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**Corporate Governance and Firm Performance:
Evidence from Iceland**

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Leiðbeinandi: Vigdís W. Bóasson

Viðskiptafræðideild

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Abstract

The objective of this paper is to discuss some of the main areas of importance in corporate governance, and test them against stock returns and performance measures, in an effort to establish whether any indication of a relationship exists there upon. Using data and annual reports of 18 listed Icelandic companies, I construct a governance index based on variables thought to be of high importance in corporate governance. The governance index is then put to test using stock returns and performance ratios as measurements.

Empirical researches have shown evidence that good corporate governance practices matter, as both stock returns of a portfolio of 'better governed' firms returns superior returns. My findings support those researches and regression analysis also indicates that a relationship exists between governance and firm performance as measured by accounting based measures.

Due to a small sample size and circumstances in the market during the test period, results should be taken with caution and ideas for further study are provided.

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1 Introduction

Corporate governance has been around ever since firms begun raising venture capital for new projects and to expand their businesses'. Lenders want to make sure that their resources are being used efficiently, as opposed to being wasted or abused for the borrower's personal benefits. Definitions on corporate governance differ, but in its simplest form, corporate governance is about trust and honesty.

The topic of corporate governance seems to lay dwelling until either a financial crisis erupts or a major corporate scandal unveils. Some argue that corporate governance has no real effect on the performance of a firm and that rating firms, based on how their governance sums up, might be a waste of time. As Daines, Gow and Larcker, (2010) point out in their research, one problem with commercialized governance ratings is figuring out what really matters in corporate governance. Is separating the role of Chairman and CEO more important than having an independent board? And for that matter, what makes a board independent? Does ownership matter? What about generous compensation packages for management, can that ensure enhanced performance or does it only open up a Pandora's box for managers to expropriate wealth to themselves?

Greed, fueled by hefty bonus packages can surely be identified as one of the contributors to the latest crisis. There is, and will always be, a strong incentive for managers to expropriate a firm's assets by taking on projects that benefit themselves personally while negatively impacting shareholders wealth (Jensen and Meckling, 1976). Obviously there are many aspects to consider and the subject is up for debate. Furthermore, it could be argued that if it were possible to identify what really matters in corporate governance, and if better governed firms outperform poorly governed firms, an investor could achieve superior returns by investing in well governed firms while avoiding the poorly governed ones. But then again, who is to say which measurement is correct when it comes to measuring governance? Or as Daines, Gow and Larcker (2010) bring attention to, commercial governance ratings, such as those provided by Risk Metrics/Institutional Shareholder Services (ISS), Governance Metrics International and the Corporate Library, do not provide sufficiently useful information for investors. Yet, researchers have dedicated a lot of time and energy to make an effort to analyze various matters of corporate governance, and more specifically to analyze whether governance

affects firm performance and stock returns. This thought also serves as the basis for my thesis. For I do believe that if successfully applied, a good set of corporate governance standards can affect firm value and be of benefit for all stakeholders. On those terms Shleifer and Vishny (1997) stated that when implemented efficiently, corporate governance restricts managers in their actions and increases the likelihood that they undertake positive net present value projects, therefore indicating that better governed firms should perform better.

My main hypothesis is that better governed firms are not only more likely to perform better in the long run, but they are also a less risky investment option in terms of stock returns.

The method I use for testing my hypothesis is inspired by the Governance index as created by Gompers, Ishii and Metrick (2003) which is based on 24 governance rules thought to be of importance. Firms are then rated and firms with a low score are thought to have stronger shareholders rights, while firms with the highest scores are believed to restrict shareholders rights. After constructing the index and applying this rating method to a sample of firms, Gompers, Ishii and Metrick (2003) use an investment strategy of buying firms with the strongest shareholder rights and selling firms with the weakest rights. In their research, Gompers, Ishii and Metrick (2003) found that such a strategy would have earned abnormal returns of 8.5 percent per year for the period 1990-1999. Furthermore, firms with stronger shareholder rights had higher firm value, higher profits and sales growth (Gompers, Ishii and Metrick, 2003). On a similar basis, Brown and Caylor (2004) create a governance score composed of a measurement of 51 factors. Supporting the findings of GIM n(2003), Brown and Caylor (2004) find that better governed firms tend to be more valuable, pay out more cash to shareholders and are more profitable. The GIM (2003) index is further put to test by Bebchuk, Cohen and Ferrell (2004) as they seek to identify which of the 24 governance factors matter the most. They hypothesize that six provisions are highly significant and thus construct an index accordingly. Firms could receive a score from zero to six, where a score of zero means a better governed firm. The six provisions in their index are labeled the entrenchment index (E index). The E index is then tested against Tobin's Q, as well as stock returns for the same period as Gompers, Ishii and Metrick (2003), 1990-1999, and also for a longer period, or from 1990-2003. For both periods tested, Bebchuk, Cohen and Ferrell (2004), find that there is a negative correlation with firm value and the E index. Furthermore,

using an investment strategy of buying firms with an E index score of zero and short selling a portfolio of equal weight, consisting of firms with an E index score of five and six, such a strategy would have returned an average annual abnormal return of 7% (Bebchuk, Cohen and Ferrell, 2004).

These results come with a just warning that they should not be interpreted as a reflection of market inefficiency, and that no expectations should be made for such results to continue in the future. Nevertheless, the E index has already been used in more than 75 analyses¹ and can therefore be considered as an accepted method. The previously mentioned governance ratings, as provided by commercial governance rating firms, such as ISS and others, are highly ambitious. ISS, for example, has developed a governance metric based on 61 provisions. An even more ambitious attempt has been made by Governance Metric International to construct an index which includes more than 600 provisions. Bebchuk, Cohen and Ferrell (2004) criticize this as a "kitchen sink" approach on behalf of advisory firms and claim it is possibly misguided. By adding such a vast amount of governance provisions, there is a strong possibility that a lot of insignificant provisions take weight from what really matters; thus providing a less accurate measure of governance quality (Bebchuk, Cohen and Ferrell, 2004).

Under this assumption I go ahead and construct a governance index, to test my hypothesis, using provisions believed to be of importance. The index is based on ownership, board independence, remuneration habits, separation of the role of chairman and CEO as well as ownership of chairman and CEO. Based on my governance index I end up with two portfolios of firms based on high and lows of their relevant score in the index, where the lower score portfolio represents a less risky investment that should perform better. Since the practice of short selling is not applicable to the Icelandic stock market, my test results are based on comparing portfolio performance using stock returns for the period of 2002-2007. I find that the stock returns of the lower score portfolio significantly outperforms not only the higher score portfolio, but the OMX15 index as well. An investor who purchased the low risk portfolio at the beginning of 2002 would have realized an average monthly return of 3.97% and an average annual return of 47.64%. Comparative returns for the high score portfolio during the same period were an average monthly return of 2.17% and an average annual return of 26.05%. The OMX15 returned a monthly average return of 2.69% and an annual return of 32.24% respectively.

¹ For a list of papers using the index visit <http://www.law.harvard.edu/faculty/bebchuk/studies.shtml>

The remainder of the thesis is organized as follows: Section 2 reviews the relevant literature; Section 3 discusses the corporate governance context in Iceland; Section 4 explains my data and methodology; Section 5 reports empirical results; Section 6 concludes the thesis, and Section 7 discusses the limitations and further study.

2 Literature Review

From the abundance of literature on corporate governance, much of it supports the idea that good corporate governance matters, and that it can affect both equity prices, as well as the capability for a firm to finance its operations and the cost of capital. Due to the vastness of topics on corporate governance I try to focus only on literature directly related to my method of research, but I will also discuss any relevant topics as some of them are coherent in nature. One of the most important part of this thesis was constructing a governance index, so therefore the following literature review must be looked upon as a guide on how that index was constructed. Table 1 on page 28 shows the variables used to compose the Governance index, it might be useful to look at that before continuing with the literature review.

2.1 Ownership and Firm Performance

The first variable in my Governance index is ownership. Researchers have discussed the importance of ownership in corporate finance ever since Berle and Means (1932) wrote a breakthrough paper, *The Modern Corporation and Private Property*, suggesting an inverse correlation between firm performance and the diffusion of share ownership. Contradicting Berle and Means (1932), Demsetz (1983) argued that share ownership is a natural evolution based on the influence of shareholders, and any which way it goes should be the one that maximizes shareholder profit. Therefore Demsetz suggests that there is no relation between the changes in ownership and the way a firm performs. Later, Demsetz and Lehn (1985), and Morck, Shleifer and Vishny (1988) examine the relation between firm performance and ownership structure, and by using Tobin's Q they find no significant relations in their estimations, neither for Tobin's Q nor by using alternative accounting measures for performance.

It seems that most studies of ownership and performance have found that there is little or no link between ownership and firm performance. To further emphasize that, Demsetz and Villalonga (2001) approach the subject from a different aspect by investigating the relation between ownership and firm performance by making ownership multi-dimensional, and also treating it as an endogenous variable. Demsetz and Villalonga (2001) find that although ownership diffusion may deal with some agency problems,

there is no statistically significant relation between the structure of ownership and how a firm performs.

The literature covered so far all stems from research on developed markets. And although it seems to rule out that ownership influences firm performance in a way that it dramatically reduces shareholder profit, it cannot be excluded altogether. Also, the Icelandic market is more comparable with what goes on in emerging market economies. As was clearly pointed out in Rannsóknarskýrsla Alþingis (a2010), a report by the Special Investigative Commission (SIC)², market regulation, enforcement of codes and last, but certainly not least, behavior of market participants was lacking in both ethics and professionalism. Research on the link between ownership and firm performance must therefore be on a larger and more complex scale, entailing both the legal aspect, as well as the corporate finance aspect of the market.

Klapper and Love (2002) research data on firm-level corporate governance from 14 emerging markets and link it with the legal system of each market. In their research, Klapper and Love (2002) found that there was a wide variation in firm-level governance ranking, and that in countries with weaker legal systems, governance at firm-level was lower. This provides some evidence that firm-level governance matters more in countries where the legal system is weak, suggesting that firms can, to some extent, make up for ineffective laws by establishing good governance practices (Klapper and Love, 2002). Supporting the use of ownership as a control variable when calculating a governance score, Klapper and Love (2002) found that better corporate governance was highly correlated with a better operating performance, as well as with firm market valuation.

One critique on the Icelandic market is the enormous and complex web of cross ownership, seemingly serving the purpose for large shareholders to avoid legal take-over requirements, increase their control of a company, or gain control of a particular market segment. Investigating this issue would be a daunting task on its own, but there are some studies that have attempted to address a similar issue by examining both management and family ownership. Lins (2002) does so by investigating 1433 firms from 18 emerging markets and as he states: "I depart from previous cross-country research on ownership and valuation by explicitly examining management and family ownership across all of

² The Special Investigation Commission was established by Act No. 142/2008 by the Icelandic Parliament to investigate the collapse of the three main banks. <http://sic.althingi.is/>

my sample firms and whether large non-management blockholders provide monitoring." (Lins, p.24, 2002).

Lins' findings are interesting. First of all, in emerging markets there was a negative relationship between Tobin's Q and management ownership when it exceeded ownership proportionally. The same applied to managerial control when ownership was in the range of 5%-20%, it was negatively related to Tobin's Q, suggesting that potential managerial problems led investors to discount firms due to managerial entrenchment (Lins, 2002). Another issue which Lins (2002) examined was the relation between ownership, and value, and whether they depended on the level of legal protection as provided for shareholders in a country. He found that in countries with low shareholder protection, that if managers held control rights which exceeded their proportional ownership, then the value of those firms was significantly lower.

Going back to the origin, Kapopoulos and Lazaretou (2007), test the hypothesis of Berle and Means (1932) by investigating whether evidence can be found of a systematic divergence as a result of ownership structures. By following Demsetz and Villalonga (2001), Kapopoulos and Lazaretou (2007) use data for 175 randomly selected firms listed in Greece and create a model for ownership structure. By modeling the ownership structure as an endogenous variable, and considering the conflicting interests of different groups of shareholders, Kapopoulos and Lazaretou (2007) found empirical evidence suggesting that there was a positive relationship between concentration in firm ownership and profitability. Although larger than the Icelandic market, the Greek market shares some similarities with the Icelandic one. Or as Kapopoulos and Lazaretou (2007) describe it: "The Greek context provides a financial system, recently liberalized, that is more bank-based, involving a relatively small stock market in which the issue of corporate governance does not have a long history." (Kapopoulos and Lazaretou, p.145, 2007). As in Iceland, the Greek stock market is dominated by a few large shareholders, however, in Greece, family-controlled firms make up a substantial part of the stock market, thus making room for an agency problem where the interest of strong blockholders and weak minority shareholders creates conflicting interests (Kapopoulos and Lazaretou, 2007). Another critical perspective similar to the Icelandic market, which Kapopoulos and Lazaretou (2007) point out, is the constraint of data. Necessary data for their study was available only from the year 2000 and therefore they suggest that a repetition of their research may be necessary at a later time.

Having large blockholders is not necessarily confined to emerging markets or transition economies. Andres (2008) who studies the relationship between family ownership and firm performance in the German market, writes that "In Germany, about 85% of the listed firms have at least one blockholder who holds voting rights of more than 25%" (Andres, p.432, 2008). More specifically, he examines this relationship by distinguishing between general blockholder effects and family effects. In his research, Andres (2008) analyzes 275 German listed firms, where family owned businesses make up 37.5% of the sample. Furthermore, Andres (2008) discusses the importance of further distinguishing not only between blockholder effects and family effects, but also whether the family is active at either the executive level or on the supervisory board. His conclusion from the study suggests that the performance of family owned businesses is substantially better, but only under the condition that the founding family is still deeply involved with the business. A similar study by Thomsen et al. (2006) found a negative effect on firm value from blockholder ownership in Europe. It may therefore be necessary, as Andres (2008) points out, to not only control for blockholdings, but also identify the type of blockholdings when analyzing the effects of concentrated ownership.

2.2 Board Independence and Outside Directors

As with many topics, financial economists and researchers do not agree on the importance of board composition, nor on the importance of having an outside director present on a board. A popular hypothesis related to outside directors is that they are chosen in the interest of shareholders. Often the debate is whether an outside director is chosen through independent channels or if management can have its choice of a "yes-man" on the board. After all, the purpose of an outside director should be to bring not only expertise to the board, but also serve as a monitoring agent of management. Rosenstein and Wyatt (1990) examined the effects of appointing outside directors and found that the addition of an outside director did increase firm value, thus consistent with the hypothesis that outside directors are chosen with shareholders interest in mind.

Opposite to Rosenstein and Wyatt's findings, Hermalin and Weisbach (1991) study the importance of boards and find that there is no apparent relation between the composition of a board and the performance of a company based on calculations of Tobin's Q. They go on to wonder whether inside and outside directors may be equally

good, or bad, at representing shareholders. They also acknowledge that more variables may be needed to bring about a concrete conclusion regarding boards and their efficiency, one of them being the motivation for managers from a compensation point of view (Hermalin and Weisbach, 1991).

Attempting to broaden the view on how boards work, Brickley Coles and Terry (1994) study the impact of adopting poison pills with regards to the proportion of outside directors on a board. Poison pills are elements that can have either positive or negative effects on shareholders as they are adopted without a shareholder vote (Brickley, Coles and Terry, 1994). Their results were in line with the hypothesis that outside directors are chosen in favor of shareholders. The study showed a significant positive reaction by the stock market when an announcement of a poison pill was made, and the board was controlled by outside directors. Similarly the reaction was significantly negative when the board was controlled by insiders (Brickley, Coles and Terry, 1994).

Researchers will continue to debate the issue of board independence until someone solves the puzzle and introduces what constitutes the perfect board. Keeping in mind that the pieces in this puzzle are human, it is a puzzle that will remain unsolvable for years to come. It may even be argued with confidence that to some extent it may depend on luck or coincidence how some companies perform, and those outcomes will influence research based efforts. It must also be kept in mind that corporate governance is a big business on its own. Advisory firms make money by providing services and guidance based on corporate governance, and who is to say who is right and who is wrong? John and Senbet (1998) mention in their paper that the California Public Employees' Retirement System³, at that time made a proposition for a performance test containing 37 principles of good governance. These principals were divided into 23 fundamental ones (e.g., outside majority) and 14 considered to be ideal (John and Senbet, 1998). Yet, Walt Disney, despite its spectacular performance, failed this key test, thus supporting the argument that no clear linkage can be made between corporate governance and performance (John and Senbet, 1998).

A somewhat more recent study, by Lefort and Urzúa (2007) on firms in Chile, revealed that when companies are faced with strenuous agency conflicts, they tend to incorporate professional directors to the board. Lefort and Urzúa (2007) give two main reasons for firms to seek outside professionals; one is to improve corporate governance,

³ <http://www.calpers-governance.org/>

and the other one to alleviate the agency problem. They also found that adding outside directors to the board, especially when ownership is concentrated, does affect firm value. On a different basis, Minton et al. (2010), examine U.S. based financial institutions and the relation between risk taking and firm value, while considering the effect of the independence and expertise of the board, both before and during the latest financial crisis. In short, they found a mixed result of performance during the financial crisis, but when it came to board independence and risk taking, they found that prior to the crisis there was a consistent relationship between board expertise, risk taking and returns. Generally, the more financial expertise independent directors possessed, the more risk was taken on prior to the crisis, only to realize a lower performance during the crisis (Minton et al., 2010). Another interesting result is that during the crisis, financial firms who added independent directors without specific financial expertise, were more likely to receive TARP funds⁴.

2.3 The Approach of Comply or Explain

There will always be pros and cons for every type of performance test created, and there will always be examples of firms that have excellent performance, in spite of not passing a test. Likewise there may be 'perfectly' governed firms from a check-list point of view, who will not perform so well. Those issues are usually addressed at country-level when it comes to implementing and deciding how to enforce governance codes. Although the nature of business is universal, there can be a vast cultural difference that needs to be dealt with when it comes to deciding which objectives best serve the needs of the business sector in form of governance framework.

Allen (2005) analyses the difference between corporate governance in emerging economies and developed markets. He finds that although important, it is not sufficient, to focus only on shareholder rights and the legal framework of a country. In his research Allen (2005) found that the developments of a stock market, in conjunction with financial intermediaries, were a valuable contributor to a country's economic growth. In his policy conclusions he makes notion that firms in emerging economies should have a broader objective than only to serve their shareholders. To ensure that resources are

⁴ The Troubled Asset Relief Program, generally referred to as TARP, was initiated by the United States government to help strengthen its financial sector. More information about the program can be found at: <http://www.treasury.gov/initiatives/financial-stability/Pages/default.aspx>

allocated as efficiently as possible, firms should extend their view to focus on all stakeholders, as opposed to shareholders only.

Planning for how to develop, implement and enforce corporate governance codes can be a daunting task, especially in emerging markets. Wong (2008) cautions against transplanting codes from developed to emerging economies. Special attention must be given to each economy's environment with regards to ownership structure and control. Furthermore, Wong (2008) mentions the necessity for drawing a clear line between codes and legislation, and that malicious behavior by management or board should be prohibited by law. Equally important is making sure which institutions should be responsible for promoting implementation of codes, and ensuring that a follow up program is in place to determine how successful a code is and whether reforms are needed (Wong, 2008).

Opinions differ on how enforcement of corporate governance codes should be conducted. In most developed economies a "comply or explain" form is common. This form notions more or less a self regulation by the market and more serious offenses are dealt with by legislature. If a firm chooses not to comply with a code it must explain its reason for non-compliance and it is then up to the market to determine whether management has a just cause for doing so. This voluntary form of compliance has a number of positive aspects to it. Just the fact that companies come in all shapes and sizes, and with a variety of ownership structures, would make it an overwhelming task to construct a unilateral statutory approach. Similarly, enforcement of corporate governance issues can be multifaceted. As Wymeersch (2005) points out, the enforcement of codes is a complex matter and there is a world of issues to consider, one of them being that the relationship between codes based on self regulation, and the legal system is very special. In his conclusion Wymeersch (2005) believes that when choosing between market led enforcement, or legal enforcement, the preference should be with market led enforcement, along with emphasis on strengthening the internal monitoring mechanics of firms.

The approach of comply or explain was developed in the UK, in 1992, by the Committee on the Financial Aspects of Corporate Governance under the leadership of Sir Adrian Cadbury. The committee suggested that a Code of Best Practice (known as the Cadbury Report) be implemented to reach higher standards of corporate behavior (Musaali, 2007). This Code was reviewed and updated in 2006 and remains the

benchmark for most guidelines on corporate governance, both within the EU member states, but other markets have drawn a great deal from it, too.

In March 2002 a set of voluntary corporate governance codes for companies listed in the Stock Exchange of Thailand (SET) was introduced. The code consisted of 15 principles for good governance practices and firms were obliged to disclose their implementation annually on a 'comply or explain' basis. Kouwenberg (2006) conducted a study by using governance scores of Thai-listed firms and he found that the voluntary code adoption added no significant value to firms. Perhaps more importantly, he concluded that corporate governance codes could not simply be extrapolated to emerging markets, his findings were in line with other researches, such as cross-country studies by Klapper and Love (2004) and Durnev and Kim (2005). The findings indicated that Thai firms were not adopting corporate governance codes to maximize firm value, and opposed to developed markets, it seems that emerging markets do not adopt good corporate governance codes to secure financing for securing growth opportunities.

Implementing governance codes based on the comply or explain approach has become an established method for policy making in many developed, as well as emerging markets. Despite the results being mixed, or often not even resulting in any serious reform of firms' governance practices, it is considered convenient to adopt a code that is internationally recognizable. Such seems to have been the case in Turkey, where Ararat (2010) investigates the effect of governance codes implementation over the years 2000-2009. Ararat (2010) refers "to the period between 2000 and 2005 as the Reform Period and the Period between 2005 and 2009 as the Refinement and Implementation Period." (Ararat, 2010). The reason, as he explains, is that in 2005 firms were required to add a Corporate Governance Compliance Report to their annual report after having ignored governance guidelines for two years since their introduction. The compliance report seemed to be an ambitious doctrine, with over 100 provisions included, but still many firms continued to largely ignore them as some of the compliance reports only contained a few pages, many of them not showing any changes from year to year (Ararat, 2010).

On a similar level those were also the findings of (Arcot et al., 2009), (Taub, 2009), and (Bianchi et al., 2010). With the U.K. market being the originator of the comply or explain rule, Arcot et al. (2009) went on to research 245 non-financial firms based in the U.K. over the period 1998-2004, and study their approach to the rule of comply or explain. They found that compliance was on the rise, but as they discovered, so was also

the monotonous use of standard phrases to explain the reason for non-compliance. Or as a part of their conclusion says: "These companies comply with the "letter" of the law, but not with the "spirit", since the explanation should help understanding why departing from best practice in corporate governance is an optimal decision for the company." (Arcot et al., p.27, 2009). Bianchi et al. (2010) study listed firms on the Italian market and among their findings was that actual compliance was much lower than formal compliance. Considering that, they wonder about the purpose of it being legally satisfactory for firms to follow a code of comply or explain without really providing sufficient explanations for deviating from the code. Additionally, they raise the question, that if such a code contains a collection of what is considered to be best practices, and if that code is being followed more or less the same way by the whole market, then it cannot really be defined as best practices anymore (Bianchi et al., 2010).

2.4 Separation of CEO and Chairman

The U.K. and the U.S. share many similarities when it comes to corporate governance, so many that it has become common practice to fusion the two and refer to corporate governance practices of both countries as the "Anglo-US model". There is however, a noteworthy difference when it comes to separating the roles of the chairman and the chief executive officer. Coombes and Wong (2004) draw up a comparison showing that a whopping 95% of FTSE350 companies follow the principle of separating these roles. Whereas in the U.S. close to 80% of S&P500 companies unite the roles. France showed a similar number as the U.S., while Singapore, Belgium and Canada had a ratio of around 60% of firms splitting the role, but in South Africa, the Netherlands and Germany, the ratio was close to 100% of the firms splitting up the roles of CEO and chair. (Coombes and Wong, 2004).

What about the arguments for having a dual leadership structure? Most countries that adhere to this structure argue that the chairman runs the board and the CEO runs the company. A few other main reasons include the board having a responsibility to monitor the CEO and if the CEO is sitting on the board then the board might run into difficulties criticizing the CEO, not forgetting that the CEO would be monitoring him/herself. Also, the CEO might have a problem expressing honest and independent opinions. Furthermore, issues raised by management will be received by a fresh perspective when met by an independent chairman. Then there is the argument that both roles are a full-

time job on their own, so combining the two is viewed by many to be too much for one person to carry out (Coombes and Wong, 2004).

Despite those arguments, especially the last one, 80% of executives of firms in the S&P500 could carry out a combined role. Some of the reasons why the U.S. prefers this arrangement are found in the counterarguments which Coombes and Wong (2004) briefly discuss. The most sizeable argument for not separating the roles is that it deprives the CEO of authority necessary to properly carry out the job. Some argue that in times of emergencies, a split role can confuse and delay the decision making process. Confusion about who is responsible for the company's performance is another reason given, and there are mixed results from studies related to this matter and firm performance. In this context Dahya, Lonie and Power (1996) test the effect of U.K. firms announcing changes in the dual CEO position, in the years 1989-1992 (prior to the Cadbury Report). What they found was a favorable reaction from the market when firms announced a separation of the dual role held by CEO, and a negative reaction when firms combined the positions. Improvements of performance did not change considerably, but there was a slight positive improvement when the titles were separated, and a negative when combined. Testing for reduced agency costs through separation of the titles, and enhanced firm performance, Brickley, Coles and Jarrell (1997) test U.S. firms and find that no such relationship exists. They add to their conclusion that a combined title brings an equilibrium to US firms, is efficient and in best interest of shareholders.

Separation of the roles in the U.S. has been increasing. Dey, Engel and Liu (2009) refer to a report from the Corporate Library in 2007 which revealed that around 36% of S&P500 companies had separate CEO and chairman. They study the duality of CEOs with regards to corporate governance, and firm performance, and note that one reason for an increase in separation seems to be due to pressure from investors. This pressure is most likely due to a large number of corporate scandals and failures, but Dey, Engel and Liu (2009) maintain the argument that no improvement in performance is noticeable following a separation of CEO and chair, on the opposite, there is an indication that performance has declined subsequently. They also noticed that larger U.S. firms tend to have stronger corporate governance and imply that they have more capable CEOs. As a suggestion the proposal is that a careful consideration is warranted before taking the action of splitting up the roles.

There is a very strong indication that the US market simply has different established norms which can explain the variation between governance habits in the US, the UK and other countries. Alon et al. (2010) study the big emerging markets, Brazil, Russia, India and China (BRIC) and investigate at country-level, industry-level and firm-level, some of the factors related to corporate social responsibility. The study was multi-faceted and found among other things that companies should evaluate the governance environment it operates in. This especially applied to multinational corporations (MNCs) and suggested that if the home country is mainly rule-based, such as North America or Western Europe, that a review of corporate governance approach might be necessary, especially if operating in a country that is relationship-based. Therefore, one suggestion included that a MNC with board and CEO duality, should split up the roles and bring an outsider to the board.

2.5 Remuneration and Agency Costs

Providing a competitive compensation package in order to hire and retain high quality, valuable employees. Such statements were commonly heard before the latest crisis and they have not silenced much since then. Much has been written about the topic of remuneration of top management, and much has been researched between the link of remuneration and performance resulting in papers with catchy, criticizing, titles. Jensen, Murphy and Wruck (2004) wrote one such, *Remuneration: Where We've Been, How We Got to Here, What are the Problems, and How to Fix Them*, where they draw from the immense number of related papers, analyze, criticize and propose recommendations for reforms to the system surrounding executive compensation. Instead of going into a tug-of-war citing different articles that either find or do not find any link between executive compensation and enhanced firm performance, with the latter being more frequent, I allow myself to refer extensively to this thorough examination of Jensen, Murphy and Wruck (2004) and use it as a base to cover this chapter.

Briefly going over the history of remuneration habits, in the 1970s and 1980s compensation packages mainly consisted of annual salaries plus bonuses linked to annual performance measures. Highest paid executives were those of large industrial companies and the largest conglomerates. Incentives for them to affect stock prices were not high and the Dow Jones average remained almost flat from 1965 and into the early 1980s. The 1980s did not bring substantial changes to remuneration habits, but leveraged buyouts became frequent and management introduced the use of debt by

discipline, resulting in highly levered organizations under the presumption of creating long-term value. The 1990s introduced a boom in executive compensation, CEO compensation, for example, went from an average of approximately \$2.7 million in 1992, reaching a peak of roughly \$14 million at the height of the Internet bubble in 2000, falling to almost \$9.4 million in 2002, (numbers reported after inflation adjusted dollar value of 2002), Jensen, Murphy and Wruck (2004).

Remuneration systems have undergone much development since Jensen and Meckling (1976) introduced their critical paper *Theory of the firm: Managerial Behavior, Agency Costs, and Ownership Structure*. Jensen has followed up with a number of papers, one such being *Agency Costs of Overvalued Equity* (2004) where he discusses the painful, but real problem of how to deal with a firm's stock price becoming considerably overvalued. This managerial dispute often results in a catch-22 where managers are faced with two choices, try to sustain an unsustainable stock price, or disappoint the capital markets. Since nobody wants to be the manager who disappoints the market, managers often resolve to value destroying decisions in an attempt to continue to deliver track record results, Jensen (2004). Similarly, Jensen, Murphy and Wruck (2004) further emphasize how managers use easy access to cheap capital and use the overvalued equity of the company as currency to make risky acquisitions and when those fail to resolve the issue, under tremendous pressure, managers sometimes turn to manipulating the numbers and even fraud.

The problem with overvalued stock can be traced back to inappropriate remuneration efforts that make use of performance measures. Bonus plans focusing on net income make room for incentives to increase accounting based profits, a piece-rate scheme offers incentives to increase quantity, and return based plans (e.g. return-on-assets, return-on-equity) provide incentives to ignore profitable projects and pursue only projects with the highest expected return. All those plans have the common danger of management seeking only projects that return the highest personal rewards, at the expense of quality of the projects Jensen, Murphy and Wruck (2004).

One contribution to this growing problem of agency costs is the ever increasing habit of corporations of granting options to employees. So far companies have been reluctant to recognize this as an accounting statement expense and to calculate the opportunity cost that firms give up by not selling the option in the market, so has been the opinion of Bodie, Kaplan and Merton (2003) and Bulow and Shoven (2005), who challenge the

view that since stock options are not a cash transaction deal, they should not be considered as an economically significant transaction. Bodie, Kaplan and Merton (2003) stress the economic significance of stock options by pointing out that in 2001 AOL Time Warner reported \$700 million in operating income, but if they had recognized employee stock option expenses correctly, the result would have been a loss of about \$1.7 billion.

Remuneration today involves much more than simply seeking to hire and retain high quality executives, with hidden costs and an explosion in awarding options to not only top management, but also further down the corporate ladder, structuring compensation packages deserves careful consideration. Although the Black and Scholes (1973) formula does a pretty good job at estimating the cost for a company of granting an option to an employee, there has been an explosion in the practice, or as Bodie, Kaplan and Merton (2003) identified, estimates in 1990 were that less than 1 million employees received stock options, by the year 2000 this number was up to nearly 10 million employees.

Jensen, Murphy and Wruck (2004) go on to explain that the issuance of new shares incur no cash outflows and no accounting charge, and with cash benefits to the firm in form of a tax deduction, there is a tendency to perceive cost of an option to be much lower than the actual economic cost. They further conclude that although "executive compensation can be a powerful tool for reducing the agency conflicts between managers and the firm, compensation can also be a substantial source of agency costs if it is not managed properly" (Jensen, Murphy and Wruck, p.98, 2004). They also admit that necessary changes required to obtain stability in the remuneration system will be far from easy to develop or implement.

3 Corporate Governance in Iceland

History of corporate governance Guidelines in Iceland is short and concise. Disappointingly, Icelandic companies showed a lack of interest and put little effort into implementing and following the initial guidelines published in 2004. Information unveiled after Iceland's financial crash in 2008 proved that for most firms the guidelines served only the purpose of window dressing, even at the country's largest financial institutions.

It was in 2004 that the Iceland Chamber of Commerce, in co-operation with the Confederation of Icelandic Employers and NASDAQ OMX, published the first set of Guidelines on corporate governance. Iceland's young stock market had been booming since the beginning of the decade, and never since the establishment of the Icelandic stock exchange (Verðbréfaþing Íslands) in 1985 (Magnússon, 2007) had any guidelines on corporate governance been in place. One reason for the short history of the Icelandic stock market, in addition to the size of the country, is the fact that Icelandic laws were not encouraging for investors. Companies did not incorporate themselves in an effort to raise funds, but rather because this form of establishment helped limit the responsibilities of the owners (Magnússon, 2007).

The main purpose of the Guidelines was to help strengthen the relations between shareholders and boards and management of companies. International standards and discussions on corporate governance were considered in preparations of the Guidelines. In 2005 the Guidelines were revised and remained unaltered until 2009.⁵

Although not legally binding, the first set of Guidelines was an initiative to encourage the business sector to adopt working procedures, stricter than regulations, which would not only strengthen the infrastructure of companies, but increase both investor's and the public's confidence in the business sector. Included in the Guidelines was an increased responsibility on behalf of companies to act favorably towards shareholders as well as other stakeholders. Companies were being made aware that this would be a prerequisite to increase their competitiveness and therefore be able to create a better standard of living for the society as a whole.

⁵ <http://www.vi.is/utgafa-vi/stjornarhaettir/>

Despite the effort to issue these Guidelines, the implementation process by market participants was disappointing. Mr. Finnur Oddsson, manager at the Chamber of Commerce, commented in June 2009 that a certain underestimation took place when the guidelines were first introduced in 2004 with regards to how simple it would be to implement them at the market level⁶. Not only was reception of the Guidelines disappointing, but unfortunately it could also be argued with confidence, that the disastrous financial crash in Iceland can to a large extent be blamed on faults in corporate governance at many of the largest companies in Iceland, especially in the financial sector.

Considering how badly the Icelandic business sector was damaged, revision of the Guidelines in 2009 would make them firmer and an effort was to be made to enhance monitoring to ensure that companies were making use of and following the guidelines. In the 2009 revision, similar guidelines from other countries were taken more into account and recommendations of the European Commission and the Organization for Economic Co-operation and Development (OECD) were also included. These considerations returned a revised set of Guidelines that were considerably amended, with increased requirements and more detailed provisions for management to follow in almost all fields.

Empirical research on corporate governance in Iceland has been very limited and mainly in the form of student essays. Some discussion on corporate governance of Icelandic firms has taken place, mainly in the form of articles and round table sessions. A master's thesis by Lilja Rúna Ágústsdóttir in the spring of 2010, attempts to gain an insight into corporate governance in Iceland by researching to which extent Icelandic firm's adopt and follow Guidelines on corporate governance (Ágústsdóttir, and Steinþórsson, 2010). In her research, Ágústsdóttir (2010), found that firms were slow to adopt Guidelines on corporate governance. In the first year, 2004, only 3 out of 17 firms surveyed had fully adopted the guidelines. Development over the years 2004-2008 was positive and showed that roughly 43% of firms had fully adopted the Guidelines, close to 50% had mostly adopted them. The rest had did not show any discussion on the Guidelines in their annual report (Ágústsdóttir, 2010).

⁶ <http://visir.is/leidbeiningar-um-stjornunarhaetti-uppfaerdar/article/2009648141625>

4 Data and Methodology

4.1 Data Sources

Most papers written about corporate governance include an empirical analysis of data which has already been gathered and organized by commercial rating agencies or other firms providing investor services. Gompers, Ishii and Metrick (2003), for example, make use of datasets provided by ISS.⁷ Examples of other sources providing data available for analysis are Alliance Bernstein⁸ and Thomson Reuters's Worldscope.⁹

No similar data service is available in Iceland, therefore all relevant data needed to construct the governance index was gathered first hand from annual reports of firms listed on the Icelandic Stock Exchange during the years 2002-2007. A strenuous effort was made to make sure that the data gathered was accurate and would produce reliable results. It must be mentioned though, that a good portion of the annual reports, especially from earlier years, can at best be considered to be lacking in quality as disclosure often proved to be very poor and un-transparent. Data from all listed firms from 2002-2007 was gathered and analyzed for items needed to construct a governance index, and to calculate Tobin's Q, ROE, ROA and Debt-to-equity ratio. I considered it to return a more comparable method to do all calculations first hand as different methods were often used by firms to calculate ratios as presented in their reports. From NASDAQ OMX stock price data from December 31st 2001 until December 31st 2007 was acquired and used to calculate stock returns.

Although this is not the topic of discussion, it is highly relevant, and not unjust to draw attention to the fact that listed Icelandic firms have had a consistent track record of very poor disclosure when it comes to annual reporting. Perhaps the companies themselves are not entirely to blame as the legislative body has shown very little interest in making reforms to current requirements of market participants. It is truly my hope that this issue will at some point in the future be dealt with and serious efforts made at reforming it at the legislative body.

⁷ <http://www.issgovernance.com>

⁸ www.alliancebernstein.com

⁹ <http://thomsonreuters.com>

4.2 Methodology

In this section I explain how I construct the governance index and how it is used to create two sets of portfolios whose returns are then calculated and compared. I cover the process of firm selection for the research, and finally go over the regression analysis.

4.2.1 The Governance Index

A very important part of the research was the constructing the governance index. In doing so I followed established methods, such as those used by (Gompers, Ishii and Metrick, 2003) and (Bebchuk, Cohen and Ferrell, 2004), as well as making use of the Guidelines on Corporate Governance, as issued by the Chamber in Iceland. The variables I used to construct the index were related to: ownership, board independence, remuneration policy, separation of CEO and Chairman as well as ownership of the CEO and Chairman. Table 1 shows more detailed information on each variable.

Table 1 List of variables used to create the governance index.

Ownership distribution
Number of parties with ownership between 5.00% - 10.00%
Number of parties with ownership between 10.01% - 20.00%
Number of parties with ownership between 20.01% - 33.33%
Number of parties with ownership between 33.34% - 40.00%
Number of parties with ownership of 40% or more
Board Independence
Firm has at least 50% outside directors (board is independent)
Directors do not serve at boards of related firms
Firm has one or more foreign outside director
Remuneration Policy
Firm has an independent remuneration committee
A system for evaluating directors is in place
CEO and Chairman of the board
Role of CEO and Chairman is separated
Ownership of the CEO in the firm is less than 5%
Ownership of the Chairman in the firm is less than 5%

The reason for choosing those variables is that they are in line with what has been considered to matter in corporate governance, and also, most of those variables could be obtained by looking only through annual reports of listed firms.

The index is constructed in such a way that if the answer to a variable is "no" then a score of zero is applied, if the answer is "yes" then a score of one is applied. I realize that this method is not 100% fool proof and can without a doubt be further developed, but I believe this to be as accurate and fair as possible. The answers to each variable were found in annual reports, there were however two main problems that came up. First, some annual reports, especially older ones, did not provide all the information needed. If that was the case then a score of half a point was applied. I considered that to be the only way to keep a consistent scoring method and estimated that it would not hurt the final outcome. Second, I had to debate myself on how to deal with the ownership distribution variable as that is the only variable where each item can get a score of more than one point. So, for example, if a firm would have two parties each with ownership between 5%-10%, that would lead to a score of two points. Identically, if another firm would have two parties each with an ownership of 33.34%-40.00%, then that would also lead to a score of two points. Obviously the latter ownership is much more concentrated and puts more constrain on minority shareholders. Eventually I decided to use this method under the assumption that the effort of trying to come up with a more complex method of counting the score would most likely not affect the final result in a significant way.

Based on the results of the governance index the test sample of 18 firms was separated into two portfolios called the *low-risk portfolio*, consisting of the nine firms with the lowest score, and the *high-risk portfolio*, containing the nine firms who received a higher score. The results are shown and discussed in part 5.

4.2.2 Calculating Stock Returns

Next step was to calculate the stock returns. In order to do that I used data provided by NASDAQ OMX and made use of daily stock returns, adjusted for dividends, over the period January 3. 2002 to December 28. 2007. I then calculate holding period returns using the formula: $r_{stock, t} = (P_{stock, t} - P_{stock, t-1} / P_{stock, t-1})$. I also calculate both the monthly, as well as the annual, mean, variance and standard deviation for each portfolio. The results are shown and discussed in part 5.

4.2.3 Selection of Firms

There were over 70 firms listed on the stock exchange for the time period tested, many of them were only listed for a couple of years, some even less than a year. To calculate comparable stock returns I used a sample of 18 firms which were present on the stock exchange for the period of 2002-2007. A larger sample size would of course have been desirable, but with frequent de-listings of firms this was the best viable sample.

The sample set does include most sectors, but obviously is highly dominated by firms in the financial sector, especially in the low-risk portfolio which includes three of the largest banks. It must be kept in mind though, that when working with a small market like the Icelandic one, that this is what investors have to work with, so despite any sector bias this must be looked upon as a true reflection of the market and its available investment options.

4.2.4 The Governance Index and Firm Performance

To check for a correlation between firm performance and the governance index I look at Tobin's Q, ROA, ROE, and test them in three separate tests as dependent variables against three control variables: the governance index, the log value of the book value of total assets, and the debt-to-equity ratio. The test results are shown in part 5.

4.3 Research Design

The main objective of this thesis is to find an answer to the hypothesis that *better governed firms perform better and are a less risky investment option*. I put this hypothesis to test by using information from the governance index to separate the 18 firms into two portfolios. The two portfolios are called the *low-risk portfolio* consisting of nine firms that had the lowest score and the *high-risk portfolio* consisting of the nine firms that received a higher score. In line with research on corporate governance, it is generally presumed that better governed firms present less agency risk to shareholders.

Once the two portfolios were in place the next decision was to figure out how to weigh each firm. When an investor forms a portfolio of stocks he/she must decide how much of each stock to purchase. There are many ways to go about this, for example, by weighing securities in terms of sector, by the type of security (small cap vs. large cap, technology or production etc.), one can also go by the size of the firm in relevance to the total market, or even by index exposure. In the end this is all up the investors investment strategy.

Another decision related to investment strategy, was whether to follow a passive or an active strategy based on future changes in the governance index. It is likely that a firm's governance score changes from year to year. Therefore it is logical to assume that an investor who wants to keep a consistent portfolio of low-risk stocks, based on a governance index, would re-evaluate his/her portfolio, at a regular interval, selling securities that may have received a higher score, replacing them with securities receiving a lower score. My take is that this adds too much assumption to the process. Therefore I decided to go with a strategy of investing in securities based on the firms' relevant score in 2002. I also calculated the average governance score for all firms during the period and, with the exception of two firms, they ranked identical (the two firms scored very close, and the change in them was by fragment, so I let them stay as they were). Third, this type of research obviously entails looking in the rear view mirror, and since annual reports are the only tool an investor possesses to make judgments about a firms governance score, it would be an unnecessary complication to track when annual reports were reported (as they do so at different points in time). Therefore for simplicity reasons the investor bought into the two portfolios at the same time in 2002.

Table 2 Composition of the low-risk portfolio and the high-risk portfolio.

Low-risk portfolio	High-risk portfolio
Atorka	365
Bakkavör	Alfesca
Glitnir	FL Group
Hampiðjan	Icelandic
HB Grandi	Marel
Kaupþing	Nýherji
Landsbanki	Straumur
Sláturfélag Suðurlands	TM
Össur	Vinnslustöðin

I decided to test the portfolios in three different ways by assigning different weight to each firm. The three methods I used are: 1) A portfolio where all firms receive equal weight. 2) A portfolio where the weight is based on the governance score. 3) A portfolio

based on the Global Minimum Variance Portfolio Theory. The third portfolio applies traditional portfolio theory and examine the impact it has on the outcome. In the GMVP firms are still divided into two groups according to their governance score, but the GMV is calculated for each portfolio and the firms are given weight accordingly.

Then I go ahead and use the stock prices to calculate the monthly, as well as annual returns for the three sets of portfolios. I also calculate the monthly and the annual, variance and standard deviation, calculate the Sharpe ratio, the coefficient of variance and perform a t-test on the two portfolios. Excel was used for all calculations related to stock returns and for other measures of the portfolios. For that purpose I also made extensive use of the book Financial Modeling by Simon Benninga (2008). For regression analysis I made use of the *gretl* software package.

5 Empirical Results

My findings indicate that stock returns may be affected by the governance of a firm. Two of the three ways for calculating returns of the two portfolios show that the low-risk portfolio considerably outperforms the high-risk portfolio, as well as the ICEX15. The GMV portfolio returns almost identical returns for both portfolios, those returns are lower than the ICEX15. Regression analysis showed that ROA and debt-to-equity ratio are significant at the 1% level, ROE and the G-index are significant at the 5% level.

Seeking an answer to my hypothesis one of the questions at hand was whether a relationship existed between the governance index and returns. My expectations are that an inverse relationship exists, and that a portfolio of firms with a lower governance index score will perform better than the opposite. To answer that I create two portfolios each containing nine firms and calculate returns for the period 2002-2007. I make three calculations, making only changes in the weight each stock receives in the portfolio. As stocks are generally considered a long-term investment, the investors follow a strategy of buy-and-hold, holding the portfolios for the duration of the period. To get a better comparison and a benchmark for the returns, I also calculate returns of the ICEX15 index for the same period using the same HPR formula.

Tables 3, 4 and 5 summarize my results of the relationship between governance and stock returns. Other studies have used both accounting based and stock market based measures of performance, I examine both options to some extent. Table 3 summarizes the results for the equally weighted portfolios; Table 4 summarizes results for the G-score weighted portfolios, and Table 5 summarizes results for the GMV weighted portfolios. Tables 6 shows descriptive statistics for the variables and table 7 summarize the results of the regression analysis.

Table 3: Equally weighted portfolios and stock returns.

Each stock in this portfolio receives the same weight of $1/9$, so the assumption is that investors purchase an equal amount of each stock in their portfolios. Looking at sheer returns the low-risk portfolio is significantly outperforming the high-risk portfolio with an annual mean return of 47,64% vs. 26,05% for the high risk portfolio. In comparison

annual mean return for the ICEX15 over the same period was 32,24% with a standard deviation of 18,85%. Volatility for the low-risk portfolio is more than three times higher than for the high-risk portfolio and the Sharpe ratio is also higher for the high-risk portfolio, indicating that the high-risk portfolio actually has higher risk-adjusted returns. Coefficient of variance also scores higher for the low-risk portfolio, indicating that each unit of return actually bears higher risk. The risk-free rate is based on an average of the Central Banks interest rates from 2002-2007. A t-test for the portfolios does not prove significant. These results indicate that a portfolio of firms based on lower governance scores would have significantly outperformed a portfolio based on firms with a higher score, but at the same time the low-risk portfolio is showing more volatility and that it is more susceptible to changes in the market. I am not certain about the reasons for higher volatility of the low-risk portfolio. A higher trading volume is one possible explanation, but the portfolio does include stocks of the three largest banks, which were heavily traded. Beta measurements are not used for firms in Iceland so this needs further looking into in order to determine what causes this high volatility.

Table 3 Summary of results for the equally weighted portfolio

Equally weighted portfolios	Low-risk portfolio	High-risk portfolio	ICEX15 index
Portfolio annual mean return	47,64%	26,05%	32,24%
Portfolio annual return variance	0,269	0,015	0,036
Portfolio annual return standard deviation	38,57%	12,05%	18,85%
Risk-free rate average 2002-2007	7,31%	7,31%	7,31%
Sharpe ratio	1,046	1,556	1,322
Coefficient of variance	0,810	0,462	0,585
t-score	0,159	0,159	

Table 4: Governance score weighted portfolios and stock returns.

I wanted to check if weighing stocks in the portfolio based on their governance score would make a difference for the outcome. To do that I adjust the weight of each stock by calculating the stock's weight in relevance to its governance score, so, for example, a stock with a lower score will receive more weight than a stock with a higher score. I apply this method to both portfolios. Changing the weights in the portfolio according to

the governance score does not affect the performance of neither portfolio to any extent. There is however an increase in the low-risk portfolio's standard deviation and the coefficient of variance also increases.

Table 4 Summary of results for the governance score weighted portfolio

G-score weighted portfolios	Low-risk portfolio	High-risk portfolio	ICEX15 index
Portfolio annual mean return	47,65%	26,19%	32,24%
Portfolio annual return variance	0,267	0,015	0,036
Portfolio annual return standard deviation	51,64%	12,37%	18,85%
Risk-free rate average 2002-2007	7,31%	7,31%	7,31%
Sharpe ratio	0,781	1,526	1,322
Coefficient of variance	1,084	0,472	0,585
t-score	0,159	0,159	

Table 5: Global Minimum Variance weighted portfolios and stock returns.

Adjusting the weights of each stock in both portfolios according to global minimum variance calculations drastically reduces returns of the low-risk portfolio, but also reduces returns of the high-risk portfolio and both portfolios are now performing almost equally. Both portfolios would underperform the ICEX15 and their aspects with regards to risk and return now look very similar. It should also be mentioned that the GMV calculation assumes short-selling, which is not practiced in the Icelandic market.

Table 5 Summary of results for global minimum variance weighted portfolio

GMV weighted portfolios	Low-risk portfolio	High-risk portfolio	ICEX15 index
Portfolio annual mean return	22,90%	22,30%	32,24%
Portfolio annual return variance	0,013	0,011	0,036
Portfolio annual return standard deviation	11,47%	10,59%	18,85%
Risk-free rate average 2002-2007	7,31%	7,31%	7,31%
Sharpe ratio	1,359	1,415	1,322
Coefficient of variance	0,501	0,475	0,585
t-score	0,455	0,455	

Regression analysis results

Table 6 Descriptive statistics and correlations.

Descriptive statistics (18 firms) 108 observations (a)

Variable	Mean	Std. Dev.	Median	Minimum	Maximum
Tobin's Q	1,03	0,49	0,98	0,26	3,75
ROA	0,03	0,07	0,02	-0,37	0,23
ROE	0,11	0,19	0,12	-1,13	0,46
Gov-score	8,44	2,04	8,50	3,00	13,00
Log (Assets)	10,59	1,96	10,20	7,81	15,49
D/E ratio	0,68	0,18	0,66	0,04	0,95

Table 6, panel a, provides descriptive statistics for Tobin's Q, ROA, ROE, and the control variables, which are the governance score (Gov-score), the log value of the assets (Log (Assets)), and the debt-to-equity ratio (D/E ratio). Tobin's Q ranges from 0,26 to 3,75, with a mean and median of 1,03 and 0,98, and a standard deviation of 0,49. ROA ranges from -0,37 to 0,23, with a mean and median of 0,03 and 0,02, and a standard deviation of 0,07. ROE ranges from -1,13 to 0,46, with a mean and median of 0,11 and 0,12, and a standard deviation of 0,19. Gov-score ranges from 3,00 to 13,00, with a mean and median of 8,44 and 8,50, and a standard deviation of 2,04. Log (Assets) ranges from 7,81 to 15,49, with a mean and median of 10,59 and 10,20, and a standard deviation of 1,96. D/E ratio ranges from 0,04 to 0,95, with a mean and median of 0,68 and 0,66, and a standard deviation of 0,18.

Correlations coefficients 5% critical value (two tailed) = 0,189 (b)

	Tobin's Q	ROA	ROE	Gov-score	Log (Assets)	D/E ratio
Tobin's Q	1	0,2448	0,1955	0,0465	-0,0169	-0,1109
ROA		1	0,8863	-0,0741	-0,1067	-0,2732
ROE			1	-0,2265	0,1641	0,0755
Gov-score				1	-0,2039	-0,0961
Log (Assets)					1	0,6557
D/E ratio						1

Panel b of Table 6 shows the correlation between Tobin's, ROA, ROE and the other control variables. No significantly high correlation can be found among the variables. Correlation between Tobin's Q and the Gov-score is 0,0465. Correlation between Tobin's

Q and Log (Assets) is -0,0169. Correlation between Tobin's Q and D/E ratio is -0,1109. Correlation between ROA and the Gov-score is -0,0741. Correlation between ROA and Log (Assets) is -0,1067. Correlation between ROA and D/E ratio is -0,2732. Correlation between ROE and the Gov-score is -0,2265. Correlation between ROE and Log (Assets) is 0,1641. Correlation between ROE and D/E ratio is 0,0755..

Table 7 Regression analysis results

Model 1: Dependent variable: Tobin's Q				
Intercept	Gov-score	Log (Assets)	D/E ratio	Adj. R ²
0,9670***	0,0125	0,0278	-0,4949	-0,79%
Model 2: Dependent variable: ROA				
Intercept	Gov-score	Log (Assets)	D/E ratio	Adj. R ²
0,1101**	-0,0029	0,0037	-0,1363***	6,47%
Model 3: Dependent variable: ROE				
Intercept	Gov-score	Log (Assets)	D/E ratio	Adj. R ²
0,1425	-0,0190**	0,0151	-0,0472	3,99%

Table 7 presents the results of regressions analysis between: Tobin's Q, ROA and ROE and the control variables: Gov-score, Log (Assets) and D/E ratio. Model 1 shows regression of Tobin's Q on Gov-score, Log (Assets) and D/E ratio. None of the variables are significant. The coefficient for the Gov-score is contrary to what I expected, the model indicates a positive relationship between higher governance score and Tobin's Q. Model 2 shows regression of ROA on Gov-score, Log (Assets) and D/E ratio. The control variable D/E ratio is significant at the 1% level (coefficient estimate = -0,1363). All coefficients are in line with my expectations here, although indications are not strong for Gov-score. Model 3 shows regression of ROE on Gov-score, Log (Assets) and D/E ratio. The control variable Gov-score is significant at the 5% level (coefficient estimate = -0,0190). Both Gov-score and Log (Assets) show an increase in their coefficients. In summary, these results provide some indications that two control variables are related to performance measures of corporate governance. Coefficient estimates are reported below control variables. Significance levels are reported by *** and (**) for 1% and (5%) levels respectively.

6 Conclusion

My primary contribution to existing literature is an indication of a relationship between corporate governance and firm performance. Perhaps the most important contribution is an attempt to apply established methods of testing for corporate governance in a micro market where not much research has been done on corporate governance, and to the best of my knowledge, no research has attempted to test for a relationship between corporate governance and firm performance. In that sense these results best serve as an input for discussion on corporate governance in Iceland.

I have followed a standard approach of giving each provision in the governance index an equal weight, used available data to calculate returns and performance measures, and provided information that suggests a relationship there between. I do caution against interpreting the results of the stock returns without a grain of salt, especially since volatility turns out to be very high and the results also indicate that my research question can only be partially answered positively; that is, stocks with a lower governance score turned out to be a better investment choice, but not a less risky one. Composition of the portfolio also seems to be a very important factor as was clearly observed with the third set of calculations which drew both portfolios to perform almost identically and worse than the ICEX15.

Some previous research have shown a correlation with future stock market returns. That will clearly not be the case for this study. Considering that the dataset for this research is from a booming period of the Icelandic stock market, and then looking at the aftermath of the crisis that hit in 2008, roughly half of the firms used in this research are either bankrupt or struggling to survive. Among the bankrupt firms are the three banks which were all a part of the low-risk portfolio, and at some point in time, together they accounted for approximately 70% of the market value of all the firms listed on the Icelandic stock exchange. Currently only two firms of the 18 remain listed on the stock exchange. This should not only caution against interpreting the results of the research, but more importantly caution against how governance codes are used and interpreted.

As mentioned in the literature review, there were indications that companies could follow an approach of comply or explain, providing only standardized repetitive and meaningless phrases to explain non-compliance with codes, and without any

consequences. One must wonder what is the purpose of going through all the trouble of developing, adopting and implementing governance codes if they are only for show? The Chamber in Iceland did express those thoughts as they proceeded to revise, strengthen and update the governance codes for Iceland.

Another related issue, which was not possible to test for in this research, is that ownership of a lot of Icelandic companies was through a complex web of cross holdings, and as reported by the SIC, lending practices of the three fallen banks proved that substantial amounts of loans were granted to owners, but concealed through such cross holdings (Rannsóknarskýrsla Alþingis, b2010). The purpose of concealing ownership may also have been to avoid legal take-over measures, if this was a fact for some firms in the period tested, such must be considered to have had an effect on the results.

The fact that all relevant information had to be gathered by funneling through annual reports undoubtedly opens up room for a margin of error in the data gathering, but what is more serious is the previously mentioned fact that companies can choose not to comply with a code, or provide a dummy explanation without any consequences. Poor disclosure habits must be looked upon as a result of slacking on behalf of the legislative body. It must be worth a ponder or two, if the head cannot follow its own commands, then how can others be expected to do so? What I mean is not only Icelandic firms are slacking, but so are the political parties, members of parliament, and even the big accounting firms. Media coverage has shown that it seems to have become a common practice for all mentioned, *not* to turn in a simple object like an annual report on time.

What I am saying with these highly dramatized final words is that there seems to be a need to seriously re-consider the way governance codes are approached and implemented. Emerging markets, such as Iceland, must consider more than simply looking for and adopting universal codes, particularly if they are without consequences. The Report of the SIC unveiled serious systematic faults in the business sector, as well as the legislative.

Iceland's business sector badly wanted to play with the 'big boys' in international finance. At the beginning of 2000 banks had started to implement bonus schemes for top executives. This development was rapid and almost overnight a special elite of bankers was created, earning not only salaries previously unheard of, but also options were being given out like candy, and pockets never seemed to fill up. The reason given was that in order for the Icelandic banks to maintain international competitiveness, providing

adequate compensation packages was considered a necessity. What was more striking was the fact that top executives and related parties were able to purchase vast amounts of shares in the banks, frequently funded by bullet loans with the shares themselves serving as collateral.

Revisiting the Literature Review in part 2.5 of this paper, it is clear that agency costs were skyrocketing through these practices, and as has already been unveiled in the aftermath of the crash, banks' balance sheets were being seriously inflated resulting in a highly overvalued stock price. Considering this, it is clear that careful consideration must be taken with regards to how to deal with those issues in the future. Corporate governance codes without consequences, or the legal framework to back them up, are not likely to do the trick.

7 Limitations and Further Study

There are two main limitations to this research, data availability and the sample size. Obviously it is logical to assume that lack of data would be a consequence of a small sample size, but I am also pointing to the fact that publicly available data on corporate governance is virtually non-existent in Iceland. Accounting firms, such as KPMG, are offering companies the service of assisting with implementation of good corporate governance practices. It would be interesting to gather information about what those practices involve, how they are set up, and how many companies are making use of such services.

For further studies I would recommend a repetition of this study. It can be done using different investment strategies, for example by assuming an active investment strategy, re-evaluating portfolios based on changes in governance scores. A more detailed method could also be applied, for example, by analyzing and applying different weight to variables in the governance index. It is likely that factors such as ownership, which limit shareholders rights, carry more weight than other variables of governance do on the Icelandic market.

For the time being the Icelandic market is undergoing a transition period where uncertainty is high due to political instability, currency restrictions and a generally unfavorable business environment. It would be ideal to use this transition period to research and pinpoint what really matters in Icelandic corporate governance using among other resources information from the SIC Report to reform Guidelines on corporate governance and seriously discuss how to best tailor make them to fit this environment.

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