Notre Dame University-Louaize
Faculty of Business Administration & Economics
Graduate Division

The Effect of Corporate Governance on Banks' Performance During 2007-2009 Financial Crisis

Submitted by:
SARA ABI SAAD

Supervised by:
DR. HASSAN HAMADI

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of the Master of Science in Financial Risk Management (MSFRM)

NDU-Lebanon
2016

Approval Certificate

The Effect of Corporate Governance on Banks' Performance during 2007-2009 Financial Crisis

BY

Sara Elias Abi Saad

GRADE: A⁻

Approved by

Supervisor's Name and Signature: Dr. Hassan Hamadi

Reader's Name and Signature: Dr. Roy Khoueiri

Committee Chair Name and Signature:

01/19/2017
Date

DECLARATION

I hereby declare that this thesis is entirely my own work and that it has not been submitted as an exercise for a degree at any other University.

Sara Elias Abi Saad

ABSTRACT

Purpose- The purpose of this research is to examine the effect of ownership structure on the profitability and performance of U.S. banks. It resides in inspecting the power of insiders as well as institutional shareholders and large block-holders on bank's performance and valuation of US commercial banks during the financial crisis of 2007-2009. Finally, it studies the relation between different factors such as bank size, market value and price earnings ratio and the ROA, ROE, and MTBV of U.S. banks.

Research Question- This paper aims to study the impact that ownership structure has on the performance of banks during the period of the financial crisis of 2007-2009. The main hypothesis is that ownership concentration will have a major impact on firm performance.

Design/Methodology/Approach- A sample of 98 U.S. banks representing the secondary data was collected from Datastream and divided into two periods; one from 2002- 2007 and the second from 2007-2009. After collecting data, it was imported to EViews in order to statistically analyze them. A regression analysis was performed using six different models to be able to answer the research question.

Findings- Findings obtained show that the concentrated ownership had a negative influence on banks' profits and valuation during crisis. In addition, the more the increase of valuation to fundamentals, MTBV, the more destructive will the effect of high closely held shares be. However, when the bank size is bigger, the bad effect showed less.
Research Limitations: While performing the research, there was a time constraint which caused the data not to be collected manually. Thus, if our sample was larger, it might have ensured being more representative of the population and could have made our findings generalized.

Further Research- Further research might deal with other aspects of corporate governance, such as audit committee independence and board independence. Second, studies on different time periods covering other crises might be suitable to evaluate the reliability of the derived results. Third, it can be extended to cover a wider range of international panel data to analyze the ownership concentration effect on global markets with different regulations and policies.

Keywords: Corporate Governance; Ownership; Financial Crisis; Profitability; Closely Held Shares; Shareholder Expropriation; Banks; Institutional Investors

LIST OF TABLES

ACKNOWLEDGMENTS

I would first like to thank my thesis advisor Dr. Hassan Hamadi of the Faculty of Business Administration and Economics at Notre Dame University. The door to Prof. Hamadi office was always open whenever I ran into a trouble spot or had a question about this master thesis. He consistently allowed this paper to be my own work, but steered me in the right direction whenever he thought I needed it. Without his passionate participation and input, the research could not have been successfully conducted.

I would also like to acknowledge Dr. Roy Khoueiri of the Faculty of Business Administration and Economics at Notre Dame University as the second reader of this thesis, and I am gratefully indebted to his very valuable comments on this thesis.

Finally, I must express my very profound gratitude to my parents and to my close friends for providing me with unfailing support and continuous encouragement throughout my years of study and through the entire process of researching and writing this thesis, both by keeping me harmonious and helping me putting pieces together. This accomplishment would not have been possible without them. I will be grateful forever for your trust in me. Thank you.

Sara Abi Saad

Table of Contents

Chapter 1

Introduction

1.1 General Background

After World War II, the U.S. encountered a prolonged financial boom in the decades that followed, where top companies expanded fast. The internal governance of organizations was not of high need (Cheffins, 2009) during the extensive corporate success, and the expression "corporate governance" was not adopted (Greenough and Clapman, 1980). Throughout this period, shareholders and directors followed executive's decisions in leading corporations (Pound, 1995). Given that top level managers had a strong say in selecting the board's directors, it was predicted that the latter were mutually respectful and loyal to the management (Peterson & Seligman, 1987). On the other hand, the shareholders were indifferent to the company's investment decisions, but they cared about the dividends they were receiving as well as the approximate price of their stocks (Livingston, 1958). In this setting where powerful stockholders were lacking, organizations faced a principal-agent problem, also called the agency theory, where managers are led by their own personal benefits at the expense of the shareholders. In this case, shareholders are the principals and agents working on their behalf and for their interests are the managers. Berle and Means (1932) demonstrated in their research that toward the start of the twentieth century, the ownership structure in the U.S listed corporations was already spread.

The existence of a firm is portrayed by the partition between ownership and control, although agents or managers might not act for the interest of shareholders in this case. The outline of mechanisms for a powerful corporate control enabling supervisors to act to the greatest advantage of shareholders has been a major concern within corporate governance and finance. An ongoing research in agency theory endeavors to plan a proper system for such control (Allen and Gale, 2001).

When looking into agency theory, moral hazards and asymmetric information, missing contracts and adverse selection seem to exist when developed corporate controls are absent. Many governance instruments and models were designed to avoid the conflicts. Managerial rewards, cautious market competition, monitoring by financial firms and development of an efficient board of directors were included in those mechanisms (Bonazzi & Islam, 2007).

As cited in Baysinger and Hoskisson (1990), Simon Herbert declared in 1959 that directors may be "satisfiers" as opposed to "maximizers," which means that they tend to avoid any risk and look for a satisfactory level of development, since they are more concerned about sustaining their own presence rather than increasing the value of the firm to its stockholders. However, shareholders assign basic leadership power to the CEO, strongly desiring that the operator will work to their greatest advantage.

An economic theory suggested by Jensen (1986) states that managers act upon their own interest in the investment decisions they make. They have the incentives to pursue their own objectives since by growing the firm, they manage it. Thus, this gives them prestige and higher remuneration, linked to the fact that they are managing a larger organization. In order to make use of the greater power this result offers, the decisions they make go along with the goal of maximizing the firm's value, even if this means increasing the investments' risk level. Then again, by working on increasing the firm's value as measured in the securities market, managers would be working for the best interest of the shareholders whereby they invest in all positive NPV projects.

Conversely, Demsetz (1983) and Fama and Jensen (1983) propose that the essential monitoring of directors should not be made by the proprietors, but rather by the managerial labor market. It is said that the administration control of a large enterprise is separated from its security ownership. The managers' performance is proved by efficient capital markets through given signals concerning the value of an organization's securities.

Although corporate governance was present since the time that ownership structure of corporations allowed the conflict between stockholders and directors, it only became widely known in the 1970s in the United States. Since then, "corporate governance" internationally became the center of discussion between scholastics, regulators, officials and financial specialists (Wells, 2010). The historical backdrop of corporate governance equally stretches out back no less than the development of the East India Company, the Hudson's Bay Company, the Levant Company and the other main contracted organizations launched in the sixteenth and seventeenth centuries. "Corporate governance" developed and was well settled in as scholarly and regulatory shorthand between the mid-1970s and the end of the 1990s (Cheffins & Armour, 2012). By then, although corporate governance had many definitions, it was basically the summation of management and monitoring regulations for worldwide corporations.

"There is no global, mandatory regulation of corporate governance," claims Jerzemowska (2010). Even though this position can be agreed upon, one should note that the set of laws regulating corporate governance are compliant with the standards and guidelines set by OECD in 1999 and amended in 2004. The rights of shareholders as well as their role and equal treatment in governance processes, the responsibility of the firm's body as a whole, the capital structure and the ownership structure are all issues addressed in the OECD corporate governance regulations (Glinkowska and Kaczmarek, 2015).

The Sarbanes-Oxley regulation was introduced in the US in 2002 stipulating governance rules for companies, while stock exchanges, including the New York Stock Exchange (NYSE) also added governance rules for the listed companies (Blanchard and Dionne, 2004). This was the consequence of many scandals and bankruptcies related to poor risk management. All these regulations, rules and corporate governance strategies were not enough to prevent the financial crisis that began in 2007 from occurring, mainly because managers in various markets tended to deviate from the regulations and rules, and this was not predicted by the regulatory authorities (WookYoo, Lemak, & Choi, 2006).

The ongoing financial crisis that started in August 2007 as a result of counterparty defaults on subprime mortgages has had dramatic effects on the U.S financial sector. The main effects resulting from the crisis included the failure of many large regional banks, the collapse and fire sale of Bear Stearns in March 2008, followed by the bankruptcy of Lehman Brothers in September 2008 and the seizure of Washington Mutual by federal regulators during that month as well. This was the largest bank failure in the U.S history and it almost brought down the world's financial system. The aftermath of that event was the worst recession in 80 years. Massive declines in capital linked to write-downs of bad loans and dropping values of collateralized debt obligation were seen by the U.S financial institutions in the beginning of 2007.

In the years preceding the crisis, banks were lending "subprime" borrowers that were not eligible based on their credit history. Financial engineers at the big banks pooled these risky mortgages together and turned them into securities that were supposedly low-risk. In fact, credit agencies like Moody's and S&P (Standard and Poor's) enhanced the actual results of the securities' assessment to triple A's. Banks were operating with minimal equity under the pressure of shareholders to increase returns, which left them vulnerable. They were using their own internal models to assess risk and they predictably judged their assets to be ever safer, allowing balance-sheets to balloon without a proportional rise in capital. When America's housing market turned, a chain reaction exposed fragilities in the financial system (The Economist, 2013).

After those events took place, the interest in risk management increased on the part of financial institutions while their willingness and capacity to take on risk dropped. There were tighter lending standards even between banks, and lines of credit were withdrawn. As a result, due to the high demand of loans and their little supply in the market, loan spreads skyrocketed when the crisis began in August 2007 (Duchin, Ozbas, & Sensoy, 2010).

The financial crisis led financial markets to suffer catastrophic losses. Massive defaults by subprime borrowers in the mortgage markets triggered this crisis. Large portfolios of highly rated asset-backed securities (ABS) held by many if not all financial institutions

had substantial declines in their market values. One argument is that credit risk transfer instruments encouraged excessive credit growth and increased risk-taking as a result of reduced monitoring of risks by the instruments' users. This contributed to the financial turmoil (Brunnermeier, 2009). In addition, the subprime crisis almost completely halted the new structured credit market and caused a major decline in the liquidity of debt securities in virtually every market, which led to a serious credit crunch for both individuals and financial institutions.

In the year 2008, the credit crisis spilled over and led to a global financial crisis. The markets whirled from the collapse and forced mergers and bailouts of Bear Stearns, AIG, Fannie Mae, Freddie Mac, Lehman Brothers, IndyMac Bank, Merrill Lynch, Wachovia, Washington Mutual, and many others. The long-term sustainability of the U.S Treasury was threatened, and there were concerns revolving around it after providing unprecedented amounts of liquidity, capital and financial guarantees to the market at the time of the crisis. This led spreads on credit default swaps to reach as high as 100 basis points. The Treasury and the Federal Reserve intervened in the financial markets for fear of contagion and spillovers of the financial crisis to other markets and sectors of the economy (Longstaff, 2010). Equity markets were affected worldwide with some countries having sharper equity market crashes than the United States (Bekaert, Ehrmann, Fratzscher, & Mehl, 2014).

The financial crisis had a significant negative impact on the U.S small banking sector. An average of 6% of all commercial banks and thrift institutions failed between 2007 and 2009. Moreover, 411 out of the 478 insolvencies were small institutions with assets of less than a billion dollars (Deyoung, Gron, Torna, & Winton, 2015). During this crisis, an unparalleled number of financial institutions collapsed or got bailed out by governments. There was a freeze in global credit markets, and governments were required to intervene worldwide. Macroeconomic factors, similarly to the example of loose monetary policies, were at the root of the financial crisis that affected all firms (Taylor, 2009), some of them more than the others.

Market specialists have called for a more strict direction of those regulations. Nonetheless, when most securitization fragments slowed down amid the crisis, regulators rushed to endorse crisis measures aiming at protecting adequate liquidity in credit risk transfer markets. One case of those measures is the acknowledgment of certain asset-backed securities as insurance in fiscal policy operations (Adrian and Shin, 2010). Controllers legitimized these measures with the role that credit risk transfer may have had in expanding the funding base of financial organizations and, eventually, in supplying credit to the economy in times when most funding financing channels had solidified (Brunnermeier, 2009).

The epicenter of the late financial sector turmoil was the financial services industry. The end of the credit and housing boom in 2006 showed immoderations in monetary markets. Those extremes inevitably prompted swollen mortgage delinquencies and eruption of financial business sector turmoil in August 2007. During the credit blast, resource values were inflated in an environment of generally safe spreads, expanded financial leverage and a creation of complex monetary instruments that demonstrated to be fragile under stress. As business sector strengths redressed these excesses, the synchronous re-pricing of risks, deleveraging and huge write-downs by financial foundations unleashed intense powers across financial markets. This procedure would have been sufficiently agonizing if financial institutions had been reasonably straightforward (Flannery, Kwan, & Nimalendran, 2013).

Market participants lost confidence in the banking system due to the insolvency problem. Investors were actually lost on the composition of some financial institutions' portfolios and the true economic value of some assets in these portfolios. Lending between banks solidified at the peak of the monetary crisis, as even advanced and sophisticated financial establishments were hesitant to lend to each other (Saunders &Allen, 2010). A few scientists dispute that borrowing hindrances reflected instability in counterparty solvency, that is, bank opacity (Gropp & Heider, 2010; Pritsker, 2010).

It is hard to imagine another sector of the economy where too many risks are managed jointly as in banking. By its very nature, banking is an attempt to manage multiple and seemingly opposing needs. Banks stand ready to provide liquidity on demand to depositors through the checking account and to extend credit as well as liquidity to their borrowers through the lines of credit (Kashyap, Rajan, & Stein, 2002).

A problem that arises in financial institutions such as banks is called asset substitution. It occurs when investors use the borrowed resources, deposits for example, in order to invest. Investors can simply declare bankruptcy when their investments are going bad, and by that, they will not have to bear the costs. Encouraged by this downside protection, there is more incentive to take on more risk in banks. The presence of monitoring policies lessens the percentage of financial meltdowns. However, as a result of the bailouts made by the governments in bad times, the monitoring policies do not seem to stand, and thus, this lead to a crisis (Berk, 2008).

It was not until the 1990s that researchers started focusing on an integrated view of risk management, in addition to the appropriateness of the corporate governance applied to financial institutions (Miller, 1992; Cumming and Hirtle, 2001; Nocco and Stulz, 2006; Sabato, 2010). Management strategies in a firm may be altered because of the influence of certain shareholders. As observed, a problem in the American firms is that its shares ownership is widely dispersed, which makes the individual shareholders that own small fractions of equity lack the motivation and incentives to disburse resources, monitor managers or look to influence decision-making in a firm.

According to recent studies, the ways firms managed their risks and the financing procedure they followed had a significant effect on the extent to which firms were impacted by the financial crisis (Brunnermeier, 2009). The product of cost-benefit tradeoffs made by corporate boards and shareholders is the firm's risk management and financial policies (Kashyap et al., 2008).

In addition to factors such as loose monetary policy or intense competition that have been central in the previous turmoil, the ways banks transferred credit risk in the financial system represented a new major element that appeared to be the reason behind the recent crisis (Nijskens & Wagner, 2011). Criticisms of financial firms, regulators and regulations, rating agencies, governance practices, improper behavior of supervising authorities and risk models became commonplace and were seen as major causes of the 2008 crisis. Even financial models that are supposed to have scientific foundations are widely blamed today (Taleb, 2007). This crisis that appears to be the most influential since The Great Depression has reinforced the importance of risk management (Bessis & O'Kelly, 2015).

Following the subprime meltdown in the US, the financial crisis led to the awareness of the need for suitable related risk management techniques and structures within financial firms. Upon looking into quantitative risk management, the liquidity risk, credit risk and market risk are the main focus, and the ways adopted to improve the measurement and management of these risks is a main concern. When discussed in earlier literature (Miller, 1992), single types of risks were focused on, while the correlations between different types of risks were ignored.

Rajan & Zingales (2000) emphasized that corporate governance may be greatly influenced by public opinion and showed that reputation concerns were effective to enhance the corporate governance system in competing firms. Managers will not necessarily listen to the signals from the market because of the agency problem. Although they can extract information from stock prices for example, and by that, evaluate their previous decisions, they are in need of incentives to do so. The market will have a monitoring role over the past managerial investment policies (Dow and Gorton, 1997).

Incentive based economic models of managerial behavior motivate some governance features. Due to the conflict of interest, managers might take actions that are costly to shareholders. The latter are unable to observe the behavior of managers constantly and

directly, so ownership of the managers is used to align the interest of managers with shareholders and stimulate them to act in a manner that seems to be consistent with the interest of shareholders (Grossman and Hart, 1983). The literature since Berle and Means (1932) mentioned the link between ownership structure and performance that represents the effect governance has on profits.

Minton, Taillard, & Williamson (2011) investigated the relation of risk-taking and thus U.S banks' performance with the board independence. The results showed that institutions with more independent boards raised more equity capital during the crisis that led to wealth transfer from existing shareholders to debt holders.

In the presence of costly bank failures, Diamond's (1984) model implies that banks should hedge all market risks in which they do not have any special monitoring advantages. Other motivations for managing risks include managerial risk aversion, information asymmetry between the insiders and outsiders of the firm, increased debt capacity and the convexity of taxes (Leland, 1998). Risk management has become crucial for banks, especially that financial services that are based on conditions of uncertainty and the profit made by a bank are all related to the risk it undertakes.

The relation between corporate governance and performance of financial firms was researched during the credit crisis of 2007-2008 using an international sample of 296 financial firms from 30 countries (Erkens, Hung, & Matos, 2012). The findings were consistent with Beltratti and Stulz (2009) and revealed that institutions with higher institutional ownership experienced worse stock returns during the crisis. It was argued that larger losses were caused to the shareholder during the crisis period by higher risk-taking prior to the crisis that was due to higher institutional ownership.

In the theoretical literature related to corporate governance, a main debate arises on whether large blockholders or a dispersed set of shareholders are better for firm value (Becht, Bolton, & Röell, 2003). The traditional view of corporate governance maintains that governance is exercised through the direct intervention of a large blockholder in the

firm's operations. The blockholder would either implement profitable projects or correct managerial inefficiency or poor performance; this would thereby add value to the firm by limiting managerial discretion and reducing agency costs (Shleifer and Vishny, 1986). Blockholders attempt to decrease the agency problem between managers and owners of the firm by supplying monitoring activities that are costly. On the other hand, dispersed shareholders with small interests in the corporation would unlikely incur large monitoring costs that are sometimes crucial.

Alchian and Demsetz (1972) as well as Jensen and Meckling (1976) argue that management is monitored by share prices, that is, because the expected future outcomes of the manager's decisions show in the stock prices subsequent to the investments incurred, that shareholders have incentives to bring about expenses in order to impact corporate policies to an extent of replacing management if necessary. In such manner, managers have insufficient proof to gain experience from their own past mistakes and may overlook stock prices when they provide valuation to their investments, by that, not incorporating the market in their future investment decisions (Kau, Linck, & Rubin, 2008).

Some studies suggest that a larger block is more desirable due to increased monitoring, reduced free-rider problems and better incentives to intervene, and those are Admati, Pfleiderer, & Zechner, (1994), Bolton and von Thadden (1998), Holmström and Tirole (1993), Huddart (1993) and Maug (1998). Arguments that large blockholders are good for value also come from a new line of theoretical literature, for example Admati and Pfleiderer (2009) and Edmans (2009). Large shareholders of a firm can be other corporations, institutions, families, and government. Concentrated ownership most often affects the firm value positively, but an important issue here is that the effect frequently depends on who the large shareholders are (Denis & McConnell, 2003).

1.2 Objective of the Study

There is no significant relation between the presence of different kinds of blockholders, including individuals, institutions or corporations and firm performance (Mehran, 1995). According to Holderness (2003), the empirical studies showed that the relation between blockholders and firm value in the U.S. is negative at times, positive at other times, and never very definite. It would be interesting to examine how the presence of large blockholders affected the performance and valuation of US commercial banks during the financial crisis.

The empirical results in this thesis lead us to confirm that on average, banks with high percentage of closely held shares, which is a percentage higher than the median, experienced more losses than banks with low closely held shares. However, the bigger the size of the bank, the lower the losses incurred; but also, the bigger the valuation of the company in the market, market-to-book-value, the larger the amounts of losses incurred.

The purpose of this study is to present a clear understanding of the effects that closely held shares have on the profitability and performance of U.S. banks. Another objective is to measure the effect of risk management and corporate governance on the profitability of banks, specifically during the financial crisis of 2007. Moreover, the effect of different factors influencing profits of banks will be deduced with their degree of importance. This research will investigate the relation between risk management, corporate governance and banks' performance and earnings during the financial crisis of 2007 through 2009. Findings and results of the study will be presented using clear tables and figures as to create interest for potential readers.

1.3 Organization of the Research

This thesis is organized to deliver a serious review of important information concerning the impact of having large blockholders in banks before crisis on the profitability of banks during crisis. The research involves five chapters presented as follows.

Chapter 1 delivers a short introduction to the background of the research and outlines the objectives and needs of this study, as well as the scope and organization of the research.

Chapter 2 reviews the literature concerning the role of large blockholders used as the percentage of closely held shares, bank size, ROA, ROE and theories related to banks' profits.

Chapter 3 presents the research methodology, research questions and hypotheses, in addition to methods and procedures. Moreover, it discusses the research process, design, and development of the instrument, population, sample and data collection, as well as data analysis methods.

Chapter 4 provides the main data analysis and findings related to the research questions based on different tests discussed in Chapter 3.

Finally, Chapter 5 summarizes the key findings and discusses the research implications in addition to limitations and recommendations for future research.

Chapter 2

Literature Review

2.1 Introduction

Corporate governance is the instrument used to protect the minority shareholders from the expropriation by managers and controlling shareholders. It would be interesting to study the proximate effect of corporate governance on firm performance during the period of extreme stress and therefore, the recent financial crisis would present an interesting opportunity to research this relation.

Corporate governance becomes significant during financial crisis for two reasons. One reason is that the expropriation from large shareholders to minority shareholders could become more severe during a crisis. Johnson, Boone, Breach, & Friedman, (2000) argue that the reason behind that could be the decrease in the return on investment that leads managers to greater expropriation. The other reason is that a crisis draws attention to weaknesses in corporate governance that existed all along and pushes investors to take account and find solutions for it.

2.2 Theoretical Literature Review

There has been a considerable measure of empirical writing committed to prove whether the components that are used to diminish agency problems influence the value of the firm or not. This section will focus on the theoretical literature related to equity proprietorship by management, and equity ownership by blockholders and institutions, the two areas that will be consequently researched using a variable that includes both the insiders and outsiders shareholders.

2.2.1 Equity Ownership by Institutional Investors

As opposed to the board of directors, institutional financial specialists have turned out to be progressively eager to utilize their proprietorship rights to weight managers in order to act for the greatest advantage of the shareholders. As these investors have expanded their possession share in firms, there has been an increased highlight by regulators and analysts similarly to their part in the observing, training and influencing decisions of corporate managers.

A few late studies recommend that not every institutional investor is equivalent (Brickley, Lease, & Smith, 1988a; Almazan, Hartzell, & Starks, 2005). These papers estimate that some institutional financial investors have either existing or possible business relations with firms, and, keeping in mind the end goal to secure those relations, they may be less eager to defy management choices. These investors are thereby labeled pressure-sensitive. Conversely, institutions might be less subject to weight from the organizations to which they contribute, and accordingly are more qualified to screen, discipline and force controls on corporate managers. These institutional investors are labeled pressure-insensitive.

A behavioral model by Daniel, Hirshleifer, and Subramanyam (DHS 1997) discusses the judgment biases that might face investors or shareholders. They might overreact to certain events and underreact to others. There are some shareholders that are not involved in the investment process and do not monitor or follow up with managers. These uninformed investors do not usually face judgment bias. On the other hand, informed investors do affect stock prices and eventually the market value of the firm. Two biases will affect decision making; overconfidence and biased self-attribution. Overconfidence will mislead them in the valuation of stocks and the precision of their private signals toward a stock value. When public signals are different from private signals, biased self-attribution will prevent them from taking public signals as important ones and will not influence their decisions. Mispricing problems and wrong decisions will lead to more severe results for large stocks when shareholders are informed investors like security analysts (Fama, 1998).

An extensive group of research has concentrated on the part of institutional investors as corporate monitors. The method of reasoning is that due to the high cost of monitoring, extensive shareholders only, for example, institutional shareholders may complete adequate advantages to have a motivating force for monitoring (Grossman and Hart, 1980). In addition, vast institutional speculators have the opportunity, assets and ability to monitor, train and influence supervisors. Shareholders with larger voting and income rights have correspondingly more prominent force and motivations to shape corporate conduct than smaller proprietors. From this viewpoint, ownership structure impacts the ability of owners to modify bank hazard according to both standard risk shifting incentives and motivations created by regulations that were set out by officials (Boyd and Hakenes, 2008).

Maug (1998) notes that if institutional investor shareholdings are high, shares are less attractive and thus, they are held for more periods of time. In this case, there is more prominent motivation to monitor a firm's management. Notwithstanding, when institutional investors hold generally few shares in a firm, they can easily liquidate their investments if the firm performs ineffectively, and they consequently have less incentive to monitor.

2.2.2 Equity Ownership by Board Members

Several studies argue that stock and/or option ownership by board members and executive officers gives them an incentive to monitor managers carefully in order to ensure that the firm is run efficiently (Brickley, Lease, & Smith, 1988b). Board independence as well as stock ownership of board members and managers are considered board characteristics that are important determinants of corporate governance (Bhagat and Black, 2002). Demsetz and Lehm (1985) argue that efficient corporate governance system may be affected and altered by the impact of management and board ownership. The effect on the bank's profitability will alter with the monitoring incentive and ability of outsiders (Jensen, 1993; Berger, Ofek, &Yermack, 1997).

A theory by Gorton and Rosen (1995) states that when bad managers own low level of shares, they try to persuade external shareholders that they have good intentions and are good managers, by investing in riskier projects that turn out to be ultimately unprofitable. On the other hand, when management ownership level is very high, the optimal risk-taking behavior is still not achieved and still not optimal. Due to the fact that the manager's wealth is now linked to the bank; managers are more prone to engage in hedging and other risk-reduction strategies (Jensen and Meckling, 1976; Smith and Stulz, 1985; Demsetz and Lehn, 1985).

Hermalin and Weisbach (2007) highlight the pros and cons of greater board stock ownership, discussing the incentive effects of the ownership and how it aids in the equilibrium of costs and benefits in the firms. Major equity ownership by managers will eventually reduce agency problems and align their interests with ones of the external shareholders. They will have the push to pursue value maximizing behavior. Thus, ownership by managers is positively associated with decisions that lead to value maximization (Hanson and Song, 2000). The conflict of interest between managers and shareholders and the risk behavior accordingly are also discussed in the research conducted by Galai and Masulis (1976) and Esty (1998).

The inability to find a direct relation between the managers' investment decisions and the stock price movements was explained by Jennings and Mazzeo (1991) and returned to the fact that managers extract more information from the market than the shareholders. There are some mechanisms that shareholders can use to control agency problems; like ownership incentives, incentive compensation and monitoring by the board of directors (Baker & Gompers, 2003). When shareholders design compensation contracts, they indirectly induce managers to combine private information they have with inferences concluded from stock prices. Since the contract is linked to the stock price subsequent to the investment decisions, it links managerial pay to performance, and thus, aligns the shareholders' interest with one of the managers.

On the other hand, a major concern pointed out by Morck, Shleifer, & Vishny, (1988), is the entrenchment problem where managers that own a considerable fraction of equity in

a firm may feel to secure in their job positions and might not work to maximize the value of their firm. They would for example design compensation arrangements or pursue projects with personal benefits, not caring about the consequences arising and the effect these decisions will have on outsiders.

2.2.3 Equity Ownership by Blockholders

Previously conducted studies on bank ownership focus on the performance impact of organizational form (Altunbas, Evans, & Molyneux, 2001; Iannotta, Nocera, & Sironi, 2007) and blockholder ownership (Caprio, Laeven, & Levine, 2007; Laeven and Levine, 2009).

Additionally, the presence of large blockholders or organizations can increment and enhance the level of monitoring, and consequently prompt better firm performance. Then again, it is probable that managers, blockholders or institutions holding substantial ownership stake could possibly lead them to stress more over their own advantages and interests and not over those of outside shareholders. Bebchuk, Kraakman, & Triantis (2000) examine how controlling shareholders may seek after goals that are inconsistent with those of minority shareholders.

Shleifer and Vishny (1986, 1997) contend undoubtedly that ownership concentration is, alongside legal protection, one of two key determinants of corporate governance. Extensive shareholders can advantage minority shareholders since they have the power and incentive force to avert expropriation. However, expansive shareholders can themselves participate in expropriation.

Dye and Sridhar (2002), for instance, contend that capital markets can be better informed about the firm itself, while Roll (1986) argues that managers may overlook market signals because of hubris, excessive pride or self-confidence. In a paper by Kau et al. (2008), they look at whether managers listen to the market in making major corporate investments, and whether agency costs and corporate administration mechanisms disclose the managers' tendency to tune in. They find that, on average,

managers listen to the market: they will probably cancel investments when the market responds unfavorably to the related declaration. Further, they find a mixed confirmation consistent with the idea that managers' affinity to listen is identified with agency costs. They observe that organizations have a tendency to listen to the market progressively when a greater amount of their shares is held by substantial blockholders.

Another point of view suggests that there is no systematic relation between ownership structure and the performance of a firm due to the fact that the ownership structure is a product of decisions by many shareholders all having the same objective of maximizing their wealth (Demsetz and Villalonga, 2001).The connection between ownership and firm performance and eventually its value has been studied internationally. Managerial behavior influences risk-taking in firms and hence affects financial and economic fragility in financial turmoil, as emphasized by Bernanke (1983), Calomiris and Mason (2003), and Keeley (1990).

A typical research on bank risk-taking does not incorporate information on bank's ownership structure (Keeley, 1990; Kroszner and Rajan, 1994; Hellmann, Murdoch, and Stiglitz, 2000), but theories related to standard agency emphasize that ownership structure influences corporate risk-taking (John, Litov and Yeung, 2008).Owners with diversified portfolios encourage more risk-taking than debt holders and non-shareholder managers. As in any restricted liability firm, diversified owners have motivations to expand bank risk subsequent to gathering reserves from bondholders and depositors (Galai and Masulis, 1976; Esty, 1998). From this point of view, banks with an ownership structure that engages large diversified owners take more risk than banks with proprietors who play a more curbed governance part.

Owners select riskier investment portfolios because they might compensate for the loss of utility due to stricter capital requirements (Koehn and Santomero, 1980; Buser, Chen, and Kane, 1981). This intensifies the conflicts between managers and owners over bank risk-taking. Corporate governance is a substantial factor in market development and firm

value across countries. This idea is highlighted in recent research (Porta, Lakonishok, Shleifer, &Vishny, 1997, Shleifer & Vishny, 1986).

Rajan and Zingales (1998) contend that speculators overlooked shortcomings of East Asian firms while the locale was doing great financially, yet immediately hauled out once the crisis started, in light of the fact that they trusted the region that needed additional institutional protection for their investments. For the reasons above, firms with weaker corporate governance could have generally lost more value amid the crisis.

Ownership concentration is another aspect of corporate governance studied in literature. La Porta, Lopez-de-Silanes, Shleifer, & Vishny (1999) finds that in countries where there is relatively poor shareholder protection, there are usually high degrees of ownership concentration that raises the conflict between large shareholders and minority shareholders, which presents the primary corporate governance problem in such countries. DeYoung et al. (2001) show that banks with high percentage of closely held shares confront a typical monitoring issue. Specifically, market discipline, institutional oversight and direct checking of these banks are either occupied or ineffective instruments for moderating agency costs. Without proper monitoring, bank shareholders may be encouraged to invest in riskier activities in order to expand their wealth to the detriment of depositors.

Existing research likewise breaks down how the level of ownership concentration influences bank performance. The impacts of ownership concentration on firm activities are hypothetically intricate and empirically ambiguous. Shleifer and Vishny (1986) as well as Aghion and Tirole (1997) demonstrate that a concentrated ownership may enhance firms' performance by expanding monitoring and mitigating the free-rider issue in takeovers. Another potential expense of concentration may come about if managerial initiative is subdued by excessive monitoring (Burkart, Gromb, & Panunzi, 1997). According to theoretical and empirical literature, agency problems and risk-taking behavior are diverse relying on the nature of the shareholder.

2.3 Empirical Literature Review

In a study conducted by Kau et al (2008), evidence found that managers are more prone to listen to the market when it reacts unfavorably to the investment's announcement, to the extent that they cancel it. This study was made on a sample of large investments proposed by firms. Another result was that managers tend to listen to the market more when large blockholders that own greater share of the firm are present. On the other hand, Hersey & Blanchard (1993) analyze whether managers consider market valuations when settling on choices, regardless of the fact that it varies from their assessment of the project. They infer that market valuation seems to play at most a constrained role in influencing decisions related to the investment.

In researches conducted by McConnell and Servaes (1990), Nesbitt (1994), Smith (1996) and Del Guercio and Hawkins (1999), all have empirically confirmed the hypothesis stating that corporate governance presented by monitoring through institutional investors can result in managers concentrating more on corporate execution and less on opportunistic or self-serving conduct.

The empirical results in a paper by Cornett, Marcus, Saunders, & Tehranian (2007) lead to the confirmation of a positive relation between measures of the involvement of institutional investors and an institution's operating cash flow returns. A positive relation was found between pressure-insensitive institutional investors and operating cash flow returns of firms. This proves that the type of institutional investors; pressure-insensitive or pressure sensitive holding stock matters.

It seems clear in a study conducted by Gillan and Starks (2000) that corporate governance proposals supported by institutional investors get more votes than those sponsored by independent individuals or small investors. This proves that large stakeholders and institutional investors have become increasingly active in corporate governance, specifically in underperforming organizations.

Nesbitt (1994), and Del Guercio and Hawkins (1999) all find a positive relation between institutional investor ownership and various measures of firm performance. Also, McConnell and Servaes (1990) find that the percentage of institutional investor ownership is positively related to a firm's operating cash flow returns. On the other hand, Agrawal and Knoeber (1996), Karpoff, Malatesta, and Walkling, (1996), Duggal and Millar (1999) as well as Faccio and Lasfer (2000) find no such significant relation between the two variables.

Furthermore, the economic impact of institutional ownership percentage is relatively significant. Cornett et al. (2007), for example, found in a time series regression conducted, that an increase of one within-firm standard deviation in institutional ownership that represents an increase of 9.2 percentage points would increase industry-adjusted ROA by 0.31 percentage points. These outcomes affirm that higher institutional investments are indeed connected with better operating performance and are consistent with the hypothesis stating that institutional possession upgrades monitoring of corporate directors.

In a study conducted by Westman (2011), empirical findings confirmed that management and board ownership both have a positive impact on bank profitability. These findings hold up the hypothesis that the ownership of managers is especially vital in banks where outsiders face difficulties monitoring them (Demsetz and Lehn, 1985), and that board ownership is particularly important in banks where the safety net decreases the monitoring incentives of outsiders. DeYoung et al. (2001) found that hiring a manager that owns shares in the firm would align his interests with the ones of the shareholders, and thus, would increase the profitability of the bank.

Jensen and Meckling (1976) demonstrate that managers with low-possession stakes may pick investments that augment their own particular utility at the expense of shareholders. For this reason, high management ownership aligns the interests for directors and shareholders, subsequently lessening the agency costs. Garcia-Cestona and Surroca (2008) figured that Spanish reserve funds banks that are controlled by insiders, such as

managers, employees, depositors and founders, would gain additional profits over banks regulated by outsiders like regional governments. Demsetz and Lehn (1985) found that in companies that are hard to monitor, managerial behavior plays a more substantial role in the returns of firms, pushing them to rely on profit sharing or partnership structure.

The relation between management ownership level and performance appears to have a nonlinear, inverted U-shape (Stulz, 1988). The nonlinearity in the relation between management ownership and risk-taking might explain the inverted U-shape. Brewer and Saidenberg (1996), Cebenoyan, Cooperman, & Register, (1999) all report empirical evidence for nonlinearity in the connection between risk and insider control. Regarding the nonlinear association between managerial ownership and profitability, Cebenoyan et al. (1999) find that in times of lax administrative regulations, there is a positive association between managerial ownership and profitability only if the level of ownership is under the threshold level of 24%. Also, DeYoung et al. (2001) report an inverted U-shaped connection between management ownership and profit efficiency in small US banks with the relation peaking at 17%.

Stock ownership of individuals and board members partition is altogether significantly correlated with better contemporaneous and consequent operating performance. Given poor firm execution, future operating performance and the likelihood of disciplinary management, turnover in poorly performing firms is positively related to stock ownership of individuals and to board independence (Bhagat & Bolton, 2008). These findings are important for researchers, policy makers and corporate boards that aim to improve corporate governance. In terms of percentage, a 1% increase in governance as measured by the G-index is related to a positive increase of 0.854% in operating performance in the current period taken, a 0.763% change in next year's operating performance and a 0.287% change in the next two years' operating performance (Bhagat & Bolton, 2008).

There are significant relations between firm value and the percentage of shares owned by inside directors (Morck et al., 1988). However, McConnell and Servaes (1990) demonstrate a positive relation between firm value and ownership by insiders when the percentage of ownership is below 50%, and a negative relation above this percentage. In contrast with these studies, Demsetz and Lehn (1985) find no significant correlation between the stake ownership and firm performance.

The incentive effect is shown in a study conducted by Gorton and Schmid (2000) through a positive association between firm value and insider ownership in Germany. However, Short and Keasey (1999) find that when ownership reaches 12%, a negative impact on firm value for U.K. firms is observed. This result is consistent with an entrenchment effect. Using a sample of firms from eight East Asian countries, Claessens, Djankov, Fan, & Lang (2002) and Denis and McConnell (2003) found support for both incentive and entrenchment effects.

When the level of insider ownership is less than 10%, OLS regressions show a negative correlation between ownership and performance. However, institutional investors are shown to have a positive effect on firm value (Keasey, Thompson, & Wright, 2005). The fact that banks controlled by managers take less risk than banks controlled by shareholders was empirically proven by Saunders, Strock, & Travlos, (1990) that were among the first to test the effect of bank's ownership structure and the risk incentives, and found a positive relation between the two.

Various studies have inspected whether blockholders and/or institutions influence the estimation of the firm. McConnell and Servaes (1990) locate a positive relation between firm value and the percentage of institutional ownership; however, there is no noteworthy relation between firm value and shares held by blockholders. Mehran (1995) finds no critical relation between firm value and blockholders. Holderness (2003) confirms the correlation between blockholders and firm value in the U.S., and also contends that the relation is not exceptionally solid. Holderness and Sheehan (1985), Mikkelson and Ruback (1985), as well as Barclay and Holderness (1991) all report

declaration of profit when outsiders acquire large blocks of stock, which may recommend that stockholders believe that efficient gains may be forthcoming.

Laeven & Levine (2009) shows that banks take higher risk when there is a comparative power of shareholders within the corporate governance structure of each bank. Moreover, it shows that the relation between bank risk and capital regulations, deposit insurance policies, and restrictions on bank activities significantly rely on each bank's ownership structure, in a way that the actual sign of the marginal effect of regulation on risk varies with ownership concentration. These studies demonstrate that the same regulation effects banks risk taking differently, rely upon the bank's corporate governance structure. In a compelling exception, Saunders et al. (1990) observe that proprietor-controlled banks display higher risk-taking conduct than banks controlled by managers with little shareholdings.

To begin with, the key findings reveal that bank risk is by and large higher among the banks that have huge owners with significant cash flow rights. This result is consistent with the theory stating that more prominent income rights by a huge proprietor are connected with more risk. Levine (2009) finds that banks with all the more effective owners tend to go for higher risks. This is steady with theories anticipating that equity holders have more grounded motivations to expand risk than non-shareholding directors and debt holders. Another theory that was empirically proven is that large owners with significant cash flows have the influence and power to incite the banks' managers' into increasing risk-taking (Levine, 2009).

Regressions demonstrate a higher return of 2.6% on average for each increase of 10% in the ownership of the biggest shareholder, subsequent to controlling for size, debt, country and industry. This outcome recommends that the crisis amplified the valuation premium for developing business sector firms with large blockholders before crisis. Taken together, the outcomes strengthen the case proving that corporate governance significantly affected firm performance amid the East Asian crisis. The outcomes are

imperative since they add to our comprehension of the connection between corporate finance and macroeconomic events (Laeven & Levine, 2009).

These outcomes show that the presence of a solid blockholder was essential amid the crisis and predictable with the theory that a strong blockholder has the motivation and incentive to prevent expropriation of minority shareholders. Moreover, it supports the theory that if blockholders are included in management, they could have more chances or incentives for expropriation of minority shareholders.

Laeven (2002) finds through his examination of ownership concentration, deposit insurance and bank risk in 14 countries, a positive relation between ownership concentration and bank risk-taking. However, Barry, Lepetit, & Tarazi (2011) use European banks from 16 countries and found that for the periods between 1999 and 2005, a movement in equity from institutional investors to individuals and families or to banks, resulted in a drop in asset risk and default risk, yet observed no adjustment in profitability. For publicly held financial institutions with more diffused proprietorship, an adjustment in ownership structure had no impact on risk-taking.

External blockholders normally play the role of monitors and may be a great push to generating superior corporate performance. Empirical evidence provided by Holderness and Sheehan (1985) and by Barclay and Holderness (1991) shows that management turnovers along with stock performance profits increase after block share purchases. Studies by Shome and Singh (1995) and by Allen and Phillips (2000) also show enhanced financial performance as a result of block purchases. Bethel, Liebeskind, & Opler (1998) give additional proof that lobbyist's block purchases are trailed by corporate restructuring, unusual increase in share price and industry balanced operating profitability profits.

The extent of the outside blockholders stake mirrors the level of external monitoring of administrative choices, while the degree of equity ownership by managers shows the level of managers' compatibility and the shareholders' interest.

In accordance with Saunders et al. (1990), a few studies locate a critical impact of ownership concentration on risk-taking, however, with no agreement on the sign of such a relation. That is to say, some studies locate a negative relation, though others obtain a U-shaped relation (or inverse U shape) between ownership concentration and risk (Gorton and Rosen, 1995; Anderson and Fraser, 2000), which could be clarified by the entrenchment of managers.

Experimentally, Boubakri and Ghouma (2010) find that expropriation by controlling stakeholders influences bond performance, both regarding yield spreads and ratings. This is steady with their investigation that finds that concentrated possession control is connected with higher bankruptcy risk and greater return volatility for an example of listed commercial banks in East Asia and Western Europe. Conversely, working with a board of 50 countries, Louzis, Vouldis, & Metaxas (2012) find that when ownership fixation is more prominent than half, the volume of non-performing loans diminishes.

Institutional investors like venture organizations, investment advisors and pension funds that exercise critical voting force, can shape the nature of corporate risk-taking. When it comes to the shareholder's size and expertise in handling data and monitoring managers, such investors are not quite the same as atomistic individual investors, since they can apply more prominent control for reasons of economies of scale in corporate supervision. Pound (1988) demonstrates that institutional investors can practice control at a lower cost since they have more experience. On the other hand, managers and institutional investors may likewise shape an alliance in which insider intrigues take priority over the boost of firm value. In the meantime, institutional investors may have lower motivations to practice control because their portfolio of investments is already diversified.

2.4 Conclusion

When potential monitors own shares in the firm, they become more enthusiastic about monitoring the management with shareholders, and this gives them a prominent motivating strength to settle on choices for the greatest advantage of shareholders. Perry (2000) demonstrates that the more stock boards own, the greater the effort they make in management observation. Moreover, Wu (2004) argues that extensive blockholders have more noteworthy incentives to follow up with management decisions. Gillan and Starks (2000) suggest that if institutional owners are active, they would be effective at backing up the shareholder's proposals and objections. This infers that managers whose organizations have more prominent possessions by outside shareholders will probably listen to the market (Kau et al, 2008).

Along similar lines, much emphasis was put on the role of bad corporate governance in fragilizing the financial system (Bullard, 2010; Aebi, Sabato, &Schmid, 2012; Flannery et al., 2013). Was the presence of dominant shareholders' monitoring capable of limiting the risky behavior of particular commercial banks, and consequently limiting their losses during the crisis? When efforts are made to improve corporate governance, stock ownership of insiders should be considered, given its positive relation to the future operating performance. If stock ownership of large blockholders is high, then in poorly performing firms the percentage of disciplinary management turnover would be also high, due to the ease of managerial behavior monitoring. If proponents of board independence seek to improve performance, then these efforts must consider the negative relation between board independence and future operating income (Bhagat & Bolton, 2008).

McConnell and Servaes (1990) demonstrate a positive relation between firm value and ownership. In addition, Holderness and Sheehan (1985), Mikkelson and Ruback (1985), Barclay and Holderness (1991) all report declaration of profit when outsiders acquire large blocks of stock.

Or, did those large shareholders boost the risk-taking attitude of commercial banks that consequently made them vulnerable during the crisis? Did the presence of blockholders influence the management to ignore signals from the market? Laeven and Levine (2009) shows that banks take higher risk when there is a comparative power of shareholders within the corporate governance structure of each bank. Moreover, Saunders et al. (1990) observe that banks controlled by blockholders display higher risk-taking conduct than banks controlled by little shareholdings.

Bhojraj and Sengupta (2003) as well as Shleifer and Vishny (1997) show that large blockholders can be detrimental to firm value as they might simply try to secure private benefits by misusing their increased power for preferential self-treatment at the expense of other stakeholders, including minority shareholders. Greater aggregate block ownership can also reduce firm value by over-monitoring. If the large blockholders use their power to hold up managers, then managers will be discouraged to take investments that might be costly to the firm because of risk-taking. Ultimately, the firm misses out on profitable investment opportunities (Aghion and Tirole (1997), Burkart et al. (1997)). By relying on a unique dataset that covers the ownership composition of large US commercial banks, this study aims at answering these questions.

Chapter 3

Methodology

3.1 Introduction

As can be seen in the previous chapter, ownership structure may have a major impact on firm performance. Many studies were conducted to clarify the relation between the ownership structure and the banks' financial performance. Japanese firms are found to restructure faster after the performance's declines when they have blockholders, compared to banks without blockholders (Kang and Shivdasani, 1995). In Germany, the firms' financial performance is positively related to ownership concentration (Gorton and Schmid, 2000). On the other hand, Kaplan & Minton (1994) argues that there is no relation between the two. Claessens & Djankov (1999) reported after the study of Czech firms that there is a positive relation between equity concentration and profitability. When efforts are made to improve corporate governance, stock ownership of insiders should be considered, given that it is positively related to the future operating performance. McConnell and Servaes (1990) demonstrate a positive relation between firm value and ownership. In addition, Holderness and Sheehan (1985), Mikkelson and Ruback (1985), Barclay and Holderness (1991) all report declaration of profit when outsiders acquire large blocks of stock.

Laeven and Levine (2009) shows that banks take higher risk when there is a comparative power of shareholders within the corporate governance structure of each bank. Moreover, Saunders et al. (1990) observe that banks controlled by blockholders display higher risk-taking conduct than banks controlled by little shareholdings. Bhojraj and Sengupta (2003) as well as Shleifer and Vishny (1997) demonstrate that large blockholders can be detrimental to firm value, as they might simply try to secure private benefits by misusing their increased power for preferential self-treatment at the expense of other stakeholders, including minority shareholders. Greater aggregate block ownership can also reduce firm value by over-monitoring. If large blockholders use their

power to hold up managers, then managers will be discouraged from making investments that might be costly to the firm because of risk-taking. Ultimately, the firm misses out on profitable investment opportunities (Aghion and Tirole (1997), Burkart et al. (1997)). Looking at different theories and empirical studies, this research raises the question about whether ownership concentration will have an impact on firm performance when viewed during financial crisis.

3.2 Research Question and Hypothesis

Given the importance of the 2007-2009 financial crisis and its effect on the financial system as a whole, this study focuses on the impact that ownership structure has on the performance of banks during this period, especially after having noticed a gap in literature.

This research question is formulated in the following main hypothesis: Does Ownership concentration have a major impact on firm performance?

3.3 Definition of Variables

The variables that are going to be used in the model are selected from related studies made by researchers and collected after reviewing the literature that explains the above hypothesis. The related data are going to be empirically tested in order to obtain the results that clarify the hypothesis. Independent, dependent and control variables are used.

3.3.1 Independent Variable

The objective of this research resides in studying the impact of ownership structure on the financial performance of financial institutions, banks in particular. Therefore, the main explanatory variable in the model will be the ownership structure; a key firm-specific governance mechanism (Denis and McConnell, 2003). This corporate governance mechanism is measured as of 2002, subsequent to the dot com crisis.

As for ownership structure, this research emphasizes institutional, board members and blockholder ownership as previous studies suggested that all the above describe ownership concentration (Thomsen, Pedersen, & Kvist, 2006; Erkens et Al., 2012). Thus, it represents important disciplining and monitoring roles (Gillan and Starks, 2007). In the regression analysis, the three groups of shareholders listed above are merged into one variable that is going to be used in the model; the closely held shares. High closely held shares will be measured as a dummy variable equal to 1, if a firm has a median equal or higher than 15% of closely held shares, by using the data retrieved from Datastream (2016).

3.3.2 Dependent Variables

On the other hand, the main dependent variable in our study is the firm's financial performance. Financial performance can be measured in different ways. Previous researches used both accounting measures of performance and stock market based measures as well. As seen in literature, there are two accounting measures of bank performance representing the firm's profitability before and during the crisis, which are the return on assets (ROA) and return on equity (ROE) (Joh, 2003; Thomsen et al., 2006; Bhagat and Bolton, 2008; Schmid et al., 2012). ROA in this research is considered as the bank's net income divided by the average assets. Although some studies take the assets of a firm in the beginning of a period or at the end of it, the choice of taking the average assets consists in the fact that assets of business tend to vary from the beginning to the end, as well as the assets employed in the acquisition of profits. ROE will be defined in this study as the net income of the bank divided by the book value of equity at the time.

Accounting profitability is a good measure of firm performance and it is preferred in some researches over stock market based measures. The reason behind it is that accounting measures reflect all available information, unlike stock prices when the stock market is inefficient (Demsetz and Lehn, 1985).

Second, accounting profitability allows the researcher to assess the performance of publicly traded banks as well as privately held ones. Third, the accounting profitability of banks is more directly related to its financial survival rather than its value in the stock market (Sung Wook Joh, 2003). Furthermore, performance based on stock market valuation may be overestimated or underestimated since it is prone to the investor's anticipation (Bhagat and Bolton, 2008) and might include forward-looking bias and noise (Demsetz and Villalonga, 2001; Thomsen et al., 2006).

On the other hand, taking into consideration that accounting measures may be affected due to different accounting treatments and measurement mechanisms, the market valuation based on stock prices will also be used to try to minimize the limitations in this research. Market-to-book value (MTBV) is also included as a dependent variable to inspect whether the growth expectations of the market and thus, the MTBV during the crisis is linked to ownership concentration before the crisis (Levine, 2005). Data related to this variable is collected from Datastream (2016). It is defined as the share price of the firm divided by the book value of the shareholder's equity per share (Financial Times Lexicon, 2016). Dependent variables are studied during the crisis because performance at this period may reflect a reversal of pre-crisis governance (Beltratti and Stulz, 2010).

3.3.3 Control Variables

Controls are included in our research trying to mitigate possible biases resulting from omitted variables. Otherwise, any correlation in the empirical study might be false. Upon selection of these variables, we make sure that they are not directly influenced by the independent variable, not to confound with the other variables. This may lead to wrong inferences in the relation between the main explanatory variable and the others (Zhang, Creal, Koopman, & Lucas, 2011).

The first control variable selected is the Debt-to-Assets ratio. This variable is taken into account to study the effect of a firm's leverage, the debt on the profitability of the banks. It is measured as the firm's total debt divided by the average assets of the period (Seifert, Gonenc, & Wright, 2005). Literature review suggests that there is minimal causality between closely held shares and debt (Holderness et al., 1999; Holderness and Sheehan,

1988; Mikkelson and Partch, 1989). Therefore, it can be taken as a control variable in this study.

Another control variable included in the study is the size of the bank or the market value (MV).It is defined by the firm's market value of equity during that time in millions of dollars. Most probably, the bank's market value is unlikely correlated with the presence of closely held shares. Therefore, it would be a suitable control variable in the model (Zhang et al., 2011).

Moreover, the third control variable in this research is the price-earnings ratio (PE). It is measured by the firm's current share price relative to its per-share earnings at that time. Price-earnings ratio is selected since it might give insight to the investor's predictions about future operational performance of the firm.

3.4 Population, Sampling and Sample Size

As a starting point, the population selected in this research consists of all U.S. banks available in the DATASTREAM database. The banks in the DATASTREAM database are primarily commercial banks. Our sample is a census sample, as the population represents all the U.S banks. Every member of the population is enumerated or taken as an individual entity. The initial count of 1576 banks is reduced by all the observations for which either a governance variable or financial data is missing, or by a bank-period observation. This leaves us with a sample of 98 banks that we attempt to perform our study on.

The choice of U.S banks was relevant to the fact that banks there are bound by regulations to disclose all information on a quarterly basis. This will help us find the data we need to use in the empirical analysis. Moreover, the U.S market can be considered as the most important market worldwide as it can influence other markets and be their model. Thus, this research can be useful and significant.

We perform the analysis on data based on a sample of financial institutions from 2002 till 2009, since the purpose of this study resides in comparing the impact of corporate governance on risk taking and eventually, the performance of firms before and during the crisis. Data will be divided on a quarterly basis. The total number of observations will be 32 quarterly observations. The choice of 2002 as the beginning year was due to the recession that started with the dot com bubble in 2000 and ended in November 2001, according to the National Bureau of Economic Research (2016), knowing that the emphasis of this research was put on the financial crisis of 2007 exclusively and was not meant to include other crises. This will help minimize statistical bias and errors.

The scope of the study will be divided into two periods of time. The first period starts in the first quarter of 2002 and ends in the third quarter of 2007 that includes the period preceding the start of the crisis. A total of 28 quarters is obtained. The second period intended to represent the crisis period is taken from the fourth quarter of 2007 till the end of 2009. The time span of the crisis is specified based on the announcement of the National Bureau of Economic Research (2016). Nine quarters are included in the sample. The final sample consists of 3136 quarterly observations of 98 banks covered over the period of 2002 till 2009.

3.5 Research Strategy

The strategy is divided into two parts; first, a comparative survey of secondary information which is in this case a literature review used in order to come up with a list of the most logical variables to be included in the study. Second, the study conducted relies, as mentioned before, on data collected from DATASTREAM database, and used to collect online needed information. This research will stress on quantitative content analysis. Given that there will be access to international and cross-historical data that will be of higher quality and will involve larger samples that are more representative of the population, the study will appear to have greater external validity and can be more credible for future researches (Koziol, 2011). In fact, this research relies on data presented by banks and available to the public. Data will be retrieved, tested and then analyzed in order to come up with conclusions regarding the effect of corporate

governance on the performance of banks. Here is why, as explained by Bearman (1995), the research strategy used is an archival method, based on previously gathered data and observations. From a similar perspective, the research methodology used is content analysis that is known to be used in social sciences. It is a method that draws the importance and implication of content, allowing the researcher to statistically test and analyze the material. It can be used in both quantitative and qualitative studies (Lock and Seele, 2015).

3.6 Research Methodology and Analysis Framework

Methodology is the design behind the choice of any particular method, or the overall approach to the research process (Hussey and Hussey, 1997). It is concerned with the collection of data, the reason behind collecting them and the place and time of collection, as well as the method adopted to collect and analyze them.

There are many methodologies such as experimental research, survey research, ethnography, phenomenological research, grounded theory, heuristic inquiry, action research, discourse analysis and feminist standpoint research (Crotty 1998). Among these methodologies, the experimental research methodology will be used in this study. The positivist approach is dominant in the research.

A regression analysis is a statistical method used to study dependency relations. A regression is usually performed either to assume the value of the dependent variable for individuals where information concerning the independent variables are available, or to predict the effect of some independent variables on the dependent ones (Sen and Srivastava, 1990). In order to test the impact of high closely held shares on ROE, ROA and Market-to-Book-Value, a regression analysis is needed. Data and content analysis relies in this research on observing the effect of different variables on the performance of banks. Profitability of banks are tested using several variables including the variable related to the bank's corporate governance represented by high closely held shares, along with control variables considered to assess the performance of U.S banks.

Following data collection, a traditional panel regression, the Ordinary Least Square (OLS), based on OLS estimators will be used in this research, and the proposed model could be the following:

$$\mathbf{Y = a + bX_1 + cX_2 + dX_3 + eX_4 + fX_5 + gX_6 + e}$$

The data is collected on all dependent and independent variables, where Y can be the profitability parameter, including Return on Assets (ROA), the ratio of a bank's annual earnings to its total assets, Return On Equity (ROE) which is the rate of return on shareholders' equity and Market-to-Book-Value (MTBV). On the other hand, the Xs will be the predictors of the corporate governance's effect, such as the percentage of high closely held shares, the debt of the bank, the size of the bank measured by the market value, price-earnings ratio (PE), the return on equity before the crisis, and finally the model will include e the error term. Based on the above, a regression can take place, and the outcomes can be studied and analyzed. These variables are used to build the model that will enable the analysis of the findings to be pursued. All the numbers and percentages will be produced with E-VIEWS software.

Chapter 4

Results and Findings

4.1 Introduction

This chapter will present descriptive statistics, correlation between variables, univariate analysis as well as empirical findings related to the impact of ownership concentration on financial performance and valuation banks in U.S. These findings will be analyzed to provide an answer to the research question and to either accept or reject the hypothesis previously set.

4.2 Descriptive Statistics

Table 1: Descriptive Statistics

Note: This table represents descriptive statistics for the continuous variables in the sample. For each empirical variable, the mean, median, maximum, minimum and standard deviation values are reported. Please refer to Appendix1 for an accurate description of the variables.

Variable	Mean	Median	Max	Min	SD
CLOSELYHELD_BEFORE	20.04	14.70	79.21	0.56	16.49
CLOSELYHELD_DURING	17.31	11.74	76.45	0.52	16.00
DEBT_TO_ASSETS_1	14.86	13.33	41.68	1.48	8.54
DEBT_TO_ASSETS_2	15.18	13.37	38.81	0.28	8.48
EMPLOYEES_1	6110.48	395.59	170573.57	42.87	26741.88
EMPLOYEES_2	9390	433.67	261444.44	50.67	42869.28
MTBV_BEFORE	1.87	1.81	3.80	0.80	0.54
MTBV_DURING	1.33	1.25	2.78	0.40	0.45
MV_BEFORE	4747.94	225.08	163241.18	11.62	22025.50
MV_DURING	4884.36	239.77	143240.26	12.99	22408.78
PE_BEFORE	17.58	16.03	81.29	11.64	7.69
PE_DURING	15.26	14.55	31.39	7.36	4.33
ROA_BEFORE	1.51	1.47	3.41	0.71	0.43
ROA_DURING	1.07	1.04	2.12	0.02	0.39
ROE_BEFORE	13.29	13.30	27.78	5.24	4.01
ROE_DURING	8.42	8.27	21.73	-3.02	4.40

Table 1 shows the descriptive statistics of the empirical variables, the components of the profit and the control variables employed in this study. Statistics are provided for the entire sample and are also split up into two periods of time that will help detect a period's specific trend. Not surprisingly, statistics on ownership structure illustrate that ownership concentration in U.S. firms is relatively high, with a mean (median) of 20.04% (14.70%) before the crisis, while decreasing to a mean (median) of 17.31% (11.74%) during the crisis, suggesting that sample firms are dominantly controlled by shareholders with substantial control over them. Such a result confirms that the control represented by ownership rights is typically and heavily concentrated in the hands of a few shareholders in American banks.

As for the firm with the highest percentage of closely held shares of 79.21%before the crisis, which is California First National Bank, we found out that it had an ROE of 5.24% before the crisis, that is to say 2 standard deviations lower than the mean. Another result that stands out is the ROE of -3.02 during the crisis at the Heritage Oaks Bank that had a percentage of closely held shares of 34.4%, that is around 1 standard deviation higher than the mean. This implies that firms with high percentage of closely held shares might earn a lower return than firms with low percentage of closely held shares. Nevertheless, this conclusion needs to be validated in a detailed parametric analysis.

With regard to the control variables, we found that banks in our sample have a Debt-to-Assets ratio of a mean (median) of 14.86% (13.33%) before the crisis, and it slightly increased to 15.18% (13.37%) during the crisis. This might be an effect caused by the credit crisis to the management of the firms that made them change their capital structure and increase their debts. In 2008, during the financial crisis, the U.S. treasury invested around $245 Billion in an attempt to stabilize the banking system through the Troubled Asset Relief Program (TARP) (U.S Department of Treasury, 2016). The banks took support from the government against warrants that they will repay in a later period.

The mean (median) of the price earnings ratio decreased from 17.58 (16.03) before the crisis to 15.26 (14.55) during the crisis. This might be the result of the investors' expectations to lower returns in the future during the crisis. Our sample firms range in number of employees from 42 to 170574 employees, in contrast with most U.S. studies that only examine the largest firms in the country. The presence of firms with smaller number of employees will enable us to study the different influences the behavior of management has on risk taking, and eventually the performance measured by ROE, ROA and MTBV in our research. Descriptive statistics show that the average number of employees increased during the crisis in the firms. This might be due to the mergers and acquisitions that happened at the time. As an example, Wells Fargo &Co, the firm with the maximum mean number of 261,445 employees during the crisis, acquired CIT's construction unit, Placer Sierra Bank and Greater Bay Bancorp in 2007. Moreover, it acquired United Bancorporation of Wyoming, Century Bancshares of Texas and Wachovia Corporation in 2008. Finally, it acquired North Coast Surety Insurance Services in 2009 (Wells Fargo, 2016). This explains the increase in the number of employees during the crisis period. Finally, the average market to book value ratio decreased from 1.87 to 1.33 during the crisis.

Table 2: Correlation between Variables before Crisis

	CLOSELYHELD	*DEBT*	*EMP*	*MTBV*	*MV*	*PE*	*ROA*	*ROE*
CLOSELYHELD	1							
DEBT	-0.2134	1						
EMP	-0.2188	0.2510	1					
MTBV	-0.2421	-0.0545	0.0133	1				
MV	-0.2179	0.2629	0.9877	0.0104	1			
PE	0.1376	-0.1897	-0.0309	0.0507	-0.0370	1		
ROA	-0.1251	0.3777	0.0478	0.3056	0.0521	-0.2446	1	
ROE	-0.3210	0.1256	0.1214	0.7804	0.1255	-0.1360	0.5244	1

Note: the table shows the correlation between the different variables before the crisis using a panel data consisting of 98 firms observed for 5 years from 2002 till 2007.

Table 2 reports correlation coefficients for the range of variables in our sample. It shows that the variable adopted to represent corporate governance and ownership concentration is negatively correlated with the other components in our model. One exception shows

where the price-earnings ratio is positively correlated with the variable of high closely held shares, since the company is expected to grow revenue and earnings much more quickly in the future, and thus, commanding a higher price today. This relation suggests that dominant shareholders use their shares to increase their control over the firm. In general, the variables are not highly correlated with each other. However, the market value and the number of employees are highly positively correlated, which implies that as the number of employees increases, the number of directors serving on the board increases as well, and might affect the decisions made. Therefore, the variable EMP will be excluded from the model because it is highly correlated with MV, and we would rather avoid multicollinearity in our study.

Table 3: Univariate Analysis

	Before Crisis			During Crisis		
	Panel A			Panel B		
Variable	(1) Mean of high closely held	(2) Mean of low closely held	(2)-(1)	(1) Mean of high closely held	(2) Mean of low closely held	(2)-(1)
ROE	11.99***	14.60***	2.61***	7.63***	9.20***	1.57*
DEBT	13.57***	16.15***	2.58*	14.41***	15.94***	1.53
EMP	961.9388	11259.03***	10297.09*	1115.09	17.664***	1097.426*
MTBV	1.75***	1.99***	0.24**	1.27***	1.40***	0.13
MV	552.22	8943.654***	8391.434*	553.20	9215.51***	8662.31*
PE	18.90***	16.27***	-2.63*	15.66***	14.86***	-0.8
ROA	1.40***	1.62***	0.22**	0.99***	1.16***	0.17**
CLOSELYHELD	32.25***	7.82***	-24.43***	28.58***	6.04***	-22.54***

Note: This table presents results of conducted t-tests to test the differences between the means for high closely held and low closely held firms. The difference in means t-tests assumes unequal variance across groups when a test of equal variance is rejected at the 10% level. I used the Wald test to test the differences in the means.*, **, and ***indicate significance at the 10%, 5%, and 1%level, respectively.

In Table 3, we report univariate mean comparison test results of the sample subgroups categorized on the basis of above and below median values for ownership concentration represented by the percentage of closely held shares. Panel A presents the pooled results for 2002 till 2007. The table shows that firms with high inside ownership hold lower debt and market-to-book-value, relatively to firms with below median concentrated ownership.

Firms with above average concentrated ownership have asset turnovers of 1.40, and those with below inside ownership have asset turnovers of 1.62, while equity returns of high concentrated ownership are 11.99, whereas firms with low closely held shares have a return of 14.60. These differences are statistically significant at the 0.01 level and are aligned with the hypothesis stating that banks with low closely held shares earned higher profits represented by ROE and ROA.

Panel B shows the results for 2007 till 2009. The difference for the asset and equity turnovers remains statistically significant between the two ownership categories, but the difference is only significant at 10% during the crisis, despite having supposedly a good management behavior due to concentrated ownership at this time.

In Panel B are also shown the market value averages for firms with above and below median concentrated ownership. The mean for the group of highly concentrated firms is insignificant, but the difference in means becomes significant at 10%. Firms with above (below) median concentrated ownership have a mean market value of 553.20 (9215.51). Therefore, concentrated ownership does not seem to protect the firms from the crisis' effects in the pooled sample.

Overall, these univariate tests do not provide evidence that concentrated ownership helps align the interests of shareholders and managers. These results are in general consistent with the theory of Demsetz and Villalonga (2011) stating that there is no systematic relation between the ownership structure and the performance of a firm, due to the fact

that ownership structure is a product of decisions made by many shareholders, all having the same target of maximizing their wealth.

We also compare the price earnings ratios for firms with above to below median block ownership. The price earnings ratio for the pooled sample during crisis is nominally larger for firms with above average block ownership. This difference is significant and consistent with our expectation. The univariate results provide some evidence that higher inside ownership does not seem to achieve the alignment of the shareholders and management's interests. In the next section, this relation will be further tested and analyzed.

4.3 Empirical Results

The relation between firm performance during the crisis and corporate governance before the crisis is examined. We perform regression returns on our corporate governance variable and control variables during the crisis, using estimated models. The following three corporate governance mechanisms; insider ownership, institutional ownership and the presence of large shareholders are represented through this study by the percentage of closely held shares. Ownership concentration is defined by Grandori (2004) as the fraction of closely held shares, including shares of more than 5% held by owners , shares held by officers, directors and their families, shares held in trust, shares held by another corporation or shares held by pension or benefit plans. According to Mitton (2002), debt and bank size variables are included. In addition, we use the variables of the period between 2002 and 2007 since the performance during the crisis period might reflect a reversal of pre-crisis performance (Beltratti and Stulz, 2010). It is worth mentioning that by including debt, market value and price earnings ratio in our model; this will control the differences in balance sheet characteristics and capital requirements across global financial institutions. Our formal regression model is made as follows:

$$\textbf{Firm Performance} = C + \beta_1 \textbf{ HIGH BEFORE} + \beta_2 \textbf{ DEBT\_TO\_ASSETS\_1} + \beta_3 \textbf{ LOG(MTBV BEFORE)} + \beta_4 \textbf{ LOG(MV BEFORE)} + \beta_5 \textbf{ PE BEFORE} + + \beta_6 \textbf{ ROE BEFORE} + \beta_7 \textbf{ROA BEFORE}$$

Table 4: Pre-Crisis effects on performance during crisis

Dependent Variable	ROA_DURING	ROE_DURING	MTBV_DURING
Explanatory Variable\Model (.)	(1)	(2)	(3)
Intercept	0.471**	6.133***	0.980***
	(0.193)	(2.049)	(0.154)
HIGH_BEFORE	-0.068	-0.852	-0.035
	(0.071)	(0.831)	(0.057)
DEBT_TO_ASSETS_1	0.004	-0.050	-0.005
	(0.005)	(0.063)	(0.004)
LOG(MTBV_BEFORE)	0.609***	6.697***	1.386***
	(0.226)	(2.358)	(0.152)
LOG(MV_BEFORE)	-0.008	-0.174	0.001
	(0.017)	(0.240)	(0.020)
PE_BEFORE	0.001	-0.035	-0.009***
	(0.003)	(0.027)	(0.002)
ROE_BEFORE	-0.043**	0.118	-0.011
	(0.018)	(0.178)	(0.010)
ROA_BEFORE	0.536***	-0.278	-0.036
	(0.078)	(1.051)	(0.084)
N	98	98	98
R-Squared	0.355	0.282	0.648
Adjusted R-Squared	0.305	0.226	0.620
Durbin Watson	2.237	2.201	2.334
F-test *p*-value	0.000	0.000	0.000

Note: This table reports the results of the cross-sectional analysis explaining the Return on Assets (ROA_DURING), the Return on Equity (ROE_DURING) and the Market-to-Book-Value (MTBV_DURING) measured during the crisis for the sample. It also reports R-Squared, the Adjusted R-Squared, the Durbin Watson and the P-Value of the null hypothesis stating that all the model coefficients are jointly equal to zero. The standard errors reported in parentheses are corrected for heteroskedasticity using the White (1980) heteroskedasticity consistent standard errors. *, ** and * represent significance at the 1%, 5% and 10% levels respectively. Please refer to Appendix 1 for an accurate description of the variables.**

Table 4 presents the regression results. Models 1, 2 and 3 report the regression results including the different firm performance factors. Each model includes a different dependent variable. In model (1), the dependent variable is ROA and the results show that the intercept, MTBV, ROE and ROA variables are significant. In model (2), the dependent variable is ROE and the results show that the intercept and the MTBV are significant. As for model (3), the banks that had high percentage of closely held shares had -0.035% lower effect on the dependent variable MTBV than firms that had low percentage of closely held shares, but it is insignificant and cannot be confirmed. In the three models, the set of explanatory variables are DEBT, MTBV, MV, PE, ROE and

ROA; all taken during the period preceding the crisis. Coefficients on high closely held shares variable are negative but not significant at 10%. Therefore, these results show that there is no proof of relation between high closely held shares before the crisis and firm performance during the crisis. This cannot be associated with worse firm performance during the crisis.

Table 5: Pre-Crisis effects on performance during crisis

Dependent Variable	ROA_DURING	ROE_DURING	MTBV_DURING
Explanatory Variable\Model (.)	(4)	(5)	(6)
Intercept	0.644***	6.708***	0.859***
	0.183	2.213	0.154
HIGH_BEFORE	-0.941***	-7.406**	-0.116
	0.307	3.477	0.258
DEBT_TO_ASSETS_1	0.002	-0.065	-0.005
	0.008	0.107	0.005
LOG(MTBV_BEFORE)	0.743**	9.013**	1.658***
	0.296	3.588	0.216
LOG(MV_BEFORE)	-0.032	-0.465	-0.023
	0.020	0.338	0.024
PE_BEFORE	0.006**	0.018	-0.006**
	0.003	0.031	0.002
ROE_BEFORE	-0.050***	0.110	-0.003
	0.019	0.194	0.011
ROA_BEFORE	0.511***	-0.746	-0.092
	0.076	1.008	0.073
LOG(MV_BEFORE)*HIGH_BEFORE	0.105**	1.186**	0.086*
	0.042	0.530	0.047
ROE_BEFORE*HIGH_BEFORE	0.045	0.289	-0.004
	0.029	0.318	0.018
LOG(MTBV_BEFORE)*HIGH_BEFORE	-0.713	-8.735*	-0.729**
	0.432	5.087	0.298
DEBT_BEFORE*HIGH_BEFORE	0.008	0.088	0.006
	0.009	0.116	0.006
N	98	98	98
R-Squared	0.424	0.347	0.705
Adjusted R-Squared	0.350	0.264	0.668
Durbin Watson	2.125	2.057	2.385
F-test *p*-value	0.000	0.000	0.000

Note: This table reports the results of the cross-sectional analysis explaining the Return on Assets (ROA_DURING), the Return on Equity (ROE_DURING) and the Market-to-Book-Value (MTBV_DURING) measured during the crisis for the sample. It also reports R-Squared, the Adjusted R-Squared, the Durbin Watson and the P-Value of the null hypothesis stating that all the model coefficients are jointly equal to zero. The standard errors reported in parentheses are corrected for heteroskedasticity using the White (1980)heteroskedasticity consistent standard errors. *, ** and * represent significance at the 1%, 5% and 10% levels respectively. Please refer to Appendix 1 for an accurate description of the variables.**

Table 5 presents an analysis of firm performance while decomposing the effects of the explanatory variables. Consistent with Table 4, it shows in model (4) that the coefficient of high closely held shares on ROA is-0.941. It is negative and significant at 1%, while in model (5), the coefficient on ROE is negative and significant at 5%, but the coefficient of high closely held shares on MTBV is insignificant at conventional levels. Whereas this result is consistent with high closely held shares being associated with poor firm performance, it is also consistent with independent board members, institutional investors and large blockholders pressuring firms into taking high-risk projects before the crisis (Hope, Thomas, and Vyas, 2011).

Control variables that were added in models (4), (5) and (6) are interaction variables that will help us expand our knowledge related to the explanatory variables and their relation. They will also help us test the hypotheses. The effect of the interaction between concentrated ownership and market value, ROE, market-to-book-value and debt-to-assets ratio before the crisis, ROA, ROE and MTBV during the crisis will be studied. Model (4) shows a significant interaction of 0.105 at 5% between closely held shares and market value. This can be explained by the fact that the bigger the size of the firm, the better firm performance will be proved. Models (5) and (6) show a positive significant interaction between market value and concentrated ownership, and a negative significant interaction between MTBV and closely held shares.

In the next section, we will further investigate explanations for the corporate governance determinants of firm performance during the crisis, that is, the influence of corporate governance on risk-taking before the crisis and its effects during the crisis. The effect shown in model (4) is negative and significant. However, the larger the return on equity of the company before the crisis, the more positive the effect of high closely held shares will become; otherwise, the losses become less. The price-earnings ratio also has a significant negative effect on ROE during the crisis when there is a concentrated ownership. The empirical results in this paper lead us to confirm that on average, banks who had concentrated ownership before the crisis experienced more losses during the crisis than the ones with low closely held shares. However, the higher the ROE ratio

before the crisis, the lower losses incur. However, we also noticed that the bigger the valuation of the company in the market, market-to-book-value, the larger the amounts of losses incurred.

Three main relations appear in the study. One observation is that having large blockholders before the crisis turn out to be bad for the banks in the sample. On the other hand, when the bank gets bigger, the bad effect is less apparent. When shareholders own high percentages of large companies, they probably find it easier to monitor them. There are more accurate financial statements, a more liquid market for shares so shareholders can easily sell theirs. They can also discipline the managers easily because of their influential powers. However, the more the increase of valuation to fundamentals, MTBV, the more destructive will the effect of high closely held shares be. It turns out that when the company is achieving a large valuation, large shareholders become satisfied and relaxed, while the monitoring incentive weakens; a state of euphoria is observed. This result can be due to representativeness bias where people give too much importance to recent patterns in the data without looking at the properties of the data that lead to such results, a theory by Kahneman and Tversky (1982). On the other hand, another theory can be the conservatism about management (Edwards, 1968) where management faces new information in the market, while a slow update of models is observed.

In column (5), companies with a high pre-crisis level of closely held shares experience on average a 7% decline in ROE during the crisis, compared to companies that had low closely held shares. The larger the valuations measured by the market-to-book-value, the lesser will the magnitude of loss be. The model's variables explain the data to a reliable extent; R-Squared is 34.70%, which is close to the adjusted R-Squared that is 26.40%. It is a panel model, more specifically a cross-sectional model, not a time series model. Durbin Watson is equal to 2, so we have no autocorrelation. The p-value of the F statistic is zero, so the hypothesis stating that the whole model is insignificant should be rejected.

Chapter 5

Conclusions and Recommendations

5.1 Summary

This study examines the effect of corporate governance on banks' performance. It takes from 2002 till 2009 to study the effect of the pre-crisis governance in firms on the latter's performance during the 2007-2009 financial crisis. This helps us deduce how ownership concentration can induce risk-taking in banks through the agency problem materialization on one hand, and how management and board ownership can control the conflict of interest between management and shareholders on the other hand. Therefore, this should contribute to the improvement of commercial banks' profitability.

Our study of 98 banks in the U.S. reveals that banks with dominant shareholders showed a negative and significant effect of concentrated ownership on the return on equity and return on assets during the financial crisis. Control factors showed a consistent effect on the performance and valuation of banks. The interaction between bank size and concentrated ownership had a positive and significant effect on performance, while the relation between high closely held shares and MTBV showed a significant and negative effect on ROA and ROE. Price-earnings ratio had a positive and significant effect on the return on assets.

Our empirical research aligns with those of Laeven and Levine (2009), Saunders et al. (1990), Bhojraj and Sengupta (2003) as well as Shleifer and Vishny (1997) revealing that corporate governance structure might be detrimental to firm value, as they might simply try to secure private benefits by misusing their increased power for preferential self-treatment at the expense of other stakeholders, including minority shareholders. Greater aggregate block ownership can also reduce firm value by over-monitoring. This will encourage managers to take less risk in investments, which will ultimately allow the

bank to miss out on profitable investment opportunities (Aghion and Tirole (1997), Burkart et al. (1997)).

This research contradicts with the studies of Perry (2000), DeYoung et al. (2001), Wu (2004), Kau et Al (2008) and many others. Their results found that closely held banks by blockholders, board members and institutional investors had positive effects on banks' profitability. When boards own more stock, they observe management extensively. Agency problem will be solved. Moreover, extensive blockholders have more noteworthy incentives to follow up with management decisions. Our results might have differed either because studies were made in different time periods, samples might have been different or maybe rules or regulations in the different selected markets were diverse.

One of the methods adopted to ensure robustness in our research consists in the use of different measures for profitability as dependent variables. We used return on assets and return on equity as accounting measures, and market-to-book-value as a market-based measure of profits. In order to avoid heteroskedasticity, we corrected consistent standard errors using White (1980) Heteroskedasticity.

5.2 Limitations of the Study

The study suffered many limitations. First, it was about time constraint for writing this research since it is a Master's thesis and not a PHD. Therefore, the time spent on conducting this research was shorter than the actual time needed, and the methods that were going to be used for data collection were altered. Second, due to that time constraint, and unlike what was anticipated, we used secondary data collected from Datastream and were found unable to collect the data manually from reports. If this had not happened, we could have been offered a larger sample of banks to perform our study on. Our original sample of more than 1000 banks was reduced to 98 banks due to missing data. If our sample had been larger, it might have ensured being more representative of the population and could have made our findings generalized; but data availability issues have limited our scope of study.

5.3 Suggestions for Further Research

There are plenty of issues related to corporate governance and banks profitability that need to be studied. First of all, the present research focused specifically on the ownership concentration and its effect on banks performance during the crisis. Therefore, further research might deal with other aspects of corporate governance, such as audit committee independence and board independence.

Second, in order to study the effect of ownership concentration on profitability during the crisis, this study was restricted to the period before and during the financial crisis of 2007. Therefore, further studies on different time periods covering other crises might be suitable to evaluate the reliability of the derived results.

Third, the sample of banks selected for our study as well as existing literature focused on the U.S. banking system. Further research can be extended to other markets, such as UK, Japan, China, etc... to analyze the ownership concentration effect on global markets with different regulations and policies, and thus, compares the effect across all business cultures and countries. Our findings might be enhanced by future studies covering a wider range of international panel data.

Finally, an additional study concerning the effect of concentrated ownership on profitability where the risk appetite of each bank is included in the model would be informative and interesting as well.

5.4 Recommendations

As we found that corporate governance, ownership concentration in particular had a detrimental effect on banks' performance during the crisis period; it is worth mentioning that an effective corporate governance system is extremely essential for the development of firms that are associated with higher rates of economic growth (Demirguc-Kunt & Maksimovic 2000).

Moreover, this finding should support the idea stating that regulations and guiding principles to efficient corporate governance should be tailored to fit the different needs of banks, as the effect of blockholder ownership, management and board ownership varies with different banks strategies. Due to the fact that firm value is related to many key factors of corporate governance, the application of this governance aligned with the firm's strategy will help in the times of crises.

Another recommendation might consist in preventing managers and insiders from becoming blockholders in the bank, because this ought to increase taking risks in investments, as previously reported by Saunders et al. (1990) and Sullivan and Spong (2007), and thus, exposes banks to losses during the times of crises.

Finally, as proved in the existing literature, the concentration of ownership tends to have a stronger impact on the decisions made concerning risks in banks in times of deregulation than in regulated periods. Therefore, the risks appetite is higher in deregulated periods. The ultimate solution to this consists in encouraging the creation of a business environment where ethical behavior and transparency of regulation and monitoring are valued in business.

REFERENCES

Admati, A. R., & Pfleiderer, P. (2009). The "Wall street walk" and shareholder activism: Exit as a form of voice. *Review of Financial Studies, 22*(7), 2645-2685.

Admati, A. R., Pfleiderer, P., &Zechner, J. (1994).Large shareholder activism, risk sharing, and financial market equilibrium. *Journal of Political Economy,* , 1097-1130.

Adrian, T., & Shin, H. S. (2010).Liquidity and leverage. *Journal of Financial Intermediation, 19*(3), 418-437.

Aebi, V., Sabato, G., & Schmid, M. (2012a).Risk management, corporate governance, and bank performance in the financial crisis. *Journal of Banking & Finance, 36*(12), 3213-3226.

Aghion, P., & Tirole, J. (1997).Formal and real authority in organizations. *Journal of Political Economy,* , 1-29.

Agrawal, A., & Knoeber, C. R. (1996).Firm performance and mechanisms to control agency problems between managers and shareholders. *Journal of Financial and Quantitative Analysis, 31*(03), 377-397.

Alchian, A. A., & Demsetz, H. (1972).Production, information costs, and economic organization. *The American Economic Review, 62*(5), 777-795.

Allen, F., & Gale, D. (2001).*Comparative financial systems: A survey* Citeseer.

Allen, J. W., & Phillips, G. M. (2000).Corporate equity ownership, strategic alliances, and product market relationships. *The Journal of Finance, 55*(6), 2791-2815.

Almazan, A., Hartzell, J. C., & Starks, L. T. (2005). Active institutional shareholders and costs of monitoring: Evidence from executive compensation. *Financial Management, 34*(4), 5-34.

Altunbas, Y., Evans, L., &Molyneux, P. (2001).Bank ownership and efficiency. *Journal of Money, Credit and Banking,* , 926-954.

Anderson, R. C., & Fraser, D. R. (2000).Corporate control, bank risk taking, and the health of the banking industry. *Journal of Banking & Finance, 24*(8), 1383-1398.

Baker, M., & Gompers, P. A. (2003). The determinants of board structure at the initial public offering. *Journal of Law and Economics, 46*(2), 569-598.

Barclay, M. J., & Holderness, C. G. (1991). Negotiated block trades and corporate control. *The Journal of Finance, 46*(3), 861-878.

Barry, T. A., Lepetit, L., &Tarazi, A. (2011). Ownership structure and risk in publicly held and privately owned banks. *Journal of Banking & Finance, 35*(5), 1327-1340.

Baysinger, B., & Hoskisson, R. E. (1990). The composition of boards of directors and strategic control: Effects on corporate strategy. *Academy of Management Review, 15*(1), 72-87.

Bearman, D. (1995). Archival strategies. *The American Archivist, 58*(4), 380-413.

Bebchuk, L. A., Kraakman, R., & Triantis, G. (2000). Stock pyramids, cross-ownership, and dual class equity: The mechanisms and agency costs of separating control from cash-flow rights. *Concentrated corporate ownership* (pp. 295-318) University of Chicago Press.

Becht, M., Bolton, P., & Röell, A. (2003).Corporate governance and control. *Handbook of the Economics of Finance, 1*, 1-109.

BEKAERT, G., EHRMANN, M., FRATZSCHER, M., & MEHL, A. (2014). The global crisis and equity market contagion: The global crisis and equity market contagion. *The Journal of Finance, 69*(6), 2597-2649. doi:10.1111/jofi.12203

Beltratti, A., & Stulz, R. M. (2009).*Why did some Banks Perform Better during the Credit Crisis? A Cross-Country Study of the Impact of Governance and Regulation,*

Berger, P. G., Ofek, E., &Yermack, D. L. (1997). Managerial entrenchment and capital structure decisions. *The Journal of Finance, 52*(4), 1411-1438.

Berk, J. (2008).Incentives and the Financial Crisis. Retrieved from https://www.gsb.stanford.edu/insights/incentives-financial-crisis

Berle, A., & Means, G. (1932).The modern corporate and private property. *McMillian, New York, NY,*

Bernanke, B. S. (1983). *Non-Monetary Effects of the Financial Crisis in the Propagation of the Great Depression,*

Bessis, J., & O'Kelly, B. (2015).*Risk management in banking* John Wiley & Sons.

Bethel, J. E., Liebeskind, J. P., &Opler, T. (1998). Block share purchases and corporate performance. *The Journal of Finance, 53*(2), 605-634.

Bhagat, S., & Black, B. S. (2002).The non-correlation between board independence and long-term firm performance. *As Published in Journal of Corporation Law, 27*, 231-273.

Bhagat, S., & Bolton, B. (2008).Corporate governance and firm performance. *Journal of Corporate Finance, 14*(3), 257-273.

Bhojraj, S., & Sengupta, P. (2003). Effect of corporate governance on bond ratings and yields: The role of institutional investors and outside directors. *The Journal of Business, 76*(3), 455-475.

Blanchard, D., & Dionne, G. (2004).The case for independent risk management committees. *Risk, 17*(5), S19-S21.

Bolton, P., & Von Thadden, E. (1998). Liquidity and control: A dynamic theory of corporate ownership structure. *Journal of Institutional and Theoretical Economics (JITE)/ZeitschriftFür Die GesamteStaatswissenschaft,* , 177-211.

Bonazzi, L., & Islam, S. M. (2007). Agency theory and corporate governance: A study of the effectiveness of board in their monitoring of the CEO. *Journal of Modelling in Management, 2*(1), 7-23.

Boubakri, N., & Ghouma, H. (2010). Control/ownership structure, creditor rights protection, and the cost of debt financing: International evidence. *Journal of Banking & Finance, 34*(10), 2481-2499.

Boyd, J. H., & Hakenes, H. (2008). Looting and gambling in banking crises. *University of Minnesota, Minneapolis, MN,*

Brewer, E., & Saidenberg, M. R. (1996).*Franchise Value, Ownership Structure, and Risk at Savings Institutions,*

Brickley, J. A., Lease, R. C., & Smith, C. W. (1988a).Ownership structure and voting on antitakeover amendments. *Journal of Financial Economics, 20*, 267-291.

Brunnermeier, M. K. (2009). Deciphering the liquidity and credit crunch 2007–2008. *The Journal of Economic Perspectives, 23*(1), 77-100.

Bullard, J. (2010). Panel discussion structural economic modeling: Is it useful in the policy process? *Federal Reserve Bank of St.Louis Speech,* (Mar 26)

Burkart, M., Gromb, D., &Panunzi, F. (1997).Large shareholders, monitoring, and the value of the firm. *The Quarterly Journal of Economics,* , 693-728.

Buser, S. A., Chen, A. H., & Kane, E. J. (1981). Federal deposit insurance, regulatory policy, and optimal bank capital. *The Journal of Finance, 36*(1), 51-60.

Calomiris, C. W., & Mason, J. R. (2003).Consequences of bank distress during the great depression. *The American Economic Review, 93*(3), 937-947.

Caprio, G., Laeven, L., & Levine, R. (2007).Governance and bank valuation. *Journal of Financial Intermediation, 16*(4), 584-617.

Cebenoyan, A. S., Cooperman, E. S., & Register, C. A. (1999).Ownership structure, charter value, and risk-taking behavior for thrifts. *Financial Management,* , 43-60.

Cheffins, B. R. (2009). Did corporate governance" fail" during the 2008 stock market meltdown? The case of the S&P 500. *The Business Lawyer,* , 1-65.

Cheffins, B. R., & Armour, J. (2012).The rise and fall (?) of shareholder activism by hedge funds. *Journal of Alternative Investments, 14*(3)

Chen, X., Harford, J., & Li, K. (2007). Monitoring: Which institutions matter? *Journal of Financial Economics, 86*(2), 279-305.

Claessens, S., & Djankov, S. (1999). Ownership concentration and corporate performance in the Czech Republic. *Journal of Comparative Economics, 27*(3), 498-513.

Claessens, S., Djankov, S., Fan, J. P., & Lang, L. H. (2002). Disentangling the incentive and entrenchment effects of large shareholdings. *The Journal of Finance, 57*(6), 2741-2771.

Cornett, M. M., Marcus, A. J., Saunders, A., & Tehranian, H. (2007).The impact of institutional ownership on corporate operating performance. *Journal of Banking & Finance, 31*(6), 1771-1794.

Crotty, M. (1998).*The foundations of social research: Meaning and perspective in the research process* Sage.

Cumming, C. M., &Hirtle, B. J. (2001). The challenges of risk management in diversified financial companies (digest summary). *Economic Policy Review Federal Reserve Bank of New York, 7*(1), 1-13.

Del Guercio, D., & Hawkins, J. (1999). The motivation and impact of pension fund activism. *Journal of Financial Economics, 52*(3), 293-340.

Demirgüç-Kunt, A., &Maksimovic, V. (1998).Law, finance, and firm growth. *The Journal of Finance, 53*(6), 2107-2137.

Demsetz, H. (1983). The structure of ownership and the theory of the firm. *The Journal of Law & Economics, 26*(2), 375-390.

Demsetz, H., & Lehn, K. (1985). The structure of corporate ownership: Causes and consequences. *Journal of Political Economy, 93*(6), 1155-1177.

Demsetz, H., & Villalonga, B. (2001).Ownership structure and corporate performance. *Journal of Corporate Finance, 7*(3), 209-233.

Denis, D. K., & McConnell, J. J. (2003). International corporate governance. *Journal of Financial and Quantitative Analysis, 38*(01), 1-36.

DeYoung, R., Spong, K., & Sullivan, R. J. (2001). Who's minding the store? Motivating and monitoring hired managers at small, closely held commercial banks. *Journal of Banking & Finance, 25*(7), 1209-1243.

DEYOUNG, R., GRON, A., TORNA, G., & WINTON, A. (2015). Risk overhang and loan portfolio decisions: Small business loan supply before and during the financial crisis. *The Journal of Finance, 70*(6), 2451-2488. doi:10.1111/jofi.12356

Diamond, D. W. (1984).Financial intermediation and delegated monitoring. *The Review of Economic Studies, 51*(3), 393-414.

Dow, J., & Gorton, G. (1997). Stock market efficiency and economic efficiency: Is there a connection? *The Journal of Finance, 52*(3), 1087-1129.

Duchin, R., Ozbas, O., & Sensoy, B. A. (2010). Costly external finance, corporate investment, and the subprime mortgage credit crisis. *Journal of Financial Economics, 97*(3), 418-435.

Duggal, R., & Millar, J. A. (1999). Institutional ownership and firm performance: The case of bidder returns. *Journal of Corporate Finance, 5*(2), 103-117.

Dye, R. A., & Sridhar, S. S. (2002). Resource allocation effects of price reactions to disclosures. *Contemporary Accounting Research, 19*(3), 385.

Edmans, A. (2009). Blockholder trading, market efficiency, and managerial myopia. *The Journal of Finance, 64*(6), 2481-2513.

Edwards, W. (1968).Conservatism in human information processing. *Formal Representation of Human Judgment, 17*, 51.

Erkens, D. H., Hung, M., & Matos, P. (2012). Corporate governance in the 2007–2008 financial crisis: Evidence from financial institutions worldwide. *Journal of Corporate Finance, 18*(2), 389-411.

Esty, B. C. (1998). The impact of contingent liability on commercial bank risk taking. *Journal of Financial Economics, 47*(2), 189-218.

Faccio, M., & Lasfer, M. A. (2000). Do occupational pension funds monitor companies in which they hold large stakes? *Journal of Corporate Finance, 6*(1), 71-110.

Fama, E. F. (1998). Market efficiency, long-term returns, and behavioral finance. *Journal of Financial Economics, 49*(3), 283-306.

Fama, E. F., & Jensen, M. C. (1983).Separation of ownership and control. *The Journal of Law & Economics, 26*(2), 301-325.

Financial Times Lexicon (2016). Retrieved from http://lexicon.ft.com/Term?term=market_to_book-ratio

Flannery, M. J., Kwan, S. H., &Nimalendran, M. (2013).The 2007–2009 financial crisis and bank opaqueness. *Journal of Financial Intermediation, 22*(1), 55-84.

Galai, D., & Masulis, R. W. (1976a).The option pricing model and the risk factor of stock. *Journal of Financial Economics, 3*(1), 53-81.

García-Cestona, M., & Surroca, J. (2008). Multiple goals and ownership structure: Effects on the performance of spanish savings banks. *European Journal of Operational Research, 187*(2), 582-599.

Gillan, S. L., & Starks, L. T. (2000). Corporate governance proposals and shareholder activism: The role of institutional investors. *Journal of Financial Economics, 57*(2), 275-305.

Gillan, S., & Starks, L. T. (2007). The evolution of shareholder activism in the united states. *Available at SSRN 959670,*

Glinkowska, B., & Kaczmarek, B. (2015).Classical and modern concepts of corporate governance (stewardship theory and agency theory). *Management, 19*(2), 84-92.

Gorton, G., & Rosen, R. (1995).Corporate control, portfolio choice, and the decline of banking. *The Journal of Finance, 50*(5), 1377-1420.

Gorton, G., & Schmid, F. A. (2000).Universal banking and the performance of german firms. *Journal of Financial Economics, 58*(1), 29-80.

Grandori, A. (2004). *Corporate governance and firm organization: Microfoundations and structural forms* OUP Oxford.

Greenough, W. C., &Clapman, P. C. (1980).Role of independent directors in corporate governance. *Notre Dame Law., 56*, 916.

Gropp, R., & Heider, F. (2010).The determinants of bank capital structure. *Review of Finance,* , rfp030.

Grossman, S. J., & Hart, O. D. (1980). Takeover bids, the free-rider problem, and the theory of the corporation. *The Bell Journal of Economics,* , 42-64.

Grossman, S. J., & Hart, O. D. (1983).An analysis of the principal-agent problem. *Econometrica: Journal of the Econometric Society,* , 7-45.

Hanson, R. C., & Song, M. H. (2000).Managerial ownership, board structure, and the division of gains in divestitures. *Journal of Corporate Finance, 6*(1), 55-70.

Hellmann, T. F., Murdock, K. C., & Stiglitz, J. E. (2000). Liberalization, moral hazard in banking, and prudential regulation: Are capital requirements enough? *American Economic Review,* , 147-165.

Hermalin, B. E., & Weisbach, M. S. (2007). *Transparency and Corporate Governance,*

Hersey, P., & Blanchard, K. H. (1993).*Management of organizational behavior: Utilizing human resources* . Prentice-Hall, Inc.

Holderness, C. G. (2003).A survey of blockholders and corporate control. *Economic Policy Review, 9*(1)

Holderness, C. G., Kroszner, R. S., & Sheehan, D. P. (1999). Were the good old days that good? changes in managerial stock ownership since the great depression. *The Journal of Finance, 54*(2), 435-469.

Holderness, C. G., & Sheehan, D. P. (1985).Raiders or saviors? the evidence on six controversial investors. *Journal of Financial Economics, 14*(4), 555.

Holderness, C. G., & Sheehan, D. P. (1988). The role of majority shareholders in publicly held corporations: An exploratory analysis. *Journal of Financial Economics, 20*, 317-346.

Holmström, B., & Tirole, J. (1993).Market liquidity and performance monitoring. *Journal of Political Economy,* , 678-709.

Hope, O., Thomas, W., & Vyas, D. (2011). The cost of pride: Why do firms from developing countries bid higher? *Journal of International Business Studies, 42*(1), 128-151.

Huddart, S. (1993).The effect of a large shareholder on corporate value. *Management Science, 39*(11), 1407-1421.

Hussey, J., & Hussey, R. (1997).Business research. *Hampshire: Palgrave,*

Iannotta, G., Nocera, G., &Sironi, A. (2007). Ownership structure, risk and performance in the european banking industry. *Journal of Banking & Finance, 31*(7), 2127-2149.

Jennings, R. H., & Mazzeo, M. A. (1991).Stock price movements around acquisition announcements and management's response. *Journal of Business,* , 139-163.

Jensen, M. C. (1986). Agency cost of free cash flow, corporate finance, and takeovers. *Corporate Finance, and Takeovers. American Economic Review, 76*(2)

Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *The Journal of Finance, 48*(3), 831-880.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305-360.

Jerzemowska, M. (2011). How can shareholders and creditors lower the agency costs?*PraceiMateriałyWydziałuZarządzaniaUniwersytetuGdańskiego,* (2/1), 353-364.

Joh, S. W. (2003). Corporate governance and firm profitability: Evidence from korea before the economic crisis. *Journal of Financial Economics, 68*(2), 287-322.

John, K., Litov, L., & Yeung, B. (2008).Corporate governance and risk-taking. *The Journal of Finance, 63*(4), 1679-1728.

Johnson, S., Boone, P., Breach, A., & Friedman, E. (2000). Corporate governance in the asian financial crisis. *Journal of Financial Economics, 58*(1), 141-186.

Kahneman, D., & Tversky, A. (1982).On the study of statistical intuitions. *Cognition, 11*(2), 123-141.

Kang, J., & Shivdasani, A. (1995).Firm performance, corporate governance, and top executive turnover in japan. *Journal of Financial Economics, 38*(1), 29-58.

Kaplan, S. N., & Minton, B. A. (1994). Appointments of outsiders to japanese boards: Determinants and implications for managers. *Journal of Financial Economics, 36*(2), 225-258.

Karpoff, J. M., Malatesta, P. H., & Walkling, R. A. (1996). Corporate governance and shareholder initiatives: Empirical evidence. *Journal of Financial Economics, 42*(3), 365-395.

Kashyap, A. K., Rajan, R., & Stein, J. C. (2002). Banks as liquidity providers: An explanation for the coexistence of lending and deposit-taking. *The Journal of Finance, 57*(1), 33-73.

Kau, J. B., Linck, J. S., & Rubin, P. H. (2008). Do managers listen to the market? *Journal of Corporate Finance, 14*(4), 347-362.

Keasey, K., Thompson, S., & Wright, M. (2005). *Corporate governance: Accountability, enterprise and international comparisons* John Wiley & Sons.

Keeley, M. C. (1990). Deposit insurance, risk, and market power in banking. *The American Economic Review,* , 1183-1200.

Koehn, M., & Santomero, A. M. (1980).Regulation of bank capital and portfolio risk. *The Journal of Finance, 35*(5), 1235-1244.

Kroszner, R. S., & Rajan, R. G. (1994). Is the glass-steagall act justified? A study of the US experience with universal banking before 1933. *The American Economic Review,* , 810-832.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (1999). The quality of government. *Journal of Law, Economics, and Organization, 15*(1), 222-279.

Laeven, L. (2002). Bank risk and deposit insurance. *The World Bank Economic Review, 16*(1), 109-137.

Laeven, L., & Levine, R. (2009a). Bank governance, regulation and risk taking. *Journal of Financial Economics, 93*(2), 259-275.

Laeven, L., & Levine, R. (2009b). Bank governance, regulation and risk taking. *Journal of Financial Economics, 93*(2), 259-275.

Leland, H. E. (1998). Agency costs, risk management, and capital structure. *The Journal of Finance, 53*(4), 1213-1243.

Levine, R. (2005). Finance and growth: Theory and evidence. *Handbook of Economic Growth, 1*, 865-934.

Livingston, J. A. (1958). *The american stockholder* Lippincott.

Lock, I., & Seele, P. (2015). Quantitative content analysis as a method for business ethics research. *Business Ethics: A European Review, 24*(S1), S24-S40.

Longstaff, F. A. (2010). The subprime credit crisis and contagion in financial markets. *Journal of Financial Economics, 97*(3), 436-450.

Louzis, D. P., Vouldis, A. T., & Metaxas, V. L. (2012). Macroeconomic and bank-specific determinants of non-performing loans in greece: A comparative study of mortgage, business and consumer loan portfolios. *Journal of Banking & Finance, 36*(4), 1012-1027.

Maug, E. (1998). Large shareholders as monitors: Is there a trade-off between liquidity and control? *The Journal of Finance, 53*(1), 65-98.

McConnell, J. J., & Servaes, H. (1990).Additional evidence on equity ownership and corporate value. *Journal of Financial Economics, 27*(2), 595-612.

Mehran, H. (1995). Executive compensation structure, ownership, and firm performance. *Journal of Financial Economics, 38*(2), 163-184.

Mikkelson, W. H., & Partch, M. M. (1989).Managers' voting rights and corporate control. *Journal of Financial Economics, 25*(2), 263-290.

Mikkelson, W. H., & Ruback, R. S. (1985).An empirical analysis of the interfirm equity investment process. *Journal of Financial Economics, 14*(4), 523-553.

Miller, K. D. (1992). A framework for integrated risk management in international business. *Journal of International Business Studies, 23*(2), 311-331. doi:10.1057/palgrave.jibs.8490270

Minton, B. A., Taillard, J., & Williamson, R. (2011). Do independence and financial expertise of the board matter for risk taking and performance?*Fisher College of Business Working Paper,* (2010-03), 014.

Mitton, T. (2002). A cross-firm analysis of the impact of corporate governance on the east asian financial crisis. *Journal of Financial Economics, 64*(2), 215-241.

Morck, R., Shleifer, A., & Vishny, R. W. (1988). Management ownership and market valuation: An empirical analysis. *Journal of Financial Economics, 20*, 293-315.

National Bureau of Economic Research (2016). Retrieved from http://www.nber.org/

Nesbitt, S. L. (1994). long-term rewards from shareholder activism: A study of the "calpers effect". *Journal of Applied Corporate Finance, 6*(4), 75-80.

Nijskens, R., & Wagner, W. (2011). Credit risk transfer activities and systemic risk: How banks became less risky individually but posed greater risks to the financial system at the same time. *Journal of Banking & Finance, 35*(6), 1391-1398.

Nocco, B. W., & Stulz, R. M. (2006). Enterprise risk management: Theory and practice. *Journal of Applied Corporate Finance, 18*(4), 8-20.

Perry, J. M. (2000). Multidisciplinary shared leadership. *Journal for Healthcare Quality, 22*(3), 18-21.

Peterson, C., & Seligman, M. E. (1987).Explanatory style and illness. *Journal of Personality, 55*(2), 237-265.

Porta, R. L., Lakonishok, J., Shleifer, A., & Vishny, R. (1997). Good news for value stocks: Further evidence on market efficiency. *The Journal of Finance, 52*(2), 859-874.

Pound, J. (1988). Proxy contests and the efficiency of shareholder oversight. *Journal of Financial Economics, 20*, 237-265.

Pound, J. (1995). The promise of the governed corporation. *Harvard Business Review, 73*(2), 89-98.

Pritsker, M. (2010). Informational easing: Improving credit conditions through the release of information. *Federal Reserve Bank of New York Economic Policy Review, 16*, 77-87.

Rajan, R. G., & Zingales, L. (1998). Which capitalism? lessons from the east asian crisis. *Journal of Applied Corporate Finance, 11*(3), 40-48.

Rajan, R. G., & Zingales, L. (2000).*The Governance of the New Enterprise,*

Roll, R. (1986). The hubris hypothesis of corporate takeovers. *Journal of Business,* , 197-216.

Sabato, G. (2010). Financial crisis: Where did risk management fail? *International Review of Applied Financial Issues and Economics,* (2), 315-327.

Saunders, A., & Allen, L. (2010).*Credit risk management in and out of the financial crisis: New approaches to value at risk and other paradigms* John Wiley & Sons.

Saunders, A., Strock, E., & Travlos, N. G. (1990). Ownership structure, deregulation, and bank risk taking. *The Journal of Finance, 45*(2), 643-654.

Seifert, B., Gonenc, H., & Wright, J. (2005).The international evidence on performance and equity ownership by insiders, blockholders, and institutions. *Journal of Multinational Financial Management, 15*(2), 171-191.

Shleifer, A., & Vishny, R. W. (1986).Large shareholders and corporate control. *The Journal of Political Economy,* , 461-488.

Shleifer, A., & Vishny, R. W. (1997).A survey of corporate governance. *The Journal of Finance, 52*(2), 737-783.

Shome, D. K., & Singh, S. (1995). Firm value and external blockholdings. *Financial Management,* , 3-14.

Short, H., & Keasey, K. (1999). Managerial ownership and the performance of firms: Evidence from the UK. *Journal of Corporate Finance, 5*(1), 79-101.

Smith, C. W., & Stulz, R. M. (1985).The determinants of firms' hedging policies. *Journal of Financial and Quantitative Analysis, 20*(04), 391-405.

Srivastava, A. S., & Sen, A. (1990).Regression analysis. *Theory, Methods and Applications,*

Stulz, R. (1988). Managerial control of voting rights: Financing policies and the market for corporate control. *Journal of Financial Economics, 20*, 25-54.

Sullivan, R. J., & Spong, K. R. (2007). Manager wealth concentration, ownership structure, and risk in commercial banks. *Journal of Financial Intermediation, 16*(2), 229-248.

Taleb, N. N. (2007). *The black swan: The impact of the highly improbable* Random house.

Taylor, J. B. (2009). *The Financial Crisis and the Policy Responses: An Empirical Analysis of what Went Wrong,*

The Economist (2013, September 7). The origins of the financial crisis. *The Economist.* Retrieved from http://www.economist.com

Thomsen, S., Pedersen, T., &Kvist , H. K. (2006). Blockholder ownership: Effects on firm value in market and control based governance systems. *Journal of Corporate Finance, 12*(2), 246-269.

U.S Department of Treasury (2016). Retrieved from: https://www.treasury.gov/

Wells, H. (2010). The birth of corporate governance. *Seattle University Law Review, 33*(4), 1247.

Wells Fargo (2016). Retrieved from https://www.wellsfargo.com/

Westman, H. (2011). The impact of management and board ownership on profitability in banks with different strategies. *Journal of Banking & Finance, 35*(12), 3300-3318.

WookYoo, J., Lemak, D. J., & Choi, Y. (2006). Principles of management and competitive strategies: Using fayol to implement porter. *Journal of Management History, 12*(4), 352-368.

Wu, Y. (2004). The impact of public opinion on board structure changes, director career progression, and CEO turnover: Evidence from CalPERS' corporate governance program. *Journal of Corporate Finance, 10*(1), 199-227.

Zhang, X., Creal, D. D., Koopman, S. J., & Lucas, A. (2011). Modeling dynamic volatilities and correlations under skewness and fat tails.

APPENDICES

Appendix 1

Table 6: Variables' Definitions

Variable (Acronym)	Description	Source
Firm's Closely Held Shares (CLOSELYHELD_BEFORE) (%)	The percentage of the firm's shares that are closely held by a small group of family or institutional investors before the crisis.	Datastream
Firm's Closely Held Shares (CLOSELYHELD_DURING) (%)	The percentage of the firm's shares that are closely held by a small group of family or institutional investors during the crisis.	Datastream
Debt to Assets (DEBT_TO_ASSETS_1) (%)	The firm's ratio of Debt-to-Assets before the crisis.	Datastream
Debt to Assets (DEBT_TO_ASSETS_2) (%)	The firm's ratio of Debt-to-Assets during the crisis.	Datastream
Number of Employees (EMPLOYEES_1)	The firm's number of employees before the crisis.	Datastream
Number of Employees (EMPLOYEES_2)	The firm's number of employees during the crisis.	Datastream
Firm's Market-to-Book-Value (MTBV_BEFORE)	The market value of the firm before the crisis, divided by its book value of equity at the time.	Datastream
Firm's Market-to-Book-Value (MTBV_DURING)	The market value of the firm during the crisis, divided by its book value of equity at the time.	Datastream
Firm's Market Value (MV_BEFORE)	The firm's market value of equity before the crisis, in millions of dollars.	Datastream
Firm's Market Value (MV_DURING)	The firm's market value of equity during the crisis, in millions of dollars.	Datastream
Price Earnings (PE_BEFORE)	The firm's current share price relative to its per-share earnings before the crisis.	Datastream
Price Earnings (PE_DURING)	The firm's current share price relative to its per-share earnings during the crisis.	Datastream
Return on Assets (ROA_BEFORE)	The firm's net income before crisis, divided by total assets.	Datastream

Variable (Acronym)	Description	Source
Return on Assets (ROA_DURING)	The firm's net income during crisis, divided by total assets.	Datastream
Return on Equity (ROE_BEFORE)	The firm's net income before crisis, divided by shareholder's equity.	Datastream
Return on Equity (ROE_DURING)	The firm's net income during crisis, divided by shareholder's equity.	Datastream
High Closely Held Shares (High Before)	The firm's dummy variable with percentage of shares higher than the median.	Own calculation using excel function