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ERASMUS SCHOOL OF HISTORY, CULTURE AND COMMUNICATION

The invisible hand of Alan Greenspan:

The development of financial regulation in the United States during 1987-2006

MASTER THESIS

GLOBAL HISTORY AND INTERNATIONAL RELATIONS

Mark Straver

327724 mark_straver@hotmail.com

Supervisor:

Dr. Ben Wubs

Co-reader:

Dr. Gijsbert Oonk

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List of Abbreviations

DCM – designated contract markets

CEA – Commodity Exchange Act

CFMA – Commodity Futures Modernization Act

CFTC – Commodity Futures Trading Commission

CRA – Community Reinvestment Act

DTEF – derivatives transaction execution facilities

GLBA – Gramm-Leach-Bliley Act

FDIC - Federal Deposit Insurance Corporation

FDICIA – Federal Deposit Insurance Corporation Improvement Act

FIRREA – Financial Institutions Reform, Recovery, and Enforcement Act

IBBEA – Riegle-Neal Interstate Banking and Branching Efficiency Act

OTC – over-the-counter market

SEC – Securities and Exchange Commission

1 Introduction

The recent global financial crisis has demonstrated the impact of the financial system on the world's economy. In the years after 2007, numerous enterprises (not only financials) have filed for bankruptcy, people lost their jobs and governments were pulled into serious credit crises. However, the causes of the crisis should not only be seen as an outcome of immoral and inappropriate behavior and policies of financial enterprises. Several economists argue that neoliberal developments during the last couple of decades have contributed to or even caused the creation of an instable system with the financial crisis as the logical consequence.[1] One could question whether the financial regulation that was put in place in the period before the financial crisis was well structured to prevent future crises.

Because he was chairman at the Federal Reserve, the American central bank, during the years between 1987 and 2006, Alan Greenspan can be perceived as one of the most influential individuals regarding the development of the financial system. After all the Federal Reserve is responsible for the financial policies of the United States, which is the most influential country within the global financial system. The Federal Reserve has four main tasks: conducting the US monetary policy, supervising and regulating banking institutions, maintaining a stable financial system and containing systemic risk and providing financial services to several financial institutions.[2] In addition Greenspan was lauded by Congress and other financial institutions for what was to be his contribution to financial stability and prosperity in the world. Greenspan was very much devoted to the free market ideology and was highly influenced by theory of Ayn Rand on the benefits of an individualistic free market economy in which the government had almost no power.[3]

In history it is not always clear what processes are underlying certain developments and this is also true for the case of the development of financial regulation during the presidency of Greenspan at the Federal Reserve. From the 1980's onwards a different way of thinking about markets and economic practices occurred which began to stress the importance of free markets and other elements of liberal thinking. Due to technological developments financial institutions had gotten better access to information and were more easily able to trade away their assets to other financial organizations. Contrary to these more structural developments, could it have been that Greenspan as chairman of the Federal

[1] D. Kotz, 'The Financial and Economic Crisis of 2008: A Systemic Crisis of Neoliberal Capitalism', *Review of Radical Political Economics* May 4 (2009) 4.
[2] The Federal Reserve System, *Purposes & Functions* (Washington 2005) 1.
[3] A. Greenspan, *The Age of Turbulence: Adventures in a New World* (London 2007) 52.

Reserve had been able to pursue his free market ideology in the American financial sector and would that perhaps be part of the reason for the consequent financial crisis?

In this thesis I shall focus on answering whether during the presidency of Greenspan at the Federal Reserve (1987-2006) the financial regulations placed on the American sector had indeed changed to better reflect a free market economy. More specifically I will focus on the main financial regulations which were passed during this time period and I shall relate those to the situation before the Greenspan was chairman. In addition I will analyze the person Greenspan to understand his lifestyle and conviction about how the economy should be structured and I will analyze to what extent the changes in financial regulations reflect his views on the free market economy.

The aim of this thesis is first of all to get a better understanding of the financial regulations that were put in place in the period before the recent financial crisis concerning whether these regulations entailed a free market (thus deregulation) or reflected a regulated market. Secondly the analysis on similarities between Greenspan's economic convictions and the financial regulations may offer an interesting perspective. For it may provide a better understanding of the role Greenspan played in the changes of financial regulation during his presidency at the Federal Reserve.

1.1 Research Question:

My research question is:

How did financial regulation develop during Greenspan's presidency at the Federal Reserve in the period 1987-2006 and what was his role in this process given his preference for a free market economy?

This research question contains several sub research questions:

- What regulations were introduced or got changed during Greenspan's presidency?
- What did these new or adjusted regulations entail?
- What constitutes a free market economy according to Greenspan?
- To what extent are the new or adjusted regulations and Greenspan's views similar?

Firstly, this thesis provides new knowledge about the history of financial regulation in the United States with relation to the concept of the free market economy, because it covers the

changes in financial regulation and compares this to elements of the free market. This contributes to the historical understanding of the application of the free market ideology. Secondly, this thesis provides knowledge on the personal (economic) views of Greenspan, a man who is considered to have been of vast importance for the development of financial and monetary policies during the 1990's and 2000's. Thirdly, this thesis assesses to what extent Greenspan's views were similar to the new financial regulations put in place during his position as chairman and what his role was in this process. This knowledge may provide a new perspective on what factors constituted the development of financial regulation and more specifically is of importance when assessing whether the development of financial regulation has been a structural process or one which is an outcome of agency (and thus has a more coincided nature). Whether the development of financial regulation was structural or not can be relevant for policy making or for understanding if certain developments in the world could foster a certain type of financial regulation. For example, a long period without financial crises may have led to a political environment in which financial regulation was seen as unnecessary. The rationale for this would be that policy makers did not observe problems in the financial system and therefore felt that the market was more capable than the government in keeping an eye on the financial stability or thought that with less rules the system would be stable as well.

After this introduction the structure of this thesis will continue in chapter two with a historiography. This historiography will first include a part on the Federal Reserve focusing on its establishment and historical development up to the presidency of Greenspan. The second part will focus on Alan Greenspan and will include literature about how the man was perceived by and how he was like. The third part of the historiography will be more technical and will include the concept of the free market followed by more financial explanations of the relation between the free market and financial crises. The relation with financial crises is to provide an understanding of the consequences of applying a free market ideology or theory. This understanding will be used to provide context for Greenspan's rationale to strive for a free market economy. The historiography is followed by an explanation of the methodology and sources used for this thesis in chapter three. Chapter four will address the development of financial regulation in the United States during the presidency of Greenspan at the Federal Reserve in which I will also describe its implications for the direction to a free market economy. In chapter five I will analyze the autobiography of Greenspan and relate this to the financial regulations and draw conclusions on his role in the development. The final chapter will then conclude on my findings and relate these to the historiography.

1.2 Important concepts

This thesis will focus on financial regulations in the United States between 1987 and 2006 and how these were influenced by Greenspan's favor for the free market economy. I shall therefore shortly explain the concepts of financial regulation and the free market to provide a better understanding. The historiography will elaborate more upon the free market economy and will specifically focus on the development of free market thinking and on the implications for applying a free market theory.

Financial regulations

Financial regulations are legal norms which relate to the financial sector. These legal norms can appear in a wide variety of forms such as Acts passed through Congress, specific rules as stated by governmental agencies which are responsible for regulating parts of the financial sector, but also interpretations of the law by justice courts. Most important is that these financial regulations should have an impact on how market participants are conducting business in the financial market.

For this thesis it is important to understand that a regulation is just the term for referring to a legal norm. Whether or not there is more regulation or deregulation in the financial sector depends on the content of the legal norm. Hence more regulations does not always mean that policy makers are regulating the market. New regulations which entail for instance an abolishment of rules or a limited scope of supervision make way for a more deregulated market, which shows that more regulations causing a deregulation of the market is also possible.

Free market economy

The free market economy refers to a structure of the economy. It basically hinges on the idea that the state or outcome of the economy is completely determined by the actions (read: decisions) of market participants. This economic structure therefore excludes a role of the government in affecting the economy in its most ideal form. It relates to financial regulations in the sense that financial regulations may set rules on the working of the financial sector and thereby affect the financial sector and the real economy. Regulations are therefore often associated with a lesser degree of the free market.

However, whether the free market economy is real is debatable. Firstly, there aren't (and there have never been) countries which have a completely free market. Even in the

United States the state intervenes in the economic process. Secondly, the concept of the free market economy itself is also somewhat contradictory. Polanyi, a political economist, argues that the free market ideology was flawed. “Laissez-faire was not a method to achieve a thing, it was the thing to be achieved” he said.[4] This statement implies that a free market economy was something a state would strive for and should thus be regarded as state intervention, the very thing laissez-faire should avoid.

[4] K. Polanyi, *The Great Transformation* (New York 1944) 139.

2 Historiography

This historiography will be structured around the different concepts which are covered in the research question of this thesis. In the first part I will start elaborating on the Federal Reserve with the purpose of explaining the concept and providing a history of financial regulation in the United States. This serves a better understanding of developments of Federal Reserve regulations during the presidency of Greenspan relative to previous years. I shall specifically focus on its establishment and initial purpose, important regulations of the Federal Reserve which have been decisive for shaping the American financial system, important monetary policy and Federal Reserve action in time of financial crises. This section is followed by a part on Alan Greenspan in which I will focus on literature which writes about the person and about his beliefs, especially with relation to how the economy should be structured. The third section of the historiography will focus on the concept of the free market. First of all a historiography on what the concept exactly entails and secondly a description of literature describing the possible effects of a free market economy on the likelihood of a financial crisis. It is a means to show how free market considerations in financial regulations are considered to be affecting the effectiveness and healthiness of the financial system. The last part of the historiography will include literature which focuses on the creation of financial regulations. More specifically this will address the different perspectives on why financial regulations are introduced or changed. Finally I shall comment on my contribution to the historiographical debate.

2.1 History of the Federal Reserve

2.1.1 The first years of the Federal Reserve

In 1913 the Federal Reserve System was established by means of the Federal Reserve Act signed by President Wilson. The initiative for setting up America's central bank came from large bankers who were not only responsible for the lobbying, but who also financed and drafted the initial reform legislation.[5] Reason for this initiative was the fact that this group of bankers was financially hurt by the high transaction costs that complicated their business activities. They argued that only by establishing an institution like an American central bank would the United States be able to rival with Britain as the financial center of the world.[6] In

[5] J. Broz, 'Origins of the Federal Reserve System: International Incentives and the Domestic Free-Rider Problem', *International Organization* 53 (1999) 56.
[6] P. Robert, '"Quis Custodiet Ipsos Custodes?" The Federal Reserve System's Founding Fathers and Allied Finances in the First World War', *The Business History Review* 72 (1998) 586.

addition, the country had experienced major panics, originating from events such as bank failures during the period 1873-1893 and in 1907 and a stock market crash in 1901. These panics had profound effects on the real economy as well because it led to suspension of payments and a sudden decrease of the credit supply which had severe consequences for the real economy.[7] Assuring a stable and smoothly functioning financial system which would mitigate future negative effects on the real economy would become the main reason for the establishment of the Federal Reserve.[8] Broz argues that America's ascent in the economic and financial system after 1914 not only originated in the First World War, which deteriorated Britain's financial position as world banker, but was also due to the fact that only from this moment on the United States had an institutional foundation effective for global banking enabling the country to take on this leadership.[9]

The Federal Reserve Act required that nationally chartered banks were included in the Federal Reserve System and permitted state chartered ones, given that they fulfilled the reserve requirements and satisfied restrictions on risky investments as demanded by the Federal Reserve.[10] However, according to Feinman the requirements for member banks of the Federal Reserve System were lower than the requirements for national banks before the system.[11] Also not all regulations would be under the supervision of the Federal Reserve. State governments remained the main regulators of financial institutions, since they supervised the majority of commercial banks and all the other financial institutions such as insurance and trust companies. Furthermore financial supervision was also performed by clearing houses and rating agencies.[12] Clearing houses demanded that banks fulfilled certain rules on reserves and performed risk inspections. Rating agencies were responsible for reporting on the financial outlook of institutions.

An important aspect of the Federal Reserve was that it was able to extend the supply of credit concerning short-term bills by means of a discount window.[13] During a discount window eligible financial institutions (which had joined the Federal Reserve System) were able to borrow money from the Federal Reserve during shortages of liquidity. Friedman and Schwartz argue that this provision of an "elastic currency" was the fundamental change made

[7] Broz, 'Origins of the Federal Reserve System, 44.
[8] Ibid., 44.
[9] Ibid., 65.
[10] A. Komai and G. Richardson, 'A Brief History of Regulations regarding Financial Markets in the United States, 1789-2009', *Working Paper 17443* (2011) 6.
[11] J. Feinman, 'Reserve Requirements: History, Current Practice, and Potential Reform', *Federal Reserve Bulletin* June (1993) 573.
[12] Komai and Richardson, 'A Brief History of Regulations', 6.
[13] R. Hetzel, *The Monetary Policy of the Federal Reserve: A History* (New York 2008) 12.

by the Federal Reserve Act.[14] In this way panics, for instance arising from an increase in asset illiquidity caused by a sudden negative price shock, could be mitigated because liquidity would be restored through the Federal Reserve's discount window. In addition, the Federal Reserve was better able to prevent speculation when there was too much credit available by means of limiting the supply of credit. In this way the Federal Reserve was able during its first years to maintain a more stable and smoothly functioning financial system. The exception during this period was the depression between 1920 and 1921 in which the Federal Reserve raised interest rates to increase its reserves and thereby decreased the total money supply. Due to a decrease in gold inflow as the European economies became less dependent on the American economy and an expansion of the Federal Reserve credit, the Federal Reserve saw its reserves decreasing more and more and so the Federal Reserve tried to increase its reserves by setting higher interest rates. However, an economic contraction in 1920, combined with the higher interest rates, led to a severe depression.[15] This depicts the first major case in which the performance of the Federal Reserve had a negative effect on the United States' economy. According to Friedman and Schwartz it had waited too long and introduced measures which were too extreme.[16]

2.1.2 The Federal Reserve and the Great Depression

During the Roaring Twenties the financial system was mainly characterized by an expansionary monetary policy of the Federal Reserve and in the years after 1921 the money supply grew by 60%. A major development in the financial system was that banks were diversifying their business activities by adding services like underwriting and setting up affiliates which were responsible for selling securities but also speculated on their securities.[17] Especially the speculation created much more risk exposure for banks. Another development was that the structure of loan types changed during the years with commercial loans decreasing at the cost of security- and real estate loans.[18] Friedman and Schwartz relate this to the large profits of the Twenties and high demand for the securities market, which would have caused a shift towards security- and real estate loans.[19] These developments all contributed to a financial system which was more fragile in case the financial institutions got

[14] M. Friedman and A. Schwartz, *A Monetary History of the United States, 1867-1960* (Princeton 1993) 189.
[15] Friedman and Schwartz, *A Monetary History of the United States*, 231.
[16] Ibid., 239.
[17] Ibid., 245.
[18] Ibid., 244-245.
[19] Ibid., 244-245.

hit by a liquidity crisis. It denotes the importance of the Federal Reserve System as a safeguard to assure a stable and smoothly functioning system.

Between the years 1929 and 1933 the American economy plummeted due to the Great Depression, a term which refers to the period of deep recession in the United States in which employment fell by 25% and production output declined by 30%.[20] Furthermore the period included two banking crises, in 1930 and 1931, and a banking panic in 1933.[21]

There are two main streams of economic theories on what caused the Great Depression and of which the assumptions have implications for the role of the Federal Reserve in the creation of the crisis: a monetarist and a Keynesian stream of economic theory. Friedman and Schwartz argue that the Great Depression started off as a normal recession in which the economy was contracting.[22] However, the consequent monetary policy by the Federal Reserve was not adequate for the situation during 1929. This monetarist theory claims the actions of the Federal Reserve to be of critical importance for the occurrence of the Great Depression. Friedman and Schwartz argue that the Federal Reserve has made serious mistakes by not expanding the money supply in the market to ensure a continued level of demand and liquidity. By expanding the money supply banks would have had more money available which would compensate for the loss of liquidity in the capital market due to the recession. In addition, the increase of money available at banks would have decreased interest rates and caused an increase in consumption and investment which in turn would have been able to counter the recession. The theory therefore implies that the crisis could have been mitigated (or at least the severity with which it had struck the economy) by applying effective monetary policy. They thereby somewhat ignore other potential explanations of the Great Depression which are not related to monetary policy of the Federal Reserve only.

According to Eichengreen the crisis was so intense because when the American economy started to decline in August 1929 other parts of the world were already experiencing a significant recession.[23] Eichengreen states that due to monetary contraction by the Federal Reserve in 1928, capital and good exports to other parts of the world declined and thereby deteriorated the balance of payments of foreign countries. To defend the gold parity foreign countries raised interest rates which in turn contributed to their recessions. This argument has

[20] H. Cole and L. Ohanian, 'A Second Look at the U.S. Great Depression from a Neoclassical Perspective', in T. Kehoe and E. Prescott (eds.), *Great Depressions of the Twentieth Century* (Minneapolis 2000) 21.
[21] Friedman and Schwartz, *A Monetary History of the United States, 1867-1960*, 308.
[22] Ibid., 300-301.
[23] B. Eichengreen, *Golden Fetters: The Gold Standard and the Great Depression: 1919-1939* (Oxford 1992) 222.

a more international scope and depicts not so much the inadequacy of financial regulation as monetarists do.

The second main theory is a Keynesian theory which claims that the Great Depressions was a consequence of a fall of aggregate expenditures which in turn led to a decrease in income and a rise in unemployment.[24] Keynes, who first introduced the argument, argued that the crisis could not be solved by monetary policy since it was ultimately a lack of effective demand which halted the recovery of the economy. A solution to the problem according to Keynes would be to increase government spending as the government would be able to provide employment which would raise income and trust and therefore would give rise to an increase in effective demand. Government spending here functioned as a catalyst of the economy. This theory thus gives less importance to the Federal Reserve as a cause of the Great Depression and acknowledges the critical role of the government in providing aggregate expenditures to contain a recession.[25]

Kindleberger focuses less on the economic theories as such but raises three possible explanations of why the great depression took place. He argues it could have been either by chance, due to misguided monetary policy by the Federal Reserve or because of more international factors reflecting both financial and real economy matters.[26] He poses an explanation directed at the international factors. He argues that there were five key issues.[27] Firstly, there was a lack of open markets to be able to sell distress goods. Secondly, there was a lack of countercyclical lending. Thirdly, no stable exchange rate system was facilitated. Fourthly, macroeconomic policies were not properly coordinated and fifthly, there was no institution that acted as a lender of last resort. Especially this last point is intriguing for this thesis since it implies a role for the stability of the financial system in explaining the Great Depression. Kindleberger shows that the stock market crash in 1929 was caused by foreign withdrawals of credit.[28] It implies that although nationally the risk for a liquidity crisis may have been monitored and controlled, the system did not prove resilient for international causes. Kindleberger also points to the lack of the Federal Reserve to act internationally in 1930 for the stability of the system.[29] The focus was mainly domestic though the collapse of European banks did spread across borders to cause financial problems in the United States itself.

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[24] J. Keynes, *The General Theory of Employment, Interest and Money* (Cambridge 1936) 65.
[25] Keynes, *The General Theory*, 65.
[26] C. Kindleberger, *The World in Depression 1929-1939* (London 1986) 288.
[27] Kindleberger, *The World in Depression*, 289.
[28] Ibid., 100.
[29] Ibid., 148.

The banking crisis of 1930 had much lesser dramatic consequences than banking crises in the past, because the new Federal Reserve System provided direct measures for providing liquidity to banks through a discount window and indirectly by providing banks a sense of trust by having a solid system in place to maintain financial stability.[30] The banking crisis of 1931 was more severe because the discount window did not work to provide liquidity because foreign investors were, just like more Americans, taking out gold from American banks. Only when the Federal Reserve started with a large-scale open market purchase did the increase in holdings offset gold outflow and thereby could increase the money supply which was necessary to keep the required liquidity to solve the crisis.[31] On the other hand White argues that for the 1930 banking crisis it was the increasing regulation which shaped the foundation for financial crisis. He concludes that during the banking crisis of 1930 banks were too little diversified because regulation insisted on small banking units (branch banking was forbidden).[32] He supports this argument by comparing the situation in America with Canada at that time where regulation on branch banking was allowed. By using branch banking Canadian banks were able to grow and therefore diversify their investments and money supply. According to him this created more liquidity and reduced the risk which made it possible for these banks to endure the depression.[33]

Both Kindleberger and Friedman and Schwartz argue that the Federal Reserve made mistakes with respect to the appropriate policy. Davis focuses on the reasons as to why financial supervision was not properly executed and names several reasons.[34] Firstly, he addresses the relative low salary employees at the Federal Reserve were compensated with and which caused frequent changes of staff. Secondly, he argues that criticism from Congress and the public also influenced policies which were not always for the good. In addition, White argues that policy makers at the Federal Reserve at that time were highly convinced of the Hayek-Robbins theory of the business cycle.[35] This theory rejects the benefits of monetary policy and advocates a laissez-faire approach concerning monetary policy (a free market approach). This would affect the belief of policy-makers to intervene. Lastly, there

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[30] Friedman and Schwartz, *A Monetary History of the United States, 1867-1960*, 311.
[31] Ibid., 322-323.
[32] E. White, 'A Reinterpretation of the Banking Crisis of 1930', *Journal of Economic* History 44 (1984) 119-120.
[33] White, 'A Reinterpretation of the Banking Crisis of 1930', 132.
[34] J. Davis, *The World between the Wars, 1919-1939: An Economist's View* (London 1975) 118.
[35] L. White, 'Did Hayek and Robbins Deepend the Great Depression?', *Journal of Money, Credit and Banking* 40 (2008) 751-752.

were frictions within the Federal Reserve, originating from strong differences of opinion, which Davis argues to be part of the reason why financial policy was sometimes misguided.

Concerning the banking structure, Galbraith argues that the sector was inherently weak and could easily suffer from contagion effects.[36] Assets of a certain bank would vaporize as these could be liabilities of a defaulting bank or ordinary company, while *a priori* these assets were considered to be healthy investments.

Kindleberger stresses the importance of pooling the sovereignties of countries in the world to create more capacity to mitigate such financial crises and he refers to for instance the Basel arrangements. It illustrates the importance of international financial regulation to counter financial crises due to the interrelatedness of the financial system across countries. In 1933, the Glass-Steagall Act (formally known as the Banking Act of 1933) was put in place to create a separation between commercial banks and investment banks.[37] Commercial banks accepted deposits and, to reduce the probability of bank runs on these deposits, were very much restricted regarding the risks these type of banks could take and the financial activities they could carry out. For example, commercial banks were not allowed to underwrite securities. Investment banks were much less regulated because these were not financed with deposits and thus did not share the risk of a bank run.

In addition, the Glass-Steagall Act required the use of a nationwide deposit insurance, which thereby established the Federal Deposit Insurance Corporation (FDIC).[38] The provision of deposit insurance implied a great amount of market regulation. Not only were member banks of the Federal Reserve System required to join this system of deposit insurance, but also did they require regular assessments on requirements by the Federal Reserve. The rationale for deposit insurance would be to alleviate the potential risk of a demand shock. During the Great Depression it proved to be of vital importance that demand for goods did not collapse. When financial depository institutions failed and there was no deposit insurance this greatly affected the amount of effective demand in the United States. By creating a deposit insurance not only would a potential demand shock due to failing banks be mitigated, but it would also mean a reduction in the likelihood of bank runs because people would be less afraid that their deposits were in danger. Related to this was the introduction of what is called “Regulation Q”, a provision which stated that banks were not allowed to pay interest on demand deposits and in addition were limited by a maximum of

[36] J. Galbraith, *The Great Crash 1929* (London 1955) 161.
[37] P. Krugman, *The Return of Depression Economics* (New York 2008) 157.
[38] Komai and Richardson, ‘A Brief History of Regulations’, 13.

interest rates related to saving accounts. It was meant to limit competition so that banks would not take unhealthy risks to become more competitive.

Furthermore during the aftermath of the crisis more financial regulations were introduced of which the intended effect was to better regulate the market. The Securities Act of 1933 established regulation of securities issues. This became more substantial with the Securities Exchange Act of 1934 in which the Securities and Exchange Commission (SEC) was established to regulate market behavioral aspects like issuances, purchase and sale of securities.[39] Lastly, periodic financial statements were required and in 1936 the Commodities Exchange Act was passed in order to require derivatives (futures and options) to be traded on organized exchanges as opposed to over-the-counter markets (OTC) which were less easy to supervise.

It can therefore be noticed that after the Great Depression there was a serious trend of market regulation. Market regulation included a wide variety of institutions, from banks to mutual funds, which focused on all financial instruments ranging from equities to options and were all under the supervision of newly created departments of the Federal Reserve, the Securities and Exchange Commission and the Treasury Department in order to increase the likelihood that a future crisis would be mitigated.

2.1.3 The Federal Reserve after the Second World War

The Glass-Steagall Act would be of critical importance for the shaping of the landscape of financial regulation for the decades after the Second World War. The sense of the misery the United States had experienced during the Great Depression, where millions of people had lost their job and numerous companies defaulted, was still very much present at the government. It is therefore not surprising that for a couple of decades after the Second World War financial regulation was tightly regulating the market. The costs related to the Great Depression and the devastation that was caused by the war moved the country to policy making where the priority was set on economic stability. Never in the history of the United States had market regulation be applied to the extent it was being applied during the decades after the Second World War.

Historically, this period is very unique with respect to trade and finance. For while the couple of decades after the Second World War were characterized by a strong regulated market concerning the financial system, the period was simultaneously typified by a strong

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[39] Komai and Richardson, 'A Brief History of Regulations', 17.

sense of trade liberalization in politics.[40] Concerning financial regulation this included the previously described new measures on regulating the financial market such as the Glass-Stegall Act and the Securities Act, but also higher reserve requirements for financial institutions, for example.

A good reflection of this unique combination of a strongly regulated financial system and a liberalization of trade was the Bretton Woods system. Concerning monetary policy the Bretton Woods system could be seen as a continuity of the initial reforms made in the aftermath of the Great Depression which preferred a very stable and smooth financial system. The Bretton Woods system first of all entailed a system of stable exchange rate, whereby currencies would be pegged to the US dollar which in turn was pegged to gold. This would provide stability in the financial system because it was assumed that gold would be a stable value in contrast with fiat money. Stable exchange rates would be a problem for the Federal Reserve's domestic monetary policy had it not been that the Bretton Woods system also enabled central banks to control the movement of capital. This control of the movement of capital aligned with the overall tendency of that time that financial markets had to be regulated to a vast extent in order to provide financial stability. The ultimate reason for these measures was the goal of politicians to foster an international system which would stimulate peace, financial stability and trade.[41] Financial stability and trade would in this way encourage inter-state economic relations and cooperation which in turn could have a higher chance of maintaining peaceful inter-state relations.

Because of the control of capital movements, the Federal Reserve was not so much affected by the introduction of the Bretton Woods system concerning its monetary policy.[42] Bordo and Humpage argue that, even though the future expectations for the gold reserves were not looking good during the 1960's, the Federal Reserve was relatively unaffected because the U.S. Treasury intervened with certain measures such as the gold pool and capital restraints.[43] Federal Reserve policy mainly addressed measures to stimulate economic growth and employment. However these measures concerned relatively low interest rates which forced increasing pressure on the U.S. Treasury to restraint capital movements to mitigate a gold outflow of the United States. It also produced inflationary concerns and in the late 1960's it was apparent that the government deficits related to the structural decrease of

[40] R. Weber and D. Arner, 'Toward a New Design for International Financial Regulation', *Journal of International Law* 29 (2007) 391.
[41] Weber and Arner, 'Toward a New Design for International Financial Regulation', 393.
[42] M. Bordo and O. Humpage, 'Federal Reserve Policy and Bretton Woods', *Working Paper No. 206* (2014) 1-2.
[43] Bordo and Humpage, 'Federal Reserve Policy and Bretton Woods', 21.

American competitiveness combined with expensive military intervention in Vietnam would have reduced the real value of the dollar in relation to gold.

During the late 1960's high inflation threatened the balance of trade of the United States and the Federal Reserve raised interest rates from 4% in 1967 to 9.2% in 1969 to counter this imbalance.[44] The result was an economic recession and interest rates were lowered again by the Federal Reserve in response to the stagnation of the economy. This in turn led to another capital outflow and in 1971 the Bretton Woods system was abandoned. In addition to high foreign capital expenditures by the United States, another reason for the fall of Bretton Woods is also related to the circumvention of financial regulations due to the increase of globalization and financial innovation. Already at the end of the 1950's market participants circumvented the interest rate ceilings of Regulation Q by offering dollar-denominated deposits in London and vice versa which restricted the effectiveness of capital controls.[45] In response financial regulations on for example interest rate ceilings were gradually raised during the 1960's and 1970's to maintain their effectiveness.[46] This was also affected by the high inflation that symbolized the monetary history during the 1970's.

During the 1970's financial regulation continued to increasingly regulate the financial markets. The Commodity Futures Trading Commission was created in 1974 as a reaction to the price bubble of 1973.[47] Speculation in futures increased during the years before with the bubble as the eventual outcome. To mitigate a similar event the regulators established the Commodity Futures Trading Commission which had the power to take action in case of emergencies which could affect the stability of the market.[48] More interference with the market came with the introduction of the Securities Acts Amendments in 1975. The goal of this amendment was to foster competition, liquidity and stability in securities markets by integrating regional exchanges by means of computer technology.[49]

Weaver and O'Malley argue that during the 1960's and 1970's the financial regulation in the United States was overshooting its purpose.[50] The created regulations led to an increase of government intervention which according to them tried too much to protect bank

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[44] C. Schenk, *International Economic Relations since 1945* (New York 2011) 51.
[45] Schenk, *International Economic Relations since 1945*, 47.
[46] R. Hetzel, *The Monetary Policy of the Federal Reserve: A History* (New York 2008) 133.
[47] Komai and Richardson, 'A Brief History of Regulations', 20.
[48] The Michigan Law Review Association, 'The Role of the Commodity Futures Trading Commission under the Commodity Futures Trading Commission Act of 1974', *Michigan Law Review* 73 (1975) 711.
[49] W. Werner, 'Adventure in Social Control of Finance: The National Market System for Securities', *Columbia Law Review* 75 (1975) 1236.
[50] R. Weaver and A. O'Malley, 'The Depository Institutions Deregulation and Monetary Control Act of 1980: An Overwiew', *Banking Law Journal 98* (1981) 100.

borrowers and depositors and corporate shareholders. However, they argue that in 1980 there was a turnaround in which the development of financial regulations tends to turn more to the deregulation of financial markets, starting with the Depository Institutions Deregulation and Monetary Control Act of 1980 which resulted in the elimination of maximum rates for interest and dividends.[51] Rohner, however, points out that already in 1978 the Supreme Court of the United States decided that banks were allowed to export the interest rates of their home-state concerning certain cases.[52] At least the Act of 1980 showed continuity with the decision of the Supreme Court in 1978 on the freedom to set interest rates. In 1979 Paul Volcker became chairman of the Federal Reserve and his key priority was to contain the inflation in the United States.[53] The overall turn towards alleviating the ceilings which were imposed on interest rates therefore fitted well into the new situation where Volcker was chairman of the Federal Reserve.

The battle of the Federal Reserve with inflation also had consequences for the economy. In 1979 the Federal Reserve increased the interest rate too much which caused the United States to get into a recession in the beginning of 1980 and which would last to 1983. However, it should be said that since the Great Depression there had not been a real financial crisis (except perhaps for some minor stock panics which recovered very quickly) and the initial purpose after the Great Depression to introduce regulations which fostered financial stability seemed to have been very effective.

2.1.4 The Federal Reserve and the crisis of 1987

In August 1987 Greenspan took office as chairman of the Federal Reserve and after two months the Federal Reserve got tested again by the first real financial crisis since the Great Depression. On October 19th, 1987, several markets (stocks, futures, options) crashed and the S&P 500 stock market index fell by 20%.[54] The crash was initially caused by political events in the Middle-East which caused stock price declines in the Asian markets. However, Carlson argues that the decline was intensified by the fact that the market, which by then had become computerized and dominated by program traders, had problems with its trading systems.[55] The consequences were uncertainty and a stronger decline of prizes.

[51] Weaver and O'Mally, 'The Depository Institutions Deregulation and Monetary Control Act of 1980', 111.
[52] R. Rohner, 'Marquette: Bad Law and Worse Policy', *The Journal of Retail Banking (1979) 76.*
[53] Hetzel, *The Monetary Policy of the Federal Reserve: A History*, 150.
[54] M. Carlson, 'A Brief History of the 1987 Stock Market Crash', *Staff working papers in the Finance and Economics Discussion Series (FEDS)* (2006) 2.
[55] Carlson, 'A Brief History of the 1987 Stock Market Crash', *2.*

The Federal Reserve acted swiftly in this crisis and immediately provided liquidity support to financial institutions. It did this through more open market operations, public statements in which it committed itself to a provision of liquidity, and by relaxing rules concerning the lending of Treasury securities.[56] With these measures it was able to confidently signal financial institutions that the market would remain liquid, which mitigated a liquidity crisis in the market.

Although the crisis was intense, the market recovered relatively quickly and may have led many to think that the Federal Reserve would be perfectly able to prevent any crises in the future. According to Kohn the market was able to recover relatively quickly even though there was a financial crisis because it was managed correctly and because the economy underlying the financial sector was healthy.[57]

The argument that the Federal Reserve was able to manage the crisis and by means of effective intervention and coordination could turn the tide is interesting. It may have provided a feeling of false confidence that financial crises were no longer a reality and that the Federal Reserve had found a solution to manage them. In addition, it may have caused people to believe that markets should not be regulated that much, which could possibly have led to future deregulation.

2.1.5 Theories on the emergence and relevance of central banks

The Federal Reserve as a central bank made sure there was enough liquidity in case a financial crisis appeared, it provided confidence by ensuring to act as lender of last resort, and it influenced the interest rate to stimulate stable prices and economic growth.

In addition to historical evidence on the role of the Federal Reserve there is also more theoretical work concerning the actual purpose and importance of central banks. I shall introduce two theories on the development of central banks which can be helpful in understanding how and why the Federal Reserve has developed the way it did during the twentieth century.

The first theory is the free banking theory and it concerns a critical theory on the presence of central banks. Its key claim is that the presence of central banks has destabilizing

[56] Carlson, 'A Brief History of the 1987 Market Crash', 2.
[57] D. Kohn, 'The Evolving Nature of the Financial System: Financial Crises and the Role of the Central Bank (Speech), May 18th 2006, http://www.federalreserve.gov/newsevents/speech/kohn20060518a.htm (Viewed on April 27th 2015).

effects on the financial system in two ways.[58] First, it has the power to over-issue new bank notes. They can do so because according to the theory governments want them to over-issue so that inflation is created which is beneficial for the state debt (state debt declines in real terms). In this way the money issued should be seen as a form of taxation for which the government does not need the approval of the legislative body. Second, in addition to the inflationary nature of central bank behavior, central banks act as lenders of last resort which causes moral hazard. This moral hazard is illustrated by riskier behavior of banks and less incentives to control risk. This theory tends to give importance to the emergence of central banks as facilitators of the government. The argument that central banks are mainly over-issuing money as to reduce state debt is an argument that is often brought up nowadays, especially in the United States. The free banking theory perceives the emergence of central banks as an alternative means for government intervention and which is considered not desirable.

The second theory was introduced by Goodhart and argues that central banks emerge because the market needs a lender of last resort.[59] Because banks always face the risk of insolvency (because they only need to have a partial reserve) and are funded by short-term liabilities (e.g. deposits) they are dependent on their reputation. Without trust of its depositors, a bank would collapse. However, Goodhart argues that in a situation when trust in a bank has disappeared, other banks cannot always confidently provide liquidity (establish an ad hoc "central bank"), because this is dependent on the number of banks and the relations between them. To mitigate conflicts of interests, a central bank which renounces competition needs to exist to be able to remove the conflicts of interest.

As could be seen the past century the Federal Reserve has been an active player in the development of financial and monetary policy. Scholars argue that the Federal Reserve policy could have been a factor which caused the Great Depression. The Federal Reserved received increasingly more control over the financial system after the Great Depression and the growth of the financial sector as a whole spurs the thought that the activities of the Federal Reserve System can become much more relevant in future years. Furthermore, there is also a trend to be noticed during the past 100 years of Federal Reserve history. Whereas during the early years of the Federal Reserve the extent that the market was regulated was relatively low, it

[58] L. White, *Free Banking (International Library of Macroeconomic and Financial History)* (Aldershot 1993) 11.

[59] C. Goodhart, *The Evolution of Central Banks* (London 1988) 85.

did seem to increase during the years. Especially after the Great Depression, when policy makers and the Federal Reserve agreed that the market was in need for more regulation to preserve financial stability, the degree that the financial system was being regulated significantly increased. After the Second World War this continued, however, in the late 1970's there were indications of a turning point in which the practice of regulating the market halted. In this thesis I will amongst other things research whether there indeed was a turning point in the years after (during 1987-2006) and whether the financial market became more deregulated (or less regulated).

Can the Federal Reserve really be seen as that relevant for the development of financial regulation? In their attempt to find out whether the Federal Reserve really matters Weaver and Rockman argue that the Federal Reserve Board has an independent position because it is autonomous regarding certain matters and so is not affected by the legislative body.[60] Therefore the Federal Reserve is able to act in a certain way without the need for approval from Congress. This makes the Federal Reserve an autonomous entity able to influence the financial sector on its own without the consent of politicians. The autonomy of the Federal Reserve mainly resides in its monetary policy and banking supervision.

Stiglitz gives great importance to the regulations and policies of financial institutions as a factor for the outbreak or magnitude of crises. He for example mentions the role of the U.S. Treasury and the IMF as actors which have made the financial crisis in East Asia much worse.[61] Conover et al. have tested whether the Federal Reserve is relevant for investors. This knowledge is relevant because investors as market participants are determining the working of the financial markets. Conover et al. conclude that United States' stocks returns are consistently higher after the Federal Reserve has implemented an expansive monetary policy.[62] This empirical research shows that Federal Reserve policies are perceived as relevant by market participants.

In the next part I will provide another angle which elaborates on the theme whether the Federal Reserve was in fact very influential in the creation of financial regulation during this thesis' period of interest. This time the focus is on the man himself, Alan Greenspan, and how he was seen during his period as Chairman.

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[60] K. Weaver and B. Rockman, *Do Institutions Matter?: Government Capabilities in the United States and Abroad* (Washington 1993) 4.
[61] Stiglitz, Freefall, xvi.
[62] M. Conover, G. Jensen, R. Johnson and J. Mercer, 'Is Fed Policy Still Relevant for Investors?, *Financial Analysts Journal* 61 (2005) 70.

2.2 Alan Greenspan

"You have guided monetary policy through stock-market crashes, wars, terrorist attacks and natural disasters, you have made a great contribution to the prosperity of the U.S. and the nation is in your debt" is what many people in Congress said to Greenspan when he left the office of the Federal Reserve in 2006.[63] According to Krugman Greenspan was indeed a very powerful individual and he influenced many people with his views on the economy and on the financial world.[64] Blinger, a former Federal Reserve vice chairman even claimed that Greenspan was the greatest central banker that had ever lived.[65]

However, Krugman criticizes the view of Congress by arguing that the favorable economic and financial environment would have been there irrespective of Greenspan's presidency at the Federal Reserve. Most of the work to restore monetary stability and reduce unemployment was done by his predecessor, Paul Volcker, and the information technology, according to Krugman finally being adopted by the market in an effective way, provided a large increase in productivity and economic growth.

In addition, Calomiris also argues that Greenspan was indeed very well capable of influencing other people. Firstly, he elaborates on Greenspan's rhetorical skills and, secondly, he argues that Greenspan was very well able to convince people in Congress.[66] He did this in two ways. First, Greenspan used his rhetorical skills to convince people in Congress of his arguments and research shows that he was very successful at that.[67] When Greenspan was in favor of a certain regulation he would accentuate the fact that there was evidence it did no harm which implied that things would remain rather stable. In case he was against a financial regulation he would state that there was no evidence which proved it would cause no harm, which implies that it could cause a significant change. He used this rhetoric to influence people in Congress who were much more skeptical towards radical regulation which implied a significant change than towards regulations which were relatively safe. So in addition to his far-reaching knowledge about the financial system (many in Congress had only a marginal understanding of the financial sector) he used his argumentation very effectively to influence people in Congress.

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[63] P. Krugman, *The Return of Depression Economics and the Crisis of 2008* (New York 2009) 139.
[64] Krugman, *The Return of Depression Economics*, 139-140.
[65] M. Bligh and G. Hess, 'The power of leading subtly: Alan Greenspan, rhetorical leadership and monetary policy', *The Leadership Quarterly* 18 (2007) 87.
[66] C. Calomiris, 'The Regulatory Record of the Greenspan Fed', *The American Economic Review* 96 (2006) 171-172.
[67] Calomiris, 'The Regulatory Record of the Greenspan Fed', 172.

Second, the charism which Greenspan derived from his rhetorical skills to convince people in Congress also enabled him to increase his advisory role in Congress. According to Calomiris Greenspan enabled himself to become an important actor within the political process of the creation of financial regulation.[68] In this way he in fact circumvented the separation of the forces of power. Considering financial regulations, the Federal Reserve has executive power and is checked by and dependent on the decisions of the legislative body in Congress. In this way Greenspan indirectly combined executive and legislative power. This knowledge makes it even more interesting to compare financial regulation and the personal conviction of Greenspan since it is evident that he had influence in the legislative powers and was also able to execute this power afterwards. This role within the legislative body and his radical ideas about the free market may have been an important factor within the development of financial regulation during his presidency.

The extent to which Greenspan was an advocate of the free market was quite large. He was a devout follower of Ayn Rand, with whom he had also written a couple of books concerning the balance between the economy and the state. Rand was an absolute extremist and opposed any form of government control which was not related to the monopoly on violence. Rand's philosophy was named objectivism. Objectivism refers to the idea that human knowledge and human values are objective and therefore exist independently from the human mind.[69] Furthermore the philosophy typifies a very individualistic nature of the human. In Atlas Shrugged Rand stated that a person's own happiness should be the moral purpose in each other's life and that productivity is the noblest activity.[70] The individualism which can be traced in Rand's objectivism was also the cause for the aversion towards government intervention. According to Rand a system in which only obtaining other people's values by resorting to physical force should be punished by a governmental institution.[71] In practice this means that the government should only be responsible for acts like murder and battery and that the economy should be completely left alone by the market (a laissez-faire form of capitalism – free market).

However, an institution like the Federal Reserve is created to perform activities which are government related and require an intervention of the market. It is therefore also a strange combination to have a central banker who believes in an economy without government intervention. Basically what central banks are doing is intervening in the economy by

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[68] Calomiris, 'The Regulatory Record of the Greenspan Fed', 172.
[69] A. Rand, *Capitalism: The Unkown Ideal* (New York 1967) 23.
[70] A. Rand, *Atlas Shrugged* (New York 1992) 1170-1171.
[71] Rand, *Atlas Shrugged*, 1062.

approval of the government to maintain the financial stability and execute favorable monetary policy. However, his radical ideas on the economy could also have been a difficulty in combination with his position as chairman of the Federal Reserve. Decisions at the Federal Reserve should be made in such a way that the policies reach the best as possible outcome, in this case economic growth, financial and prize stability, and low unemployment. A preference for his ideology could have been affecting his judgement at the cost of effective economic and financial policy.

During Greenspan's presidency there were two financial bubbles present. The first one was the dot-com bubble in 2000, an asset bubble in stocks of technology companies and the second one the housing bubble of 2007. Both bubbles mainly got created through irrational behavior of people who believed that prices of these assets would continue to grow while ignoring the underlying economic indicators. Krugman argues that Greenspan was aware of this and even warned the public for this behavior, but was reluctant to intervene in the matter.[72] This example shows how the background of Greenspan affected his ability for prudent decision making since he was actually aware of the problem but did not choose to intervene for ideological reasons.

Many papers have been written in the past years on whether Greenspan feels he is to blame for the financial crisis. He said he was shocked that it turned out that the way he thought the world was working was not true. More specifically, he argued that he made a mistake by presuming that institutions like banks were best capable to protect their equity.[73] Even more intriguing is the fact that Greenspan does not think he is (at least partially) accountable for the crisis. This logic either implies that he felt the Federal Reserve was not relevant enough for the financial sector (which I do not find very plausible) or that he was convinced that a governmental institution like the Federal Reserve could never have done a better job than the market. In this last case Greenspan would not be accountable since it was the market's job to establish a good functioning financial system.

To properly understand the various ways in which the decision for leaving the market relatively unregulated (a free market) can affect the performance and the stability of the economic (and financial) system I shall elaborate on literature on this matter. In this way one

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[72] Krugman, *The Return of Depression Economics*, 142.

[73] International Herald Tribune, 'Greenspan 'shocked' that free markets are flawed', October 23rd 2008, http://web.stanford.edu/class/msande247s/2008/thirteenth%20week%20posting/must%20read/IHT%201023%202008%20Greenspan%20'shocked'%20that%20free%20markets%20are%20flawed.pdf (Viewed on May 16th 2015.

will be better able to understand the reasoning of Greenspan when making financial policy, at least if one assumes that his intentions were to stimulate a prosperous and stable economy.

2.3 Theory on the free market and financial crises

2.3.1 Free Market Theory

The concept of the free market is often referred to in academic literature on finance and economics. In the contemporary scholarly debates, the Chicago School is the most prominent follower of the free market in economics. The Chicago School favors a private-enterprise economy in which the government has only limited influence.[74] Within this economic school, there is, however, a variety of views on the extent of the free market economy. Miller stresses the fact that earlier generations of the Chicago school held a less radical view, since they viewed power institutions such as monopolies as just as undesirable as the government; later generations on the other hand only attacked the concept of government intervention.[75] This latter approach aligns more with the extreme free market proponent which views monopolies as desirable if these are an outcome of pure market forces. The rationale for a free market economy is based on the core assumption that this economy structure is the most efficient one and therefore serves to increase productivity and economic growth.[76] This efficiency rationale stems from theoretical work of Coase who argued that in case of low transaction costs government intervention was not necessary because the market could easily rebalance through low-cost transactions, while in a high transaction costs scenario the government should not have done anything either because to do a good job it would have required too much data and complex calculations to make it worthwhile (Coase Theorem).[77] In this context the Chicago School interpreted the market as a spontaneously formed order, following the thought of Hayek, in which it was assumed this order was formed through years of existing conduct and therefore also has been able to become the most efficient.[78]

More specific for the financial sector this free market ideology, in its basic form, thus envisions a limitation of the role of the government in regulating the financial markets and institutions. In contemporary society this would for instance entail a relaxation of reserve requirements (or at least its supervision) for banks, the nonexistence of a deposit guarantee

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[74] H. Miller, 'On the "Chicago School of Economics"', *Journal of Political Economy* 70 (1962) 65.
[75] Miller, 'On the "Chicago School of Economics"', 65.
[76] Ibid., 66.
[77] B. Harcourt, *The Illusion of Free Markets* (London 2011) 125.
[78] Harcourt, *The Illusion of Free Markets*, 129-132.

system, and the absence of rules concerning market behavior and information obligations towards nonprofessional parties.

However, whether a free market is sociably desirable has been a major topic of discussion. Some like for example Hobsbawm argue that a free market economy actually never really existed.[79] According to Hobsbawm, a Marxist historian, large and powerful corporations made concepts like perfect competition, a theoretical model economists used to prove the efficiency of the free market, irrelevant. In addition, for Hobsbawm the rising concentration of capital and the forthcoming increase of income inequality proved that a free market did not exist.[80] Krugman argues that a free market economy does not work, because the underlying assumptions of flexible prices and of human rationality are not existent.[81] For the financial sector the human rationality assumption could be very problematic due to the information asymmetries that exist within it. To understand the various ways in which a free market could cause financial crises I shall elaborate on the deficiencies of relying on a free market economy from various perspectives.

2.3.2 Marxist explanations for financial crises

An important part of the literature which criticizes the role of the free market for creating financial instability and crises has a Marxist perspective. Marxist explanations for crises date back to the relation between capitalism and crises in general as proposed by Marx and Engels, consisting of theories predicting future crises due to the inherent nature of the capitalist world.[82] However, these theories assumed an exploitation of the workers by the capitalists and predicted general economic crises instead of financial ones. They imply that a reduction of the capitalist form would also lower the risk of crises. Although these theories focus on the role of capitalism and not specifically on the free market economy, there are many parallels such as a very limited government which tends to let the market determine allocations of resources. In 1980, Minsky argued that financial crises were an inherent outcome of the use of capitalism as an economic system and that financial crises were thus not caused by exogenous shocks.[83] According to him financial crises were occurring because

[79] E. Hobsbawm, *The Age of Extremes, 1914-1991* (London 1994) 103.
[80] Hobsbawm, *The Age of Extremes*, 103.
[81] P. Krugman, 'How Did Economists Get It So Wrong?, September 2nd 2009, http://www.nytimes.com/2009/09/06/magazine/06Economic-t.html (Accessed on April 8th 2015).
[82] B. Teschke, 'Marxism', in C. Reus-Smit and D. Snidal (eds.), *The Oxford Handbook of International Relations* (New York 2008) 164.
[83] H. Minsky, 'Capitalist Financial Processes and the Instability of Capitalism', *Journal of Economic Issues* 14 (1980) 519.

of the way assets were financed. Because lending was based on historical economic trends and could not be properly assessed on this basis, the system would become instable. During periods of stability people are confident, speculation will occur on this rise and in doing so they will accumulate debt until a bubble will pop and instability will occur.

A concept which aligns the Marxist focus of research, capitalism, with the free market is neoliberalism. However, technically the term neoliberalism does not entail a free market. Although neoliberalism originally meant rules for economic behavior enforced by a strong state as projected by Rüstow in 1932[84], it is nowadays very much associated with laissez-faire practices by the government and which does involve a free market economy. Kotz addresses this neoliberalism to be the source for the financial crisis of 2007 because of processes of deregulation, privatization and other elements directing the economy towards a free market.[85] Contrary to other scholars, Kotz also takes into account the growing inequality of the American society during the past decades. It is a good point that Kotz takes this into account, because while the financial crisis of 2007 seemed to be based for a large part on flaws in the financial system where the risk of financial products was no longer properly assessed anymore, it was also fueled by the indebtness of ordinary people. Kotz shows that the household debt rose from 59% in 1992 to 128% in 2006 of disposable personal income. The financial crisis on mortgage-backed securities could have been less severe if household debt would not have been that high. In this way deregulation, as Kotz argues, was the cause of growing inequality, but also had an indirect effect on the magnitude of the financial crisis according to Kotz. This logic then relates to another argument of Kotz: that the crisis in the real economy was not just a consequence of the financial crisis but that deregulation in the past decades had also affected the health of the real economy.[86] With this argument Kotz believes that not only the financial sector was unable to compete under the rules of the free market, but that the real economy was also not working as it should without imposing rules on the capitalist system. A neoliberal form of capitalism is according to him the blame for the crises in the real and monetary sector.

Panitch and Gindin argue that financial actors are often inclined to risky behavior because they are limited on the amount of downside risk while the benefits of upside risk are not affected. [87] Soppe argues that shareholders determine the policies of financial actors and that these shareholders can only lose the invested amount in a default scenario whereas they

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[84] O. Hartwich, 'Neoliberalism: The Genesis of a Political Swearword', CISI Occasional Paper 114 (2009) 14.
[85] Kotz, 'Financial and Economic Crisis of 2008', 2-3.
[86] Kotz, 'Financial and Economic Crisis of 2008', 11.
[87] L. Panitch and S. Gindin, 'Capitalist Crises and the Crisis This Time', *Socialist Register* (2011) 13.

can accrue all potential profit.[88] These arguments imply that due to an unequal relation between the holders of capital and the other stakeholders of companies there could be perverse incentives for capitalists. A free market economy would not have rules in place to supervise or stimulate an adjustment of these perverse incentives and could therefore negatively affect financial stability.

2.3.3 Economic arguments on the free market and financial crises

In addition to Marxist theories which always tend to focus on the causes of crises, modern economic/financial arguments also provide several arguments explaining why a free market economy would not be desirable. First, there is a perspective which focuses on the excessive risk-taking nature of the financial sector. Wray beliefs that an financial sector without regulation will always create bubbles leading to financial crises, because the economic system is characterized by a rise in leverage to increase the returns of financial assets (thereby creating a perverse incentive for excess risk).[89] According to him this process was strengthened by the financial globalization and the innovation of complex financial instruments causing an underestimation of the risk. Rajan also argues to observe an increase in risk due to innovative financial products which are invented to increase margins.[90] However, he specifically addresses this development to be the outcome of increasing competition in financial markets, which are for a part driven by the technological developments. In this way his argument implies that with the aid of technological advances a free market economy will create a more high risk centered financial sector. Canova holds the same position as Rajan concerning competition, but argues that it were mainly the depository interest rate ceilings that served as the basis for the financial stability in the United States before the 1980's.[91] Because prices could not be set either higher or lower than the ceilings imposed, it would not be profitable for the banks to go into high competition with other banks. Since prices were fixed by regulations, the only way in which banks could increase their income, was by expanding their credit. Financial crises would be mitigated because there would be no incentive for banks to increase their risk exposure in order to become more profitable, like Wray criticizes.[92] However, addressing that a certain price ceiling might provide financial stability could be problematic. As explained the only possible way for

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[88] A. Soppe, *Grondlijnen voor een nieuwe financiële ethiek* (Assen 2013) 115.
[89] L. Wray, 'Money Manager Capitalism and the Global Financial Crisis', *Working Paper No. 578* (2009) 4.
[90] R. Rajan, 'Has Finance Made the World Riskier?', *European Financial Management* 12 (2006) 504.
[91] T. Canova, 'The transformation of U.S. banking and finance: from regulated competition to free market receivership', *Brooklyn Law Review* 60 (1995) 1299.
[92] Wray, 'Money Manager Capitalism', 4.

banks to increase their income would be to increase their credit, but an expansion of credit would mean that the solvency of the bank would decrease which would result into more risk regarding the capital structure of the bank.

In addition to arguments related to the excessive risk-taking incentives by financial institutions there is also much literature focusing on the reality of rational human behavior, something very much propagated by economists favoring the free market economy and the Chicago School in particular. Already in 1963 Friedman and Schwartz address the lack of accurate valuation of risk and return and argue that the banking crisis of 1930 was caused by a low quality of credit due to overly optimistic views of creditors based on the prosperity of the 1920's.[93] This argument is interesting, since Friedman himself was a member of the Chicago School and believed in the rationality of human behavior, but apparently did notice irrational behavior during the 1920's. Glyn is taking this argument even further by stating that it is not only the erroneous perception of the investor but that overly optimistic views on stock prices were also created by misleading data from managers and controlling organizations like audit and law firms with the aim of providing better stock expectations.[94] Jensen theorized this practice by managers and argued that managers have this behavior because it appreciates the current value on the short-term. Managers tend to value such a short-term appreciation, because they are often compensated for short-term results due to the short-term interests of shareholders.[95] From this discussion stems the idea that investors (and people in general) are not as rational as for example the Chicago School, propagating a free market economy, presumes.

Strange on the other hand argues that risk is easily underestimated because people often overestimate the benefits of their own future, which differs from the argument of Friedman and Schwartz who argue that people underestimate risk because of looking to the recent present.[96] Strange states that most investors are risk-averse and therefore only operate on the financial market to hedge against the uncertainty they are involved in. However, there are also "gamblers" who aim to profit from speculation and the reduced trading costs because technology has reduced the costs of trading in the market. In this way a free market economy in which there is no place for regulation would attract more speculators which will increase volatility because this group tries to profit from short-term price moves.

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[93] Friedman and Schwartz, *A Monetary History of the United States,* 244-245.
[94] A. Glyn, *Capitalism Unleashed: Finance, Globalization and Welfare* (New York 2006) 57.
[95] M. Jensen, 'Agency Costs of Overvalued Equity', *Financial Management* 34 (2008) 14.
[96] S. Strange, *Casino Capitalism* (New York 1986) 107.

Stiglitz stipulates the relation between a free market and financial crises by elaborating on the role of capital market liberalization and discussing whether a free market really is as efficient as is claimed by the Chicago School.[97] He first of all explains that arguments in favor of capital market liberalization ignore the distribution of capital and secondly questions whether there are efficiency effects when market liberalization is pursued (so a direction towards a free market economy).[98] His critique is that capital market liberalization increases the instability of an economy because capital flows exacerbate economic fluctuations. The underlying reason is the fact that capital is provided in good times whereas bankers are unwilling to invest during economic downturns. He furthermore refers to the Asian financial crisis at the end of the 1990's, where countries with capital market liberalization such as Thailand and South Korea were heavily affected, as an illustration of how capital market liberalization has not worked.[99] In addition, he names China and India as countries which remained unaffected due to their strong controls on capital flows thereby implying a desire for regulating the financial markets.

Another perspective for why a free market would not be very desirable rests on the notion that market participants are greedy and are only interested in pursuing self-interest which is assumed to be capital accumulation.[100] A free market economy would in this case not be desirable because crises can easily happen due to market participants not caring about the consequences for others. This rationale stipulates the psychological dimension of financial actors in explaining how the free market may cause crises. Stiglitz also blames the self-centered behavior of financial actors but does not directly mention the bankers to be greedy. Instead he argues that bankers gave no thought of the possible externalities of their behavior, that is, the costs or benefits imposed on third parties by a market exchange.[101] Because the financial system got so intertwined a failure of one actor can easily affect many others. His conclusion also assumes that actors are not rational (or at least lack the required information) but more importantly explores a possible flaw of the free market because financial actors cannot be aware of the externalities on third parties, especially when the system in which this occurs is very intertwined and complex. The increase in risk sharing among financial actors would be a good example of the intertwined financial system in which negative outcomes of certain actors could have consequences for many others. This risk

[97] J. Stiglitz, 'Capital Market Liberalization, Economic Growth, and Instability', *World Development* 28 (2000) 1076.
[98] Stiglitz, 'Capital Market Liberalization', 1076-1077.
[99] Ibid., 1075.
[100] J. Stiglitz, *Freefall: America, Free Markets, and the Sinking of the World Economy* (London 2010), 6.
[101] Stiglitz, *Freefall*, 15.

sharing can be found in the concept of systemic risk, which defines risk which is not specific for a certain company and therefore cannot be diversified away. This risk applies to all actors within the financial markets since financial markets have become increasingly intertwined.

Berger et al. argue that this externality of systemic risk is the reason why regulators require a certain capital requirement at financial institutions such as banks.[102] This argument also implies that financial actors cannot properly anticipate the impact of systemic risk, hence the capital requirement. In a situation of a free market economy, it would mean that financial actors would not be protected enough against a potential systemic shock due to the lack of information and possibly transparency.

Stiglitz has an argument for the crisis of 2007 which relates to this and argues that financial actors would easily misjudge or misprice risk because they were confident the Federal Reserve and the U.S. Treasury would bail them out.[103] However, this would also create a problem for the government because it could make banks take more risks, since they know they will be saved in case of a bankruptcy. According to Berger et al. the fact that the government has the downside risk of large banks in order to guarantee the stability of the financial system also is a reason why capital requirements would be necessary.[104] However, no attention is paid to the fact that the necessity for capital requirements is a consequence of the initial decision to bail out banks in case this would be necessary.

There are also perspectives which concentrate on the financial crisis as a consequence of regulation or other types of market interventions by non-market forces. These views contrast with the previous perspectives and align more with arguments of the Chicago School. Woods for example argues that financial crises are not caused by the basic laws of capitalism but by the fact that there is too much regulated capitalism which distorts the system.[105] He takes the discussion the other way around by blaming the Federal Reserve for intervening in the economy. He argues that the Federal Reserve is to blame for lowering the interest rates below that of the market and therefore creates excessive amounts of money which gave rise to the bubble in what he calls the boom-bust cycle. This argument fits better into the viewpoint of Rand who argues that government intervention is ineffective and distorting. It is also related to arguments of Friedman and Schwartz and of Davis who argue

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[102] Berger et al., 'The role of capital in financial institutions', 424.
[103] Stiglitz, *Freefall*, 7.
[104] A. Berger, R. Herring and G. Szegö, 'The role of capital in financial institutions', *Journal of Banking & Finance* 19 (1995) 424.
[105] T. Woods, *A Free market Look at Why the Stock Market Collapsed, the Economy Tanked, and Government Bailouts Will Make Things Worse* (Washington 2009) 2.

that Federal Reserve policy during the initial recession in the late 1920's was inappropriate and that effective policy was distorted by internal conflicts respectively.[106]

2.4 Theory on financial regulation

There are broadly speaking two different ways to look at the creation of financial regulation. The first approach focuses on the functionalities of financial regulation and tries to illustrate why financial regulations imply certain rules. So what deficiencies does it try to tackle by regulating the market or what ineffective measures would it cast away by deregulating the market. Here the focus of research lies on the outcome of financial regulations. This approach aligns very well with the discussion on the effects of the free market and basically answers the question how financial regulations are able to shape or create a better economic/financial system.

The second approach is more interesting for the purpose of this thesis and it theorizes financial regulations on the basis of its process. The implied effect of the financial regulations is less important, but what matters are the intentions for creating new financial regulations. Based on the literature and my own views, I identify three reasons why financial regulations are created.

The first reason concerns economic justifications. Policy makers are convinced that a new type (or change) of financial regulation will benefit the financial and economic system. This change can then either arise because the opinions of policy makers change, such as the case when a new legislative body has been chosen, or because new knowledge on the effect of certain financial regulations becomes available or popular. The recent work of Piketty, although not very much related to financial regulations, is an example of how new knowledge may affect the opinions of policy makers.[107]

The second reason for the creation of financial regulations is financial crises. This crisis-driven approach is also very much applicable. The rationale for a crisis-driven approach is based on the assumption that crises shake up the status-quo which forces policy makers to change certain rules.[108] Most radical and decisive financial regulation has been of a crisis-driven nature. Examples include the Glass-Steagall Act after the Great Depression of

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[106] Friedman and Schwartz, *A Monetary History of the United States, 1867-1960*,300-301; Davis, *The World between the Wars,* 118.
[107] T. Piketty, *Capital in the Twenty-First Century* (London 2014).
[108] E. Ferran, 'Crisis-driven regulatory reform: where in the world is the EU going?', in E. Ferran, N. Moloney, J. Hill and J. Coffee (eds.), *The Regulatory Aftermath of the Global Financial Crisis* (Cambridge 2012) 1.

1929, the Dodd-Frank Act after the Financial Crisis of 2007, and even the establishment of The Federal Reserve System in 1913 as a response to the banking crisis of 1907.

Finally, regulation dialectics is according to the literature another reason for the creation of financial regulations. Regulation dialectics was introduced by Kane and perceives the creation of financial regulations as an interaction between political and economic pressure groups.[109] It concerns a Hegelian approach in which the status quo of financial regulations is considered to be the thesis. The antithesis is a reaction to the thesis and constitutes regulated organizations to try to find new ways of circumventing or countering the costs associated with these regulations by means of for example financial innovations. The synthesis concerns a reaction to the antithesis and changes the thesis to incorporate measures which are able to deal with the reactionary forces of the antithesis. A nice illustration was Regulation Q in the United States, which limited the interest rates banks were able to offer their clients (thesis). As a reaction to this price cap other institutions emerged, e.g. money market funds, which were able to target higher rates because they did not fall under the category of banks (antithesis). The synthesis was that the government abolished Regulation Q because it was no longer functional due to the fact that other market participants were offering the higher interest rates anyway. Although these three factors are posited as to be very distinct from each other, the creation of financial regulation can often be related to a combination of the three.

Others point more broadly to the drivers for the development of financial regulation. Drivers such as technology, market developments and the role of states. Wriston argues that financial regulations differs so much in time because technology changes and therefore regulations need to be adjusted to better reflect the new state of technology in finance.[110] Strange disagrees and argues that financial institutions are ultimately under the authority of and act by the permission of the state.[111] Helleiner focuses on the globalization of finance during the last decades of the twentieth century and he believes that states were highly influential in this globalization process by granting more freedom to the market, by refraining from imposing effective controls on the movement of capital and by preventing financial crises.[112] Regulatory development under the aegis of the Federal Reserve does not take a clear position in this discussion of the role of the state versus that of technology or the

[109] E. Kane, 'Impact of Regulation on Economic Behavior: Accelerating Inflation, Technological Innovation, and the Decreasing Effectiveness of Banking Regulation', *The Journal of Finance* 36 (1981) 355.
[110] E. Helleiner, *States and the Reemergence of Global Finance: From Bretton Woods to the 1990's* (New York 1996) 2.
[111] Strange, *Casino Capitalism*, 29.
[112] Helleiner, *States and the Reemergence of Global Finance*, 8.

market, because the institution is not directly related or affected by the role of international politics and also holds a distance from the market.

In addition to these more structural processes of the development of financial regulation there is from a historical perspective also the possibility of agency. Agency contrasts with structural processes in the sense that it gives importance to the power of human agents to affect the social structures they are involved in.[113] In this thesis agency theory will be an important element, because of the focus on Alan Greenspan. This does not mean that structural processes should be ignored. On the contrary, external processes and developments, like financial crises for example may very well have been affecting the extent to which regulations were created.

However, it is interesting to explore the influence of Greenspan on the development of financial regulation in the United States during his presidency. Especially his radical view on how the ideal economy should be structured makes it an interesting case, because one could expect to see substantial changes arising out of the situation where a man with a clear vision and very different ideas is put in a position with far reaching power. Especially since this power was not only visible directly through the operation of the Federal Reserve, but also could affect the opinions of Congress and (through media) the public.

2.5 Contribution to the debate

This thesis contributes to various elements of the historiographical debate. Firstly, it provides evidence on the historical development of financial regulation in the United States. In this way it creates an understanding of the regulations that have been created during the presidency of Greenspan at the Federal Reserve and their implications for a free market economy.

Secondly, this research provides knowledge of the relation between Greenspan and the development of financial regulation. It thereby explores whether the development of financial regulation during Greenspan's presidency could have been driven by agency processes. In this way it may give another reason for financial regulation in addition to the current three causes: economic justification, crisis-driven and regulation dialectics.

Thirdly, this thesis provides a review on the life of Alan Greenspan. Since Greenspan is considered as such an important person and was perceived as such an extraordinary person it is interesting to dive into his life and learn about his character.

[113] A. Callinicos, *Making History: Agency, Structure, and Change in Social Theory* (Leiden 2004) 5.

Lastly, this period is very interesting with respect to the relation of financial regulations and financial crises. Less than two years after Greenspan resigned as chairman of the Federal Reserve the financial sector was hit by the crisis of 2007. It is therefore important to get a good perspective of the regulatory direction during this period since the regulation during this period may have been decisive in the creation of the financial crisis of 2007. This knowledge may provide an indication for whether a direction towards the free market was beneficial for the economy or not.

3 Research Methodology

The purpose of this thesis is to create a better understanding on the history of the Federal Reserve and to provide more knowledge concerning the role of Greenspan in the development of financial regulations. The influence Greenspan had in the Federal Reserve and in Congress create an opportunity to research the possible role of him in the decision making process of financial regulations.

The historiography shows that first of all the Federal Reserve is an important institution regarding the development of financial regulation concerning its advisory role and the interpretation of regulation. Furthermore, it can be seen that Greenspan is an extraordinary figure, has unconventional ideas concerning the economy and life in general, and possesses a high degree of charism. His position and his character therefore enable him to influence important policy makers and possibly direct the course of financial regulation.

I will therefore conduct a research which will focus on the role of Greenspan in the development of financial regulation during his presidency at the Federal Reserve in the period 1987-2006. For the research I have applied a qualitative method in which I have interpreted the main financial regulations during this period to assess whether these could be considered as regulations deregulating or regulating the market. In this way I was able to understand the overall development of financial regulation during the period. Whether these regulations were deregulating or regulating the market depended on whether they did or did not fit with a direction towards the definition of the free market. My definition of the free market is based on the historiography and comprises an economy in which the government does not affect the determination of prizes in an economy and can be considered as very small and limited in scope. So this means a government which does not execute price controls such as minimum wages or subsidies but also does not indirectly affect prices through for example reserve requirements. The financial regulations which I used for this research were:

- Financial Institutions Reform, Recovery and Enforcement Act of 1989
- Federal Deposit Insurance Corporation Improvement Act of 1991
- Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994
- Fed reinterpretation of the Glass-Steagall Act of 1996
- Gramm-Leach-Bliley Act of 1999
- Commodity Futures Modernization Act of 2000
- Alternative Net Capital Requirements by the SEC of 2004

Komai and Richardson named several regulations as the most important financial regulations during the period 1987-2006: the Financial Institutions Reform, Recovery and Enforcement Act, the Federal Deposit Insurance Corporation Improvement Act, the Riegle-Neal Interstate Banking and Branching Efficiency Act, the Gramm-Leach-Bliley Act and the Commodity Futures Modernization Act.[114] These regulations were the main pieces of financial regulatory changes during the period of Greenspan, but in addition they were also very evenly spread over the entire course of Greenspan's presidency, the period on which I have focused. Furthermore, I added the reinterpretation of the Federal Reserve in 1996, to better understand the regulatory transition with the Gramm-Leach-Bliley Act (and because it was created by the Federal Reserve itself), and added the alternative capital requirements by the SEC, because this regulation has been attributed to the main causes of the financial crisis of 2007.[115] Thus these regulations were selected because they entailed the greatest change in the financial regulatory framework or because these regulations are perceived to be the main regulatory causes for the financial crisis of 2007.

In addition, I have compared the elements of financial regulation with the personal views of Greenspan. For this part I have used the autobiography of Greenspan in which he describes not only his time at the Federal Reserve but also his life before.[116] In this way I was able to understand how Greenspan's views had been shaped and what his views entailed. I have used this understanding to compare his views with the financial regulations that have been introduced during his presidency.

The purpose of this method is that I was not only able to research the development of financial regulation during the period 1987-2006, but that I was also able to get an understanding on the possible causes of this development, in this case through the influence of Greenspan. By comparing Greenspan's views with the trend of financial regulation during his presidency and by putting this in the context that he was seen as the economic guru at that time who seem to know everything, I was able to explore the agency processes that may be present within this recent history of US financial regulation.

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[114] Komai and Richardson, 'A Brief History of Regulations regarding Financial Markets in the United States: 1789 to 2009', *National Bureau of Economic Research*, 23-31.
[115] R. Levine, 'The Governance of Financial Regulation: Reform Lessons from the Recent Crisis', *International Review of Finance* 12 (2012) 49.
[116] Greenspan, *The Age of Turbulence*.

4 Interpreting Financial Regulations

This section will provide the first part of the analysis of this thesis and will address these sub questions:

- What important regulations were introduced or got changed during Greenspan's presidency?
- What did these new or adjusted regulations entail?
- What was the general trend of regulation in terms of deregulation or regulation of the market?

There were hundreds of changes in the regulatory framework of the financial system and I therefore will only focus on the main financial regulations in this part. This means the financial regulations which have been considered to entail the greatest changes for the financial sector or which have been assumed to have had the biggest impact on causing the recent financial crisis.

To recall I will use the definition of the free market to interpret whether financial regulation should be seen as either regulating or deregulating the market. The definition of the free market here is an economic system in which the government does not interfere with or intervene in any matter which may affect market pricing except for the protection of civilians and the country. Thus deregulation entails here financial regulation which creates a more deregulated market in which the government gives more freedom to the financial market. This freedom can be either in the form of fewer rules, less supervision, less room for interpretation by the supervisory institutions, a lower scope of regulation or lower sanctions in case of violation of the law.

In the next part I will analyze the different financial regulations in chronological order with the purpose of discussing the implications of the regulations and providing a general trend.

4.1 Financial Institutions Reform, Recovery and Enforcement Act (1989)

The Financial Institutions Reform, Recovery and Enforcement Act (FIRREA) was passed through the House and the Senate in 1989. The Act focused on changing the regulatory framework for the savings and loan industry in response to the savings and loan crises during the 1980's. The ultimate purpose of the FIRREA was to promote a safe and stable system of

housing finance.[117] To reach this goal the FIRREA entailed certain new rules and establishments.

The Act abolished the Federal Home Loan Bank Board and the Federal Savings and Loan Insurance Corporation but replaced these with the Federal Housing Finance Board and the Savings Association Insurance Fund.[118] Furthermore, it established the Office of Thrift Supervision and the Resolution Trust Corporation.[119]

Firstly, concerning savings associations FIRREA ordered an improvement of supervision of savings associations through higher capital and accounting standards.[120] This was reflected by higher annual assessment rates for insurance fund members, showing a change from 8 basis points to 12 – and later even 15 – basis points.[121] Savings associations were by no means allowed anymore to deviate from the full compliance with the by the Director of the Office of Thrift proposed accounting standards.[122] In addition to an improvement of standards the Act gave more independence to the Federal Deposit Insurance Corporation, provided a better financial protection for the deposit insurance funds and established the Office of Thrift Supervision and Resolution Trust Corporation.[123] The Office of Thrift Supervision was chartered with regulating, examining and supervising savings institutions with the goal of encouraging savings associations to provide safe and sound credit for housing.[124]

Secondly, the Act limited the range of investments and other activities that were allowed for savings associations in that these should not have posed unacceptable risks for the Federal deposit insurance funds.[125] Activities were only allowed to be continued if these fell under the type of activities which were allowed for savings associations unless these activities did not pose a significant risk and if the activities did not interfere with current compliance standards such as capital requirements.[126] The same rules also held for when a savings association wanted to increase the scale of activities which were permissible for savings associations. The Act also mandated that corporate debt securities which were not rated as investment grade (thus rated as BB and lower) could no longer be a part of the

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[117] Financial Institutions Reform, Recovery and Enforcement Act, Title I: Section 101.
[118] FIRREA, Title VI: Section 702; FIRREA, Title II: Section 205.
[119] FIRREA, Title III: `Section 3; FIRREA, Title V: `Section 21A.
[120] FIRREA, Title I: Section 101.
[121] FIRREA, Title II: Section 208.
[122] FIRREA, Title III: `Section 4.
[123] FIRREA, Title I: Section 101.
[124] FIRREA, Title III: `Section 3.
[125] FIRREA, Title I: Section 101.
[126] FIRREA, Title II: `Section 28.

investment activities and that current non-investment grade corporate debt securities should have been divested as fast as prudently was possible and at least before 1994.

Thirdly, Federal regulators of depository institutions received more enforcement powers and sanctions and penalties related to the regulation of depository institutions. The Director of the Office of Thrift received the right to issue regulations which were according to the Director appropriate for carrying out the Director or the Office's responsibility.[127] This is a good example of a provision which enabled a very broad interpretation of the law and thereby gave the regulatory institutions much room for setting rules. The Resolution Trust Corporation was given the right to decide on appropriate resolution action in case of failing savings associations which entailed the disposition of assets and reorganizations.[128] The Act increased the sanctions on violating regulations which related to financial institutions. Penalties were generally increased to having a maximum of one million dollars, far higher than the previous five thousand dollars.

It can be noticed that the FIRREA was first of all very much a regulation which ensured further market regulation. Although it did abolish several institutions such as the Federal Home Loan Bank Board and the Federal Savings and Loan Insurance Corporation, these were replaced by other institutions (the Federal Housing Finance Board and the Savings Association Insurance Fund) which had a larger scope of power and an improved enforcement structure. So with this respect FIRREA created not only a larger scope of market regulation, but it also increased the supervisory power.

Next, the FIRREA mandated a larger set of rules concerning capital and accounting requirements. This implied not only an increase but also a stricter application of the rules concerning financial institutions. The rules on financial institutions also greatly increased the regulation on investment activities in the sense that the government in fact limited the choice of investments and its scale. So it is safe to say that indeed there have been more rules which have created a more regulated market.

Finally, the FIRREA also expanded the range and level of fines and penalties related to violations of the rules. An expansion of the range and level of sanctions enabled the government to increase its enforcement because it became more expensive for market participants to ignore the new rules. Especially the fact that penalties could be dependent on the amount the violator gained by breaking the rules was a way of making it very costly for market actors to violate the rules.

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[127] FIRREA, Title III, `Section 4.
[128] FIRREA, Title V, `Section 21A.

It can therefore be said that the FIRREA greatly diminished the amount of freedom the government gave to the financial market, because of an increase in rules, supervision, a higher scope of regulation, more and higher sanctions, and more room for interpretation for the supervisory institutions.

4.2 Federal Deposit Insurance Corporation Improvement Act (1991)

The Federal Deposit Insurance Corporation Improvement Act (FDICIA) was passed through Congress in 1991. The Act imposed more rules on the banking sector in response to the savings and loan crisis. In addition, the Act adjusted capital requirements for banks and increased bank supervision. Its purpose was to create least-cost resolutions for depository institutions, to improve supervision and to provide more resources to the Bank Insurance Fund.[129]

The most important aspect was that there would be an early resolution for depository institutions which were in trouble.[130] The FDICIA demanded a prompt corrective action which would be the least costly for the insurance fund. As a method for this, the FDICIA demanded a least-cost approach in which the decision of a resolution for a depository institution had to be based on a present-value analysis of alternatives and on the foregone tax revenues of the government.[131] The present-value analysis evaluated alternatives with respect to the present-value cost of executing them. Thus it evaluated different possibilities for resolving depository institutions which were in trouble. The various assumptions, under which this analysis was done, such as the used discount rate and asset recovery rates, had to be documented. In addition, the least-cost approach involved an estimation of the tax that the government would forego due to the resolution. Thus the least-cost approach demanded that the resolution was not too costly for the deposit insurance fund and not too expensive for the government as well.

Furthermore, the FDICIA increased the supervisory power of the FDIC. Examples of this increased supervisory power were yearly on-site examinations of all depository institutions and on-site examinations for branches of foreign banks.[132] The FDICIA also provided the Federal banking agencies with more authority to establish additional capital measures for better capital requirements. A related aspect was executive compensation. The FDICIA limited executive compensation in that it prohibited any additional compensation to

[129] Federal Deposit Insurance Corporation Improvement Act, Description of Act.
[130] FDICIA, Section 143.
[131] FDICIA, Section 141.
[132] FDICIA, Section 111 and 203.

senior executives when the institution was undercapitalized twelve months prior to the compensation. Also bonuses to senior executives of depository institutions were only allowed when approved by the Federal banking agency.

Firstly, it can be noticed that the FDICIA significantly increased rules on depository institutions. This did not only involve capital requirements, but also rules on executive compensation. Secondly, the regulation gave the government much authority to determine the type of resolution for depository institutions which were in trouble. Thus this piece of regulation led to a more regulated financial market, since market participants were subject to more and stricter rules and had to deal with more frequent and vigorous supervision.

4.3 Riegle-Neal Interstate Banking and Branching Efficiency Act (1994)

The Riegle-Neal Interstate Banking and Branching Efficiency Act (IBBEA) was passed through the House and the Senate in 1994. The Act focused on changing the regulatory framework for banks concerning the possibilities to expand their businesses across states in the United States. The purpose of the IBBEA was twofold. The Interstate Banking part of the Act referred to the goal of enabling banks to own other banks which resided in other states. The Interstate Branching part of the Act referred to the goal of enabling banks to set up branches in other states. Thus the main difference between Banking and Branching was the manner of ownership – in practice the two concepts were not so different from each other, hence the logic of combining both in the same Act. I shall start by elaborating on the Banking part and then turn to Branching.

The IBBEA can be considered as a repeal of the Bank Holding Company Act of 1956 (also known as the Douglas Amendment Act), since in this Act the previous rules concerning interstate banking were stated.[133] The IBBEA stated that "the Federal Reserve Board of Governors (the Act refers to "The Board") may approve the application by a bank holding company that is adequately capitalized and adequately managed to acquire control of, or acquire all or substantially all of the assets of a bank which is located in a State other than the current home State of such bank holding company, without regard to whether such transaction is prohibited under the law of any State".[134] Thus very important was that the decision process for approving the application ignored any State laws which may have

[133] Riegle-Neal Interstate Banking and Branching Efficiency Act, Title I: Section 101.
[134] IBBEA, Title I: Section 101.

prohibited the acquisition. It therefore removed State laws which were imposed on the market.

Although limitations for interstate banking were removed with this new legislation, the rules also explicated that the approval by the Federal Reserve to allow interstate acquisitions may have only be done in case the bank holding company was adequately capitalized (so in the sense that it had enough reserves), adequately managed, did not own more than 10% of the depository institutions in the United States or 30% of depository institutions in any State.[135] These limitations for approval show that the government still tried to mildly intervene in the market with the purpose of protecting consumers from market concentration or poor governance with respect to the acquisition decision. Furthermore States might still have rejected interstate banking if this interfered with their State rules concerning the percentage of insured depository institutions by a bank holding company (but no discrimination was allowed against out-of-State banks by means of this provision).[136]

This part basically was, together with the approval of the Federal Reserve, the only piece of legislation which to a certain extent regulated the market concerning interstate banking. However, the legislation held another interesting provision, namely the fact that approval by the Federal Reserve was also dependent on a bank's compliance with its responsibilities as stated in the Community Reinvestment Act of 1977.[137] The Community Reinvestment Act of 1977 obliged banks to investment in projects or activities which benefited the community. An important part of this Act was the funding of mortgages by banks and the rule encouraged banks to sell as many mortgages as financially possible. The sub-prime mortgage crisis which initiated the financial crisis of 2007 can for a part be explained by the banks' need to provide everyone with mortgages. The compliance with the Community Reinvestment Act was also a form of government intervention because it affected the pricing of mortgages and the allocation of funds.

Concerning interstate branching the IBBEA repealed the McFadden Act of 1927 which prohibited branching by national banks without consent of individual States as to preserve equal competition with state-chartered banks.[138] Approval for interstate banking was assigned to the Comptroller of the Currency and approval was based on provisions from the Federal Deposit Insurance Act, namely compliance with State filling requirements,

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[135] IBBEA, Title I: Section 101.
[136] IBBEA, Title I: Section 101.
[137] IBBEA, Title I: Section 101.
[138] IBBEA, Title I: Section 103.

compliance with the Community Reinvestment Act and the adequacy of capital and management skills.[139]

The IBBEA clearly shows that many previous rules on interstate banking and branching were abolished. The scope of the regulation and sanctions in case of violations remained the same. However, one could say that fewer rules also implied that the scope of regulation and sanctions impacted the market less, because they were less relevant. Lastly, the Act did increase supervision and room for interpretation by the governmental institutions, because of the approvals for interstate banking and branching that now needed to be evaluated. However, this increase in supervision on interstate banking and branching was an alternative for a situation where government prohibited any such action, which in my opinion therefore gave it a deregulating effect after all. The only real regulating effect of the Act was the fact that the government used its power for interstate banking and branching approvals to strengthen its influence on banks with the Community Reinvestment Act. However, generally speaking the IBBEA should be interpreted as one which radically deregulated the market.

4.4 Federal Reserve reinterpretation of the Glass-Steagall Act (1996)

In 1996 the Fed reinterpreted a part of the legislation that was adopted with the Glass-Steagall Act of 1933. The reinterpretation concerned the amount of revenue that a non-bank subsidiary of a holding company could accrue from underwriting and securities activities for which commercial banks were not allowed to deal with. The Federal Reserve increased the total revenue from these activities for the previously stated group of subsidiaries from 10% to 25%, to be in effect on March the 6th, 1997.[140] Examples of such bank-ineligible securities were commercial paper and mortgage-backed securities (the class of securities which later formed the heart of the financial crisis of 2007). For a bank to be able to engage in these activities it had to apply at the Federal Reserve Board for approval.

The first reinterpretation dated back to 1987 in which the revenue percentage was to become 5%, followed by a second reinterpretation to 10% in 1989. However, the reinterpretation of 1996 was more significant in the sense that not only the percentage increase was larger, but also that the Glass-Steagall Act was practically repealed, because of the relatively high proportion of investment related activities that were now allowed thereby

[139] IBBEA, Title I: Section 103; Federal Deposit Insurance Act, Section 44(b).
[140] Federal Reserve System, 'Revenue Limit on Bank-Ineligible Activities of Subsidiaries of Bank Holding Companies Engaged in Underwriting and Dealing in Securities', *Docket No. R-0841, 1.*

removing the function of the Glass-Steagall Act.[141] In fact, almost every bank holding company which wanted to conduct these investment related activities was able to stay below the 25% revenue limit. Thus there was essentially only a formal separation between commercial and investment banking, while in practice these activities were mixed.

The basis for the reinterpretation concerned section 20 of the Glass-Steagall Act which stated that "no member bank shall be affiliated with a securities corporation in a manner as in a corporation, business trust, association or other similar organization".[142] This latter part was later restated as "engaged principally in underwriting and dealing in securities".[143] The term engaged principally was interpreted as being substantially engaged which implied that activities on a small scale were in accordance with the Glass-Steagall Act.

Although the Federal Reserve reinterpretation was not a pure regulation passed through Congress, it did in practice imply a change in regulation. Because the Federal Reserve, as banking supervisor, was responsible for banks' compliance with the relevant financial regulation, it enabled a circumvention of current regulation through this reinterpretation. The consequence of the reinterpretation was that member banks were less limited in the scope of their financial activities since they were able to be active in underwriting and bank-ineligible activities. So to sum up, the reinterpretation did not mean that the rules were changed, however they were used differently by the Federal Reserve which changed their effect. It therefore meant a clear deregulation of the banking sector in which financial players had more freedom to choose their business activities. As previously stated the reinterpretation also meant that the rules of the Glass-Steagall Act were almost irrelevant in practice. This ultimately led to a redesign of the Glass-Steagall Act, which I shall address next.

4.5 Gramm-Leach-Bliley Act (1999)

The Gramm-Leach-Bliley Act (GLBA) was passed through the House and the Senate in 1999. The Act focused on changing the regulatory framework for banks and insurance companies concerning the possibility to expand their businesses across financial segments. More specifically it enabled financial institutions to engage in investment banking, commercial banking and insurance at the same time.

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[141] C. Crawford, 'The Repeal Of The Glass-Steagall Act And The Current Financial Crisis', *Journal of Business & Economic Research* 9 (2011) 129.
[142] Banking Act of 1933, Section 20.
[143] Federal Reserve System, 'Revenue Limit', 2.

The GLBA repealed an important part of the Banking Act of 1933, the Glass-Steagall Act, in which the separation of financial activities was demanded.[144] The GLBA introduced the "Financial Holding Company", which, unlike the Bank Holding Company, was allowed to engage in any activity, including the acquisition of shares in companies engaged in any activity, which were financial in nature or incidentally related to such an activity or complemented a financial activity and did not pose a significant risk to the soundness or safety of depository institutions or the financial system as a whole.[145] The assessment whether an activity was considered as to be financial in nature or not a threat to the safety of depository institutions and the financial system was performed by the Federal Reserve. However, the Federal Reserve did not have autonomy here since the Treasury could overrule the assessment of the Federal Reserve within thirty days.[146] Whether an activity was considered to be financial in nature was dependent on whether it was a necessary activity for a financial holding company, whether it was in line with the GLBA, what activities were in the marketplace seen as financial and whether technologies may have altered the classifications of financial activities.[147] Non-financial activities were also not allowed when financial holding companies engaged in non-financial activities through mergers.[148]

The Federal Reserve and the Treasury could, however, decide upon limitations on transactions in which depository institutions were involved.[149] This provision allowed for an emergency measure in case the safety of depository institutions might have been in danger. In addition to the classification of financial activities it resembled a minor regulation on market activities, however, held also considerable room for interpretation. Another limitation of the expansion of activities by financial holding companies was the CRA requirement which stated that a financial holding company was obliged to have a CRA rating, a score based on compliance with the rules set out in the Community Reinvestment Act, which was at least "satisfactory". Just as could be seen in the IBBEA, the Community Reinvestment Act was included to enable the government to assert its influence on community investments by banks.

The GLBA created an entire new landscape in the financial sector by enabling financial institutions to expand their business activities across segments. This was not so much the cause of an abolishment of rules, since for Bank Holding Companies the

[144] Gramm-Leach-Bliley Act, Title I: Section 101.
[145] GLBA, Title I: Section 103.
[146] GLBA, Title I: Section 103.
[147] GLBA, Title I: Section 103.
[148] GLBA, Title I: Section 103.
[149] GLBA, Title I: Section 103.

restrictions for engaging in financial activities remained as decided upon in the Bank Holding Company Act of 1956. What mainly mattered in this case was the fact that the scope of regulation was limited by the GLBA. By creating a new legal entity, financial holding companies, the legislation altered the effectiveness of the Bank Holding Company Act and thereby repealed an important part of the Glass-Steagall Act of 1933. But by lowering the scope of previous regulation, the GLBA in fact deregulated a substantial part of the financial system.

Although the scope of financial regulation changed and many financial holding companies were able to expand their activities there remained an important requirement, namely that activities should have been financial in nature or should have complemented financial activities. The GLBA left quite some room for interpretation regarding this topic which suited the supervisory institutions with respect to their powers to regulate the market. Furthermore the government again used its approval power to aid another governmental regulation, the CRA. This element shows of course a strong regulating effect of the market.

Concerning the amount of supervision the case is the same as with the IBBEA, since supervision increased but this was only because restrictions on market activity got abolished which required new supervision. The Act did not include any reference to sanctions when it concerns the violation of provisions related to the expansion of activities. The only reference concerned the right for the Federal Reserve to impose limitations on the financial holding company which the Federal Reserve would find appropriate or to divest control of subsidiary depository institutions in order to cease the engagement in other activities by the financial holding company.[150]

Although the Act increased the amounts of rules and degree of supervision, the massive decrease in scope for a regulated market in financial activities makes this regulation absolutely of deregulatory nature. It enabled financial companies to engage in practically all types of financial activities and thereby provided much more freedom to the market participants.

4.6 Commodity Futures Modernization Act (2000)

The Commodity Futures Modernization Act (CFMA) was passed through the House and the Senate in 2000. The Act had serious consequences for the role of supervision in derivatives

[150] GLBA, Title I: Section 103.

and commodities markets which were supervised by the Commodity Futures Trading Commission (CFTC) and by the Securities and Exchange Commission (SEC).

The CFMA amended the Securities Act of 1933, the Exchange Act of 1934 and the Commodity Exchange Act of 1936, Acts which regulated the issuance and secondary trading of securities in the United States.[151] The purpose of the Act can be divided into four categories. Firstly, the goal of the CFMA was to reorganize the supervision of the derivatives and securities market by changing the role of the CFTC.[152] Secondly, the CFMA eliminated any unnecessary regulation which resided in the Commodity Exchange Act (CEA) in order to enhance the competitive position of American financial institutions and financial markets. Thirdly, the regulation aimed at reducing systemic risk and providing more stability to markets through enhanced legal certainty and clearing organizations in over-the-counter markets in times of market disorder.

Most radical was the change in regulation with respect to the organization of regulation. The CFMA created four different trading facilities of which two were regulated by the CFTC depending on the complexity of the products and the type of parties involved in the contract. The designated contract markets (DCM's) and the derivatives transaction execution facilities (DTEF's) were regulated trading facilities, whereas the exempt boards of trade and exempt commercial markets were not regulated.

An important indicator for the type of parties involved in the contracts was whether the parties could be seen as "eligible contract participants". The definition for an eligible contract participant was determined by the party being a financial institution, a regulated insurance company, an investment company, regulated brokers, futures commission merchants, large corporations, governmental entities and cases where it concerned a large pool of assets (worth of more than 5 million dollars).[153] This summation is not limited since the regulation enabled the supervisory entity (CFTC) to determine a party as eligible contract participant when it sufficiently qualified as such regarding financial or other qualifications.[154] The CFMA scrapped most regulations on derivatives by stating that the rules of the CFMA did not apply for derivative transactions in case these were traded between eligible contract participants and were not traded on a trading facility.[155] Because of this and the fact that the

[151] Commodity Futures Modernization Act, Title I: Section 101.
[152] CFMA, Title I: Section 2.
[153] CFMA, Title I: Section 101.
[154] CFMA, Title I: Section 101.
[155] CFMA, Title I: Section 103.

regulation enables a broader interpretation of a person being an eligible contract participant it became more accessible for market participants to engage in unregulated financial trading.

A second major change caused by the CFMA was that several commodities were exempt from regulation. First, the Act stated that contracts traded on an electronic trading facility were not regulated by the CFMA. The rise in electronic trading facilities had created doubt about whether commodities on this facility would fall under regulation. The CFMA thus made it clear that this type of commodities would not be regulated. Second, the CFMA amended the Commodity Exchange Act in that no longer hybrid instruments were regulated.[156] Hybrid instruments are defined as instruments which mostly consist of a security or deposit instrument and when full payment for the hybrid instrument is done around the time of purchase.[157] It thereby contrasts with ordinary derivatives such as futures in that these instruments do not require full payment around the time of purchase. Last, the CFMA stated that swap transactions would not be regulated if these concerned a contract, agreement or transaction between eligible contract participants.[158] Swap contracts were derivatives which literally swapped the finance flows of the two involved parties. In practice this often came down to one party changing its variable cash flow for a constant one and the other party changing its constant flow to a variable one.

The CFMA thus clearly removed regulations on derivatives when this concerned a transaction between eligible contract participants. It therefore limited the scope of regulations on derivatives to only cover transactions between non-sophisticated parties. However, the biggest proportion of derivatives trades concerned transactions between eligible contract participants thereby offering much more freedom to market participants. Supervision was also reduced because ever since the enforcement of the CFMA the CFTC could only supervise the designated contract market and the derivatives transaction execution facilities. Supervision on derivatives in over-the-counter markets such as swaps was therefore removed. Relating this development to the characteristics of more freedom of the market it can be said that the CFMA mainly caused a more limited scope of financial regulation and a decrease (of scope) of financial supervision. The CFMA therefore had a clear deregulating effect on the financial market through its abolishment of regulation concerning certain parts of the financial sector.

[156] CFMA, Title I: Section 105.
[157] CFMA, Title I: Section 105.
[158] CFMA, Title I: Section 107.

4.7 Alternative Capital Requirements by SEC (2004)

In 2004 the Securities and Exchange Commission introduced rule amendments which established an alternative method for computing the net capital requirements for broker-dealers.[159] The amendments gave broker-dealers a choice for determining the capital requirements. It thereby provided new rules concerning capital requirements. Because broker-dealers were part of large investment banks, this rule affected for example the five largest investment banks (Morgan Stanley, Merrill Lynch, Lehman Brothers, Goldman Sachs and Bear Stearns). The alternative capital requirements are nowadays subject of debate since many people relate the new capital requirements of 2004 to the recent financial crisis. It therefore makes this a very relevant piece of financial regulation.

The new requirements amended the Securities Exchange Act of 1934 by providing market participants (in this case broker-dealers) the option to compute their net capital requirements.[160] Since 1975 there was a Net Capital Rule in place which was specifically created to indicate the net capital requirements for broker-dealers. Broker-dealers are financial parties which can act as a broker (executing trading orders on behalf of customers' accounts) or as a dealer (executing trading orders on their own accounts). The Net Capital Rule of 1975 stated that broker-dealers needed to have a capital requirement and this requirement was dependent on their net worth. However, to provide a safety net the regulation demanded that certain percentages were subtracted from the net worth.[161] This percentage, known as the haircut, was a percentage of net worth and was dependent on the risk profile of the instruments with which broker-dealers traded. Because these haircuts lowered the broker-dealers' net worth it would raise their minimum capital requirements and thereby provide more safety in case of market or credit risk for example.

The rule amendments of 2004 did not change this rule but added the possibility for broker-dealers to compute their own capital requirements.[162] Large broker-dealer firms (net capital of at least 500 million dollars), which had sufficient internal risk management practices in place, could apply at the SEC for an exemption of the traditional capital rule. They then could use their own mathematical models to determine the relevant capital requirements.[163] In the regulation of 2004, the SEC also stated that the reason for this new

[159] Securities and Exchange Commission, 'Alternative Net Capital Requirements for Broker-Dealers That Are Part of Consolidated Supervised Entities; Supervised Investment Bank Holding Companies; Final Rules', Release No. 34-49830.
[160] SEC, 'Alternative Net Capital Requirements', (no page numbers available).
[161] Securities and Exchange Commission, 'Net Capital Rule', Release No. 34-39456 (1997) 4.
[162] SEC, 'Alternative Net Capital Requirements', (no page numbers available).
[163] SEC, 'Alternative Net Capital Requirements', (no page numbers available).

alternative was that market participants were requesting if they were allowed to use their own risk management practices for establishing better capital requirements at lower regulatory costs for the firms. This regulation can therefore be interpreted as a response to market preferences.

However, in addition to the new alternative for computing capital requirements, the regulation also ordered increased supervision in the case of computing capital requirements by means of the new alternative. The SEC was to become responsible for a group-wide supervision (so all parts of an ultimate holding company) to make sure that the firms would follow proper procedures for determining the capital requirements.[164] In addition, the broker-dealers would have been obliged to periodically report their risk assessments to the supervisor.

Thus the alternative capital requirements proposed by the SEC on the one hand removed mandatory procedures for determining capital requirements for broker-dealers and thereby provided these players with a choice and more freedom to execute this activity more efficiently. However, on the other hand the new rules also had an increasing regulatory aspect in the sense that the SEC received more authority to supervise and monitor the market. When relating this to the characteristics of a more free market it can be seen that this development lessened the strictness of the rules for market participants, because they had been given another choice and therefore received more options for determining capital requirements. Conversely, the scope of supervision also increased with the SEC being able to monitor the ultimate holding companies and with the broker-dealers obliged to report to the SEC. This makes it more difficult to assess whether this regulatory development should be seen as regulating or deregulating the market.

However, when focusing on the context of this regulation it shows that these developments, whereby the SEC received more authority to monitor the market, are a consequence of the willingness of the SEC to give more freedom to the market participants to decide on capital requirements. It therefore first of all appears to be an increase in supervision to facilitate more freedom to market players. It is because of this facilitation that this piece of financial regulation should be seen as deregulating the financial sector, although there are regulating elements in it as well.

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[164] SEC, 'Alternative Net Capital Requirements', (no page numbers available).

4.8 Development of financial regulations

After interpreting the various pieces of financial regulation during the years Greenspan was chairman of the Federal Reserve, there are a number of interesting observations. Firstly, it can be seen that important regulations have not always been passed through Congress but that the relevant governmental agencies (Federal Reserve and SEC) have also, sometimes possibly in cooperation with each other, been creating new financial regulations.

Secondly, the financial regulations, which have been elaborated on, show a clear trend in time concerning their role in shaping a more deregulated or regulated market. The first major financial regulation during Greenspan, the FIRREA in 1989, was a measure to bring more rules and supervision into the financial sector, probably as a response to the financial crisis of 1987 which created awareness that financial firms needed to be regulated more. The FDICIA also brought more rules and supervision as a reaction to a crisis. However, after these regulations, the general trend was a step by step development of market deregulation. The development shows a process which not only broke up rules imposing the market behavior of financial firms, but also tended to favor an economic climate in which firms were able to choose themselves whether to merge and develop into conglomerates, justified by the efficiency gains which would accompany such conglomerates. In addition, the trend shows that the government also delegated its regulatory tasks more and more to the financial firms themselves, again for reasons related to efficiency.

A first step was made with the IBBEA whereby the geographical boundaries for banks were removed and banks were allowed to decide where to start new branches or what competitors to takeover in order to expand their markets. This first development caused a merger wave which resulted in the growth of a select number of commercial and investment banks in the United States. The second step in this trend was characterized by the repeal of the Glass Steagall Act of 1933 through the new interpretation of the Fed and ultimately the GLBA which would remove the mandatory division between investment banking and commercial banking within one financial institution. This process further intensified the process of conglomeration, because investment banks could now merge or takeover commercial banks and vice versa. A famous example was the merger of Citicorp with Travelers Group resulting in Citigroup in 1998, nowadays one of the largest banks in the world. The result was that a few banks were becoming quite large relative to the size of the economy as a whole.

The subsequent CFMA and the alternative capital requirements by the SEC relate to the other trend visible during this period, namely the fact that, because of the perception that due to their size these large conglomerates were capable of performing regulatory tasks, the government delegated more and more former regulatory tasks to market players. Again this was justified by arguments that this would be more effective and more efficient. The CFMA stated that sophisticated parties would be able to judge the soundness of their decisions themselves and hence would not need regulation while the alternative capital requirements enabled market participants to assess their own financial position and thereby to determine their necessary capital requirements.

These trends, whereby more and more emphasis was put on the responsibility of the market and less on the government, fit very well with the idea of the free market and therefore indicate a growing deregulation of the financial markets after the FDICIA in 1991. Now that it is clear that there was a clear process of deregulation during the years of Greenspan as chairman of the Federal Reserve I shall turn in the next chapter to the man himself to see how this deregulation fits his own views at that time.

5 Greenspan and financial regulations

This chapter will form the second part of the analysis of this thesis and will address the relation between Greenspan and the deregulatory trend found in the previous chapter. The purpose of this comparison is to indicate whether the sudden turn in regulations (from regulated markets to deregulated markets) can be attributed to the presence and influence of Greenspan as chairman of the Federal Reserve. In this chapter I shall use his autobiography to assess his views and convictions and to relate this to the relevant financial regulations. In addition I will assess Greenspan's role in the development of these financial regulations.

5.1 Relation between financial regulations and Greenspan's views

As was already mentioned in the historiographical part about Greenspan, Greenspan's views on how an economy should be structured were mainly based on the philosophical legacy of Ayn Rand. Before he met Rand, Greenspan was mainly interested in economic modeling and had no interest in the values behind the structure of an economy.[165] Greenspan's views on Rand show that he was very much captivated by her and perceived her as quite similar. He argued for instance that they both were very analytical, highly principled and insistent on taking rationality as the highest value in life.[166] He described to have regularly visited Rand's collective for more than ten years, a period which according to him would bring his intellectual mind to her's.[167] These memories of his past really show how important Rand was for Greenspan and how he valued her input and ideas. His defeat of the debate with Rand during their first encounter may have strengthened this perception.[168] Especially Greenspan's notion that only after his encounter with Rand he had taken an interest in the normativity of economics instead of looking at it from a pure positive perspective is a good illustration of how influential Rand's ideas must have been on Greenspan's view of the ideal economy.

Greenspan's views on how the economy should be structured were logically therefore comparable to Rand's views. Objectivism, Rand's ideology, argued that laissez-faire capitalism would be the ideal form of social organization.[169] According to Greenspan the strong competitive edge of the US economy had been assisted by the wave of deregulation during the last decades.[170] In addition, Greenspan put a large emphasis on the importance of

[165] Greenspan, *The Age of Turbulence,* 52.
[166] Ibid., 51.
[167] Ibid., 51.
[168] Ibid., 41.
[169] Ibid., 40.
[170] Ibid., 279.

property rights in his reasoning; probably a result of his experience with the fall of the Soviet-Union.[171] Furthermore he made a very important statement about his reasons for joining the presidential campaign of Nixon in 1968. He mentioned that he wanted to stimulate a direction towards free market capitalism as an insider.[172] This implies that Greenspan's ambition to enter into American politics was clearly based on the incentive to shape the American economy according to the principles of the free market economy. What this free market economy exactly entails for Greenspan is slightly different from Rand's point of view however. Greenspan appeared to have been all right with a small amount of taxation whereas for Rand this was unacceptable.[173] As chairman of the Council of Economic Advisors, Greenspan also did not support price freezes under President Ford and tried to stay on the background when these plans went through.[174] The fact that he did not resign after these plans shows that Greenspan was not as principally stubborn as Rand was. It appears that Greenspan was willing to set aside his principles if this benefited his intended outcome in the long run. After his job as economic advisor of President Ford, he kept following the economic policies of the government, which typifies his interest in the role of the government within the economy.

Greenspan was not entirely against economic policy of the government and apparently did tolerate a small amount of government intervention in the economy. He was for example a strong supporter of the lender of last resort function of the Federal Reserve in relation to the deposit insurance. Furthermore, Greenspan ordered the New York Fed right after the market crash of 1987 to convince the banks in New York to keep lending money, which shows the awareness of Greenspan that the guarantee of the government was helpful in tempering the negative sentiments. However, Greenspan argued later on that the recovery after the market crash showed the economic resilience of the United States.[175] This statement would be illustrative for his views on the economy in the years after in which he was convinced that the market would be able to recover from recessions and crises by itself.

For Greenspan (financial) innovation appeared to have been a very important contributor to the growth of the economy.[176] There are several examples which he mentions. The innovative debt markets were an alternative form of investment after the real estate

[171] Greenspan, *The Age of Turbulence*, 127 and 252.
[172] Ibid., 52.
[173] Ibid., 52.
[174] Ibid., 66.
[175] Ibid., 110.
[176] Ibid., 268.

collapse in 1990.[177] But also during the fall of the Berlin Wall where he experienced the difference in standard of living between West and East caused by innovation.[178] Lastly, he mentioned the new forms of finance that were invented or developed during the last decades such as credit derivatives and asset-backed securities.[179]

Even though Greenspan was not in favor of too much intervention in the financial system, he did mention that he was aware of several developments in the market which would have a negative impact on the economy. Examples are the speculative lending in the late 80's and the lack of deposit insurance during the Great Depression.[180]

When comparing the specific financial regulations of the previous chapter there are several interesting things to notice. On the FIRREA, Greenspan appeared to have had mixed feelings on the benefits of the regulation. The increased regulation and limit of investment range for savings associations was not in line with Greenspan's thoughts on how the market should be structured, but Greenspan did see the Resolution Trust Corporation as a desirable means to effectively sell off the liquidated parts and be able to let these parts go bankrupt.[181]

Greenspan also was critical towards the FDICIA. He argued that it was not desirable to make sure that the degree of bank failure would be zero.[182] According to Greenspan, this would induce banks to take excessive risks. He argued that banks should instead be incentivized to find their own optimal risk-taking, which would be less expensive for society and create a healthier financial system.

The IBBEA perfectly aligned with Greenspan's views on how markets should have been structured. Greenspan argued that it was due to the globalization of capital that financing costs began to decrease which would stimulate productivity growth through more direct investments.[183] Although the IBBEA was technically not an example of globalization, the expansion of banks across states within the United States can be seen as a form of globalization on a lower scale. For it comes down to the same logic, namely that borders were removed and finance was able to expand geographically. Of course the IBBEA also made it for foreign banks economically feasible to expand to the United States, because it enabled

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[177] Greenspan, *The Age of Turbulence*, 117.
[178] Ibid., 127.
[179] Ibid., 368.
[180] Ibid., 117 and 374.
[181] Ibid., 290.
[182] A. Greenspan, 'FDICIA and the Future of Banking: Remarks before the 29th Annual Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago', 06-05-1993, https://fraser.stlouisfed.org/scribd/?item_id=8486&filepath=%2Fdocs%2Fhistorical%2Fgreenspan%2FGreenspan_19930506.pdf#scribd-open (Viewed on 15-08-2015).
[183] Greenspan, *The Age of Turbulence*, 367.

them to set up branches which would make up for the high initial direct investment costs of internationalization.[184] This process thus greatly facilitated the globalization of the financial sector.

On the existing separation between investment banking and commercial banking, which was repealed by the GLBA, Greenspan was very critical. He argued that during the Great Depression, the direct cause for the separation clause in the Glass Steagall Act, banks which executed both functions of banking performed better than those without both functions.[185] During the years preceding the repeal, Greenspan said to have testified many times to change this piece of legislation.

The regulation of the CFMA, which caused many derivatives to be unregulated as the government assumed sophisticated parties were perfectly able to assess the trustworthiness of counterparties and their offer themselves, can be seen as comparable to Greenspan's view concerning the appropriateness of regulation for protecting the market. Greenspan was convinced that regulation of financial institutions was not the optimal way to protect the financial sector. He argued that government guarantees, as he called it, were too costly and removed incentives for the market to strive for the earning of a good reputation.[186] By not regulating the market for sophisticated parties, Greenspan argued that parties would act to create a good reputation and to find out the trustworthiness of the other party (something Greenspan called counterparty surveillance)[187]. According to Greenspan the ability to judge the soundness of financial institutions was much better at JPMorgan, where he had been director, than at the Federal Reserve.[188]

Lastly, Greenspan was convinced that regulators were unable to do a job as good as market participants and he therefore supported the alternative capital requirements as proposed by the SEC in 2004. In this way more suitable capital requirements would be in place under the assumption that it would not be in the best interest of the bank to go into financial distress.

It is striking to what extent he prioritizes the efficiencies related with a globalized free market financial system, instead of focusing on the effectiveness, so that the functions of finance are well performed by the market and in that way contribute to a well-functioning economy. He also mentioned side effects of regulations, such as the increase of corruption

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[184] G. Westerhuis, 'Conquering the American market: ABN AMRO, Rabobank and Nationale-Nederlanden working in a different business environment, 1965-2005', Dissertation Universiteit Utrecht (2008) 36.
[185] Greenspan, *The Age of Turbulence*, 375.
[186] Ibid., 256-257.
[187] Ibid., 370.
[188] Ibid., 371.

because with regulation politicians receive means which they could sell to market players.[189] Greenspan's argumentation also reveals his reasoning of why financial markets are being regulated. He argued that it is because regulation is created and decided upon by mainly lawyers and politicians, people who, according to him, do not understand the "balancing forces" which stabilize a financial system (and the economy as a whole).[190] With these balancing forces Greenspan appears to refer to phenomena like arbitrage profit seeking and bankruptcies.

With his warning that contemporary financial markets have become too complex and dynamic for supervision and regulation Greenspan's implied a pursuit for deregulated financial markets.[191] He clearly preferred the counterparty surveillance method in which market participants monitored each other on an individual basis. For Greenspan the future would consist of deregulated markets, in the first place a result of the necessity for individual counterparty surveillance since in ever more complex markets the regulator would not be adequate for the task.

5.2 Greenspan's role in the development of financial regulations

The role of Greenspan in the development of financial regulations in this period can be perceived as advisor of Congress or the White House. His autobiography reveals that Greenspan was asked by Congress or the administration for advice and council on financial and economic matters very frequently.[192] Greenspan himself argued that he was very much committed to the financial laws and policies and wanted to keep regular contact about this with policy makers.[193] Furthermore, he explicitly mentioned that he pursued a government career in order to be able to advance free market capitalism as insider. For a man who was chairman of the Federal Reserve, a position which was seen as the most prominent economic position within the government together with head of the Treasury and the Chairman of the Economic Council, it is not surprising that he was often invited to inform Congress on new developments in the financial sector and to provide comments on new reforms. Therefore Greenspan not only had the motivation, he also had the opportunity to influence the development of financial regulation.

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[189] Greenspan, *The Age of Turbulence*, 276.
[190] Ibid., 367.
[191] Ibid., 489.
[192] Ibid., 219, 241- 242.
[193] Ibid., 113.

Greenspan's ideas on regulation during his period as chairman of the Federal Reserve were quite identical to the actual financial regulation which was passed. Except for increasing regulation and supervision for savings associations with the FIRREA, Greenspan very much agreed with the financial regulations whereby interstate branching and a combination of investment and commercial banking was made possible, regulation on derivatives for sophisticated parties was abolished and capital requirements could be computed by the relevant financial firms themselves. This gives rise to the idea that Greenspan was more influential than his position as Federal Reserve chairman would entail.

The evidence Calomiris found with his study on the influence of Greenspan, which supported the idea that Greenspan was very effective in convincing Congress to vote for his regulatory preference, combined with Greenspan's motivation and opportunity to influence development of financial regulation gives the indication that it could have been Greenspan himself who was to a large extent responsible for the decision-making regarding the financial regulations. The similarities that were found in this thesis between Greenspan's economic preferences and the implemented financial regulations strengthen this thought in the sense that they indicate that the eventual outcome was as Greenspan would have preferred it.

Based on this evidence it can therefore be said that Greenspan did not only take the role of central banker, but that he also had a role as important advisor of the White House as well as Congress. He was affecting the decision-making process of legislation and therefore had a role in the creation of financial legislation during his time as Federal Reserve chairman.

6 Conclusion

This thesis was centered on two important questions with respect to the history of financial regulation in the United States. The first question was how financial regulation developed during the last couple of decades preceding the recent financial crisis. The second question was what the role of Alan Greenspan was in the process of financial regulation given his preference for the free market. The first question concerns knowledge on the historical development of financial regulation whereas the second question relates to the influence of a prominent figure in American (economic/financial) policy on financial regulations.

These questions can be placed within the literature regarding what drives the development of financial regulations. As the historiography described, this was either because of economic considerations, a reaction to crises or regulation dialectics. In addition to these more structural processes, this thesis addresses a fourth potential driver for financial regulation, namely agency. It is especially the second question of this thesis which answers the role of agency within the development of financial regulation. To study whether agency may have been a contributing factor to financial regulation I first of all analyzed the most important financial regulation during the period of Greenspan's presidency and secondly focused on whether Greenspan's views aligned with the relevant financial regulation.

Concerning the development of financial regulation, the period of Greenspan's presidency shows a clear contrast with the financial regulation and stance of the Federal Reserve before. From the historiography it appears that after the Great Depression the degree of market regulation increased a lot. Chapter four of this thesis adds another case of historical financial regulation to this historiography. Contrasting to the period after the Great Depression, the financial regulation in the period 1987-2006 was almost entirely directed towards a less regulated financial market. The first two important pieces of financial regulation, the FIRREA in 1989 and the FDICIA in1991, were still regulating the financial market by imposing restrictions on investment, increasing supervision of savings associations and depository institutions, and increasing capital requirements, but after this the financial regulations were for the greater part intended to enforce a deregulation of the financial sector.

The IBBEA removed geographical boundaries and enabled banks to expand across states while the GLBA stimulated a wave of mergers and acquisitions by allowing banks to be fully active with investment banking as well as commercial banking. The subsequent CFMA removed regulations on derivatives by limiting the regulated markets for derivatives to markets where no sophisticated parties would trade. This implied that sophisticated parties,

often large financial institutions which also took a large proportion of total trade, were no longer being regulated. The deregulatory process culminated in the new rules on capital requirements which caused broker-dealers, which were often part of large banks, to be able to compute their own capital requirements and thereby take on the regulatory function that the government used to do. The trend of deregulation during Greenspan's presidency at the Federal Reserve therefore shows a big contrast with the period before as described in the historiography which can be typified by a large regulated market and a less dominant financial sector.

When looking at the role of Greenspan in the process of financial regulation I have focused on the similarities between his views on the ideal economy and the regulations which deregulated the market during the period. It became clear that his views and the financial regulations were remarkably similar in that only parts of the FIRREA and the FDICIA, regulations that increased regulation, imposed investment limits on savings associations and created more government intervention, did not stroke with Greenspan's preferences. All other regulations aligned with how he perceived the financial market to be most ideal. In addition, Greenspan claimed in his autobiography that his intention to create a freer market economy was the main reason for him to join the government (something which was quite surprising given his conviction that economic policy by the government was ineffective). This combination of motivation and opportunity as chairman of the Federal Reserve together with his apparent skills to influence Congress as researched by Calomiris and the similarities between his economic views and the deregulating trend of financial regulation made me conclude that Greenspan was not only acting as a central banker and economic advisor but was very likely also taking up an influential role within the decision-making process of the creation of financial legislation.

This conclusion about Greenspan's role in the deregulating trend during his presidency at the Federal Reserve can be used as evidence that the development of financial regulation, and probably regulation in general, is not only driven by structural processes such as economic considerations and regulation dialectics, but is also affected by agency. In this case Greenspan took upon himself an active role by influencing Congress to come up with regulations which would deregulate the financial market. This is an example of how agency is able to affect processes, in this case the process of continued regulation of the financial market since the Great Depression. This conclusion is also very interesting since it would imply that financial regulations during that period were not purely an outcome of the opinion

of the states' representatives. This would mean that financial regulations were much more technocratic in nature and less a result of democracy.

This thesis also has several limitations though. Firstly, the analysis is based on a selection of financial regulation during the period of 1987-2006 and therefore may not represent the entire development of financial regulation. Secondly, the conclusion that Greenspan was influential in the outcome of financial regulation is based upon reflections of Greenspan in his autobiography and may therefore lack important insights. Most interesting would be the recordings of the Federal Reserve meetings and testimonies in Congress where Greenspan spoke in order to obtain more information on his role in the process of the creation of financial regulation.

For future research it would therefore be worthwhile to focus on these special recordings and on more regulations in order to find more historical evidence. Furthermore it would be a good idea to research other time periods in which an influential person such as Greenspan was involved in the making of financial regulations.

The recent financial crisis has pointed the public to the importance of sound financial regulations which are better capable of mitigating financial crises and, in case a financial crisis happens, able to protect the real economy from being affected by a meltdown of the monetary economy. Sound financial regulations are crucial for everyone in the society whether it is to prevent businesses from going bankrupt, to preserve a smooth and stable payment system or to protect the tax-payer from a costly bailout.

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