
Federal Reserve Board (FRB or the Fed)	Federal Insurance Office
Office of the Comptroller of the Currency (OCC)	A state insurance commissioner
Consumer Financial Protection Bureau (CFPB)	A state bank supervisor
Securities and Exchange Commission (SEC)	A state securities commissioner
Federal Deposit Insurance Corporation (FDIC)	
Commodity Futures Trading Commission (CFTC)	
Federal Housing Finance Agency (FHFA)	
National Credit Union Administration (NCUA)	
Insurance expert (Appointed by the President)	

As it was covered before in order to provide financial stability on a macro level, the coordination of the regulatory boards represent significance. The FSOC has been established to coordinate different regulatory mechanisms of the US to reach at the main macroprudential goals. In fact, the establishment of the FSOC can be regarded as a big leap towards eliminating gaps in the financial regulatory framework hence

making connections between different regulatory mechanisms and the Council would make the Congress aware of the current situation of the financial markets. Thereby the Congress may take serious measurements to provide stability in the market. According to Murphy and Bernier (2011, p. 1), the weaknesses in the financial system, the coordination failures among different supervisory boards, lack of proper supervision on big, complex institutions and the prospective instability threat created by the non-financial institutions have provided a ground to establish the FSOC. The FSOC has a prudential role in the market. The Council is directly authorized and supervised by the Federal Reserve. By means of implementing DFA and establishing FSOC, the Congress has provided a new regulatory regime.

The establishment of FSOC has a vital importance for strengthening macroprudential supervision since it has aimed to facilitate strong communication among the prudential mechanisms and regulators. The council is designed to collect and evaluate financial data about the systemic risk levels of the market. On the other hand, the council has made prudential regulation towards other institutions in the market. Additional ‘capital requirements, asset tests and safety regulations’ (p. 2) have also been made by the Council. In order to avert the potential costs created by the systemic risk, the bankruptcy policy towards the financial failures have been revised and the FSOC has been selected as the authorized regulatory body to execute the resolution process. In addition to that, other than the macroprudential role and regulatory authorization on the market, the FSOC has also been authorized to make regulations for consumers to be protected. On the other hand, the ban on the propriety trading for the banking entities has been brought into force.

The main purposes of the establishment of FSOC have been given as the following. Firstly, the FSOC has been established to identify risks in the financial system sourced by the activities of big, complex institutions. Secondly, promoting market discipline and creating a ground for the financial institutions not to need financial assistance of the government has also been regarded as one of the most significant duties of the Council (ibid., p. 4). Thirdly, fighting with the systemic threats towards

the financial system has been given as a major task to the Council. The Council has mainly assigned to perform on providing financial stability by means of making regulations to avert financial domino effects, fire sales, contagion and the failure of the critical functions. The key point of the body is that comparing to other macroprudential mechanisms dealing with the banking sector, FSOC has a distinguishing feature that it has authority to designate a non-bank financial firm to mitigate the systemic risk (ibid.).

With the establishment of the CFPB, it was aimed the markets of both consumer products and financial services work for the American citizens. The CFPB has been serving American citizens as a consulting mechanism. In the case that the American consumers need assistance about their financial decisions, the Bureau helps them to make true financial decisions. In addition to that by means of doing market research and analyzing the markets, the Bureau sounds the macro financial circumstances out. The Bureau is responsible for executing the Federal laws. On the other hand, the Bureau has also macroprudential roles. It writes rules, supervises business entities, puts sanctions on abusive acts or mispractices and monitors systemic risk.<sup>5</sup>

The Large Institution Supervision Coordinating Committee (LISCC) which was established under the roof of FED, has been assigned to oversee the supervision of institutions or business entities (including large banks and nonbank financial institutions which are systemically important. By means of establishing this Committee, the supervision mechanisms provided by the DFA have also been monitored by another supervisory board. The primal functions of the LISCC are creating a strategic roadmap for the surveillance activities, enhancing the quality of the activities of supervisional boards and making systemic considerations into the surveillance system. In addition to that, the Committee has been established to integrate quantitative analyses into the surveillance mechanism. The mechanism is

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<sup>5</sup> The information on the role of the CFPB was retrieved from <http://www.consumerfinance.gov/the-bureau/>

also based on reach at the targets on ‘capital adequacy’, ‘liquidity resiliency’, ‘corporate governance’ and ‘recovery planning’. <sup>6</sup>

The DFA has provided around 300 regulations which aimed to regulate the financial market regarding the causes and impacts of the global financial crisis. The each and every regulation has been made to reach at a specific target. Under the umbrella of the DFA, the US macroprudential mechanisms have been strengthened specifically on risk management, application of the stress tests, the capital standards and concentration limits. With the enactment of the DFA, the systemically important institutions have been forced to use best practices on risk management and they have initiated to measure credit exposures. On the other hand, in order to assess the prospective impact of a negative shock, the simulation based stress tests have been applied on a wider ground. Under the umbrella of the DFA new stress tests, stress test methodologies and reporting requirements have been imposed (ibid., p. 16). Furthermore, with the enactment in the risk-based capital regime, important changes have been made. The margin and capital requirements have been revised and tightened. The companys’ liability regulation has been elaborated and the procedures upon the liquidation has been revised. In order to avert a prospective risk, propriety trading which is ‘a company practice of taking positions with its own fund in the market’ (ibid., p. 19) has been banned. The compensation rules have been revised on the behalf on the market players who do not take an initiative in the market with short term risk. In addition to that, with the enactment new resolution plans have been created to determine the procedures of protecting companies in the case of financial distress. In the case that, the FSOC would determine a bankruptcy risk of a big company which would create systemic risk, hence the financial distress it is compromised on the solution that the ‘effective conservatorship’ would be provided for the company by the FSOC (ibid.).

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<sup>6</sup> The information on the role of the LISCC was retrieved from <http://www.federalreserve.gov/bankinfo/reg/large-institution-supervision.htm>

In the speech Bernanke (2011a) has made at the Federal Reserve Bank of Atlanta's Financial Markets Conference, Bernanke has pointed out that the post-crisis reforms made with the Act has an organic relationship with the robustness of the financial market infrastructure. Bernanke states that "the smooth operation and financial soundness of clearinghouses and related institutions are essential for financial stability". According to Bernanke, by means of imposing the DFA, the government has aimed to provide reforms designed to improve 'transparency, resilience and financial strength'. The reforms are based on to avert dramatic failures of 'too big to fail' institutions since they would lead to big failures in the whole system.

The enactment of DFA and the establishment of the FSOC has strengthened the macroprudential supervision in the US. With the enactment, strict rules and procedures designed to regulate the financial markets have been imposed and a new regulatory structure has been grounded. New standards on capital, liquidity and resolution plans have been settled. With the provision of these standards, it was aimed the market players to be less affected by the interest rate risk. In order to create a more robust housing market in the US, the FSOC has proposed a strong reform which would require more stable conditions on funding of housing. The emphasis of the Act on providing strong communication among different regulatory mechanisms has played a key role on strengthening the macroprudential supervision (ibid., p. 37-39). The enacted regulatory framework has contributed a more stable ground to be established through making detailed regulations on different markets. The regulatory norms have been designed to promote market discipline. New regulatory boards have been equipped with strong macroprudential tools and 'broad discretionary powers' (Lee, 2012) to promote financial stability.

By means of imposing this Act, the US government has aimed to improve 'accountability and transparency in the financial system'. The supervision and macroprudential standards have been advanced and the organizational structure of the financial system has been changed. New remediation measurements have been taken. The credit exposures have been limited. New regulations towards limiting the

loans, deposits, lines of credits, repurchase agreements, lending and borrowing transactions of companies, all investment securities have been exposed to new regulations, limitations and thresholds (Dodd-Frank Wall Street Reform and Consumer Protection Act, 2010).

In the report of McKinsey & Company (2011), it is emphasized that the provision of the DFA has provided improvements in different areas. With the enactment, a ground which dictates the banks to optimize their capital and liquidity transactions has been provided. Due to the impact of changes made, the way how the capital and derivative markets are led has been radically changed. The regulatory supervision structure has been strengthened, the surveillance mechanisms have gained a macroperspective to cope with emerging systemic risks, some operational restrictions have been put on the market. New governmental mandates have been proposed, the significance of stress tests and resolution strategies have been noticed. Stringent macroprudential standards have been imposed. Both the level of liquidity and capital requirements have been advanced. For the big firms of the market higher regulatory costs have been proposed (p. 2-3). Furthermore, in the report, it is emphasized that with the enactment, the governance has been improved and the quality of management has been enhanced. Due to the restrictions, limitations and buffers, the vulnerability of the financial markets has been reduced. With the regulation, the consumers have been protected towards the misleading practices. The level of transparency and efficiency of the market has increased. Since the financial institutions have been regulated in a better way, the financial structure has been prepared towards prospective financial shocks or economic crises, hence the level of financial stability has been enhanced. In addition to these positive consequences, in the report it is pointed out that the Act may cause unintended consequences in the long run. Due to the increases on the capital and liquidity requirements, the Access to loans may be more difficult in the near future and this case would bring up the matter of decrease on the profitability level of business entities. Besides, due to the strict regulations the capital may be shifted from 'strictly regulated US banks' to 'less strictly regulated emerging market banks'.

Masera (2010) points out that specifically for the derivative market, the Act has provided a transparent and accountable ground. With the implementation of the Act, the Fed has been assigned to new tasks on supervisory and regulatory roles to provide financial stability. With the enactment, new regulations towards the activities of credit rating agencies have been made. To mitigate the systemic risk, new methodologies, procedures and actions have been imposed. The independence and efficiency of supervisory boards and regulatory mechanisms have been criticized, hence changed to a certain degree. Masera implies that the enactment of new rules made in addition to the DFA have strengthened the scope of influence of the Act. The Volcker Rule which has limited the propriety trading and puts restrictions upon quantitative limits on the capital transactions, compensation and deposit insurance regulations have helped the systemic risk to be mitigated. By means of imposing new standards and regulations, the Act has targeted on the shadowy banking to be ended. With this act, the movement area of 'micro' institutions which create macro risks for the whole market have been limited. Masera points out that the DFA is "process focused" and "its procedures are well engineered" (p. 39). With this act, the macrosupervisors' role has been extended from microscale to macroscale. The regulatory boards have been advanced to manage the crises and provide resolutionary framework. In addition to mainstream tasks of the Fed as maintaining price stability or supporting full employment in the market, the role of identifying, monitoring and measuring systemic risk of the market has been added to the list of FED's tasks.

In the PWC's report which was published in 2010, it was pointed out that (p. 1) the DFA has introduced the macroprudential supervision into the US financial system in order to promote health and stability. The key point is that, in the report it was emphasized that the macroprudential acquisition was provided with the Act. Thereby, the Act has been shown as a milestone in the regulatory framework of the US. Furthermore, it was denoted that the Act did not provide a "one size fits all" recipe for the whole market but it has provided a framework of discretion for the companies which have different backgrounds with different risk factors. By means of imposing new risk management standards, new capital requirements, new policies,

procedures and thresholds, the Act has made a difference in the way how the US regulators have perceived and treated to stabilization of the financial system.

In the PWC's another report on the Act (2011) it has been pointed out that the DFA has provided the most comprehensive remake of the financial services in the US since the Great Depression and the remake has affected all of the financial sectors in the US. In the report, the Reform has been considered as a milestone in the history of the business life in the US and more importantly, the Act has been considered as "embracement of the macroprudential provision". The categorization of systemically important institutions, the establishment of new surveillance mechanisms, provision of a new regulatory framework and the changing layout of the supervision practices have been depicted as the components of the acquisition of macroprudential supervision. In report, it has been emphasized that the DFA has stretched the limits of the oversight mechanisms in the US specifically for the 'previously' unregulated companies (ibid.).

It should be emphasized that the Act has represented a wide basis for the regulatory framework of the United States. All the macroprudential policy suggestions that have been articulated by the policymakers in the aftermath of the implementation of the Act has been based on it. The enactment of a wide macroprudential approach has changed the way policymakers, academics and regulators to perceive the US financial system in a different way and it has been strictly pointed out that to promote financial stability, new measurements regarding macroprudential measures should be taken. In a conference The Governor of the Board of Governors of the Federal System, Daniel Tarullo (2015) has simply admitted that the scholars have compromised upon the necessity of the acquisition of the macroprudential measures. He said that:

The imperative of fashioning a regulatory regime that focuses on the financial system as a whole, and not just the well-being of individual firms, is now quite broadly accepted... [T] he Dodd-Frank Wall Street Reform and Consumer Protection Act, which reoriented financial regulation toward safeguarding financial stability by



containing systemic risk--an aim that may not define all of macroprudential policy, but surely rests at its center.

According to Tarullo, by the enactment of the Reform, an important step has been left behind and to promote financial stability, strong macroprudential objectives regarding the regulation of the financial system have been developed and new tools have been identified. However, Tarullo points out that in order to make the financial stability provided by the use of macroprudential measures sustainable, the macroprudential objectives should be variously implemented and new adjustments should be made according to the economic conjuncture.

Kohn (2014) points out that in the aftermath of the global financial crisis, the US administration has made a lot of effort to mitigate systemic risk and changed the layout of the regulatory structure of the supervision mechanisms. He said that in the US, the regulatory and supervisory boards have been renovated to promote resilience. According to Kohn, the idea behind organizing a surveillance structure was that the policymakers have determined to identify legitimate risks towards the financial system and hence they wanted to act on risks which were identified by the macroprudential regulatories. He also points out that to promote macrostability in an economy, the regulators should make decisions independent from the short-term gains and they should focus on the long term resilience of the system. Kohn denotes that in the US case, the establishment of the FSOC has made the government authorities to have control over identifying systemic risks and finding ways to mitigate them through making recommendations and doing analyses. According to Kohn, unlike the macroprudential measurements of other countries, e.g. the UK, the measurements of the US regulatories were more diversified and detailed. In addition to that, different regulation mechanisms, different surveillance authorities have different roles on serving a general macrostability-oriented target. Kohn says that “without a question, FSOC is a step forward in the US in dealing with systemic issues”. Besides, according to Kohn, in the US most of the macroprudential tools

have been working and the establishment of new surveillance mechanisms has fostered the cooperation and coordination among different regulation mechanisms.

In the FSOC's Annual Report of 2014, it has been pointed out that the DFA practices have still been applied in the market and despite the fact that it has been 5 years that the Act has been put into practice, there is a progress on the application field on the financial reform. It is emphasized that since the Act of 2010 the capital, leverage and liquidity standards have been strengthened and new practices on stress tests and new standards on the mortgage market have been acquired. In addition to that capital distributions have been limited and new counter-cyclical capital buffers have been imposed. In the report, it is emphasized that in order to enhance macroprudential standards in the US, a final rule has been imposed. By means of imposing new standards and new policies, new requirements on capital, liquidity and company debts have been imposed. On the other hand, in the report it has been pointed out that since 2013, a new stress test and capital requirement program has been launched by the Fed. Besides, it is denoted that the FSC has been regularly monitoring systemic risk, proposing structural reforms and examining policy roles. It is emphasized that the council has been stabilizing the financial system by means of assessing the systemic risk on "macroeconomic, market, credit, liquidity and contagion areas" (ibid., p. 109). Through its operations, the Council contributes providing transparency and accountability, additionally as an execution body, it ensures the macroprudential policies to remain appropriate (ibid., p. 111).

With the enactment of the Dodd Frank Wall Street Reform and the additional regulations of different macroprudential institutions or mechanisms in the US, the surveillance and regulatory mechanisms of the US have changed in a radical way. In an atmosphere that the need of a drastic change on the layout of the financial market is required, the US government has strengthened the macroprudential structure, imposed new regulations and put new limits upon market operations to avert the systemic risk or a potential financial distress. It was understood that before making regulation and implementing new policies to regulate the financial structure, the

systemic risk should be monitored and its potential impact on the market should be assessed. Since the complexity and interconnectedness of the financial structure makes the macroprudential regulatory tasks more challenging, the diversification of the macroprudential tools used to determine systemic risk gains importance. During the readjustment of the regulation mechanism of the US, the regulatory bodies have understood the significance of the relationship between regulating the non-regulated sector and the efficiency of the macroprudential supervision (Basto, 2013).

Duff (2014) denotes that the changing layout of the US regulatory structure through the enactment of the Dodd Frank Wall Street Reform has created a multi-membered ground that can be regarded as a guardian of collective risk created by the business entities in the market. According to Duff, the Act has managed well to identify, monitor and assess systemic risks towards the financial structure and it has created a proper atmosphere for the coordination of the single microprudential regulators. Furthermore, the Act has reached at its targets relating the stabilization of the financial structure in the US. The regulatory and supervisory boards established with the enactment of the reform have helped the regulatory gaps to be closed and systemic deficiencies to be averted. On the other hand, Duff emphasizes that the provision of a supervisory body whose primal target is to 'recognize financial imbalance and risk concentration' creates efficiency to mitigate systemic risk in the market since the regulation is made and supervised single handed. Despite the fact that there are many regulatory bodies or mechanisms responsible for the provision of the financial stability in the market, the establishment of a single unit which is autonomous makes the unit gain more control over the financial market. According to Duff, to a certain extent, the Act has succeeded in creating a more effective and stable institutional and operational structure in the US. Imposing a clear, well-organized and structured mandate with the surveillance under a single supervisory body may work to create robustness on the system.

In the Annual Report of the Office of Financial Research (2014), it is denoted that the three threats towards the financial stability in the US market are the following:

“excessive risk taking in some markets”, “vulnerabilities associated with declining market liquidity” and “the migration of financial activities toward less resilient corners of the financial system”. However, it is also pointed out that the new financial regulatory mechanism is about to provide more transparent, stable and efficient financial system. In the report, it is emphasized that it has been 5 years since the enactment of the Dodd Frank Wall Street Reform, and due to the establishment of surveillance mechanisms, there is a significant progress on monitoring systemic risks in the market. In addition to that, the financial mechanisms of the US financial structure has gained power to cope with the vulnerabilities of the system. New macroprudential policy tools which were designed to cope with the systemic failures have been working in an efficient way and they provide strength and transparency for the whole system (p. 3).

The Annual Report brings up the matter that in these 5 years, the regulatory structure of the US financial surveillance system has rapidly changed. The financial stability monitoring capacity of the US has extended its limits. The establishment of new surveillance boards and the use of macroprudential tools have made the financial vulnerabilities, systemic risks and the potential threats towards the resilience of the financial structure averted in an easier way. The new macroprudential toolkits are used to regulate the liquidity risks, cyclical market conditions and risks of runs. The development of tools and metrics to define, monitor and assess systemic risk has increased the level of understanding financial risk and structural problems. The supervisory boards have been determining the causes and consequences of the financial crises. With the emergence of the new financial regulatory layout, the system has become able to determine the characteristics of the market, identify systemic risks, analyze the current practices performed in the market and provide assessing tools to make policymakers aware of the circumstances (p. 84) of the financial markets. According to Levine (2011), with the implementation of the DFA, the power of regulatory boards have increased, the systemic and regulatory gaps in the system have been eliminated, the supervisory boards have been using better tools

to cope with the economic crises and the protection mechanism over the systemically important institutions have been established.

To conclude, in this chapter the process of strengthening macroprudential supervision in the US during the aftermath of the 2008 Global Financial Crisis has been discussed. The roles of recent regulations and new supervisory boards on averting systemic risk have been elaborated. In this chapter we have come to the conclusion that from the eruption of the 2008 Global Financial Crisis on, the US regulatory authorities have gained a macro-scaled perspective. In the aftermath of the 2008 Global Financial Crisis, the scholars have declared that the US government should take an active role by means of strengthening regulatory mechanisms. The new role of the regulatory boards have been defined as more active, interventionist and participatory.

The scholars have pointed out that in order to promote efficiency, stability and robustness in the market, a strong and better regulation mechanism should be established in the US. It has been strictly pointed out that the recent global financial crisis has shown the gaps and weaknesses of the US financial system and regulatory structure had and to avert the systemic risks and financial imbalances, a roadmap based on strengthening macroprudential structure has been proposed. In order to transform the financial structure to a more macroprudential way, the US authorities took significant steps. First of all, the Emergency Economic Stabilization Act has been launched to avert the negative impacts of the financial failure. Immediately afterwards, the US Treasury has proposed an outline for the regulatory reform. The need of strengthening regulatory and supervisory boards of the US to cope with the financial imbalances has led to a new Act to be imposed. With the enactment of DFA and the establishment of Financial Stability Oversight Board and other sub-regulatory boards, new regulations upon financial markets have been made and an effective systemic risk surveillance mechanism has been established. By means of strengthening the surveillance structure, it was aimed the systemic risks to be monitored and evaluated on time. The establishment of new regulatory bodies and

the made of new regulations have strengthened the macroprudential supervision in the US. A new regulatory structure has been made and strict rules and codes have been imposed. In order to promote financial stability, resilience and robustness, new macroprudential measures have been taken.

If all of the steps the US regulatory authorities made would be taken into consideration, it is possible to come to the conclusion that the importance of gaining macroprudential approach for the regulatory bodies to avert systemic risk, which was specifically covered in the third chapter, has been comprehended by the US authorities. If the recent actions of the US government would be taken account of, it would be concluded that the US authorities have made a connection between the systemic risk surveillanve and financial imbalances and they have decided to strengthen regulation layout of the financial system to prevent prospective financial crises. To make US market run on a more transparent, accountable and efficient ground, the way how the regulatory and supervisory authorities act in the market has been transformed.

## **CHAPTER 5**

### **CONCLUSION**

Throughout this thesis, we have covered the relationship between the financial crisis, systemic risk aversion and macroprudential supervision in the framework of the 2008 Global Financial Crisis. In the 2nd chapter, the causes and consequences of the 2008 Global Financial Crisis have been elaborated. In this chapter we have pointed out that in 2008, the world economies have come across with a severe global economic downturn which has firstly come on the scene in the US. Furthermore, the scholars have agreed on generic causes and consequences of the 2008 Global Financial Crisis.

According to the scholars, the mortgage lending mechanism in the US was problem-ridden. The financial system of the US has allowed the borrower profile not to be analyzed in a detailed way and the mortgage lending process had been managed in an irresponsible way. The repooling and reselling of the non-repaid mortgage loans have created the second problem cycle in the system since the mortgage loans which have had different risk levels have been included into the same pool. The financial system which was based on the over-extended intermediation was exposed to high level of aggregate risk and the excessive use of complex financial instruments and the increases on the speculative gains in the system have weakened the system. The system has ultimately become more fragile than it used to be.

Furthermore, due to the low interest rates, uncontrolled speculative return rates over CDOs and the external capital inflows, the financial system in the US has become unstable. The excessive demand over the short term maturities have created a liquidity shortage in the system. Due to the lack of proper regulations, a regulatory layout and lack of a strong surveillance mechanism in the US, the systemic risk could not have been monitored and assessed and the systemic risk could not have been averted. The over-leveraging and excessive risk taking has created a financial bubble in the US market and the financial bubble has been transformed into a big economic

crisis ultimately. In the 2nd chapter we have come to the conclusion that the mismanagement practices and uncontrolled market structure has made the US economy experience a big recession ultimately.

The 2008 Global Financial Crisis has created a loss of GDP which is equal to \$12.8 trillion. Along with the crisis, the number of unemployed people has reached at almost 27 million Americans while the real household wealth has declined to \$55 trillion. Even on the 3rd anniversary of the crisis, the number of 'poor people' in the US has been 46.2 million while the deviation from actual to potential GDP has risen to \$7.6 trillion. (Kelleher, Hall and Bradley, 2012) . The economic crisis has impacted on economic output, consumption and wealth in the US. (Luttrel, Atkinson and Rosenblum, 2013) The 2008 Global Financial Crisis has impacted on the US economy in a negative way and the traces of the economic crisis have been visible in the each sector in the US. The crisis has made some financial institutions to go into bankruptcy. The crisis has impacted on the credit cards, bonds, mortgages and auto loans. It was understood that the systemic risk which disrupts the financial stability is representing the main problem which creates a fragility for the system as a whole.

In the 2nd chapter, we have also discussed on different approaches on the concept of financial stability. The 2008 Global Financial Crisis has created a new ground for discussions on the effectiveness and efficiency of the dynamics of the economic system and different scholars from different ideological approaches have interpreted the impacts of the crisis in a different way. While the liberals have perceived the economic crisis as a failure caused by the excessive use of interventionist instruments and defined the economic crisis as a shock which is external to the system, the historical materialists defined it as an outcome of the tendency of profit rates to fall on a regular basis. While historical materialists see the economic crisis as a rupture or breaking point which reveals the contradictory nature of the capitalist cycle, the liberals have strictly emphasized that any crisis should not be defined as an end to the current economic system. The liberals have suggested, in order to promote financial robustness and stability in the system, the government restrictions



to be loosen and the game players in the market to be allowed to run their business operations without tight regulations. With the emergence of 2008 Global Financial Crisis, the role of the state mechanisms on the management of the market has also been started to be questioned by the regulationists in a frequent way. The regulationists have pointed out that in order to promote financial stability and avoid financial crisis, the government should have an active role in the market. The only way to have social justice, efficiency and economic liberty, it is suggested an efficient institutional layout would be designed and strong supervisory and regulatory bodies should play an active role in the market. According to the regulatory school, the policymaking and policy implementation have been considered significant to provide financial stability. It is emphasized that to produce market efficiency and economic growth, the market should be subject to the institutional foundation.

As we have come to the conclusion in the 3rd chapter that in order the systemic risks to be averted and financial stability to be provided, the government intervention would represent a significance. As we have covered in the 3rd chapter, in the aftermath of the 2008 Global Financial Crisis, many scholars and policymakers have pointed out that the government orientation is required for the systemic risk aversion and financial stability provision. It has been pointed out that the 2008 Global Financial Crisis has made the financial stability policies a current issue. (Beau, Clerc and Mojon, 2011). With the emergence of the 2008 Global Financial Crisis, many scholars have emphasized that the government policies should be strengthened and the institutional layout of the markets should be revised. In the aftermath of the crisis, the role of the state in the market has been questioned and it has been arrived at a consensus that the regulations are important to provide financial stability and robustness. (Hanson & Kashyap & Stein, 2011) It has also been emphasized that the countries which have mostly been hit by the negative impacts of the financial crises make serious policy mistakes. (Kawai and Pomerleano, 2010)

Most of scholars and policymakers have come to the conclusion that to avert systemic risk in the market and to provide financial stability, the macroprudential supervision should be strengthened. It has been come to the conclusion that under the circumstances that strong policy measurements would be taken in the market, a strong institutional layout is designed and strong supervisory and regulatory mechanisms would be established, the financial stability would be provided. It has been strictly pointed out that the macroprudential mechanisms which supervise the systemwide distress holistically should be acquired, a strong regulatory structure should be established and macroprudential measurements should be taken. The scholars have pointed out that under the circumstances that the microprudential supervision which is considering the risk on a single financial institution level would be dominant, the systemic risk cannot be monitored, assessed, hence mitigated. In this case, the soundness of institutions and robustness of the financial system would not be provided. The scholars have strongly emphasized that by means of providing macroprudential measures, the market conditions can be stabilized, the systemic risk would be mitigated, and finally the probability of prospective financial crisis to happen would be decreased. There is a consensus on the statement that the systemic risk based financial bubble can be absorbed by a strong surveillance mechanism in the market. In order to avert the systemic risk, provide financial stability and prevent domino effect, the regulatory mechanisms in the market should be strengthened and a strong macroprudential layout should be designed.

As we have covered in the 5th chapter, in the aftermath of the 2008 Global Financial Crisis, the policymakers in the US have decided to strengthen macroprudential structure as it is ideally depicted by the scholars. A new set of regulations have been made and a new institutional structure has been designed to protect the market from the systemwide distress. The microprudential characteristics of the surveillance mechanisms in the US have been transformed into the macroprudential ones. In the right after the economic crisis, the US policymakers and scholars have declared that the government should take an active role in the market to make market conditions more stable. A more active role is defined for the government authorities. It has been

pointed out that to promote efficiency, effectiveness, stability and robustness in the market, new acts should have been launched and a new institutional layout should have been designed. In order to close the gaps and discard the weaknesses of the US economy, the US authorities took important steps. By means of launching DFA, establishing Financial Stability Oversight Council and other regulatory mechanisms, it was aimed to strengthen the supervisory structures which monitor and assess the systemic risk on a regular basis. By means of establishing new supervisory structure and making new regulations, the US authorities have aimed to provide more robust, transparent, accountable and stable market conditions for the game players.

After analyzing the dynamics of the 2008 Global Financial Crisis and the emergence of the macroprudential supervision in the aftermath of the crisis, we have come to the conclusion that for both the policymakers and game players of the market, the 2008 Global Financial Crisis has become a new anchor point for thinking on the reconfiguration of the financial system. In the US, in the aftermath of the each and every economic crisis, the ideal role of the government in the market and the area of influence of the supervisory bodies have always been discussed. In the aftermath of the 2008 Global Financial Crisis, this discussion has also been made on a wider ground. This time history repeats itself and as a direct response to the financial crisis, new measurements have been taken, new regulatory mechanisms have been established and a wide-reaching Act has been put into action. The history of economic crises dictates that in the post-crisis periods, the government intervention has always been regarded vital and mandatory. The period after the 2008 Global Financial Crisis has shown that in the aftermath of the economic crises, among the policymakers and scholars, there is a tendency to support government's more active and participatory role in the market. Despite the fact that liberals do not support the government intervention in the market, most scholars acknowledge that in order the free market economy to be operated in an efficient way, some mechanisms should be established to oversee the systemic risk in the market. The fluctuations in the market, the domino effect of the financial bubble and the fragility of the financial institutions show that a new financial layout should be designed to promote financial robustness,

stability and soundness. The interlinkage between the systemic risk and financial bubble makes manifest that the macroprudential measures should be taken to prevent a prospective financial crisis. The provision of macroprudential measures is mandatory to have stable market conditions, financial stability and robustness. In order to mitigate the systemic risk, the establishment of the surveillance mechanisms, made of proper regulations and macroprudential measurements should be regarded significant.

The US example has shown us that the theoretic claims have an equivalence in practice. In the following years, the direction of the universality of the macroprudential measures and the long term impacts of the macroprudential supervision on systemic risk aversion and financial stability provision will be visible. However, it is possible to claim that the negative experiences on the management of markets have already changed the direction of the management practices in a different way. It is probable that the macroprudential supervision will represent a basis on the discussions of the economic crises in the near future. In the US, the significance of the macroprudential supervision has been noticed by the policymakers and in order to stabilize the economy in the long run, a new governance model has been created. The microprudential approach which was acquired by the financial institutions during the pre-crisis period has been criticized by them in the aftermath of the global financial crisis. As a direct response to the crisis, new supervisory institutions have been settled and a comprehensive Act has been put into action for strengthening the financial system and averting a probable financial bubble by means of assessing and monitoring systemic risk on a regular basis. The powerfullness of the surveillance mechanisms on averting the systemic risk and financial bubbles will become definite in the long run. However, it is possible to state that the macroprudential regulations and supervision have already broken through on stabilizing the market. The provision of a new regulatory framework which has prohibited significant speculative actions in the market has made the market more steady. With the use of new macroprudential tools and enactment of new regulations, the financial market has become more transparent and

sound. In the near future, the direct impacts of the macroprudential tools and regulations will be more visible in the US market. Since the macroprudential tools will avert the procyclical movements, fluctuations and systemwide distress in the market, the market will be more resistant towards the direct impacts of the financial crises. It is not a coincidence that strict measurements have been taken to protect the market from the systemic risk as a result of a destructive economic crisis. It is explicit that the macroprudential measures will make the financial atmosphere more resistant towards the external financial shocks and economic crises. Despite the fact that it is apparent that there is a consensus over the new macroprudential layout of regulatory and supervisory practices of the US government to promote resilience in the market, the efficiency and effectiveness of the macroprudential measures and tools would solely be tested until a new financial bubble would occur. The usefulness of the current macroprudential tools and regulations will be tested in time. And the strength of the US financial markets towards the external shocks will determine the soundness level of the system.

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## APPENDICES

### APPENDIX A: TURKISH SUMMARY

2008 yılında ABD ekonomisi, tarihin en büyük ekonomik krizlerinden biriyle karşı karşıya gelmiştir. Kriz, ABD’de başlamış ve sonrasında küresel bir karakter kazanmıştır. 2008 Küresel Mali Krizi, Büyük Buhran’dan sonra tarih boyunca yaşanan en büyük ekonomik kriz olarak görülmektedir. Liberallerin, devlet müdahaleciliğini destekleyenlerin ve tarihsel materyalist ekolün temsilcilerinin 2008 Küresel Mali Krizi üzerine yaptıkları yorumlar değişkenlik gösterse de, farklı ekollerin temsilcilerinin üzerinde uzlaştığı temel nokta krizin büyüklüğü ve derinliğidir. Krizin patlak vermesinin akabinde serbest piyasa mekanizmasının etkin ve verimli çalışıp çalışmadığı, devletin piyasadaki rolü, düzenleyici ve denetleyici mekanizmaların etkinliği tartışılmaya başlanmıştır. Bazı akademisyenler ve siyasetçiler 2008 Küresel Mali Krizi’nin ekonomik sistemin etkin ve verimli çalışmadığının sinyali olarak görülebileceğini savunurken, bazıları da doğru devlet müdahalesiyle ve etkin düzenleyici ve denetleyici bir yapının hayata geçirilmesiyle olası krizlerin önlenebileceğini veya krizin faturasının daha makul hale getirilebileceğini savunmuşlardır.

Kriz sonrası dönemde etkin makro ihtiyati tedbirlerin hayata geçirilmesiyle sistemik riskin düzenli olarak ölçülmesinin finansal istikrarın sağlanmasına büyük ölçüde katkıda bulunacağı, bu tedbirlerin alınması durumunda mali dayanıklılığın da sağlanacağı farklı çevrelerce dile getirilmiştir. Bu tez, 2008 Küresel Mali Krizi’nin sonrasında ABD’de gündeme gelen piyasa reformlarının, yeni yasal düzenlemelerin ve kurulan düzenleyici ve denetleyici mekanizmaların makro ihtiyati tedbirlerin olası krizleri önleme ve gerçekleşen krizlerin etkisini azaltmadaki öneminin anlaşılmasıyla ortaya çıktığı savını baz almaktadır. Özellikle kriz sonrası dönemde farklı akademik çevrelerin krizin yalnızca ‘somut’ ve ‘mikro ölçekli’ sebeplerine odaklanmaları ve uzun vadede etkisi görülen yapısal ‘kriz doğurucu sebepler’in göz ardı edilmesi,



makro ihtiyati tedbirlerin daha geniş bir kapsamda ele alınmasını zorunlu kılmaktadır. Kriz sonrası dönemde sistemik risk kontrolünün öneminin anlaşılmasıyla birlikte, ekonomik sistemlerdeki şeffaflığın ve hesap verilebilirliğin artırılması için, sistemi yeniden konfigüre etmenin yolları aranmaktadır. Sistemin özellikle dışsal finansal şoklara ve olası finansal krizlere karşı güçlü olabilmesi için farklı denetleyici ve düzenleyici mekanizmaların devreye sokulmasının gerekliliği ise özellikle ABD’de yasa koyucular ve akademisyenler tarafından sıklıkla vurgulanmaktadır.

2008 yılının Eylül ayında Lehman Brothers’ın iflasıyla başlayan finansal kriz, uzun vadede dünya ekonomilerini de etkisi altına almıştır. Nouriel Roubini, Kenneth Rogoff ve Nariman Behraves, 2008 Küresel Mali Krizi’ni Büyük Depresyon’dan sonraki en büyük kriz olarak tanımlamıştır (Pendery, 2009). Krizin ortaya çıkmasıyla birlikte dünyanın bankacılık sistemi bir tür yıkımla karşı karşıya kalmıştır ve kredi temelli krizin etkileri, uygulanan para politikaları ve mali politikalarla etkisizleştirilmeye çalışılmıştır. Krugman (2010) iktisadi çevrimin durgunluk yaratabildiğini, ancak iktisadi bunalımların nadiren ortaya çıktığını vurgulamıştır. İktisadi bunalımların aralıksız bir düşüş yaratmadığını; ancak yarattıkları ani düşüşle de ekonomik çevrimin kendini yeniden üretme becerisini sekteye uğrattığını söyleyen Krugman’a göre de 2008 Küresel Mali Krizi, Büyük Buhran’dan sonraki en büyük iktisadi buhran olarak görülebilir. Farklı ideolojik yaklaşımlar 2008 Küresel Mali Krizi’ni doğuran sebepleri farklı farklı yorumlamaktadırlar. Bir ideolojik yaklaşıma göre kriz, birikim döngüsündeki rutin yavaşlamaya işaret etmekteyken, başka bir yaklaşıma göre ise sistemde ciddi bir kırılıma işaret etmektedir.

Neo-klasik yaklaşıma göre mevcut iktisadi sistem en verimli çalışan, en ideal ve optimal çıktıların üretilebileceği sistemdir. Devlet müdahaleciliğinin minimumda olduğu piyasa oyuncularının kendi iktisadi faaliyetlerini özgürce, kısıtlama olmadan gerçekleştirebildiği bir ekonomik sistemde, fayda maksimize edilebilir, piyasa oyuncularına maksimum verim sağlanabilir. Finansal sağlamlığın ve istikrarın sağlanabilmesi için de devletin düzenlemelerinin ve kurumsal müdahalelerinin asgari

seviyede olması gerekmektedir. Neo-klasik yaklaşımda bireyin ekonomik düzendeki rolü merkezdedir. Bireylerin nihai ürünlerinin toplamı piyasanın bütünüyle özdeşleştirilir. Bireyin satın alma, satış yapma ve sahip olma eylemleri, piyasadaki temel eylemler olarak görülür. Piyasa, iktisadi faaliyetlerin en ideal seviyede gerçekleştirildiği zemin olarak algılanır. Piyasa, iktisadi faaliyetlerin gerçekleştirildiği ve bireylerin kendi çıkarlarını maksimize edebildiği yegane alan olarak görülür. Neo-klasik çerçevede piyasalar yalnızca analiz edilmez ama idealleştirilir. İdeal, özgür ve tam rekabetçi piyasaların ise bütün oyuncular için azami fayda sağlayacağı konusunda kuşku yoktur. Ayrıca neo-klasik yaklaşıma göre, kapitalist sistem refah arayışındaki insan doğasıyla uyumlu çalışan en iyi sosyal sistem olarak görülmektedir. Hem üreticiler hem de tüketiciler, kapitalist sistemde maksimum fayda ve kazançla ulaşabilirler; piyasalar da onların verimli ve etkin sonuçlara ulaşmasını sağlar. Devlet müdahalesi, yeri geldiğinde yasalar, normlar, yasal yaptırımlar ise çoğu kez liberal düzenin verimliliğini engelleyen unsurlar olarak görülmektedir. Üreticilerin, tüketicilerin ve yatırımcıların ortak fayda elde edebilmeleri için ideal bir ekonomik zeminde buluşmaları elzemdir (Wolff and Resnick, 1987).

Neo-klasik yaklaşım devlet müdahaleciliğini ekonomik ideallerin önünde bir engel olarak görmektedir. Boettke (2012) devlet müdahalesinin ekonomideki sosyal etkileşim zeminini aşındırdığını ve özgür bireylerin daha fazla kazanım elde etme fırsatını engellediğini söylemektedir. Boettke de fikirlerini Adam Smith'e dayandırmaktadır. Bireysel çıkarın piyasadaki temel motivasyon ve güç olması gerektiği fikri de Boettke'nin fikirlerinin temelini oluşturmaktadır. Yine de, her türlü devlet düzenlemesine rağmen serbest piyasa ekonomisindeki kazanımların, 'büyük maddi ilerlemenin' engellenemediği ve serbest piyasa ekonomisinin dinamiklerinin bu mücadelede galip geldiği neo-klasik teorisyenler tarafından vurgulanmaktadır. Piyasa faaliyetlerinin devlet müdahaleciliğiyle kısıtlanmasının ve yasal yaptırımlara tabi tutulmasının bütçe açıklarına ve kamu borçlarına da sebep olacağı fikri de neo-klasik teorisyenler tarafından dillendirilmektedir. Serbest piyasa ekonomisinin

‘yaratıcı enerjisi’nin ise dünya ekonomilerini krizin boyunduruğundan çıkaracağı düşünülmektedir.

Neo-klasik çerçevede, finansal istikrara sahip piyasaların düzenli olarak belirli finansal şoklarla karşılaştığı varsayılır. Piyasa dışı faktörlerin düzenli olarak piyasanın akışını bozacak, düzenini sarsacak ve piyasayı zarara uğratacak bir etki yarattığı söylenir. Vestergaard (2009) Mirowski’nin liberal ekonomi geleneğine ilişkin yorumuna atıfta bulunur ve piyasa dışı faktörlerin yıkıcı etkisiyle ekonomik sistemin maruz kaldığı ekonomik krizler arasında bağıntı kurar. Minoves-Triquell (2009) ise liberal ekonomik sistemde varolan rekabetin, rekabet eninde sonunda inovasyona sebep olacağı için dünya ekonomilerini krizden çıkaracağını söylemektedir. Eisenring (2009) dünya ekonomileri ekonomik krizin olumsuz etkileriyle baş etmek zorunda kalsa da, devlet müdahalesinin ya da düzenlemelerin düşünülmesi gereken son çare olduğunu vurgulamaktadır. Krize maruz kalmış ekonomilerin yeniden canlandırılabilmesi için piyasa güçlerine danışılması ve piyasadaki rekabetçi baskının canlandırılması için de piyasaya teşvik verilmesi de yine Eisenring tarafından vurgulanmaktadır. Eisenring’e göre ekonomik krizlerde bile, devlet kendini piyasayı düzenlemesi gereken tek sorumlu merci olarak görmemeli ve piyasa oyuncularına finansal istikrarın sağlanması için bir şans vermelidir. 2008 Küresel Mali Krizi, neo-klasik çerçevede neoliberal sistemdeki bir kopuşa ya da kırılıma işaret etmemektedir. Ortada bir paradigma kayması da yoktur. Melnik (2008) piyasadaki şeffaflığın ve hesap verilebilirliğin artırıldığı bir durumda, piyasanın kendi kendini düzenleyebilen ve eninde sonunda kendi kendini dengeye getirebilen mekanizmasının devreye gireceğini ifade etmektedir.

Liberal paradigmada krizler dışsal olarak algılanır ve krizden kurtuluşun tek yolu da devlet müdahaleciliğinin azaltılması olarak görülür. Liberal Enternasyonel’in temsilcisi Otto Graf Lambsdorff’a göre, piyasa ekonomisi dünyanın görüp görebileceği en başarılı ekonomik sistemdir. Son krizde ortaya çıkan kırılğan yapı ise bu gerçeği değiştirmeyecektir. Lamdsdorff serbest piyasa ekonomisini bir arabaya benzetmektedir. Ve motoru çalışmıyor diye bir arabayı çöpe atmakla, krizin

yaşandığı durumda finansal sistemi tamamen gözden çıkarmak arasında bir fark olmadığını düşünmektedir. Sonuç olarak, neo-klasik çerçevede kapitalist sistem her daim verimlilik üreten en ideal sistem olarak tasvir edilmektedir. Devlet müdahaleciliğinin, yaptırımların ve müdahale araçlarının ise olası bir krizin olumsuz etkilerini azaltmaktan ziyade sistemin iyileşmesini geciktireceği ifade edilmektedir.

2008 Küresel Mali Krizi'nin ortaya çıkmasıyla birlikte düzenleyici çerçevede ele alınan fikirler de oldukça tartışılmıştır. Bazı çevrelerde devlet müdahalesinin ekonomik sistemin iyi işleyebilmesi için elzem olduğu ifade edilmiş, bazı çevrelerde de devletin 'müdahaleci' hamlelerinden ziyade 'düzenleyici' hamlelerinin serbest piyasa ekonomisinin belli bir düzen içinde işleyebilmesi için gerekli olduğu söylenmiştir. Piyasayı düzenleyen kuruluşların piyasadaki rollerinin etkinliğiyle ilgili tartışmalar ise kriz sonrası dönemde artmıştır. Hanson, Kashyap ve Stein (2011) kriz öncesi dönemde ABD'de düzenleyici ve denetleyici mekanizmaların yeterince aktif olmadığını, bu durumun da piyasada kırılganlığı artırdığını söylemiştir. ABD'de piyasa düzenlemelerinin de eksik ya da kusurlu olduğu farklı çevrelerce dile getirilmiştir. Kriz sonrası dönemde piyasa düzenlemelerinde olması gereken, ideal mevzuat çerçevesi oldukça tartışılmış, piyasadaki düzenleyici ve denetleyici mekanizmaların yeniden konfigüre edilmesi için çeşitli öneriler sunulmuştur. Ancak piyasa ekonomisinde devletin rolü yeni bir tartışma konusu değildir; bu konuda farklı fikirler her daim ortaya atılmıştır.

Minsky'e (2009, s. 7) göre "ekonomik sistemler doğal sistemler değildir". Ekonomik sistemin merkezi bileşeni Minsky'e göre 'siyasa'dır. Minsky, Keynes'in "ekonomik kaderimiz kontrol edilebilirdir" argümanına katılır. İyi regüle edilmiş bir ekonomik sistemde, kimin ne üreteceği ve kimin bu üretimden ne kadar kazanç elde edeceği belirlidir. Ekonomik verimlilik, sosyal adalet ve özgürlük hedeflerinin gerçekleştirilmesi için farklı kamu kurumlarının piyasada farklı müdahalelerde bulunması gerekir. Minsky; iyi tasarlanmış, merkezi bir iktisadi sistemle sosyal problemlerin üstesinden gelinebileceğini söylemektedir. Karmaşık, sürekli değişen ve gelişen finansal araçlarla daha da karmaşıklaşan bir ekonomik yapının

istikrarsızlık yaratacağını ve uzun vadede sistemin dinamiklerinin sistemi krize sokacağı da Minsky tarafından ifade edilmektedir. Piyasa ve bankacılık sistemi özgür bırakılarak verimli ve etkili bir piyasa mekanizmasına ulaşılamaz. Merkez bankalarının para politikalarının limitli etkilerinden dolayı, piyasa yalnızca merkez bankaları tarafından da regüle edilemez. Dinamik, karmaşık ve farklı unsurlardan oluşan bir piyasada sistemik risk kaçınılmazdır. Minsky, ABD’de yaşanan küresel mali krizi de, sistemin istikrarı için gerekli olan düzenlemelerin yapılmamasıyla ve uygun düzenleyici ve denetleyici bir yapının kurulmamış olmasıyla özdeşleştirmiştir. Mevcut ekonomik sistem büyük finansal kuruluşların piyasada piyasa kuralları çerçevesinde hamle yapmamasına izin verecek ve daha çok kazanmak için yasal olmayan riskli faaliyetlerde bulunmalarını teşvik edecek şekilde kurgulanmıştır.

Minsky, sınırlandırılmamış ve iyi düzenlenmemiş piyasa ekonomisinin sistemik riski artıracığını ve bu sistemik riskin de eninde sonunda krize sebep olacağını düşünen tek kanaat önderi değildir kuşkusuz Vestergaard (2009). 2008 Küresel Mali Krizi sonrası dönemde Çinli araştırmacıların Batı dünyasının piyasa yönetme pratikleriyle ilgili kuşku duyduğunu ifade etmektedir. Çin Bankacılık Düzenleme Komisyonu Başkanı Liu Mingkang’a (2008) göre ABD, kriz öncesi dönemde ihtiyati tedbir alma konusunda üzerine düşen görevi yapmamış ve piyasa oyuncularının hatalı hamlelerini engellememiştir. Küresel arenada ekonomik istikrarın ve refahın sağlanması ve piyasa mekanizmasının korunması için etkin düzenleme ve izleme mekanizmalarının kurulmasının gerekliliği de yine Mingkang tarafından vurgulanmıştır. Diğer yandan Çin Bankacılık Düzenleme Komisyonu direktörlerinden Liao Min’e göre ise Batı dünyasında üzerinde uzlaşıya varılan devlet – piyasa ilişkisi yeniden gözden geçirilmeli ve piyasanın gücü abartıdan uzak bir şekilde ele alınmalıdır (Vestergaard, 2009). Crockett (2000) ekonomik krizlerin tarihinin, bize düzenleyici ve denetleyici unsurların kritik önem ihtiva ettiğini hatırlattığını vurgulamaktadır. Crockett’e göre mali istikrarın sağlanması için makro ihtiyati tedbirlerin alınması elzemdir. Bir ekonomik sistemin çöküşü bir bağımsız kuruluşun çöküşüyle de ilişkilendirilebilir; ancak ekonomik istikrarsızlığın ya da krizin temel sebebi sisteme içkin olan sebeplerdir.

Acemoğlu (2009) ise bir ekonominin etkin bir şekilde yönetilebilmesi için devletin kurumlarıyla birlikte piyasada aktif bir şekilde görev alması gerektiğini vurgulamaktadır. Acemoğlu'na göre krizin ortaya çıkmasıyla birlikte ekonomistler piyasada neyin yanlış olduğunu düşünmeye başlamışlardır. Serbest piyasanın 'serbestliğinin', 'düzenlenmemiş' olmayla eş değer görülmesinin temel yanlışlardan biri olduğunu savunan Acemoğlu, risk yönetiminin düzenleyici ve denetleyici mekanizmalar tarafından daha etkin bir şekilde yapılması gerektiğini vurgulamaktadır. 2008 Küresel Mali Krizi'nin ortaya çıkmasıyla birlikte fazlasıyla tartışılmaya başlanan düzenleme ve denetleme pratikleri, piyasa oyuncularının oyun sınırlarının yeniden çizilmesiyle ilgili tartışmaları da artırmıştır. Bazı akademisyenler veya kanaat önderleri devlet müdahaleciliğinin piyasanın iyi işleyebilmesi için tek alternatif olduğunu vurgulamışlardır, bazıları ise devletin düzenleyici ve denetleyici rolünün piyasanın daha iyi işleyebilmesi için elzem olduğunu ifade etmişlerdir.

Tarihsel materyalist çerçevede ise 2008 Küresel Mali Krizi farklı bir çerçevede ele alınmıştır. Tarihsel materyalizm teorisyenlerine göre yaşanan bu kriz, neo-liberal sistemde bir çöküş ve kopuşa işaret etmektedir. Bu krizin; kapitalizmin kendi kendini, kendi iç dinamikleriyle krize sokmasıyla oluştuğunu, kapitalizmin birikim döngüsünün eninde sonunda krizle ilişkilendirilebileceğini söyleyen teorisyenler tarihsel materyalizmin kriz tanımıyla 'krizin klasik anlamı'nın örtüştüğünü ifade etmektedirler. Antik Yunan'da kriz bir topluluğun ya da bireyin vereceği hayati bir kararı, bir dönüm noktasını ifade etmektedir (Wolfe, 1986). Tarihsel materyalist çerçevede de sistemin, büyüme ve durgunluk döngüsünün arasında sıkışıp kaldığı, daima iç ve dış şoklara maruz kaldığı; daima büyüme ve birikim kusurlarını yeniden ürettiği söylenmektedir (Shaikh, 1978).

Marx'ın Das Kapital'de formüle ettiği Kar Oranlarının Düşme Eğilimi Yasası da Marxist kriz teorilerinin temelini teşkil etmektedir. Marx kapitalizmin birikim döngüsünün krizleri yeniden üretme eğilimini bu yasa etrafında formülize eder. Bu yasaya göre emeğin organik bileşimi sebebiyle, uzun vadede üretim karlılığı düşer ve sistem kendini krize sokar. Krize karşı koyucu eğilimler sebebiyle krizin gelişi

gecikebilir ya da krizin etkisi azalabilir; ancak kapitalizmde kriz kaçınılmazdır. Sabit sermayenin değişken sermayeye göre tedrici yükselişi kar oranlarında düşüşe sebep olur ve sermayenin organik bileşimindeki değişim sistemde periyodik dalgalanmalar ortaya çıkarır (Marx, 1974; Hodgson, 1974). Panitch ve Gindin (2009) Marx'ın kriz teorisinden yola çıkarak, tarihsel materyalist literatürde krizlerin sonsuza kadar sürmeyeceğini ve krizlerin de bir şekilde yerini iktisadi büyüme dönemine bırakacağını ifade eder. Tarihsel materyalist yaklaşımda ekonomik kriz büyüme döneminde bir kopuş olarak görülmektedir. Kapitalist sisteme içkin olan dinamikler, sistemi krizle sonlanan bir döngünün içine sokmaktadır. Tarihsel materyalistlere göre de sistem, kendini büyüme ve durgunluk dönemine hapseden bir yapıya sahip olduğundan kendi kendisi için tehlike arz etmektedir.

Farklı yaklaşımlar 2008 Küresel Mali Krizi'ni ve genel olarak ekonomik krizleri farklı şekillerde yorumlamaktadırlar. Ancak 2008 Mali Krizi'nin üzerinde uzlaşıya varılan sebepleri de vardır. Farklı ekollerin temsilcileri, ABD'deki emlak piyasasının iyi regüle edilemediğini ve emlak kredilerinin 'sorumsuz bir şekilde' verildiğini düşünmektedirler. Ödenemeyen mortgage kredilerinin bir havuzda toplanması ve menkul değere dönüştürülerek yeniden piyasada işlem gören değerli kağıtlar haline getirilmesi ise sistemdeki kırılganlığı yaratan faktörlerden biri olarak görülmektedir. Sistemik riske sebep olan spekülasyon işlemlere dönük yaptırımların, caydırıcı cezaların ve düzenlemelerin olmaması, ABD piyasalarının spesifik düzenleme ve denetleme mekanizmaları tarafından izlenmemesi de krize sebep olan bir diğer faktör olarak görülmektedir. Finansal kuruluşlar tarafından aşırı düzeyde verilen mortgage kredilerinin piyasada likidite sıkışıklığına sebep olduğu, aşırı kredi arzının sistemde kırılganlık ve yüksek risk algısı yarattığı da akademisyenlerde oldukça tartışılmıştır.. Faizlerin düşük olması, karmaşık finansal enstrümanlar üzerinden elde edilen gelirlerin yüksekliği ve kontrolsüz gelir arayışı da sistemdeki riski artıran diğer öğeler olarak görülebilir.

Krizin akabinde ABD'de işsizlik oranları yüzde 17,5'e yükselmiş ve ABD'deki reel hanehalkı geliri 74 trilyon dolardan 55 trilyon dolara düşmüştür. ABD Hükümeti, bu

dönemde 5.2 trilyon dolarlık kurtarma harcaması yapmak zorunda kalmıştır. Yine bu dönemde ABD’de ev fiyatları yüzde 34 oranında düşmüştür. ABD’deki bir ailenin medyan aile geliri yüzde 7.7 oranında düşmüştür. Yine bu dönemde ABD borsası yüzde 50 oranında değer kaybetmiştir. Krizin faturası öyle ağırdır ki, 2018 yılına kadar ABD’de Gayri Safi Yurtiçi Hasıla’nın 2018 yılına kadar optimal rakamlara ulaşamayacağı öngörülmektedir (Kelleher, Hall and Bradley, 2012).

2008 Küresel Mali Krizi sonrası dönemde, çok sayıda akademisyen finansal istikrarın sağlanması için devletin piyasadaki denetleyici ve düzenleyici rolünün güçlendirilmesi gerektiğini vurgulamıştır. Piyasanın düzenlenmesi için gerekli politikaların üretilmesi ve düzenlemelerin yapılması, istikrar için hayati önem taşımaktadır. Korinek (2012) 2008 Küresel Mali Krizi’nin modern ekonominin güçsüzlüğünü ortaya çıkardığını söylemiştir. Bu dönemde, piyasayı bütüncül olarak gören denetleyici ve düzenleyici mekanizmaların oluşturulması ve bu mekanizmaların belirli önlemleri alması oldukça tartışılmıştır. Makro ihtiyati tedbirlerin alındığı bir ekonomik sistemde sistemik riskin düzenli olarak ölçülebileceği, izlenebileceği ve takip edilebileceği; piyasanın kırılganlığının düzenli olarak takip edildiği bir ortamda da krizi önlemeye dönük hamlelerin yapılacağı farklı akademisyenlerce dile getirilmiştir. Makro ihtiyati tedbirler, piyasada pozitif denge etkisi göstermektedir ve piyasanın bütüncül olarak test edilmesini, izlenmesini sağlamaktadır. (Hanson, Kashyap ve Stein, 2011). Makro ihtiyati tedbirlerin kullanılması, sistemin bütüncül dayanıklılığının sağlanması için hayati önem taşımaktadır (Borio, 2009 & Galati; Moessner, 2010). Makro ihtiyati tedbirler çok sayıda finansal kurumun eş zamanlı olarak piyasada yaratabilecekleri finansal dengesizlikleri ve bu dengesizliklerin ortaya çıkarabileceği finansal problemleri nötrlemek için alınan tedbirlerdir (Hanson, Kashyap ve Stein, 2011). Makro ihtiyati tedbirleri mikro ihtiyati tedbirlerden ayıran en önemli unsur ise, makro ihtiyati tedbirler alınırken sistemin bütüncül olarak görülmesidir. Mikro ihtiyati tedbirler yalnızca tekil firma düzeyinde risk analizi yapılmasını sağlarken, makro ihtiyati tedbirler, finansal stresin boyutunun sistem seviyesinde ölçülmesini sağlar (Borio, 2003). Gjedrem (2005) mikro ihtiyati tedbirle makro ihtiyati tedbirin arasındaki



temel farkın, iki farklı yaklaşımdaki sistemik risk algısı olduğunu söylemektedir. Borio'ya (2003) göre mikro ihtiyati tedbirler alınırken firma spesifik faktörler göz önünde bulundurulurken, makro ihtiyati tedbirler alınırken sistem spesifik faktörler göz önünde bulundurulur. Mikro ihtiyati tedbirler şirket müşterilerinin ya da yatırımcılarının zarar görmemesi için alınırken, makro ihtiyati tedbirler finansal istikrarsızlık kaynaklı GSYH maliyetlerini düşürmek için alınır. Makro ihtiyati tedbirler bütün sistemi etkileyen risklerin yukarıdan aşağıya bütüncül olarak gözden geçirilmesini sağlarken; mikro ihtiyati tedbirler piyasada faaliyet gösteren herhangi bir firmadan yola çıkılarak aşağıdan yukarıya bir risk değerlendirilmesi yapılmasını sağlar. Makro ihtiyati tedbirler ekonomik büyüme dönemlerinde alınırsa olası ekonomik krizler önlenabilir veya gerçekleşen ekonomik krizlerin etkisi azaltılabilir. 2008 Küresel Mali Krizi, makro ihtiyati önlemlerin alınması ile finansal istikrar arasında bir bağıntı olduğunu göstermiştir. Sistem çapındaki risklerin bütüncül olarak ölçülmesini sağlayan makro ihtiyati tedbirlerin alınması ekonomik krizlerin önlenmesi için son derece önemlidir.

Kriz sonrası dönemde ABD'de de makro ihtiyati tedbirlerin krizi önleme ve olası krizlerin faturasını hafifletme konularında hayati öneme sahip olduğu anlaşılmıştır. 2008 Krizi sonrası dönemde piyasalarda verimliliğin, etkililiğin, dayanıklılığın ve istikrarın sağlanması için ABD'de farklı düzenleyici ve denetleyici mekanizmalar oluşturulmuş, kapsamlı yasal düzenlemeler yapılmıştır. 2008 Krizi sonrası dönemde, çok sayıda akademisyen ve siyasetçi ABD'de devletin piyasadaki rolünün aktifleştirilmesinin elzem olduğunu ve makro ihtiyati tedbirlerin alınmasının piyasadaki kırılganlığı azaltacağını ifade etmiştir. Piyasada daha aktif, daha katılımcı ve daha müdahaleci devlet anlayışı da ABD'de geçtiğimiz 7 yılda kabul görmüştür. Bu süre zarfında ABD'de de makro ihtiyati tedbirlerin alınması için ciddi adımlar atılmıştır. Krizin hemen ardından Acil Ekonomik İstikrar Yasası devreye sokulmuş, bu yasanın devreye sokulmasını ABD Hazinesi tarafından sunulan yasal düzenleme teklifi izlemiştir. Krizin etkilerinin azaltılması için yapılan en radikal değişiklik ise Dodd-Frank Wall Street Reformu'nun yürürlüğe konmasıdır. Reformla birlikte mevcut düzenleyici ve denetleyici mekanizmalara ek olarak yeni mekanizmalar

devreye sokulmuş; piyasadaki risk algısını yönetmek, sistemik riskleri kontrol etmek, izlemek ve ölçmek için farklı düzenleyici ve denetleyici kuruluşlar oluşturulmuştur. Finansal İstikrarı İzleme Kurulu'nun ve Büyük Finansal Kuruluşları İzleme Komitesi'nin oluşturulması ise ABD'de makro ihtiyati tedbirlerin alınması konusunda önemli adımlar atıldığını gösteren önemli işaretlerdir. Bunlara ek olarak ABD'de tüketicilerin piyasadaki dalgalanmalardan etkilenmelerini önlemek amacıyla Tüketici Koruma Yasası devreye sokulmuş, yasanın pratikte işleyebilmesi için de Tüketici Mali Koruma Bürosu kurulmuştur. Dodd-Frank Wall Street Reformu piyasada risk algısı yaratabilecek çok sayıda şüpheli ya da spekülatif işleme belirli yasaklar getirmiştir. Piyasa için farklı konularda alt limit belirleyip sermaye hareketleriyle ilgili bazı kısıtlamalar koymuştur. Büyük ve kompleks finansal yapıların iflasının bütün sistemi derinden etkilememesi için kurum ya da firma düzeyinde de belirli yasaklar getiren Reform'un ana amacı ise sistemi dışsal ve içsel şoklara karşı daha dayanıklı hale getirmektir (Bernanke 2011a; Lee, 2012).

2008 Global Mali Krizi makro ihtiyati tedbirlerin alınması için bir dönüm noktası olmuştur. Hem piyasa oyuncuları hem de siyasetçiler için piyasa dinamiklerinin ve yapısının yeniden konfigüre edilmesi açısından da sağlıklı bir tartışma zemininin oluşmasını sağlamıştır. Krizin etkilerini önlemek amacıyla özellikle ABD'de çok sayıda makro ihtiyati tedbir alınmış, devlet müdahaleciliği artırılmıştır. Liberaller devletin piyasadaki aktif rolünü desteklemiyor olsalar da; sistemik riskin önlenmesi, finansal balonun oluşmamasının sağlanması ve piyasanın finansal şoklara karşı korunması için akademisyenler ve siyasetçiler makro ihtiyati tedbirlerin alınması konusunda önemli ölçüde fikir birliğine varmışlardır. ABD örneği, teorik tartışmaların pratikte de karşılığının olduğunu göstermektedir. Kriz sonrası dönemde ortaya çıkan kriz literatüründe makro ihtiyati tedbirlerin önemi vurgulanmış, sistemik risk ve finansal krizler arasında bağıntı kurulmuştur. Makro ihtiyati araçların kullanılmasının, yeni düzenlemelerin devreye sokulmasının finansal piyasaları daha güçlü ve şeffaf hale getireceği farklı çevrelerce vurgulanmıştır. Makro ihtiyati tedbirlerin piyasa dalgalanmalarını, finansal balonun oluşturacağı domino etkisini ve finansal kurumların kırılganlığını ne ölçüde önleyebileceğini ise zaman gösterecektir.

## APPENDIX B

### TEZ FOTOKOPİSİ İZİN FORMU

#### **ENSTİTÜ**

Fen Bilimleri Enstitüsü

☐

Sosyal Bilimler Enstitüsü

☐

Uygulamalı Matematik Enstitüsü

☐

Enformatik Enstitüsü

☐

Deniz Bilimleri Enstitüsü

☐

#### **YAZARIN**

Soyadı :

Adı :

Bölümü :

**TEZİN ADI** (İngilizce) :

**TEZİN TÜRÜ** : Yüksek Lisans

☐

Doktora

☐

1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir.

☐

2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilmek şartıyla fotokopi alınabilir.

☐

3. Tezimden bir bir (1) yıl süreyle fotokopi alınamaz.

☐

**TEZİN KÜTÜPHANEYE TESLİM TARİHİ:**