

INVESTIGATING THE EFFECTS OF CORPORATE GOVERNANCE ON CREDIT  
RATINGS IN THE HOSPITALITY INDUSTRY

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## **Abstract**

Investment in hospitality firms is perceived to be riskier than investments in other types of industries. Based on literature linking good corporate governance to lower default risks and higher credit ratings, this quantitative study is designed to identify the effects of corporate governance on credit ratings in the hospitality industry. After exploring the various factors influencing the characteristics of corporate governance, as well as the specific risks for capital financing in hospitality firms, this research provides empirical evidence to show that hospitality firms with stronger shareholder influence tend to have higher credit ratings. In a related finding, this investigation confirms that hospitality stakeholders are able to evaluate their potential risks by determining a firm's credit ratings and can protect their long-term interest by increasing their power versus management in the corporate governance of the firm.

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## Table of Contents

<b>ACKNOWLEDGEMENTS .....</b>	<b>iii</b>
<b>CHAPTER ONE. Introduction.....</b>	<b>1</b>
<b>1. Problem Statement.....</b>	<b>1</b>
<b>2. Rationale for and Purpose of this Investigation .....</b>	<b>2</b>
<b>3. Research Questions.....</b>	<b>2</b>
<b>4. Anticipated Scholarly Contributions of this Study .....</b>	<b>4</b>
<b>5. Structure of this Thesis.....</b>	<b>4</b>
<b>CHAPTER TWO. Literature Review .....</b>	<b>6</b>
<b>1. Corporate Governance and its Effect on Credit Ratings .....</b>	<b>6</b>
1.1. Introduction of corporate governance and agency theory .....	6
1.2. Factors that influence corporate governance .....	10
1.3. Connections between corporate governance and credit ratings .....	12
1.4. Investigation of corporate governance in the hospitality industry .....	14
<b>2. Importance of Credit Rating for Hospitality Firms.....</b>	<b>16</b>
2.1. Factors influencing default risk and credit rating for hospitality firms .....	16
2.2 . Debt financing and credit rating for hospitality firms .....	18
<b>3. Literature Gaps.....</b>	<b>20</b>
<b>CHAPTER THREE. Methodology.....</b>	<b>22</b>
<b>1. Sources of data .....</b>	<b>22</b>
<b>2. Sample Selection .....</b>	<b>23</b>
2.1 . Hospitality firm selection .....	23
2.2 . Non- hospitality firm selection.....	25
<b>3. Methods .....</b>	<b>25</b>
<b>4. Model and Variables .....</b>	<b>27</b>
4.1. Dependent Variable .....	27
4.2. Independent Variables .....	29
4.3. Control Variables.....	34

<b>CHAPTER FOUR. Empirical Tests and Results .....</b>	<b>38</b>
<b>1. Descriptive Statistics.....</b>	<b>38</b>
1.1. Leverage in hospitality firms.....	38
1.2. Descriptive statistics.....	39
1.3. Correlations .....	40
<b>2. Hypothesis Testing .....</b>	<b>41</b>
2.1. Hypothesis 1 .....	41
2.2. Hypothesis 2.....	42
2.3. Hypothesis 3.....	43
<b>CHAPTER FIVE. Summary.....</b>	<b>48</b>
<b>1. Conclusions.....</b>	<b>48</b>
<b>2. Implication for Stakeholders .....</b>	<b>49</b>
<b>3. Limitations and Further Research.....</b>	<b>51</b>
3.1. Sample selection.....	51
3.2. Bond yields in hospitality firms .....	52
3.3. Other attributes of corporate governance .....	53
<b>REFERENCES.....</b>	<b>55</b>
<b>Appendix A. Regression Model Results (1995-2006) .....</b>	<b>58</b>

## Tables

Table 1. Classification of Hospitality Firms.....	23
Table 2. Sample Selection Procedures.....	24
Table 3. Credit Rating Categories .....	28
Table 4. Summary of Provisions for G_score .....	32
Table 5. Summary of Provisions for Entrenchment Index .....	34
Table 6. Variable Definitions .....	37
Table 7. Summary of Leverage in Hospitality and Tourism Firms .....	39
Table 8. Statistics Summary .....	40
Table 9. Correlations Summary .....	41
Table 10. Summary of Leverage and G_Score for Hospitality and Non-hospitality Firms .....	42
Table 11. Regression Model Results .....	44

## **CHAPTER ONE.**

### **Introduction**

#### **1. Problem Statement**

Based on evidence from existing studies, it is generally accepted that good corporate governance is associated with a better-run organization, and thus a higher credit rating for their corporate bonds. As background, corporate governance refers to the organizational structures and processes that allocate power and resource control among different participants, including board of directors, managers, shareholders, creditors and other stakeholders (Davis, 2005, p.143). Given this definition, it is clear that corporate governance plays an active role in promoting more effective and efficient managerial decisions and increasing a firm's value to benefit all stakeholders. Good corporate governance will lead to lower default risks and higher credit ratings because it can reduce risk by mitigating agency costs and reduce information asymmetry between the firm and its creditors (Bhojraj & Sengupta, 2003). Accordingly, credit rating-firms such as Standard & Poor's and Moody's take corporate governance into account in their annual evaluations of the creditworthiness of a corporate bond.

Although we know a great deal about the relationship between corporate governance and credit ratings in general, few studies have taken into account how specific industry characteristics impact this relationship. One recent addition to this sparse body of literature is a report by Guillet and Mattila (2010), who argued that hospitality firms are under tremendous pressure to adopt strict governance principles because shareholders in hospitality-related companies tend to have

relatively weaker influence than shareholders in other industries. Apart from this publication, to the best of my knowledge there is little research examining the unique characteristics of corporate governance and how it impacts credit ratings in the hospitality industry. In order to fill this scholarly gap, this study was designed to conduct an industry-level analysis of this topic as well as understand the how the hospitality industry may compare with another similar industry.

## **2. Rationale for and Purpose of this Investigation**

This investigation was motivated by two important factors. First, although prior research has targeted corporate governance mechanisms and capital structures across industries, too little is known about the unique characteristics of specific industries—and particularly how governance in hospitality firms impact capital structures. Second, prior studies in the hospitality industry, have not adequately explained the relationship between corporate governance and credit ratings. For instance, Kim and Gu (2004) focused primarily on corporate bonds in hotel and casino firms; similarly, Guillet and Mattila (2010) targeted the determinants of corporate governance in the hospitality industry. Therefore, given the relative lack of extant literature on financial management in the hospitality industry, this study will compare debt finance policies and corporate governance between hospitality and non-hospitality firms. Moreover, this investigation will expand the existing research and provide empirical evidence by determining the ways by which better corporate governance can lead to higher credit ratings in hospitality firms.

## **3. Research Questions**

A firm's capital structure is represented in the operational choices it makes for financing overall operations and growth by using sources of funds from either debt or equity. As such capital



structure also influences both credit ratings and corporate governance. Therefore, this study's first research question is designed to explore the unique characteristics of capital sourcing in hospitality firms.

***Question 1: Do hospitality firms depend more on debt financing as a source of capital than non-hospitality firms?***

The second question explores the nature and extent of corporate governance practices in the U.S. hospitality industry by comparing corporate governance between hospitality firms and non-hospitality firms.

***Question 2: How do corporate governance provisions differ in hospitality versus non-hospitality firms? As a corollary, do managers in hospitality firms have more power in corporate governance than those in non-hospitality firms?***

The third question investigates the relationship between better corporate governance and higher credit ratings in the hospitality industry. Specifically, this study will conduct empirical statistical analysis using financial and market data from hospitality firms to elucidate the linkages between corporate governance and credit ratings, while specifically comparing these linkages with another similar industry.

***Question 3: How does corporate governance influence the credit ratings in hospitality firms?***

#### **4. Anticipated Scholarly Contributions of this Study**

This study is expected to make several contributions to the extant literature on financial management in the hospitality field. Also, based on the investigation of the structural characteristics for hospitality business and financial management, we can provide a empirical evidence to show the importance of corporate governance structures and practices that are likely to enhance success in hospitality firms.

In practice, the findings discussed herein may assist investors, debtholders, and shareholders gain greater awareness of corporate governance provisions and the inherently risky nature of their investment in hospitality firms (Guillet & Mattila, 2010). Specifically, since there are higher business and financial risk for hospitality firms, this research can help shareholders understand that they can decrease the cost of capital and enhance firms' value by increasing their power among the participants in organization. Additionally, debtholders are able to evaluate default risk by several factors that explain credits ratings. Finally, by comparing hospitality firms with the other industries, hospitality executives may also be empowered to establish improved corporate governance policies and practices, which will result in better performance and value creation within their specific organization.

#### **5. Structure of this Thesis**

This thesis is divided into five chapters. Chapter One provides an introduction to this study, including the research questions that guided this investigation. Chapter Two presents a review of the literature on corporate governance and credit ratings, as well as develops hypotheses based on prior studies. Chapter Three discusses the data selection procedures and research

methodologies used in this research. Chapter Four includes a description of results, and Chapter Five explains the implications, conclusions, limitations of the study, and suggestions for future research.

## **CHAPTER TWO.**

### **Literature Review**

This chapter features a review of prior studies related to the effect of corporate governance on credit ratings for corporate bonds. This literature review is presented in three parts. The first section illustrates the importance of corporate governance and the specific attributes of governance that are linked to successful organizations. In the second part, an industry-specific analysis will discuss in detail why credit ratings are important to stakeholders and the effect of corporate governance on credit ratings in the hospitality industry. Finally, building on these analyses, part three will demonstrate gaps in the existing literature and the potential contributions of this research.

#### **1. Corporate Governance and its Effect on Credit Ratings**

##### 1.1. Introduction of corporate governance and agency theory

“Corporate governance refers to the structures, processes, and institutions within and around organizations and allocate power and resource control among participants” (Davis, 2005, P.143). By association, a firm’s corporate governance structure refers to the roles and responsibilities of stakeholders, as well as the rules and regulations that are in place to enhance shareholder value (Clarke & Branson, 2012). In general, studies that examine corporate structure look at decision-making processes in various industries, and how they balance the potentially diverse interests of their many stakeholders—including shareholders, board of director members, executive management, creditors, customers, and employees (Guillet & Mattila, 2010).

Additionally, based on prior research (Clarke & Branson, 2012; Leng & Mansor, 2005), we can conclude that good corporate governance practices target a number of specific goals: (a) the long-term financial interests of shareholders (e.g., board of director members), (b) the protection of shareholder rights in decision-making practices, and (c) the fair, accurate and timely disclosure of a firm's financial, operating, and governance activities. Since it is generally agreed that good corporate governance makes contributions to value creation, innovation, and strategic decision-making, a significant body of literature has investigated this important relationship, especially since the early 1980s (Clarke & Branson, 2012).

A theoretical framework of corporate governance is necessary for a more complete understanding of many potential impacts of corporate governance. Accordingly, Clarke and Branson (2012) identified the key theories of corporate governance, including agency theory, transactions cost economic theory<sup>1</sup>, team production theory<sup>2</sup>, and other relevant theories. Although the authors admitted that no single model could adequately explain the effects of corporate governance, they did point to agency theory as a useful construct for investigating how corporations are structured. Agency theory also provides important theoretical underpinnings for explaining the behavior of corporate executives and directors. Therefore, this study will explore the relationship between corporate governance and the interests of stakeholder through the lens of agency theory.

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<sup>1</sup> Transactions cost theory perceives the corporation as an efficient form of organization that monitors contractual relationships, and organizes transactions for the least cost.

<sup>2</sup> Team production theory conceives of the corporation as a nexus of firm-specific investment made by a range of stakeholders.

In a nutshell, agency theory assumes that all individuals act in their own best interests with the objective of maximizing their personal welfare (Clarke & Branson, 2012). In a wider organizational context—but also in the context of boosting profits—Jensen and Meckling (1976) explained agency theory as the risks that a management team may take to maximize short-term gains rather than long-term gains, which could involve making unprofitable investments in order to increase firm size and their own compensation levels. As a consequence, a firm directed by a management team with an “agency theory mindset” may choose to deviate from operational strategies designed to increase the worth of the firm and its stakeholders, including shareholders and creditors.

Good governance practices involve organizational structures and policies designed to (a) reduce agency conflict by making more effective and efficient managerial decisions, and (b) increase information disclosure, thereby increasing investor confidence (Ashbaugh-Skaife et al., 2006). In a recent study, Aman and Nguyen (2013) concluded that good corporate governance policies will typically mitigate agency conflict by using financial incentives linked to stock performance. In this way, managers are duly rewarded for making decisions that are beneficial to shareholders; conversely, they can also be penalized for destroying shareholder value through bad decision-making. Similarly, Ashbaugh-Skaife et al. (2006) explained that independent monitoring of management performance with respect to corporate governance mechanisms is linked to effective managerial decision-making, and thus will likely ward against opportunistic management behaviors that decrease a firm’s value. In short, good corporate governance plays a key role in decreasing agency conflicts between management and shareholders (Ashbaugh-Skaife et al., 2006).

Prior studies have confirmed that effective governance mechanisms will help reduce information asymmetry (e.g., Ashbaugh-Skaife et al., 2006). For example, as reported by Ajinkya et al. (1999), it is believed that higher institutional stock ownership and stronger outside board membership control will have a positive influence on corporate disclosure practices (Ajinkya et al., 1999). Similarly, in the context of corporate bonds, information risks occur when corporate insiders always have company-specific data and valuable information when analyzing corporate bond quality. This information asymmetry between insiders and external debtholders leads to higher default risk (Bhojraj & Senguta, 2003). To conclude, thoughtfully considered governance mechanisms can be effective in reducing agency risk by mitigating information asymmetry and promoting effective decisions, which are associated with superior bond ratings and lower yield.

Ashbaugh-Skaife et al. (2006) also addressed the conflict between bondholders and shareholders. Specifically, they provided empirical evidence that higher shareholder power will lead to lower credit ratings because wealth transfers occur when shareholders have incentives to transfer wealth from bondholders to themselves. Specifically, shareholders can use their voting power to encourage management teams to undertake risky investments that can harm bondholders' interests, as well as take on riskier projects leading to the uncertainty of future cash flow and more default risk (Ashbaugh-Skaife et al., 2006). Based on this evidence, the current study is predicated on the supposition that better corporate governance leads to higher credit ratings for corporate bonds in hospitality firms.

## 1.2. Factors that influence corporate governance

Many of the aforementioned governance features and company characteristics are designed to promote effective decisions and information asymmetry between managers and stakeholders, which can lead to lower agency cost and ensure the value creation for shareholders. This section details five specific factors that influence corporate governance structures and practices: firm size, board membership, institutional shareholders, management ownership, and information symmetry.

First, firms' board size is an important characteristic that influences the degree of information asymmetry between managers and investors. Studies by Lehn et al. (2009) and Phillips and Sipahioglu (2004) revealed that a larger board could provide better monitoring and accessibility to capital markets and economies of scale, which results in a positive relationship between firms' board size and debt financing. In addition, Aman and Nguyen (2013) provided empirical evidence that among firm structure variables, only board size has an influence on credit ratings. One of the possible explanation for this association is that it is much more difficult to convince a large group to make a controversial business decision in the face of a potentially adverse fallout (Kogan & Wallach, 1964). Therefore, a larger board is typically linked to overall better corporate governance.

Second, the composition of a company board of directors also impacts corporate governance. Specifically, research indicates that a more independent board comprised of "company outsiders" is more likely to protect the interests of debt holders and enhance a firm's performance. Therefore, a higher proportion of outside directors will lead to lower bond yield and higher



ratings on bond issuing (Kim & Gu, 2004). In separate studies, Guo and Masulis (2012) and Weisbach (1988) asserted that outside directors are likely to be very concerned about protecting their reputation with industry colleagues. As such, they are more likely to make a significant contribution to a board by making sure that a firm's market value is not damaged by governance ineptitude. Also on the subject of an independent board, Bhojraj and Sengupta (2003) indicated that board outsiders can have a positive effect on credit ratings, and in the long run contribute to decreasing the cost of debt in US firms.

Third, institutional shareholders can play an active role in protecting the interests of investors. Previous studies have confirmed that institutional shareholders with larger stockholdings would enjoy greater voting power and incentives to monitor corporate performance (Shleifer & Vishny, 1986). Also, institutional shareholders have better industry and professional knowledge, resulting in a stronger incentive to support low-risk strategies (John et al., 2008). Similarly, empirical studies by both Bhojraj and Sengupta (2003) and Ashbaugh-Skaife et al. (2006) confirmed that institutional ownership can have a positive influence on credit ratings.

Fourth, it has long been known that firms with a higher proportion of management ownership are associated with better economic performance (Jensen and Meckling, 1976). Ashbaugh-Skaife et al. (2006) confirmed that, in order to protect their position, owner-managers should work more diligently and engage in more effective management decisions to enhance their firm's performance and to increase investor value. For instance, they would be prudent to avoid value-destroying acquisitions or expanding the firm too rapidly at the risk of acquiring poor

quality assets. Consequently, the management-ownership structure of a company has implications for that entity's ability to mitigate agency costs and benefit shareholders.

Finally, as mentioned earlier, when information asymmetry occurs between managers and investors it can create higher agency conflicts. As indicated by Aman and Nguyen (2013): "Greater transparency facilitates the monitoring of managerial decisions by tearing down the screen of opacity behind which managers can hide" (p.19). This statement reinforces the fact that information transparency enables investors to better evaluate the performance of managers, which in the long run will protect the financial interests of all stakeholders.

Overall, good corporate governance ensures that a business environment is transparent and sound. Although well-designed rules of governance stress the importance of profit—they also focus on accountability and responsibility to both shareholders and stockholders. In contrast, poor corporate governance can lead to mismanagement, waste and even corruption. A better system of checks and balances will ensure that managerial decisions are favorable to investors and debtholders.

### 1.3. Connections between corporate governance and credit ratings

According to Standard & Poor's, a firm's credit rating reflects a rating agency's opinion of the general creditworthiness of the obligor with respect to a particular debt security or financial obligation, based on risk factors. In other words, by investigating an issuer's cash flow and ability to pay off the principal, credit rating firms (most notably Standard & Poor and Moody's) can play an active role in avoiding information asymmetry by mitigating the information gap between the debt holders and company insiders (Langohrs, 2008).

Based on Standard & Poor's credit rating framework, corporate governance is the key component for evaluating an issuer's ability to pay back debt. This framework includes an assessment of a company's ownership structure, statement of financial stakeholder rights, level of financial transparency, and board structure. Therefore, a firm's credit rating represents a potentially powerful indicator for assessing its corporate governance structure and practices. It also points the efficacy (or failure) of management to promote effective decision making, as well as to reduce the information asymmetry between managers and external stakeholders.

Ashbaugh-Skaife et al. (2006) developed an empirical method for examining the impact of each component of corporate governance on overall credit ratings. They found that better corporate governance—characterized by accrual quality, earning timeliness, and board independence—is associated with monitoring management actions, limiting the opportunistic behaviors of managers, and reducing the information asymmetry between the firm's management and its external stakeholders. These various characteristics of good corporate governance contribute to higher credit ratings for corporate bonds. Conversely, firms with a larger number of blockholders, excessive CEO power and stockholder rights, will result in lower credit ratings.

Other researchers have also studied the effects of corporate governance on credit ratings. For example, using different measures for corporate governance, Alali et al. (2012) also reported a positive association between corporate governance and higher bond ratings, which they asserted was even more beneficial for smaller firms than for larger firms. Additionally, the researchers argued that higher levels of corporate governance inherently limit the ability of managers to act

in their own self-interests, which results in more effective decision-making and better firm performance.

Pointing to the limitations of Ashbaugh-Skaife et al.'s (2006) framework regarding the lack of attention to compensation contracts, Weber (2006) indicated that CEOs and other senior-level managers are able to capitalize on poor corporate government in the form of excessive personal compensation. He concluded that credit ratings are also more likely to be negatively impacted by poor corporate governance; conversely improved credit ratings will allow a firm access to additional capital and more favorable borrowing terms (Weber, 2006). Moreover, Aman and Nguyen (2013) conducted a comparative study between Japan and the U.S. on the effects of corporate governance in light of their different financial and governance structures. Similar to the U.S., the authors confirmed that good corporate governance in Japan protects stakeholder interests by reducing the likelihood of overlooked problems, which results in decreased value for Japanese firms. To conclude, good corporate governance practices will protect debtholder interests and result in higher credit ratings. Based on prior research across various industries, we assume that good governance is also associated with higher credit ratings in the hospitality industry.

***Hypothesis: There will be a strong association between governance scores and credit ratings outcomes in hospitality firms.***

#### 1.4. Investigation of corporate governance in the hospitality industry

Although there is an increase in studies exploring the effects of corporate governance on credit ratings, very few of them have targeted the hospitality industry—which is not to say that this

industry has been overlooked in the business literature. Indeed, corporate governance is a highly-researched topic in financial management in the hospitality industry. Dahlstrom et al. (2009) concluded that corporate governance in hospitality firms is influenced by firm size, amenities, market size and distance from corporate headquarters. Similarly, Guillet and Mattila (2010) confirmed that the governance of hospitality firms might be different from firms in other industries for several reasons, including ownership structure, capital intensity, and certain industry-specific financial decisions that govern these firms. By exploring the risky nature and extent of corporate governance practices in the U.S. hospitality industry, Guillet and Mattila (2010) concluded that shareholders in hospitality companies have relatively weaker rights than shareholders in other industries. Moreover, the authors identified a potential conflict of interest associated with the separation between real estate ownership and management in hospitality firms. Specifically, owners in hospitality firms typically supply land, buildings, furniture and working capital. As a consequence, they will seek accountability and transparency in daily operation (and justifiably so)—sometimes putting tremendous pressures on management teams to adopt strict governance principles to ensure that the organization is achieving the desired return on equity.

Based on previous research, this study was designed to carry out an industry-specific analysis of corporate governance in hospitality firms. By comparing them with non-hospitality firms, we will try to elucidate the features of corporate governance in the hospitality industry.

***Hypothesis: Based on unique industry characteristics, hospitality firms will have different governance score than non-hospitality firms.***

## 2. Importance of Credit Rating for Hospitality Firms

The next section discusses the importance of credit ratings for stakeholders in hospitality firms. First, prior research illustrating the risk factors for investment in hospitality firms is discussed. Second, after understanding the financial risks undertaken by investors, we explore why hospitality firms depend more on debt financing and why credit ratings are so important for stakeholders.

### 2.1. Factors influencing default risk and credit rating for hospitality firms

Credit ratings are based on both qualitative and quantitative information. Since there are several factors inflecting the business risk<sup>3</sup> and financial risk<sup>4</sup> in hospitality firms, it is essential for investors to be able to evaluate an issuer's ability to pay back the debt as gauged by credit ratings. First of all, high levels of capital intensity and labor intensity are typical in the hospitality industry (DeFranco & Lattin, 2006). Although a hospitality business typically needs a low level of operating inventory, it requires a relatively high level of capital for its real estate components, including land, real estate, building/equipment, maintenance, while realizing low revenue per unit of fixed assets (Singal, 2015). Also, because of the limited alternative use and lower salvage value for the facilities and equipment associated with the hospitality industry, a high level of capital intensity will lead to financial inflexibility and lower cash flow (Reich, 1994).

Second, most hospitality firms have to face the higher potential of agency conflict between shareholders and management team when there is a separation between property ownership and

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<sup>3</sup> Business risk is the possibility that a company will have lower profits. Business risk is influenced by number of factors, including sales volume, per-unit price, input costs, overall economic climate and government regulations.

<sup>4</sup> Financial risk is the possibility that shareholders will lose money when they invest in a company that has debt, if the company's cash flow has proved inadequate to meet its financial obligations.

management (Guilding, 2003). In contrast with a management team, shareholders tend to focus on long-term profits and enhance firm' value. Thus, in order to ensure their best interest, they have to increase their control of executive management. In short, inherent agency problems can lead to more risk in operational and financial management.

Third, in comparing hospitality to non-hospitality firms, Chatfield and Chatfield (2003) found that hospitality firms depend more on debt financing, and that hospitality firms pay higher bond yields than on an-otherwise equivalent non-hospitality bond. The higher leverage in hospitality firms might result from the higher capital needs and availability of tangible asset as collateral (Singal, 2015). As a consequence, when revenue and company profits drop, fixed costs due to interest payments will lead to decreased cash flow for operations (Nicolau, 2005). For this reason, Kim et al. (1979), and Lee and Jang (2007) found that leverage is a key risk factor when considering the investment structure in hospitality firms, including hotels, casinos and airline companies.

Fourth, because of the low entry barriers and high exit barriers for the hospitality industry (Singal, 2015), hospitality companies, including hotels, casino, travel agencies and airline companies, operate in a highly competitive environment. This fact means that managers must make fast decisions according to their best insights and knowledge of the field. Also, managers are facing increasing challenges in developing new capital resources and implementing effective and efficient market strategy to improve competitive advantages. This highly competitive business environment leads to higher volatility and operational risk for hospitality firms.

Finally, hospitality businesses are quite sensitive to economic fluctuations. A prosperous economy is connected with income generation, more job opportunities, increased government revenue via taxation, and the possibility of foreign exchange earnings. As a consequence, there are more consumers spending money in hospitality and the tourism industry (Muradoğlu & Sivaprasad, 2012). For instance, Kim et al. (2012) noted that during the 2008 financial crisis, the ongoing economic slowdown has significantly affected the hotel industry. Thus, higher systematic risks<sup>5</sup> in the hospitality industry will lead to more default risk for bondholders.

In summary, prior research has detailed a number of risk factors influencing investment in the hospitality industry. In view of these higher business and financial risks, it is difficult to evaluate the default risk for debt holders. Therefore, high credit ratings provide access to a great deal of information about issuers and allow a firm access to additional capital and more favorable borrowing terms (Weber, 2006).

## 2.2 . Debt financing and credit rating for hospitality firms

Complementing more recent studies about factors influencing the default risk for hospitality firms, there is some prior literature discussing capital structure and debt financing in hospitality firms, which supports the importance of accurate credit rating reports for hospitality firms. Although the amount and types of financial need required by a hospitality business depend on a firm's size and activity, the fact remains that they all need different sources of financing to enhance business operations and improve their competitive edge—in short, ensure their survival during economic recessions. Like any other business, debt and equity financing are available for

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<sup>5</sup> Systematic risk: the risk inherent to the entire market or entire market segment, which is impossible to avoid.



hospitality firms (Jackson, 2005). Debt financing is the money borrowed to operate a business; types of debt financing include term loans, operating loans, leasing, and repayment contributions. Equity financing is accumulated from savings and outside investors. Outside investors typically receive a portion of ownership in return for their investment. Types of equity financing include personal savings, venture capitals and the monies generated from going public. Kim et al. (2012) pointed out that a consolidation-oriented growth strategy, which is accompanied by conservative financing policies, will help lower a hotel firm's systemic risk and enhance their value.

In fact, the capital structure in hospitality firms has been examined by several studies. Some researchers believed that high debt leveraging increases a firm's financial risk because a company's earnings and cash flow may decrease when higher fixed interest is paid to bondholders. Kim et al. (2012) supported this claim and recommended that hospitality and hotel firms should rely more on retaining earnings as internal financing or use new equity instead of debt financing.

Conversely, Van Horne (2002) maintained that the use of debt leveraging creates only incremental value gains because of financial accruals to shareholders via tax deductions on interest payments. Thus, seeking an optimal capital structure can maximize the value of the firm and minimize its weighted average cost of capital. Jackson (2005) stating that because debt financing for term loans has a fixed interest rate for the full term, it simplifies the budgeting process since the interest rate risk is removed and costs are predetermined. Also, flexible term provisions and amortization benefits give a hospitality firm the ability to structure their financing to be suitable to specific circumstances.

Several studies have described that capital structures in hospitality firms are quite different from non-hospitality businesses. For instance, Chatfield and Chatfield (2003) asserted since that hospitality firms are heavily dependent on corporate bonds, the cost of debt is especially important to these companies. The researchers also indicated that hospitality bonds have higher interest than those in other industries when other factors are equivalent. Moreover, evidence from Andrew et al. (2006) showed that for the 1966-2002 period, the average leverage rate for hotel firms ranged between 49% and 65%; in comparison, the range was 44% to 54% for restaurant firms. Also, Tsai and Gu (2007) found that the average leverage rate for casino firms was 53% for the 1999-2003 period. Therefore, based on guidance from prior research, this study will illustrate the importance of bond yield and credit ratings by examining whether or not hospitality firm are more dependent on debt financing.

***Hypothesis: Hospitality firms will have a higher leverage ratio than non-hospitality firms.***

### **3. Literature Gaps**

According to prior empirical research (Amman & Nguyen, 2013; Anderson et al., 2004; Ashbaugh-Skaife et al., 2006; Bhojraj & Sengupta, 2003), it is well accepted that good governance practices are highly correlated with a firm's better performance and, in turn, will increase that organization's credit ratings. However, there is little published empirical research regarding the effect of corporate governance on credit ratings in the hospitality industry.

To address this important gap, this research will explore the characteristics of capital financing in the hospitality industry. It should also be noted that Guillen (2000) and Guillet and Mattila (2010) pointed out that a company's governance structure should be developed in response to varying sector-specific needs. However, there are limited detailed studies focusing on corporate governance in hospitality industry (Bhojraj & Sengupta, 2003; Guillet & Mattila, 2010). Therefore, this study will explore the salient differences in corporate governance between hospitality firms and non-hospitality firms. Finally, after exploring the unique characteristics of corporate governance and capital financing in the hospitality industry, this study will examine the links between corporate governance and credit ratings in hospitality firms according to the following hypotheses:

*H1: Hospitality firms will have higher leverage / debt ratio than non-hospitality firms*

*H2: Based on unique industry characteristics, hospitality firms will have different governance scores than non-hospitality firms.*

*H3: There will be a strong association between governance scores and credit ratings among hospitality firms.*

## CHAPTER THREE.

### Methodology

In this chapter, the proposed methodology for this study is provided. Specifically, the sources of data, the sample selection procedures, the statistical test for each research question, and the measurement and calculation of each variable are discussed in detail.

#### 1. Sources of data

The data for this study was collected from three sources: Standard and Poor's Compustat database<sup>6</sup>, the Center for Research in Security Prices (CRSP)<sup>7</sup> and the RiskMetrics corporate governance data provided by IRRC. The data spans 20 years, from 1995 to 2014. Specifically, the credit ratings for all 54 sample firms considered in this analysis are based on Standard & Poor's long-term issuer credit ratings collected from Compustat database. Also, each firm's annual fundamental financial data—e.g., total assets, short-term debt, long-term debt and net income—was found in the Compustat database. Various market factors such as Beta (i.e., the measure of a company's volatility or systematic risk) were collected from the CRSP database. Also, IRRC (Investor Responsibility Research Center Institute) is a leading corporate governance database that provides the information about corporate governance provisions.

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<sup>6</sup> *Compustat is a database of financial, statistical and market information on active and inactive global companies, including: Fundamentals, integrated Databases, proprietary data, Products and services data.*

<sup>7</sup> *The Center for Research in Security Prices (CRSP) is a provider of historical stock market data. CRSP maintains largest and most comprehensive proprietary historical databases in stock market research.*

## 2. Sample Selection

### 2.1 . Hospitality firm selection

For the first step, we identified an initial sample of hospitality firms and their accompanying credit rating information from the Compustat database. The data was collected according to North America Industry Classification (NAICS) (Table 1). Thus, the sample includes a wide variety of firms in the hospitality and tourism industry: hotels, casino hotels, full-service restaurants, limited-service restaurants, fast-casual restaurants, amusement and theme parks, casinos, skiing facilities, travel agencies, airline service companies, and others (Table 1). The total number in the original sample was 148 U.S. hospitality firms with credit ratings available; Table 2 provides sample selection data.

**Table 1. Classification of Hospitality Firms**

<b>NAICS</b>	<b>Classification</b>
713110	Amusement and Theme Parks
713210	Casinos (except Casino Hotels)
713920	Skiing Facilities
721110	Hotel
721120	Casino Hotel
722511	Full service restaurants FR
722513	Limited service restaurants LR
722515	Fast Casual (Panera, Sizzler) FC to LR
4881111	Airline
561510	Travel Agencies
711110	Theater Companies and Dinner Theaters

Notes: The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. Since this research is about hospitality firms, we collected data according to NAICS Classification. Sources from <http://www.naics.com>.

**Table 2. Sample Selection Procedures**

<b>Sample construction</b>	<b>Number of Firms</b>	<b>Observations</b>
Number of firms having credit ratings	148	4176
Number of public firms	54	660
Number of firms having G_Score	30	388
Sample size without missing data	30	370

Notes: According to requirements for this study, this summary of sample selection procedure shows the number of firm and sample size remaining for each step.

Second, in order to explore the corporate governance structures of public hospitality firms, private firms and firms traded over the counter were eliminated from our sample (Table 2). Thus, a total of 54 firms met the requirements for this study. Next, G\_Score was utilized to evaluate the corporate governance and shareholder right in these firms (Gompers et al., 2003). In this study, we collected G\_scores from Risk Metrics (IRRC) Database for 8 years: 1995, 1998, 2000, 2002, 2004, and 2006. It should be noted that for the years in which a G\_score was not available, the data from the prior year was used; for instance, the G\_scores for the year 1996 and 1997 are the same as 1995. Because of the missing data for G\_score, we eliminated some firms or specific years from our sample. Thus, there were 30 firms with 388 observations remaining for this study after these eliminations.

Finally, in order to test the characteristics of hospitality firms in this study, we had to locate fundamental financial data during the 20 years from 1995 to 2014. Compustat database provided financial data, including total assets, net income, long-term debt and debt in current liability, while the Beta was collected from the CRSP database. The elimination of firms with missing data further reduced the sample to 370 observations (Table 2).

## 2.2 . Non- hospitality firm selection

Since this study is a comparative assessment, it was also necessary to determine the characteristics of corporate governance and debt financing in hospitality firms versus non-hospitality firms. Because retail firms also operate in a cost-conscious, service-oriented industry, we utilized a sample of retail firms to match the hospitality firms. First, the sample of retail firms with credit ratings available was collected from Compustat Database based on the NAICS. Next, there are 54 retail firms matching hospitality firm based on similar total assets. Data from these 54 non-hospitality firms were used to compare the leverage between hospitality firms and non-hospitality firms. Similarly, in order to compare the corporate governance between hospitality and non-hospitality firms, there are 30 public retail firms with G\_score can be collected from IRRC.

## 3. Methods

*Testing H1: Hospitality firms will have a higher leverage ratio than non-hospitality firms*

It is aforementioned that hospitality firms depended more on real estate and fixed asset, which lead to lower financial inflexibility and lower cash flow. Some previous studies pointed out that this highly capital-intensity would lead to differences in capital structure and higher leverage for hospitality firms (Reich, 1994; Chatfield and Chatfield, 2003; Singal, 2015).

In order to determine whether hospitality firms are more reliant on debt financing, we used data from 54 public hospitality firms and compared them with non-hospitality firms. According to

Ashbaugh-Skaife et al. (2006) and Aman and Nguyen (2013), the leverage rate can be measured by the debt ratio: total debt divided by total assets. Thus, after matching hospitality firms with non-hospitality firms based on total assets, the short-term debt, long-term debt and total assets from fundamental annual financial data were used to determine the characteristics of hospitality firms. The debt ratio was calculated by following formula:

$$\text{Leverage} = (\text{short-term debt} + \text{long-term debt}) / \text{Total asset}$$

After calculating the debt ratio for each company for each year from 1994 to 2014, I was able to compare the leverage rate between hospitality firms and non-hospitality firms. In order to avoid sampling bias<sup>8</sup> for this test, we eliminated data from both hospitality and non-hospitality firms when there was missing data from one of the companies, which means we calculated the leverage average by only using the same years. Next, we averaged the leveraged ratio for both hospitality firms and non-hospitality firms. Finally, T-tests were used to comparing the means for each group and determining the statistically-significant differences between the two groups.

*Testing H2: Based on unique industry characteristics, hospitality firms will have different governance scores than non-hospitality firms.*

This test was designed to determine if there were any significant differences in corporate governance between hospitality and non-hospitality firms by using G\_score. There were only 30 firms in the final sample with a G\_score. We were able to calculate the average G\_score for each firm, and then obtain the average for each group sample. Accordingly, we were able to easily test

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<sup>8</sup> Sampling bias in a sample is collected in such a way that some members of an intended population are less likely to be included than others.



for any statistically-significant difference between the two groups by using a T-test.

*Testing H3: There will be a strong association between governance scores and credit ratings in hospitality firms.*

The empirical model developed in this study was used to test the third hypothesis—namely, that there would be a strong association between corporate governance and credit ratings in the hospitality industry over the 20-year period from 1995 to 2014. The third hypothesis can be tested by the following cross-sectional multiple regression general model, which represents credit rating as a function of firm characteristics and corporate governance attributions (Ashbaugh-Skaife et al., 2006).

$$\text{Credit Rating} = \beta_0 + \beta_1 \text{GOV\_SCORE} + \beta_j (\text{Control Variables}) + \varepsilon$$

The dependent variable for this study was credit rating, which was determined using long-term issuer credit ratings compiled by Standard & Poor's. The independent variable was G\_score, which was used to measure the power-sharing relationship between investors and management (Gompers et al, 2003). In addition, this study also utilized four control variables that could affect the default risk, and thus credit rating: firm size, profitability or return on assets (ROA), leverage ratio, and Beta risk.

#### **4. Model and Variables**

##### **4.1. Dependent Variable**

The dependent variable used in this study (credit rating) was based on long-term issuer credit ratings compiled by Standard & Poor's, which was found in the Compustat database. As shown

in Table 3, credit ratings ranged from AAA (highest rating) to D (lowest rating equaling debt payment default risk). These ratings reflect Standard & Poor’s assessment of the creditworthiness of the obligor with respect to its senior debt obligations (Ashbaugh-Skaife et al, 2006). In this study, we collected the credit ratings data for each company during the period from 1995 to 2014.

**Table 3. Credit Rating Categories**

<b>Rating Score</b>	<b>Credit Rating</b>	<b>Investment Grade</b>
Rating Category 1	D, C, CC, CCC, CCC+	0
Rating Category 2	B-, B, B+	0
Rating Category 3	BB-, BB, BB+	0
Rating Category 4	BBB-, BBB, BBB+	1
Rating Category 5	A-, A, A+	1
Rating Category 6	AA-, AA, AA+	1
Rating Category 7	AAA	1

Notes: Credit ratings (RATING) are the long-term issuer credit rating compiled by Standard & Poor’s and reported on Compustat (data item 280). The ratings range from AAA to D; a higher credit rating translates to a lower default risk for corporate bonds.

In order to measure credit rating as a variable in a regression model, one must first grade a firm’s credit ratings—and there are two ways to accomplish this goal. First, as described by Ashbaugh-Skaife et al. (2006), one can use an estimated logistic regression model by employing a two-category classification scheme—investment grade and speculative grade—which can be seen in Table 3. Specifically, a firm is considered to be investment grade if its credit rating is AAA, AA+, AA-, A+, A, A- BBB+ and BBB-; otherwise, the firm is given a speculative grade. Using this model, the investment grades are coded 1, while the speculative grades are coded 0.

The second strategy utilized in this study (following Ashbaugh-Skaife et al. (2006) and Alali et al. (2012)) involved establishing a seven-level rating category, with 1 being the lowest and 7 being the highest (Table 3). Therefore, the ordered logit regression (OLR) model, which allows for more than two ordered response categories, can be used for ordinal dependent variables and is recommended as the most appropriate technique when a dependent variable has multiple values that can be ordered from low to high. Therefore, this study employed a logit regression model and ordered logit regression model (OLR) to test the predicted relationship between corporate governance and credit rating.

#### 4.2. Independent Variables

In this study, the independent variable in the regression model was corporate governance, which was assessed using the G\_score. Gompers et al. (2003) developed the G\_score as a proxy for the balance of power between managers and shareholders in each firm. We utilized RiskMetrics as our main data source. RiskMetrics contains data from approximately 1500 firms, including an incidence of 24 governance provisions related to shareholder rights and takeover defenses.

Gompers et al. (2003) combined a large set of governance provisions into an index that essentially proxies for the strength of shareholder rights; they then developed an empirical relationship between this index and corporate performance. The provisions are divided into five categories of management rights (Table 4): (1) tactics for delaying hostile takeover, (2) voting rights, (3) director/officer protection, (4) other takeover defenses, and (5) state takeover laws. Each firm's G\_score represents the sum of points, to which one point is added for the presence of any governance provision that limits the power of shareholders. For instance, a "special meeting

provision” translates to the addition of one point to a firm’s G\_score if that provision limits the ability of shareholders to call a special meeting. Based on this system, Gompers et al. (2003) indicated that a higher G\_score corresponds to higher management power, but weaker shareholder rights. In contrast, a lower G\_score corresponds to lower management power and higher shareholder rights.

Thus, for independent variable we used the G\_score metric to proxy the corporate governance and the balance of power between shareholders and management. We expected that good corporate governance would be associated with stronger shareholder rights, which provides better monitoring and control over management and leads to more effective and efficient managerial decision making—and this, in turn, can lead to a lower default risk and a higher credit rating. Therefore, we expected a lower G\_score (higher shareholder rights) to be associated with higher credit ratings in hospitality firms.

Findings from Ashbaugh-Skaife et al. (2006) support the “wealth redistribution hypothesis,” which means that bondholders may suffer wealth loss because stronger shareholder power will not necessarily translate to financial benefits for bondholders under all takeover scenarios. Thus, the researchers suggested a positive relationship between G\_score (lower shareholder rights) and credit ratings. However, based on prior research in the hospitality industry, an inherent conflict between ownership and management likely exists (Guillet & Mattila, 2010). Although Guillet and Mattila (2010) do not specifically mention “wealth transfer” in their study of hospitality organizations, we can expect a negative relationship between G\_score and credit ratings among

hospitality firms, which means that higher shareholder power is associated with higher credit ratings.

Bebchuk et al. (2008) noted a limitation they referred to as “the kitchen sink,” which gives equal weight to many provisions that ultimately do not significantly affect governance measures. In other words, the overall outcome of the kitchen sink approach is a less accurate assessment of governance quality. Since the other 18 IRRC provisions not included in the entrenchment index were uncorrelated with either a firm’s reduced valuation or abnormal returns, Bebchuk et al. (2008) developed the G\_score and suggested a modified entrenchment index (Table 5). Specifically, their entrenchment index is based on only six provisions. Four of them are designed to establish constitutional limits on shareholder voting power, including staggered board membership, limits to the degree to which a shareholder can amend a company’s bylaws, supermajority requirements for mergers, and supermajority requirements for charter amendments. Two other provisions can be implemented in the event of a hostile offer: poison pill and golden parachute arrangements. Bebchuk et al. (2008) also pointed out that entrenchment has an adverse effect on management behavior and the consequences of control transaction, which could impact long-term investment and the firm’s value. Alali et al. (2012) used G\_score and the Entrenchment index (E-index) as independent variables in regression models in order to test the relationship between corporate governance and credit rating. Following this same method, we also utilized the E-index to assess corporate governance and shareholder rights and to determine if we could support the result of this study.

**Table 4. Summary of Provisions for G\_score**

	Provision	Explanation
<b>Delay</b>	Blank Check	This is stock that, when authorized, gives the board broad discretion in establishing the stock's voting, dividend, and other rights when issued
	Classified board	Boards in which directors are divided into separate classes (typically three) with each class being elected to overlapping terms.
	Special meeting	A provision limiting shareholders' ability to act by calling a special meeting (as opposed to waiting for the regularly scheduled shareholders' meeting).
	Written consent	A provision limiting shareholders' ability to act via written Consent (as opposed to acting through a vote at the shareholders' meeting).
<b>Protection</b>	Compensation plans	A plan that accelerates benefits in the event of a change in control.
	Contracts	A contract with individual officers and directors promising indemnification against certain legal expenses and judgments as a result of their conduct.
	Golden parachutes	A severance agreement that provides benefits to management/board members in the event of firing, demotion, or resignation following a change in control.
	Indemnification	A charter or bylaw provision indemnifying the firm's officers and directors against certain legal expenses and judgments as a result of their conduct.
	Liability	A provision that limits the personal liability of its directors.
	Severance	A contract that ensures executives some income protection in the event of losing their positions.
<b>Voting</b>	Bylaws	A provision limiting shareholders' ability through majority vote to amend the corporate bylaws.
	Charter	A provision limiting shareholders' ability through majority to vote to amend the corporate charter
	Cumulative voting	A provision eliminating shareholders' ability to apportion their votes in an election.
	Secret ballot	A system of voting that ensures management does not look at individual proxy cards.
	Supermajority	A requirement that requires more than a majority of shareholders to approve a merger.
	Unequal voting	A provision by which voting power changes based on certain conditions.

Table 4, continued

	Provision	Explanation
<b>Other</b>	Anti-greenmail law	A provision that prevents an entity from acquiring a block of stock in a company and selling it back to the company at an above-market price.
	Director's duties	A provision that permits the board to consider non-shareholder interests in evaluating a possible change in control.
	Fair price	A requirement that a bidder pays all shareholders a "fair price," typically the highest price paid by a bidder prior to a tender offer being made.
	Pension parachute	A provision that limits the ability of an acquirer from using surplus money in a pension plan to fund the acquisition.
	Poison pill	A shareholder right that is triggered in the event of an unauthorized change in control that typically renders the target company financially unattractive or dilutes the voting power of the acquirer.
	Silver parachutes	A severance agreement that provides benefits to a large number of firm employees in the event of firing, demotion, or resignation following a change in control.
<b>State</b>	Anti-greenmail law	A provision that prevents an entity from acquiring a block of stock in a company and selling it back to the company at an above-market price.
	Business combination law	A law that limits the ability of an acquirer to conduct certain transactions with the acquired company post acquisition.
	Cash-out law	A provision that enables shareholders to sell to a controlling shareholder, usually at the highest price recently paid by the controlling shareholder.
	Directors' Duties Law	A provision that permits the board to consider non-shareholder interests in evaluating a possible change in control.
	Fair price law	A requirement that a bidder pays all shareholders a "fair price," typically the highest price paid by a bidder prior to a tender offer being made.

Notes: Source from Gompers et al. (2003, pp. 145-150)

### 4.3. Control Variables

Prior research has typically used a number of financial variables to capture issuer characteristics. There are a number of explanatory variables that impact default rate and corporate bond rating. We employed four variables to control for other factors that are expected to influence a firm's default risk and credit rating: firm size, financial leverage, profitability, and beta score (see Table 6).

**Table 5. Summary of Provisions for Entrenchment Index**

Provision	Description
Staggered board	Boards in which directors are divided into separate classes (typically three) with each class being elected to overlapping terms.
Limitation on amending bylaws	A provision limiting shareholders' ability through majority vote to amend the corporate bylaws.
Limitation on amending the charter	A provision limiting shareholders' ability through majority to vote to amend the corporate charter
Supermajority to approve a merger	A requirement that requires more than a majority of shareholders to approve a merger.
Golden parachute	A severance agreement that provides benefits to management/board members in the event of firing, demotion, or resignation following a change in control.
Poison pill	A shareholder right that is triggered in the event of an unauthorized change in control that typically renders the target company financially unattractive or dilutes the voting power of the acquirer.

Notes: Source from Bebchuk et al. (2009. pp. 824-825)

#### **a. Firm size**

Smaller-sized firms inherently have a greater risk for default in comparison to larger firms, which enjoy lower default risk for corporate bonds (Bhojraj & Sengupta, 2003). As explained by Amen and Nguyen (2013), larger firms have greater opportunities to diversify their risks across a wider range of products and markets. Larger firms can also sell assets more easily to pay down



their debt and reduce their leverage. Also, larger firms are less risky than smaller firms because of their enhanced ability to minimize the impact of economic, social and political changes (Sullivan, 1978); additionally, their market power typically enables them to achieve superior profit in competitive environments that can challenge smaller operations. Indeed, empirical research has demonstrated that larger firms are likely to generate higher profits with lower financial risks (Ashbaugh-Skaife et al., 2006; Bradley & Chen, 2011; Bhojraj & Sengupta, 2003). In this study, firm size is proxied by the natural log of total assets. Larger firms are likely to exhibit higher ratings since they present a lower risk to investors. Therefore, we expected a positive relationship between size and credit ratings.

#### **b. Financial leverage**

Given the fact that financial leverage is an essential factor influencing capital financing and the financial management of firms, this characteristic is expected to influence a firm's credit rating. As noted by prior research, as leverage increases, the book value of equity falls, which will result in weaker shareholder rights (Aman & Nguyen, 2013). Also, Guillet and Mattila (2010) pointed out that higher leverage is useful for increasing return on equity, as well as to take advantage of interest tax shields and decrease company risk. Moreover, Ashbaugh-Skaife et al. (2006) explained that leveraging is a proxy for a firm's default risk because the higher the proportion of debt in its capital structure—the greater the probability that a firm will find it difficult to pay off its creditors. In keeping with the assessment of leverage used by Ashbaugh-Skaife et al. (2006) and Amen and Nguyen (2013), this study defines leverage as the ratio of total debt divided by total assets. We expected negative relationship between a firm's leverage score and credit ratings.

### **c. Profitability**

Over the years, several studies have explored the importance of profitability, indicating that high profitability not only lowers the probability of business failure, but also stabilizes operating cash flow—the end result being a firm’s reduced default risk (Logue & Merville, 1972). Recently, Aman and Nguyen (2013) pointed out that profitable firms are better equipped to reassure debtholders that their debts will be paid, which supports the conclusion that a return of assets is associated with significantly higher credit rating among US companies. (Ashbaugh-Skaife et al., 2006). In this study, we expected that lower-performing firms would be associated with a higher default rate. A firm’s performance was defined as net income divided by book value of total assets (Amen & Nguyen, 2013; Guillet & Mattilla, 2010).

$$\text{ROA (return on assets)} = \text{Net Income} / \text{Total Assets}$$

### **d. Beta**

This variable measures a company’s volatility of systematic risk. Since an increased level of market risk will result in a higher risk for default and reduced credit ratings (Bhojraj & Sengupta, 2003), this study postulated that Beta would have a negative correlation with a firm’s credit rating. Indeed, scholars have concluded that higher stock volatility is associated with lower credit ratings and higher credit spreads (Alali et al., 2012; Bhojraj & Sengupta, 2003; Bradley & Chen, 2011). In this study, Beta corresponds to equity beta, which we collected from the Center for Research in Securities Prices (CRSP). We expected a negative relationship between BETA and credit rating

**Table 6. Variable Definitions**

<b>Variable</b>	<b>Predicted Sign</b>	<b>Definition</b>	<b>Sources</b>	<b>Research</b>
INVESTMENT_GRADE		1 if firm is an investment grade, 0 otherwise	COMPUSTAT	Ashbaugh- Skaife et al. (2006)
CREDIT RATINGS		Assigned ordinal rating score	COMPUSTAT	Ashbaugh- Skaife et al. (2006)
G_score	-	Shareholder right governance score (Gompers et al., 2003)	IRRC	Alali et al. (2012) Ashbaugh- Skaife et al. (2006)
E_score	-	Entrenchment Index (Bebchuk et al., 2008)	IRRC	Alali et al. (2012)
<b>Firm Characteristics</b>				
SIZE	+	Natural log of total asset	COMPUSTAT	Alali et al. (2012)
ROA	+	Net income before extraordinary items divided by total asset	COMPUSTAT	Alali et al. (2012) Kim and Gu (2004)
LEV	-	Total debt divided by total asset	COMPUSTAT	Ashbaugh- Skaife et al. (2006) Aman and Nguyen (2013)
BETA	-	The equity beta item BETAV	CRSP	Alali et al. (2012) Aman and Nguyen (2013)

Notes: Credit rating is the value corresponding to the long-term issuer rating given by Standard & Poor's. Leverage is total debt over total assets. ROA is net income over total assets. Beta measures the systematic risk for each firm. Governance Score was obtained by principal component analysis using all the governance variable: each one of 28 unique corporate governance provisions by adding one point for every provision that reduces shareholders' right and enhance managerial power.

## **CHAPTER FOUR.**

### **Empirical Tests and Results**

In this chapter, the results from testing our three hypotheses are presented in detail.

#### **1. Descriptive Statistics**

##### **1.1. Leverage in hospitality firms**

In order to explore the characteristics of default risk and credit ratings among hospitality firms, we investigated the capital structures found in different hospitality business sectors. This design decision was prompted by Guillet and Mattila (2010), who stated that there are observable differences in capital structures among hotels, restaurants and casino firms, which can lead to differences in corporate governance provision. Moreover, Andrew et al. (2006) showed that for the 1966-2002 period, the average leverage for hotel firms ranged between 49% and 65%, while the analogous rate for restaurants was between 44% and 54%. Similarly, Tsai and Gu (2007) found that the average leverage rate for casino firms was 53% for the 1999-2003 period.

In keeping with prior research, we divided our study's hospitality firms into different groups, including hotels, casinos, restaurants, transportation, online travel agencies, and others. As depicted in Table 7, casino firms have the highest debt ratio at 54.4%, followed by "destination" firms and hotel firms, at 52.4% and 50.76%, respectively. Not surprisingly, because of their low capital intensity, the online travel agencies in our study enjoyed the lowest average debt ratio of 25.91%.

**Table 7. Summary of Leverage in Hospitality and Tourism Firms**

<b>Category</b>	<b>Company</b>	<b>Leverage</b>
<b>Hotel</b>	Mean	50.76%
	Median	52.02%
<b>Casino</b>	Mean	54.40%
	Median	51.67%
<b>Restaurants</b>	Mean	41.77%
	Median	44.04%
<b>Transportation</b>	Mean	30.87%
	Median	28.47%
<b>OTA</b>	Mean	25.91%
	Median	25.64%
<b>Destinations</b>	Mean	52.40%
	Median	54.20%
<b>Mean for all companies</b>		<b>43.86%</b>
<b>Median for all companies</b>		<b>47.29%</b>

Notes: This table shows the average leverage ratio for each sector. The leverage ratio can be calculated by total debt divided by total asset. For each firm, we utilized annual financial data from the Compustat database from 1995 to 2014, and then averaged the leverage ratio for 20 years. After obtaining the average for each firm, we were able to calculate the average leverage for each sector.

## 1.2. Descriptive statistics

Table 8 presents descriptive statistics for corporate governance scores and firm-characteristic variables (i.e., size, ROA, leverage, and beta). As noted in the summary, the average credit rating for hospitality firms in our sample was 3.276 while the median was 3, implying that less than 50% of our sample had an investment-grade credit rating. The mean of the G\_score was 9.59 (8 at the 25<sup>th</sup> percentile, and 11 at the 75<sup>th</sup> percentile). Based on findings from Gompers et al. (2003), G\_scores in excess of 13 indicate greater management power. Thus, most firms in our sample of hospitality companies could be characterized by lower management power. Moreover, operational profitability was, on average, 7.4% with a narrow interquartile range of 2.1% to 9.6%. The mean debt ratio was 40.26% with the interquartile range from 23.24% to 53.19%, while the average beta for hospitality firms was 2.74. Note that the fluctuation of demand due to the

seasonality and economic conditions will lead to higher volatility and systematic risk for hospitality firms.

**Table 8. Statistics Summary**

<b>VARIABLES</b>	<b>Observations</b>	<b>Mean</b>	<b>Std.</b>	<b>Median</b>	<b>25%</b>	<b>75%</b>
<b>Dependent Variable</b>						
Credit Rating	370	3.276	1.013	3	3	4
<b>Independent Variable</b>						
G_score	370	9.591	2.240	10	8	11
<b>Firm Characteristics</b>						
SIZE	370	3.517	0.554	3.571	3.129	3.909
ROA	370	0.074	0.130	0.057	0.021	0.096
LEV	370	0.403	0.236	0.357	0.232	0.532
BETA	370	2.745	0.891	2.753	2.060	3.504

Notes: Credit rating is the value corresponding to the long-term issuer rating given by Standard & Poor's. We graded the credit rating from 1- 7 according to the AAA (highest level) to D (lowest level). Leverage represents total debt over total assets. ROA is net income over total assets. Beta measures the systematic risk for each firm. Governance Score was obtained by principal component analysis using all the governance variables: each one of 28 unique corporate governance provisions by adding one point for every provision that reduces shareholders' right and enhance managerial power.

### 1.3. Correlations

Table 9 shows the correlations between firm characteristics, corporate governance scores and credit ratings. Specifically, we discovered ROA and SIZE to be significantly positively correlated with credit ratings, while LEV and G\_Score were significantly negatively correlated with credit ratings. Not surprisingly, several firm characteristic variables exhibited high inter-correlations (Table 9). It is clear from our findings that firms with larger assets, lower profitability, and less systematic risk tend to feature a governance structure with higher shareholder input. Moreover,

larger firms tend to operate with a lower leverage ratio, while more profitable firms are more likely to be associated with a higher leverage ratio. Finally, larger-sized firms with higher debt ratios and higher profitability tend to exhibit lower systematic risk.

**Table 9. Correlations Summary**

	<b>Rating</b>	<b>G_SCORE</b>	<b>SIZE</b>	<b>LEV</b>	<b>ROA</b>	<b>BETA</b>
<b>Rating</b>	1.					
<b>G_SCORE</b>	-0.109**	1.				
<b>SIZE</b>	0.232***	0.414***	1.			
<b>LEV</b>	-0.255***	0.049	-0.165***	1.		
<b>ROA</b>	0.236***	-0.291*	-0.231***	0.104**	1.	
<b>BETA</b>	-0.118**	-0.133**	-0.116**	-0.049	-0.057	1.

Notes: Credit rating is the value corresponding to the long-term issuer rating given by Standard & Poor's. We graded the credit rating from 1- 7 according to the AAA (highest level) to D (lowest level). Leverage represents total debt over total assets. ROA is net income over total assets. Beta measures the systematic risk for each firm. Governance Score was obtained by principal component analysis using all the governance variables: each one of 28 unique corporate governance provisions by adding one point for every provision that reduces shareholders' right and enhance managerial power.

## 2. Hypothesis Testing

### 2.1. Hypothesis 1

As discussed in Chapter Two, capital structure and debt financing have significant influence on cost of capital and financial risk. Here, by using t-tests we were able to compare the leverage ratio between hospitality firms and non-hospitality firms. Therefore, the null hypothesis is:

*H<sub>0</sub>: There is no difference in leverage ratio between hospitality and non-hospitality firms.*

As shown in Table10, the t-statistic was calculated to be 1.983 and p-value was far lower than 5%, which indicates that we can reject the null hypothesis in favor of a statistically-significant difference in leverage ratio between hospitality and non-hospitality firms. Therefore, we can

conclude that hospitality firms rely more on debt financing.

**Table 10. Summary of Leverage and G\_Score for Hospitality and Non-hospitality Firms**

<b>Summary of difference of leverage between hospitality and non-hospitality firms</b>				
	Mean	Mean Difference	Degree of Freedom	T-test
Hospitality Firms	0.446	0.187	104	1.983 ***
Non-hospitality Firms	0.26			
<b>Summary of difference of G_score between hospitality and non-hospitality firms</b>				
	Mean	Mean Difference	Degree of Freedom	T-test
Hospitality Firms	9.92	1.04	56	2.003 *
Non-hospitality Firms	8.88			

Notes: Notes: Credit rating is the value corresponding to the long-term issuer rating given by Standard & Poor's. We graded the credit rating from 1- 7 according to the AAA (highest level) to D (lowest level). Leverage represents total debt over total assets. ROA is net income over total assets. Beta measures the systematic risk for each firm. Governance Score was obtained by principal component analysis using all the governance variables: each one of 28 unique corporate governance provisions by adding one point for every provision that reduces shareholders' right and enhance managerial power.

\*Significance at the 10% level

\*\*Significance at the 5% level

\*\*\*Significance at the 1% level

## 2.2 Hypothesis 2

G\_score can be used to measure the level of shareholder influence in a company. After calculating the average G\_score for each hospitality firm and non-hospitality firm, T-tests can then be used to answer the second research question to test the difference in corporate governance structures. Therefore, the null-hypothesis for this research question is:

*H<sub>0</sub>: There is no difference in G\_score between hospitality firms and non-hospitality firms.*

According to Table 10, the average G\_score for hospitality firms was 9.92 while the average for non-hospitality firms was 8.88. According to our T-test results (Table 10), the P-value is less than



10%, which means that we can reject the null hypothesis if the significant level was 10%; in contrast we would be unable to reject the null hypothesis if the significant level was 5%. Thus, we can confirm a statistically-significant difference in G\_score between hospitality and non-hospitality firms at the significant level of 10%.

### 2.3. Hypothesis 3

Question Three explores the relationship between corporate governance and credit ratings in hospitality firms. The empirical formula used to test this question is derived from a general model that represents credit ratings as a function of firm characteristics and corporate governance attributes. Here we use LEV (Leverage ratio), SIZE (Total Asset), ROA (Profitability), and BETA (Systematic Risk) as control variables that influence the credit rating and corporate governance of firms. Here we use three different models to examine the effect of corporate governance:

***Model 1: Credit Rating = f (Corporate Governance, Control Variables)***

***Model 2: Credit Rating = f (Corporate Governance)***

***Model 3: Credit Rating = f (Control Variables)***

#### Credit Rating Grade

By using logit regression model (OLR), model 1 (Table 11) shows the result includes independent variable (Corporate Governance) and firm characteristics. To begin, we used the G\_score to measure corporate governance, coupled with a firm's credit rating grade from 1-7 as the dependent variable. According to the result obtained from Model 1,  $R^2$  was 22.56%, which means there are only 22.56% dependent variable that can be explained by independent variable

and control variables. As Table 11 shows, we used three different significant level, 1%, 5 % or 10%. Results confirmed that all independent variables and control variable were statistically significant for Model 1. Additionally, we identified a statistically-significant negative relationship between G\_score and credit rating, which means that firms with stronger shareholder rights are likely to provide better monitoring and control over management. This type of management control is likely to lead to more effective and efficient management decision-making, which in turn will result in better overall firm credit worthiness and higher credit ratings.

**Table 11. Regression Model Results**

<b>Variables</b>	<b>Explanation</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>
<b>RATING</b>	Credit Rating			
<b>G_score</b>	Corporate governance	-0.072***	-0.050**	
<b>ASSET</b>	Log asset	0.570***		0.461***
<b>LEV</b>	Leverage Ratio	-0.988***		-1.076***
<b>ROA</b>	Profitability	2.187***		2.467***
<b>BETA</b>	Risk	-0.109***		-0.097*
<b>R2</b>		0.227	0.013	0.206
<b>RATING</b>	Investment Grade		-0.037***	
<b>G_score</b>	Corporate governance	-0.043***	-0.037***	
<b>ASSET</b>	Log asset	0.172***		0.1070**
<b>LEV</b>	Leverage Ratio	-0.614***		-0.668***
<b>ROA</b>	Profitability	0.607***		0.775***
<b>BETA</b>	Risk	-0.048*		-0.038
<b>R2</b>		0.180	0.028	0.150

Notes: Credit rating is the value corresponding to the long-term issuer rating given by Standard & Poor's. We graded the credit rating from 1- 7 according to the AAA (highest level) to D (lowest level); leverage represents total debt over total assets. ROA is net income over total assets. Beta measures the systematic risk for each firm. Governance Score was obtained by principal component analysis using all the governance variables: each one of 28 unique corporate governance provisions by adding one point for every provision that reduces shareholders' right and enhances managerial power.

\*Significance at the 10% level

\*\*Significance at the 5% level

\*\*\*Significance at the 1% level

In terms of resulting data, the coefficient of firm size was 0.570, which is statistically significant at a level of 1%. Therefore, we were able to confirm a positive relationship between firm size and credit rating. This result is consistent with our expectations that larger-size firms will have higher credit ratings. Also, as the result showed, the coefficient of leverage ratio was -0.988, with a significance level of 1%. Thus, this result confirmed a negative relationship between a firm's leverage ratio and corporate governance, which means that hospitality firms with a higher leverage ratio will have a lower credit rating.

Next, we measured profitability by using the ROA (return on assets) variable. According to the regression model, the value we obtained for the coefficient of ROA was 2.188 (Table 11), which was statistically significant. This finding indicates that firms with higher profitability will have lower default risks and higher credit ratings.

Finally, we assessed the coefficient of Beta at -0.109 (Table 11), which was statistically significant. This result supports our expectation that there is a negative relationship between credit rating and a firm's systematic risk. Obviously, the more systematic risk a hospitality firms has, the lower the credit rating for their corporate bond.

Model 2 in Table 11 reports results using only governance variable to explain credit rating. Not surprisingly, the governance variable explain only 1.25% variation in credit ratings, while the  $R^2$  for Model 1 was 22%. Also, by using the investment grade, we identified a negative and significant coefficient on G\_score, but the  $R^2$  was only 2.76%, indicating that it is difficult to

explain credit rating by only using G\_score. However, this finding provides empirical evidence to show a significant relationship between corporate governance and credit ratings.

To benchmark our results against prior credit rating studies, Model 3 from Table 6 reports results for a firm's risk characteristics in isolation. Without considering any governance variables in our regression model, the  $R^2$  decreased to 20.61% (Table 11). It should be noted that we were able to obtain the same result with Model 1 and concluded that a firm's characteristics do influence credit ratings for hospitality firms.

### Investment Grade

The logit regression model used Investment Grade as the dependent variable. As shown in Table 11, the results are same with the model by using credit ratings. We found a positive and significant coefficient on G\_score, which means that a firm with stronger shareholder rights is more likely to establish better monitoring of manager decisions; this relationship is likely to lead to higher credit ratings. Also, our results indicate that larger-sized firms with higher profitability are likely to enjoy higher credit ratings; additionally, firms with higher leverage and higher systematic risk will have lower credit ratings.

To conclude, our three regression models provide significant evidence to support the negative relationship between G\_score and credit ratings in hospitality firms. In other words, firm with higher shareholder rights are likely to feature lower default rates and higher credit ratings. It must be noted, however, that the individual characteristics of a firm also have a significant impact on credit ratings.

We can conclude, therefore, that for Hypothesis 1, hospitality firms are more reliant on debt financing compared to non-hospitality firms. In terms of our findings for Hypothesis 2, it was evident that hospitality firms have higher G\_scores, which means shareholders in hospitality firms have relatively less power than in other industries. By using our regression model, our empirical test results support a statistically-significant relationship between G\_score and credit ratings, which means that higher shareholder influence in hospitality firms is positively correlated with higher credit ratings.

## **CHAPTER FIVE.**

### **Summary**

#### **1. Conclusions**

A number of findings emerged from this study. First, because hospitality firms rely on real estate holdings and related assets (i.e., land, property, equipment, furnishings, facilities and so on), they have higher requirement for capital. As the evidence in this study confirms, hospitality firms are more dependent on debt financing than other types of businesses. High leverage ratios lead to more financing risk for shareholders and bondholders. Due to the fact that credit ratings provide essential information related to the creditworthiness of corporate bonds and equities, it is vital for managers and stakeholders in hospitality firms to evaluate the default risk of their investments.

Second, corporate governance is the key component in the credit rating assessment framework. In the hospitality industry, division of power among shareholders, the board of directors, and executive management depends on well-defined rules of corporate governance (Guillet & Mattila, 2010). In order to develop a deeper understanding of corporate governance in the hospitality industry, we can measure the level of power or influence of both shareholders and management via a G\_score (Gompers et al., 2003). As this study confirmed, hospitality firms exhibited significantly higher G\_scores than non-hospitality firms, indicating that stockholder rights are comparatively weaker in hospitality firms than in non-hospitality firms. As a

consequence, the weaker shareholder rights in hospitality firms can be linked to strong limitations the ability of shareholders to protect their rights and increase a firm's value.

The main finding that emerged from this study is that firms with stronger shareholder rights (i.e., lower G\_scores) are more likely to provide better monitoring and control over management decisions, which can mitigate agency peril and increase credit ratings. Conversely, prior research has confirmed a positive relationship between G\_score and credit ratings because higher shareholder rights (lower G\_score) can result in wealth transfer from bondholders to shareholders (Alali et al., 2012; Aman & Nguyen, 2013 Ashbaugh-Skaife et al., 2006). In contrast to prior research, we conclude that for the hospitality industry, enhanced corporate governance featuring greater shareholder influence can translate into benefits for bondholders in hospitality firms, which will lead to higher credit ratings.

## **2. Implication for Stakeholders**

One of the implications of this study is that, in practice, management personnel in hospitality firms must pay attention to the components of capital structure. Since hospitality firms typically depend more on debt financing, managers have to make effort to obtain an optimal capital structure to create firm value and lower the financial risks for shareholders and bondholders. Moreover, a good corporate governance with ensuring more power for shareholders will lead to a lower agency costs and lower and higher performance for hospitality firms.

Also, this study explores financial and business risk for hospitality firms and points out that credit rating provides a measurement of default risk for bondholders. Through the learning

about corporate governance and the power balance between management and shareholders, bondholders can learn more about the bond issuers.

On the other hand, since a well-governed firm is more likely to improve credit ratings with higher profitability and financial flexibility, which will further lead to decrease the cost of capital and encourage more business opportunities, shareholders should be aware of the importance of firms' credit ratings in order to protect their long-term interest.

For investors who will invest in hospitality firms in the future, this study provides not only an introduction of structural characteristics of hospitality business and financial management, but also a guidance of how to evaluate the potential profits and unique risks for their investment in hospitality firms.

More importantly, since the corporate governance structure of different industries is likely to vary depending on their specific needs, this empirical study of the hospitality industry is significant in that it provides an industry-specific analysis about the characteristics of corporate governance and its effect on credit ratings. Moreover, our findings confirm that (a) good governance mechanisms in hospitality firms are able to reduce potential conflicts of interest between management and stakeholders, and (b) effective monitoring of managers will positively affect bond yield and reduce the default risk of these firms. Therefore, it is in the best interests of stakeholders to have a better understanding of corporate governance provisions and corporate governance policies to protect their interest. Despite the relevance of these findings, more



research is needed to augment our knowledge of business structures/practices and outcomes for hospitality firms

### **3. Limitations and Further Research**

#### **3.1. Sample selection**

There are a number of limitations associated with this study. First, it must be noted that the sample size for this investigation was relatively small. Specifically, the final sample size contained only 30 hospitality firms—principally because of the small number of public hospitality firms and missing data from databases. Each firm in our sample included observations for each year from 1995 to 2014; thus, there were 377 observations that could be used for the regression model to test Hypothesis 3. Therefore, further research should be conducted to expand the sample size, such as contacting database company to find more observations, which could provide more convincing results—either to support our findings or refute them.

A second limitation concerns the period of data collection. In short, the method utilized herein ignores important factors influencing corporate governance in the hospitality industry over the last two decades—such as economics, politics, personal income and global issues. Therefore, a subsequent study could test the impact of corporate governance on various factors by utilizing data from a single year. Moreover, G\_scores and credit ratings are sticky, which means that while financial data changes each year, G\_scores and credit ratings do not change

commensurately and substantially providing less variance than needed for robust regressions results.

A third limitation (as mentioned in the Methodology section) concerns the frequency of the G\_scores we employed. To reiterate, G\_scores could only be obtained from IRRC data for eight years only: 1995, 1998, 2000, 2002, 2004 and 2006. We assumed that the data for missing years was identical to the prior year for which data was available. Therefore, the G\_scores for the years from 2007 to 2014 would be the same as the G\_score for 2006. However, it is almost certainly true that G\_scores for those years would be different—and especially if corporate governance provisions had changed after 2006. In order to test the influence of this limitation, we conducted a robustness test and eliminated the data after 2006 to test the regression model using the data from 1995 to 2006. According to results reported in Appendix 1, the results are similar based on Model 1 that demonstrated a statistically-significant relationship between G\_score and credit ratings. Nonetheless, future studies should attempt to collect data from ISS database for every year to further verify the effect of corporate governance on various indices.

### 3.2. Bond yields in hospitality firms

Corporate governance structures have the potential to adversely affect bond yield and ratings. Specifically, good governance mechanisms among hospitality firms result in lower bond yields and higher ratings (Bhojraj & Sengupta, 2003). Prior research has indicated that hospitality bonds pay higher interest on debt than those of other industries (Chatfield & Chatfield, 2003)

However, this study only investigated the effect of corporate governance on credit ratings. Future studies should determine the effects of corporate governance on bond yield.

### 3.3. Other attributes of corporate governance

As shown from our results (Table 11),  $R^2$  was about 23%, which means that only 23% of this study's credit rating findings can be adequately explained by the independent and control variables in this model. In order to increase  $R^2$  in this study, we would need to consider other governance attributes to explain a firm's credit ratings—rather than relying solely on G\_scores. Such corporate governance attributes could include ownership structure and influence, financial stakeholder rights and relations, financial transparency and information disclosure, and board structure and processes.

Additionally, this study relied on specific variables—namely size, profitability, leverage and systematic risk—while ignoring other important business characteristics such as years to capital expenditure or maturity to corporate bond. Therefore, in order to generate a richer understanding of the relationship between corporate governance and credit ratings, future studies should include these variables (or others) in order to elucidate important linkages and strengthen results.

Based on the findings and implications of this study, it is believed that this study adds to the literature on financial management and corporate governance in the hospitality industry. Moreover, the limitations discussed herein will provide guidance for additional

industry-specific analyses, which will encourage deeper understanding of corporate governance attributes, including ownership structures, financial stakeholder rights, financial transparency, and board structure in a variety of industries.

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## Appendix A

### Regression Model Results (1995-2006)

	Variables	Explanation	Model1	Model2	Model3
<b>Dependent Variables</b>	RATING	Credit Rating			
<b>Independent Variables</b>	G-score	Corporate governance	-0.072***	-0.050**	
<b>Control Variables</b>	ASSET	Log asset	0.570***		0.461***
	LEV	Leverage Ratio	-0.988***		-1.076***
	ROA	Profitability	2.187***		2.467***
	BETA	Risk	-0.109***		-0.092*
	<b>R2</b>		0.230	0.013	0.206
<b>Dependent Variables</b>	RATING	Investment Grade			
<b>Independent Variables</b>	G-score	Corporate governance	-0.043***	-0.037***	
<b>Control Variables</b>	ASSET	Log asset	0.172***		0.107**
	LEV	Leverage Ratio	-0.614***		-0.668***
	ROA	Profitability	0.607***		0.775***
	BETA	Risk	-0.048*		-0.038
	<b>R2</b>		0.180	0.028	0.150

Notes: This model used data from the period 1995-2006. Credit rating is the value corresponding to the long-term issuer rating given by Standard & Poor's. We graded the credit rating from 1- 7 according to the AAA (highest level) to D (lowest level); leverage represents total debt over total assets. ROA is net income over total assets. Beta measures the systematic risk for each firm. Governance Score was obtained by principal component analysis using all the governance variables: each one of 28 unique corporate governance provisions by adding one point for every provision that reduces shareholders' right and enhance managerial power. \*Significance at the 10% level \*\*Significance at the 5% level \*\*\*Significance at the 1% level