THE RELATIONSHIP BETWEEN MANAGERIAL DISCRETION AND THE CAPITAL STRUCTURE OF FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE
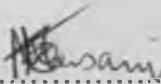
BY

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTATION, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI
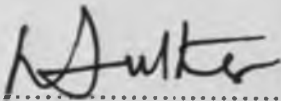
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DECLARATION

This management research project is my original work and has not been presented for examination in any other university.

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DEDICATION

To my parents - my dad Moses Musani and mother Hellen Musani; and my siblings: Solomon, Esther, Isaac, John, Sellah, Devlin and Ibrahim for your support and encouragement during this entire period. You are the best.

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ABSTRACT

Managerial discretion has attracted a lot of attention in the recent past and various studies have been forwarded to support the argument that indeed a manager's discretion affects the long term financing decisions of a firm. A manager considered to have high discretion is believed to issue more equity than debt and repurchase more debt than equity thus giving high discretion firms a conservative capital structure. The study therefore aimed at establishing the relationship between a manager's discretion and the choice of either equity or debt as a means of financing. The literature offers empirical evidence from business data in support of this hypothesis.

The study used descriptive research design. The population of interest was 47 companies listed at the Nairobi Securities Exchange. The primary data was collected by use of a questionnaire which was circulated to the companies through pick and drop method. The secondary data was obtained from the financial statements of the listed companies. Linear regression method was used to analyze the collected data.

The study established that managerial discretion is indeed an important factor when it comes to long term financing decisions. It established that managers with high discretion tended to issue more equity than debt. There is strong evidence that managerial discretion does influence the capital structure of firms.

Care should be taken in regard to managers with high discretion as there is a thin line between making financing decisions to achieve lower debt ratios and to invest beyond their firms' growth potential. Some high discretion managers can use these decisions to build empires of their own and thus need for regulation of issuance of debt and equity regardless of levels of discretion.

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INTRODUCTION

1.1 Background to the Study

Franco Modigliani and Merton Miller both Nobel laureates believed that capital structure was not important in valuing a company's securities neither does it affect the business risk of the firm. Modigliani and Miller (1958) advanced the arbitrage proof based on the law of one price, in a perfect capital market setting, to support their proposition of irrelevancy of capital structure. Studies that contradict Modigliani and Miller (1958) irrelevancy theorem underline the advantage of debt in a world of corporate taxes and emphasize agency issues related to use of debt by companies (Barges 1963; and Ezra 1963; Myers and Majluf 1984). These studies require that managers identify the optimal financing mix of debt and equity for their firms. This is the starting point of managerial discretion.

1.1.1 Managerial Discretion

A manager's discretion is the extent to which the manager can act in his or her self-interest. Discretion is freedom or power to decide what to do (Oxford dictionary, 2010). It is the right or ability to make a judgment or decision.

Some studies show that managers with more discretion prefer issuing equity over debt and repurchasing debt over equity (Jensen and Mecklin, 1976). At the same time, managers might prefer to keep debt ratios low to reduce risk and protect their undiversified human capital, to alleviate the pressure that comes with interest payment commitments or to benefit from opportunities associated with running a less leveraged firm where investment capital can be easily raised (Fama, 1980). Jensen (1996), posit that payouts in the form of interest payments

reduce the resources under the management, thereby reducing managers' power and increasing the likelihood of monitoring by the capital markets. Hart and Moore (1995) and Zwiebel (1996) argue that debt limits manager's ability to finance future investment.

Other theories have argued to the contrary that managers prefer higher leverage to reduce probability of a takeover either by reducing the acquirers' interest due to transfer of value from shareholders to debt holders or by inflating their voting power. Israel (1992) argues that by issuing risky debt the current management in the target firm transfers some of the value from equity holders to the debt holders in exchange for private benefits of control, which lowers the acquirer's premium. Haris and Raviv (1988) and Slutz (1988) point that managers increase their advantage to defend takeover challenges by increasing the concentration of their shareholdings, which enables them to have greater control of their firms. These two competing theories touch on the self-interest and therefore discretion of the manager.

Empirical research on this issue suggests that managers with discretion, who are protected from the pressures of external and internal governance mechanisms (those capable of acting in self interest), prefer lower leverage ratios. Friend and Lang (1988) and Mehran (1992) found that managers with high discretion tend to make capital structure decisions that are more conservative (lower leverage). Berger, Ofek and Yermack (1997) posit that leverage levels are lower when managers do not face pressure from disciplining mechanisms such as market for corporate control. Garvey and Hanka (1999), show that managers who receive negative shocks to their entrenchment (hostile takeover threat) tend to take on more debt. Safieddine and Titman (1999) find that managers increase their leverage when they become takeover targets not to entrench themselves but to commit to making improvements.

Locally, Kangila Isaac (2011) conducted a study on the determinants of capital structure in Kenya with focus on the listed companies at the Nairobi Securities Exchange.

1.1.2 The Nairobi Securities Exchange

Nairobi Securities Exchange (NSE) is the principle stock exchange of Kenya. It is Africa's fourth largest stock exchange in terms of trading volumes, and fifth in terms of market capitalization as a percentage of Gross Domestic Product. The exchange works in cooperation with the Uganda Securities Exchange and the Dar es Salaam Stock Exchange including cross listing of various equities. Trading is done through the Electronic Trading System (ETS) which was commissioned in 2006. In 2008, the NSE All Share Index (NASI) was introduced as an alternative index. Its measure is an overall indicator of market performance. The index incorporates all the traded shares of the day. Its attention is therefore on the overall market capitalization rather than the price movements of select counters.

There is a third index; the AIG 27 (American Investment Group) that compares price movements of 27 companies identified as relatively stable. The rationale behind the index compares to that of the NSE 20-Share index. Whereas the AIG is primarily defined by the AIG company (a financial service company and part of the AIG Group), the 20-Share index is from the NSE itself. (www.nse.co.ke).

NSE is fully owned by 19 licensed stockbrokers. It is currently increasingly experiencing volatility as the 20-Share index fell below the 3000 psychological mark, lowering the value of the shareholders' wealth (market capitalization) to Kes 740.877 billion down from Kes 1.3 trillion in June 2008. The market capitalization grew to Kes 1.3 trillion at the end of June 2008 after the listing of the Safaricom shares (NSE 2007).

The NSE has 19 active trading members/brokers and one dormant member. There are 11 directors on the board of NSE 5 of the board members are elected from the brokers, 2 are elected to represent listed companies, 2 to represent institutional interests, 1 to represent the

public interest, Managing Director of the NSE and the legal officer/Company Secretary. (Ngugi and Njiru, 2005)

In the recent past NSE has undergone major development on the trading and the settlement front. These developments entail establishment of a modern, fully automated custody and settlement services which are being provided by the Central Depository System Corporation (CDSC). CDSC became operational in 2004 after decades of manual clearing and settlement system. The stakeholders of the CDSC are brokers and some financial institutions. There was successful implementation of the automated trading system (ATS) in September 2006 on a Local Area Network (LAN) at the trading floor The system has facilitated efficient trading by reducing the time it takes to execute a trade.

The integration of ATS, CDS and brokers' back office systems improved service delivery to investors. To begin with ATS operated on a LAN but after successful testing and implementation phase the ATS now runs on a Wide Area Network (WAN) for members to trade from their offices. On the 17th December, 2007, the number of trading hours increased to 6 hours (9am – 3 pm). (NSE Trading rules, 2008)

Global financial services industry is being driven by new stronger forces. These forces are causing exchanges like NSE to reexamine their business structures in order to remain competitive. Globalization of the markets, advances in technology, competitive pricing pressures and government deregulation are all contributing to the allure of demutualization. (Mensa, 2005) In the recent past, NSE has gone through some very turbulent times; three stockbrokers have gone under in a span of two (2) years due to poor corporate governance This bad image has led to low investor confidence and has threatened to negate some huge gains made by automation of both trading and settlement systems.

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1.2 Research problem

A manager's discretion is the extent to which a manager is able to pursue his or her own self interest. Managers with high discretion are considered to favor issuing equity over debt and repurchasing debt over equity.

When firms have free cash flow, managerial discretion may enhance firms' tendencies to accumulate their earnings rather than pay them out and attain a conservative capital structure; which improves their job security and their ability to raise additional funds for their investments. Firms prefer internal capital over external financing Donaldson (1961). When firms need external financing, managers' preference for raising debt versus equity is likely to depend on the difficulty of convincing the board and the shareholders to raise capital and the consequences of the financing decisions on their control over the firm.

Managers with discretion and who are protected from the pressures of external and internal governance mechanisms (those capable of acting in self-interest), are more conservative thus preferring lower advantage ratios (Friend and Lang, 1988 and Mehran, 1992). Berger, Ofek and Yermack (1997) posit that leverage levels are lower when managers do not face pressure from disciplining mechanisms such as market for corporate control.

Garvey and Hanka (1999), show that managers who receive negative shocks to their entrenchment (hostile takeover threat) tend to take on more debt. Safieddine and Titman (1999) find that managers increase their leverage when they become takeover targets not to entrench themselves but to commit to making improvements.

There is opposing theoretical views on the relationship between managerial discretion and the choice of capital structure. Therefore, it is difficult generalizing how high discretion managers achieve their desired capital structure (Mehran, 1992; Friend and Lang, 1998).

Furthermore, local studies have ignored managerial discretion as a variable that would influence capital structure in companies. Kamere (1987) looked at interest rates, firm asset structure, firm tax advantage of debt and the maturity of debt as important factors in deciding a firm's capital structure. Odinga (2003) found tangibility of assets, firm's growth, firm's size and business risk as influential variables. Other similar studies are by Musili (2005); Mugenda (2010); Ondiek (2010) and Karanja (2010). These studies give valuable insight into the dynamics of capital structure but have not explicitly examined the effect of managerial discretion on the capital structure.

This study therefore aims to examine the effect of managerial discretion on capital structure dynamics. First, it will seek to answer the question what are the patterns between financing activities and variables that are associated with managerial discretion? Secondly, does managerial discretion influence the way debt ratios respond to firms' history of financial deficits, stock price performances, and their tendencies to maintain a target capital structure?

1.3 Research Objectives

The main objective of the study is to investigate the relationship between managers' discretion and the capital structure of Kenyan firms listed at the Nairobi Securities Exchange.

1.4 Value of the Study

The study will address how managers with discretion achieve their target capital structure. In particular, the effect of managerial discretion on firms' financing decisions such as equity

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issues, debt issues and the accumulation of retained earnings; all of which could be used as a means to reach a desired capital structure.

Additionally, the study will act as a guide to firm executives as it will give empirical evidence of how their discretion influences corporate debt decisions. Besides, it provides an insight into what drives borrowing decisions for firms quoted at the NSE especially to lending institutions.

The study will also provide a solid and rich foundation for future researchers interested in exploring further into this field. It will also create linkages and contribute to the body of knowledge as to how managers' discretion influences financing decisions from a Kenyan perspective.

LITERATURE REVIEW

2.1 Introduction

This chapter reviews empirical studies on capital structure with emphasis on the effect of managerial discretion on it.

2.2 The Theories of Capital Structure

2.2.1 Agency Theory

Debt financing may lead to agency costs. These are the costs that arise as a result of a principal-stakeholder relationship such as the relationship between equity holders or managers of the firm and debt holders. Myers and Majluf (1984) demonstrated that given the incentive for the firm to benefit equity holders at the expense of debt holders, debt holders need to restrict and monitor the firm's behavior. These contrasting behavior increase the cost of capital offered to the firm. Thus firms with relatively higher agency costs due to the inherent conflict between the firm and debt holders should have lower levels of outside debt financing and leverage.

Firms also consider within the static trade-off framework, the tax benefits associated with the use of debt. The benefit is created as the interest payments associated with debt are tax deductible while payments associated with equity such as dividends are appropriated from profit. This tax effect encourages the use of debt by firms as more debt increases the after tax proceeds to the owner. The theory among other things predicts a positive relationship between tax and leverage. Harris and Raviv (1990)

2.2.2 Trade off Theory

A basic model of capital structure determination has derived from the with-taxes Modigliani and Miller (1958 and 1963) model with expansion to incorporate the financial distress costs of debt.

This traditional static trade-off theory can be characterized by the assumption that capital structure is optimized with management weighing up the relative advantage of the tax-shield benefits of debt against the increased likelihood of incurring debt-related bankruptcy costs (Myers, 1984).

Taxes are the main reason for capital structure optimization (Loof 2003). The advantage on corporate taxes in this respect is that interest payments are deductible as an expense. The consequence is that ceteris paribus the total income to both debt holders and stockholders is larger for a leveraged firm. Total income is increased by interest payment times the tax rate. The greater the amount of debt, the greater the tax shield thus the greater the value of the firm. (Loof 2003)

Titman (1984) argues that the more unique a firm's assets are, the thinner the market for those assets and the lower the expected value recoverable by the lender in the event of bankruptcy. The idea is that a firm that develops and produces unique and specialized products also develops specialized or customized skills and competence capital in that are area. Titman (1984) finds that firms in unique lines of business tend to be less leveraged.

The classical version of the hypothesis goes back to Kraus and Litzenberger who considered a balance between the dead-weight costs of bankruptcy and the tax saving benefits of debt. Jensen and Meckling (1976) argue that an optimal capital structure can be obtained by trading off the agency costs of debt against the benefit of debt, in what might be termed an extended trade-off model.

The trade off theory contrasted MM (1963) by implying that in the real world, firms rarely use 100 per cent debt. The primary reason is that firms limit the use of debt to reduce the probability of financial distress (bankruptcy) and also that interest rate on debt become prohibitively high at high debt levels (Masulis 2005)

2.2.3 Pecking Order Theory

Information asymmetry between insiders and outsiders can affect the firm's optimal capital structure. In financing new investment project Myers and Majiuf (1984) argue that well informed management insiders will issue equity if they believe the stock is overvalued and debt if it believes the stock is undervalued; and also that, under asymmetric information, equity may be mispriced by the market. If firms finance new projects by issuing equity, under pricing may be so severe that new investors gain more of the project NPV to the detriment of existing shareholders. This may lead to an 'underinvestment' problem since projects will be rejected even if the NPV is positive.

This under investment can be reduced by financing the project using a security that is less likely to be mispriced by the market. Internal funds involve no undervaluation and even debt that is not too risky will be preferred to equity. Myers (1984) refers to this as the pecking order theory of capital structure. The description follows earlier empirical work by Donaldson (1961), in which he observed that managers preferred to fund investment initially from retained profits rather than use outside funds. This preference led firms to adopt dividend policies that reflected their anticipated need for investment funds, policies which managers' were reluctant to substantially change. If retained profits exceeded investment needs then debt would be repaid. If external finance was required, firms tended first to issue the safest security, debt, and only issued equity as a last resort.

Under this theory, there is no well-defined target mix of debt and equity finance. Each Firm's observed debt ratio reflects its cumulative requirements for external finance. Generally, profitable firms will borrow less because they can rely on internal funds. The preference for internal equity implies that firms will use less debt than suggested by the trade-off theory. Further, firms are more likely to create financial slack to finance future projects.

2.2.4 Signalling Theory

Ross (1978) introduced signaling theory to finance in which he suggested that managers can use capital structure as well as dividends to give some signals about the firm's future proposals. More specifically, increasing the amount of debt in the firm's capital structure may be interpreted by outsiders as a sign of confidence in a firm's future.

In Ross' model, managers know the true distribution of firm returns, but investors do not. Firm return distributions are ordered by first order stochastic dominance. Managers benefit if the firm's securities are more highly valued by the market but are penalized if the firm goes bankrupt. Investors take larger debt levels as a signal of higher quality. Since lower quality firms have higher marginal expected bankruptcy costs for any debt level, managers of low quality firms do not imitate higher quality firms by issuing more debt

Two types of signaling inside information have been suggested: one is the costly signaling equilibrium discussed by Spence (1973) and Talmor (1981); the other one is the costless signaling equilibrium as proposed by Bhattacharya and Heinkel (1982). A signal is costly if the production of the signal consumes resource or if the signal is associated with a loss in welfare generated by deviations from allocation or distribution of claims in perfect markets.

The signaling paradigm is multivariate for financial instruments. Poitevin (1989) demonstrates that debt could be used as a signal to differentiate the potential competition of

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new entrant firm's Low cost entrant's signal this fact by issuing debt while the incumbent or high cost entrants issue only equity. Harris and Raviv (1985) argue that calling firm's convertibles can be a kind of signal and Bhattacharya and Dittmar (1991) show stock repurchase is another kind of signal to represent firm value.

2.2.5 Contracting Costs Hypothesis

Although his research does not delineate debt into specific maturities, the idea of Myers (1977), tend to indicate that firms should use more long-term debt. According to Myers, future investment opportunities represent options whose value depends upon exercising them at the optimum time. While the market recognizes the value of these growth opportunities, their value is not reflected on the book values of the balance sheet. With more growth opportunities, the conflict between lenders and owners increases. Accordingly, the owners of a firm can reduce these conflicts by reducing the amount of debt in the capital structure, shortening the maturity of the debt, or both.

In a related sense firm assets can be roughly divided into two groups: those that are heavily dependent upon further investment by the firm and those that are largely unrelated to additional firm investment. The distinction must be considered rather generally, as the values of nearly all assets are dependent upon further investment by the firm. However, Myers argues that variable costs can be considered discretionary investments;-including labor, marketing and research and development costs. On the other hand, physical plant expenditures (assets in place) have costs associated with them that can be considered non-discretionary (interest expense, for example). Accordingly, firms with greater future discretionary investment or growth opportunities should use less debt, as found by Barclay and Smith (1995). On the other hand, firms with more assets in place should use more debt.

An additional argument related to growth opportunities involves debt maturity. Given the conflict between owners and lenders, numerous considerations may have to be made to insure optimal investment decisions. Myers (1997) suggests numerous methods for solving this conflict including rewriting and renegotiating debt contracts. However, these methods may produce contracts that are difficult to enforce or costly to construct. Therefore, one relatively efficient solution for firms with significant growth opportunities is to reduce the maturity of their debt. One would expect firms with more assets in place therefore, to not only have more debt, but more long-term debt as well. Furthermore, recent research by Wald (1999) provides empirical evidence of a positive relationship between assets-in-place (property, plant and equipment) and the use of long term debt for a wide variety of domestic and international firms.

The problem of moral hazard is also related to the contracting costs. As previously mentioned, Myers (1997) argues that debt can create agency problems between owners and lenders, leading to more costly contracting. An increase in debt causes shareholders to invest sub optimally, thereby leaving any downside risk to lenders. Wald (1999) posits that the amount of physical assets in place such as plant and equipment may show creditors that these assets are being gainfully employed. Because lodging firms usually have a majority of their capital invested in fixed assets, it follows that the direct relationship between the use of debt and the amount of physical assets employed should operate for lodging firms.

Another consideration may be firm size. Debt issues have a significant fixed cost component that may not be afforded by smaller firms. Barclay and Smith (1995) found evidence to support this assumption. Smaller firms that cannot afford the out-of-pocket costs associated with long term debt issues prefer private short term debt. This preference is confirmed by Wald (1999), who found a positive relationship between firm size and long term debt for both

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U.S and international firms. Moreover, larger firms have a more diluted ownership structure, encouraging the use of debt as the potential for personal bankruptcy losses decreases.

2.2.6 Tax Hypotheses

DeAngelo and Marsulis (1980) argue that firms with greater non debt tax shields issue less debt. MacKie-Mason (1990) found a negative relationship between the amount of depreciation taken by a firm and the use of debt. Moreover, given the fixed asset intensive nature of the industry, non debt tax shields may be significant in determining the capital structure of hotel firms.

Contracting cost hypothesis reveals that firms with a significant amount of physical assets will issue more long term debt because of moral hazard effects. On the other hand, a significant amount of depreciation attached to physical assets should be negatively correlated with debt. Wald (1999) shows both physical plant and depreciation must be included in a statistical analysis to segregate their effects. He also found a positive relationship between long term debt and depreciation tax shields.

2.3 Empirical Review

Firm financing has mainly emphasized on the choice of debt versus (internal or external) equity. Although the idea of debt as a homogenous source of funds is a powerful theoretical construct and a useful first step, one must go beyond the leverage decision and investigate other dimensions of debt/equity choice. Nature of debt and its incentive properties can differ according to, for instance, its maturity (long and short) and to the provider (Banks or markets) Brealey and Myers (2003).

Achieving the goals of corporate finance requires that any corporate investment be financed appropriately. As both hurdle rate and cash flows (and hence the riskiness of the firm) will be affected, the financial mix can impact the valuation of a firm. Management must therefore identify the "optimal mix" of financing the capital structure that results in the maximum value of the firm. (Forseberg, 2004)

According to Tien Pao and Lee (2003), firms avoid external financing while they have internal financing available and avoid new equity financing while they can engage in new debt financing at reasonably low interest rates. Firms are assumed to trade off the tax benefits of debt with the bankruptcy costs of debt when making their decisions. Market timing hypothesis states that firms look for cheaper type of financing regardless of their current levels of internal resources, debt and equity. (Tien Pao, Pikas and Lee, 2003)

The financial decision influences the capital structure of a firm which eventually impacts on the shareholders' wealth. Capital is crucial in any firm since it finances long term assets mainly property, plant and equipment and the net working capital. In most cases there is a gap between the cash that companies need to invest and the cash that they generate internally called financial deficit. To make up the deficit, companies must either sell new equity or borrow. (Brealey and Myers, 2003)

The financial literature has examined managerial discretion as factor that affects the choice of either debt or equity in the financing decisions of a firm. Hambrick and Mason's (1984) upper echelons perspective triggered a large number of studies that focus on top management team members during the last two decades.

According to this perspective, top management perceptions and cognitive base are expected to influence strategic choice, and ultimately, organizational outcomes. The upper echelon perspective suggests that the demographic characteristics of managers act as proxies of their cognitive base and values which are expected to influence strategy and firm performance. This leads us to expect a link between top management demographic characteristics and business strategy and firm performance.

Top management teams exercise a substantial amount of discretion when determining the firm's strategy (Finkelstein and Hambrick, 1990; Pegels et al., 2000). However, the extent of managerial discretion may vary from one industry environment to another. "Managers in high-discretion contexts are able to choose from a wide range of strategic options; and thus, are able to have their skills and experiences reflected in organizational outcomes". (Shen and Cho, 2005, p.844) In low-discretion contexts, managers have more constraints, which limit the number of options available to them. Further, the choices they make may have only a limited impact on firms' outcomes.

The determinants of managerial discretion include the task environment, organizational factors, and characteristics of managers. The focus of this paper is on the managers' characteristics since it exerts a powerful influence on the level of managerial discretion. Industries differ in the amount of managerial discretion that they provide managers. Industries characterized by product/service differentiability, high-growth rate, demand instability, fewer legal constraints, and competitive industry structures provide managers with a higher level of managerial discretion. (Hambrick and Finkelstein (1987), Finkelstein and Hambrick, 1990)

Extant empirical research provides considerable support for the notion that managers make a difference in high discretion contexts (Shen and Cho, 2005). Early empirical support for the importance of industry on the relationship between top management and organizational performance comes from a study by Lieberson and O'Connor (1972). More recent studies lend further support to the importance of managerial discretion (Hambrick et al., 1993; Finkelstein and Hambrick, 1990; Finkelstein and Boyd, 1998).

Examination of the role of managerial discretion in determining changes in debt ratios in response to firm's accumulated financing activities taking into consideration that firms might be following a target capital structure has been done; more specifically on how leverage ratios respond to firm's external financing needs- evidenced by financial deficits, changes in market conditions evidenced by cumulative stock returns and market timing variables, and the extent to which debt ratios deviate from their targets evidenced by leverage deficits.

2.3.1 Financial Deficits

High discretion managers respond differently to firms' financial deficits (external financing needs or external financing surplus) because of their concern about their job security, the flexibility of undertaking new investments and the market scrutiny. Shyam-Sunder and Myers (1999) and Frank and Goyal (2003) examined the extent to which firms' capital structure change as a result of their external financing needs. The results indicated that the response in leverage ratio to firm financial deficits is greater for high discretion managers. Furthermore, findings suggest that debt changes are more sensitive to issuance activities than repurchase activities when managers have high discretion.

2.3.2 Cumulative stock returns and market timing

Changes in market conditions (firms' recent stock price performances) are likely to affect debt ratios through two related factors. First, the decline in leverage ratios following increases in stock prices is likely to be greater for high discretion managers due to their unwillingness to undo the stock price changes in their leverage ratio because of their personal taste for lower leverage ratios. Welsh (2004) shows that firms experiencing large stock returns, tend to have lower leverage ratios.

Second, firms with high discretion managers may have greater tendencies to raise capital when the equity market is more favorable (market timing) because the increase in stock price makes it more likely that the high discretion managers get approval from the board or face lower scrutiny costs for issuing equity. Board independence declines with better performance. Hermalin and Weisbach (1998) Novaes and Zingales (1995) show how stock price performance influences managers' financing decisions when they have discretion in firms' financing policies. Their analysis indicate that managers with more discretion in their financing choices tend to achieve lower debt ratios either by not engaging any rebalancing in their debt ratios after favorable stock price performances or by actively issuing equity following improvements in their market valuations (timing the equity markets). Baker and Wurgler (2002)

2.3.3 Leverage Deficits

Depending on the extent to which firms follow a target capital structure, they will increase or decrease their leverage when their observed leverage is lower or higher than their target leverage and this response varies with the level of managerial discretion. Firms tend to rebalance their capital structures regardless of level of managerial discretion but the speed at

which firms move towards their target is much slower in the high discretion regime. Furthermore, the asymmetry between the leverage increasing and leverage decreasing adjustments towards a target ratio seem to be less relevant for the high discretion regime.

2.4 Measuring Managerial Discretion

Managerial discretion is defined as latent characteristic representing multiple dimensions of corporate governance that affect managers' ability to act in their self interest. Various proxies have been identified that can be used to measure managerial discretion including: Chairman CEO's duality, managers' age, percentage of ownership by beneficial shareholders, board size, board composition and Directors' age.

2.4.1 CEO Chairman Duality

Chairman CEOs are likely to have high discretion because their unique position is likely to yield greater latitude to them when they make financing and capital structure decisions. Chairman CEOs especially, are likely to be empowered to act with determination and have far more influence over the directors which will result in their ability to withstand pressure better, more so when short term changes do not pay off, than non Chairman CEOs, thus higher discretion. Goyal and Park (2002) find that the sensitivity of CEO turnover to firm performance is significantly lower when the CEOs are also the Chairman.

2.4.2 CEO Age

Older CEOs are likely to have increased control over internal monitoring mechanisms due to their accumulated experience and reputation. Consequently, CEO age, which could also be thought of as alternative measure of CEO tenure, is associated with higher discretion levels. For instance, in the context of CEO tenure Hermalin and Weisbach (1998)'s model shows that CEOs with long tenure, who have proved themselves to be considerably better than the

expected value of replacements, will have greater bargaining power against the board and hence will be subject to less scrutiny. Long period of service in office may indicate greater misalignment in managerial incentives due to their greater job security and hence higher levels of managerial discretion. When measuring this, logarithm will be used because effect of CEO age is likely to accumulate over time at a decreasing rate.

2.4.3 Board Composition

A large number of outside directors on the board and the board committees could indicate that the management is likely to be challenged with active monitoring (managers have low discretion). Fama (1980) and Fama and Jensen (1983) emphasize that directors have incentives to build reputations as expert monitors. Weisbach (1988) shows that, compared to firms with insider-dominated boards, firms with outsider-dominated board tend to have stronger association between prior performance and probability of CEO turnover. Brickley et al (1994) found that stock market reaction to announcements of poison pill is positive when the board has a majority of outside directors and negative when it does not.

A director who has a reputation of for not making any trouble for CEOs is potentially valuable. Consequently, an outside director with limited access to valuable specific information about the organizations activities, might side with the management enhancing the level of its discretion Hermalin and Weisbach (2003). Agrawal and Knoeber (1996) find a negative relation between the percentage of outsiders on the board and firm performance. Klein (1998) finds a positive relationship between the percentage of inside directors on finance and investment committees and accounting and stock market performance.

2.4.4 Board Size

A large board is indicative of less effective monitoring of the management (managers have high discretion) due to agency problems such as director free riding, which results in the board to be less involved in the management process. Large boards can be less effective than small boards Jensen (1993). Smaller boards are associated with higher firm values.

2.4.5 Beneficial Ownership

Block holders have a direct incentive to monitor managers actively, which reduces managerial discretion. On the other hand, large shareholders sometimes lack incentives to monitor management due to reduced market liquidity and risk aversion and hence lead to greater levels of managerial discretion Admati et al (1994). Furthermore, large shareholders could also collude with management against smaller investors enhancing managerial discretion. Holderness (2003) concludes in his survey that few major corporate decisions have been shown to be different in the presence of a block holder.

2.4.6 Director age

Director age affects the effectiveness of the board in monitoring the CEO. Boards dominated by older directors are expected to be associated with higher levels of managerial discretion. As a matter of fact, National Association of Corporate Directors, NACD (1996) Blue Ribbon Commission guidelines urge mandatory retirement ages for directors. Core et al (1999) and vafeas (2003) find that CEO pay rises with the number of older directors which is likely to indicate lack of Board involvement.

2.5 Conclusion of Literature Review

Many existing theories of capital structure have not exhaustively explored the role of managers' discretion in determination of capital structure of a firm. This study has attempted

to bring out the influence of managerial discretion on capital structure by providing qualitative evidence of how managers' attributes greatly influence the choice of either debt or equity in long term financing decisions.

Capital structure decisions are very important for any organization. The decisions are important because of the need to maximize returns to various organizational constituencies and also because of the impact such decisions have on organizations' ability to deal with competitive environment. The literature explores significantly positive relationship between high managerial discretion and a conservative capital structure of an organization suggesting that high discretion managers are more likely to issue equity compared to debt and repurchasing debt over equity.

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the methods and procedures used in research. The chapter covers the research design used, the population of interest, sampling methodology, the sample size, data collection methods, the analysis and presentation of results.

3.2 Research Design

Research design is the overall scheme or program of the research (Robson, 2002). According to Cooper & Schinder (2003), there are many definitions of research design but no one definition impacts the full range of important aspects. The research design used for this study was descriptive research design Gay (1983). Descriptive research determines and reports the way things are in order to portray the facts as they really are. Descriptive research design is one of the best methods for conducting research in human contexts because of portraying accurate current facts through data collection for testing hypothesis or answering questions to conclude the study (Robinson 2002, Chandran 2004).

3.3 Population

The population of interest was all of the 47 companies listed in the Nairobi Securities Exchange.

3.4 Study Sample

"Sampling is the process of selecting a number of individuals for study in such a way that the individual selected represents the large group from which they are selected." (Mugenda & Mugenda, 2003: 260). It is a systematic process of selecting individuals for a study to represent the larger group (Cooper and Schindler, 2003 and Robson, 2002).

This study employed a census method; entire population of the 47 companies listed in the NSE formed part of the study. Cooper and Schindler (2007) recommend a census when the population is small and necessary when the elements are quite different from each other.

3.5 Data Collection

Data collection is gathering of empirical evidence in order to gain new insights about a situation and answer questions that prompt undertaking of research (Flick, 1998). Questionnaires provide a high degree of data standardization and adoption of generalized information amongst any population. They are useful in a descriptive study where there is need to quickly and easily get information from people in a non-threatening way. In this study, a questionnaire was circulated to the companies through a drop and pick method.

The study considered both book leverage and market leverage as proxies for firms' capital structure. Book leverage was defined as the ratio of book debt to total assets, and market leverage was defined as the book value of debt to the sum of the book value of debt and the market value of equity. The incremental financing activities that were studied were net equity issues, net debt issues, and changes in retained earnings. Using balance sheet items, the study defined net equity issues as the change in the book value of equity minus the change in retained earnings divided by total assets. Net debt issues were then defined as the change in total assets net of the change in retained earnings and net equity issues divided by total assets observed at the beginning of the period. Retained earnings were calculated as change in retained earnings divided by total assets.

The set of firm characteristics used as control variables included profitability (earnings before interest, taxes and depreciation), asset tangibility (net property, plant and equipment),

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research and development expense, selling expense, firm size (logarithm of net sales), and the market-to-book ratio. An indicator variable was included to differentiate observations with missing or zero Research and Development expense from the rest. Selling expense and research and development expense were scaled by net sales, and the remaining capital structure proxies were scaled by total assets. Also included was firms' 3-year cumulative logarithm of monthly stock returns to control for their most recent performance.

The secondary data was collected from the NSE. The NSE maintains annual financial statements of all listed companies. Since these financial statements comply with the International Financial Reporting Standards. then they were deemed to provide an accurate and true position of the firm's operations in any given year. Data relating to Management composition, Boards of Directors and debt ratio were derived from these financial statements. The same financial statements provided the debt/equity (D/E), ratio for each of the sampled companies annually for the entire research period.

3.6 Data Analysis

The whole process, which starts immediately after data collection and ends at the point of interpretation and processing data. is data analysis (Cooper and Schindler, 2003).

Since the focus was on the effect of accumulated activities on capital structure, similar to Kayhan and Titman (2007), changes in capital structure over a three-year period were examined from the year 2008 to 2010. This horizon framework allowed the study to isolate managers' deliberate financing decisions from random fluctuations in the debt ratio.

In the first step a proxy for the target leverage ratio was constructed as the predicted value from a regression of debt ratios on tradeoff variables that are discussed earlier. Then, in the second step, the following regression was estimated:

$\Delta Di, [t, t-3] = \beta 0 + \beta 1\ Financing\ History\ i, [t,\ t-3] + \beta 2(Di, t-3 - DT\ i, t-3) + \varepsilon i, t\ (2)$

$\Delta Di, [t, t-3]$ is the change in the debt ratio between year t (Di, t) and year t-3 ($Di, t-3$). *Financing History i, [t, t-3]* is a set of variables that measure firms' financing, investment, and stock price histories constructed over a 3-year window (year t and year t-3). $Di, t-3 - DT\ i, t-3$ (leverage deficit) is defined as the difference between the observed leverage ratio ($Di, t-3$) and the target proxy ($DT\ i, t-3$, constructed in the first stage) measured at the beginning of the 3-year window (year t-3).

To estimate the effect of managerial discretion on the debt ratio dynamics, a questionnaire that capture managerial discretion was circulated to listed organizations

An endogenous switching regression model was employed with unknown sample separation, which allowed for the estimation of the above equation separately for high-discretion and low-discretion regimes. While the implementation of this technique requires assuming two regimes was sufficient to classify managers into different discretion groups, the points of structural change were not observable and were estimated together with the leverage regression for each discretion regime. In addition, the selection into the two regimes was done using unknown sample separation (managerial discretion is a latent characteristic and not observed directly) based on observed proxies that determine managers' propensity to be in either discretion regimes.

The regression model was composed of the following three equations (estimated simultaneously): one for the selection equation, which endogenously identified whether the observation belonged to a high-discretion or a low-discretion regime, and the remaining two for the structural equation as presented in Equation (2). The selection equation was specified as:

$$\textit{Managerial Discretion } i,t\text{-}3 = Zi,t\text{-}3\ \gamma + ui,t\text{-}3\ (3)$$

where *Managerial Discretion* is the latent characteristic that measures the ability of managers to pursue their own objectives, considered to be determined by block holder ownership, board size, director age, CEO-chairman duality, board independence, and CEO age, all observed in year t-3 which corresponds to the beginning of the 3-year observation period for the variables in the structural equation.

The model used this latent characteristic to separate the two regimes such that observations with *Managerial Discretion** $\geq$ 0 (i.e., $ui,t\text{-}3 \geq - Zi,t\text{-}3\ \gamma$) was defined to belong to the high-discretion regime and those with *Managerial Discretion** $<$ 0 (i.e., $ui,t\text{-}3 < - Zi,t\text{-}3\ \gamma$) fell into the low-discretion regime. The two discretion regimes were defined as follows:

High-discretion regime: $\Delta Di,[t,t\text{-}3]=\beta 0HD+\beta 1\ HDFinancing\ History\ i.[t,t\text{-}3]+\beta 2\ HD(Di,t\text{-}3-DT\ i,t\text{-}3)+\varepsilon i,t\ HD$ when $ui,t\text{-}3\geq\text{-}Zi,t\text{-}3\gamma$

Low-discretion regime: $\Delta Di,[t,t\text{-}3]= \beta 0\ LD+\beta 1\ LDFinancing\ History\ i,[t,t\text{-}3]+\beta 2\ LD(Di,t\text{-}3-DT\ i,t\text{-}3)+\varepsilon i,t\ LD$ when $ui,t\text{-}3<\text{-}Zi,t\text{-}3\gamma\ (5)$

F Test was used to test whether the managers' proxies effectively estimated their discretion.

3.7 Validity and Reliability

Reliability was defined as the extent to which a questionnaire, test, observation or any measurement procedure produces the same results on repeated trials. (Allen and Yen, 1979) One way of addressing the issue of reliability was to use Cronbach's alpha which correlated performance on each item with overall score. The results were numbered as the questionnaire was sent out and then grouped into two to measure the score for each group. From the two groups, the results were evaluated for internal consistency.

Allen and Yen (1979) describes validity as the extent to which the instrument measures what it purports to measure. Content validity pertains to the degree which the instrument fully assesses or measures the construct of interest.

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter outlines the data analysis and presentations in form of tables and interpretations thereof. The objective of this study was to investigate the relationship between managerial discretion and capital structure of firms listed at the Nairobi Securities Exchange. Secondary data was collected from the Nairobi Securities Exchange secretariat database centre. All companies listed at the Nairobi Securities Exchange were used in the study.

Even though the study targeted all the 47 companies in the Securities Exchange, only 35 companies responded to the questionnaire sent to them representing 74.5% of the population. The sample size was reliable to meet the objectives of the study being that only 25.5% of the respondents did not respond.

The study established that majority (41%) of the respondents indicated that they were Finance Managers, 32% said they were Chief Accountants, 21% indicated that they were Accountants while 6% said that they were Finance Directors.

Majority of the respondents indicated that they had worked in the organization between 6-10 years and were represented by 58%, 26% indicated that they had worked in the organization between 0-5 years while 16% said they had worked in the organization for over 10 years.

4.2 Net debt issues, net equity issues, and changes in retained earnings:

The results are presented in the tables 4.2.1, 4.2.2 and 4.2.3 below. The tables present the coefficient estimates and t-statistics (in parenthesis) estimated using ordinary least squares for the regression model:

Dependent Variable $i,t = \beta 0 + \beta 1$ Discretion Proxy(ies)$i,t-1+ \beta 2$ Controls,$t-1+ \beta 3 Di,t-1+\epsilon i,t$

Dependent variables are Net Debt Issues (debt issued minus debt repurchased), Net Equity Issues (equity issued minus equity repurchased) and Changes in Retained Earnings, presented in tables 4.2.1, 4.2.2 and 4.2.3 respectively. Discretion proxies are: Percentage of beneficial ownership, Board size (natural logarithm of board size), Director Age (natural logarithm of median director age), CEO-Chair duality (indicator variable), Outsiders on the board (percentage of independent directors on the board), and CEO age (natural logarithm of CEO age). Regressions also include book leverage in the prior period ($Di,t-1$). Controls are the year and industry indicator variables. In each table, Models 1 and 2 present the results from a single regression model, whereas in Model 3 each row presents results from a regression where the discretion proxies is included one at a time in the model. The confidence level is 5%.

Table 4.2.1: Dependable Variable: Net debt issues

	Model 1		Model 2		Model 3		
	Coefficient	t-stat	Coefficient	t-stat	Coefficient	t-stat	Adjusted R2
% of beneficial ownership			0.0045	(0.85)	0.006	(1.13)	0.056
Board Size			0.007	(1.80)	0.004	(1.18)	0.056
Director Age			-0.04	(-2.83)	-0.06	(-4.35)	0.059
CEO Chair Duality			0.005	(1.82)	0.0035	(1.18)	0.056
Outsiders on the Board			-0.007	(-0.9)	-0.005	(-0.62)	0.056
CEO Age			-0.026	(-2.8)	-0.034	(-3.94)	0.058
Market / Book	0.0065	(4.31)	0.006	(3.93)			
Prop., Plant, and equip	0.015	(1.74)	0.017	(4.02)			
R&D	-0.011	(-0.8)	-0.01	(-0.83)			
R&D Indicator (=1 if R&D = 0)	0.01	(5.01)	0.009	(2.41)			
Selling Expense	0.004	(0.45)	0.004	(0.43)			
EBITDA	-0.016	(-1.2)	-0.02	(-1.02)			
Size	-0.001	(-1.16)	-0.001	(-0.82)			
Book Leverage	-0.038	(-4.8)	-0.04	(-5.20)			
3 year cum. Return	0.015	(7.6)	0.02	(7.90)			
Observations							
Adjusted R-squared	0.056		0.061				
Number of firm clusters	47						
F-test on discretion proxies			19.97				

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Table 4.2.2: Dependable Variable: Net equity issues

	Model 1		Model 2		Model 3		
	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Adjusted R2
% of beneficial ownership			-0.015	(-2.86)	-0.0135	(-2.87)	0.168
Board Size			0.009	(2.371)	0.006	(1.78)	0.167
Director Age			-0.02	(-1.33)	-0.034	(-2.71)	0.168
CEO Chair Duality			0.0045	(1.70)	0.003	(1.22)	0.167
Outsiders on the Board			-0.009	(-1.07)	-0.0025	(-0.4)	0.167
CEO Age			-0.027	(-2.71)	-0.026	(-3.08)	0.168
Market / Book	0.026	(9.20)	0.025	(9.00)			
Prop., Plant, and equip	0.019	(2.2)	0.019	(2.24)			
R&D	0.032	(1.62)	0.032	(1.71)			
R&D Indicator (=1 if R&D = 0)	0.005	(1.3)	0.005	(1.31)			
Selling Expense	-0.0055	(-0.59)	-0.007	(-1.33)			
EBITDA	-0.172	(-6.80)	-0.163	(-6.70)			
Size	-0.0075	(-8.10)	-0.009	(-7.80)			
Book Leverage	0.038	(5.30)	0.0375	(5.25)			
3 year cum. Return	0.0075	(3.30)	0.0375	(3.37)			
Observations							
Adjusted R-squared	0.167		0.171				
Number of firm clusters	47		47				
F-test on discretion proxies			18.15				

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Table 4.2.3: Dependent variable: changes in retained earnings

	Model 1		Model 2		Model 3		
	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Adjusted R2
% of beneficial ownership			0.002	(0.6)	0.0015	(0.26)	0.357
Board Size			-0.005	(-1.8)	-0.004	(-1.9)	0.357
Director Age			0.016	(0.86)	0.01	(1.11)	0.357
CEO Chair Duality			-0.001	(-0.38)	-0.0005	(0.13)	0.357
Outsiders on the Board			0.0005	(0.06)	-0.003	(-0.7)	0.357
CEO Age			0.009	(1.44)	0.006	(1.7)	0.357
Market / Book	-0.002	(-1.43)	-0.005	(-1.30)			
Prop., Plant, and equip	-0.019	(-3.36)	-0.019	(-3.35)			
R&D	-0.009	(-0.9)	-0.01	(-0.91)			
R&D Indicator (=1 if R&D = 0)	-0.0005	(-0.16)	-0.0005	(-0.17)			
Selling Expense	-0.017	(-2.54)	-0.016	(-2.46)			
EBITDA	0.272	(18.40)	0.272	(18.40)			
Size	0.0015	(2.02)	0.0015	(2.28)			
Book Leverage	-0.013	(-2.75)	-0.013	(-2.64)			
3 year cum. Return	0.007	(4.57)	0.007	(4.47)			
Observations							
Adjusted R-squared	0.357		0.36				
Number of firm clusters	47		47				
F-test on discretion proxies			4.13				

The Table 4.2.1 shows that firms with high market-to-book ratios, more tangible assets, no research and development expense, and good performance tend to issue more debt. Whereas, profitable, large firms with high leverage ratios tend to issue less debt. The results on the discretion proxies suggest these characteristics are significantly related to the amount of net debt issued. For example, large equity holding of beneficial investors are related to increased amounts of net debt issued. Boards with older directors and older CEOs tend to issue less debt. Both sets of results suggest that discretion and the amount of net debt issued are inversely related. However, firms with large boards and dual CEO and chairman titles, both of which associated with greater level of discretion, tend to issue more debt.

Table 4.2.2 presents the effect of managerial discretion and firm characteristics on the amount of net equity issued. Results suggest that firms with high market-to-book ratios, tangible assets, high research and development expense, high debt ratios in the preceding period, and better firm performance tend to issue more equity. Large firms and firms with profitable operations, however, tend to issue less equity. Discretion proxies seem to be relevant in explaining the amount of net equity issued. Higher levels of beneficial ownership and the percentage of outsiders on the board are both associated with lower levels of net equity issued. Firms with large boards and dual CEO-chairman titles tend to issue more equity. Collectively, these results suggest that managerial discretion seem to be associated with high levels of net equity issued. Boards with older directors and firms with older CEOs (associated with higher levels of discretion), however, tend to issue less equity.

Table 4.2.3 presents the findings on how the change in retained earnings relate to managerial discretion and firm characteristics. Profitable and large firms, and firms with good performance, tend to have higher levels of retained earnings. High market-to-book firms and

unique firms (research and development expense and selling expense), however, tend to retain less of their earnings. Managerial discretion proxies do not seem to have a strong relation with change in retained earnings. Board size (negative sign) and director age (positive sign) are the only two measures that seem to have some explanatory influence in explaining retained earnings when all discretion proxies are considered simultaneously. CEO age has a significant and positive effect on the amount of earnings retained when it is used as the only discretion measure. The evidence on director age and CEO age both suggest that high managerial discretion is associated with high level of retention ratios.

In summary, analyses on net debt issues, net equity issues, and changes in retained earnings largely suggest that when managers have more discretion, they tend to decrease the amount of net debt issued, increase the amount of net equity issued and they retain more of their internally generated cash flows. Generally, managerial discretion proxies are either associated with raising more external capital regardless of the type (e.g., board size, CEO-chairman duality, and percentage of outsiders on the board), or using internally generated capital (e.g. director age and CEO age) both resulting in enhancing resources available for investment projects. Taken together, these results seem to suggest that high-discretion managers tend to become less leveraged because they grow more by retaining more earnings, issuing more equity, and issuing less debt.

4.3 Choice between debt and equity:

The results are presented in the tables 4.3.1 and 4.3.2 below. These tables present the coefficient estimates and t-statistics estimated using ordinary least squares for the following regression model:

Dependent Variable $i,t = \beta 0 + \beta 1$ Discretion Proxy(ies)$i,t-1 + \beta 2$ Controls.$t-1 + \beta 3 Di,t-1 + \varepsilon i,t$

Dependent variables are Debt versus Equity Issuance (debt issued minus equity issued) and Debt versus Equity Repurchase (debt repurchased minus equity repurchased), presented in tables 4.3.1 and 4.3.2, respectively. A financing decision is qualified as a repurchase or an issuance decision if the net amount issued (or repurchased) is at least 5 percent or greater than the beginning period total assets, otherwise it is set to zero. The Discretion proxies are: percentage of beneficial ownership, Board size (natural logarithm of board size), Director Age (natural logarithm of median director age), CEO-Chair duality (indicator variable), Outsiders on the board (percentage of independent directors on the board), and CEO age (natural logarithm of CEO age). Regressions also include book leverage in the prior period ($Di,t-1$). Controls are the year and industry indicator variables. In each table, just like in the earlier tables 4.2.1, 4.2.2 and 4.2.3, Models 1 and 2 present the results from a single regression model, whereas in Model 3 each row presents results from a regression where the discretion proxies is included one at a time in the model. Significance level is 5%.

Table 4.3.1 – Dependent variable: debt issued minus equity issued

	Model 1		Model 2		Model 3		
	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Adjusted R2
% of beneficial ownership			0.012	(2.402)	0.013	(2.42)	0.089
Board Size			-0.005	(-1.35)	-0.004	(-1.26)	0.088
Director Age			-0.014	(-0.90)	-0.016	(-1.19)	0.088
CEO Chair Duality			-0.0005	(0.20)	-0.001	(-0.38)	0.088
Outsiders on the Board			0.0055	(0.71)	0.0005	(0.08)	0.088
CEO Age			-0.0002	(-0.02)	-0.007	(-0.8)	0.088
Market / Book	-0.015	(-5.80)	-0.015	(-5.60)			
Prop., Plant, and equip	-0.015	(-1.83)	-0.014	(-1.71)			
R&D	-0.018	(-0.82)	-0.018	(-0.80)			
R&D Indicator (=1 if R&D = 0)	0.004	(1.17)	0.004	(1.12)			
Selling Expense	-0.07	(-0.7)	-0.006	(-0.56)			
EBITDA	0.122	(4.83)	0.121	(4.80)			
Size	0.005	(2.8)	0.0035	(3.34)			
Book Leverage	-0.028	(-0.375)	-0.030	(-3.81)			
3 year cum. Return	0.045	(2.045)	0.0045	(2.13)			
Observations							
Adjusted R-squared	0.088		0.090				
Number of firm clusters	47		47				
F-test on discretion proxies			5.80				

Table 4.3.2: Dependent variable: debt repurchased minus equity repurchased

	Model 1		Model 2		Model 3		
	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Adjusted R2
% of beneficial ownership			-0.002	(-1.02)	-0.002	(-1.17)	0.133
Board Size			-0.0015	(-1.33)	-0.0015	(-1.11)	0.133
Director Age			0.007	(1.32)	0.007	(1.51)	0.133
CEO Chair Duality			0.0002	(0.22)	0.0002	(0.24)	0.133
Outsiders on the Board			0.001	(0.42)	0.00015	(0.055)	0.133
CEO Age			-0.0001	(-0.032)	0.002	(0.65)	0.133
Market / Book	-0.0015	(-0.30)	-0.0001	(-0.22)			
Prop., Plant, and equip	-0.01	(-2.85)	-0.010	(-2.96)			
R&D	0.004	(0.82)	0.004	(0.88)			
R&D Indicator (=1 if R&D = 0)	0.0005	(0.26)	0.0005	(0.34)			
Selling Expense	-0.004	(-1.71)	-0.004	(-1.70)			
EBITDA	-0.017	(-2.94)	-0.017	(-2.91)			
Size	-0.003	(9.45)	-0.003	(-8.60)			
Book Leverage	0.055	(17.70)	0.056	(17.20)			
3 year cum. Return	-0.0025	(-3.83)	-0.0025	(-3.82)			
Observations							
Adjusted R-squared	0.133		0.135				
Number of firm clusters	47		47				
F-test on discretion proxies			3.48				

The evidence on the effect of managerial discretion on the choice between issuing debt versus issuing equity is highly revealing as shown in table 4.3.1. The results on the repurchase decision between debt and equity, presented in table 4.3.2, suggest that the most informative characteristic is the prior years' book leverage ratio with a strong preference for repurchasing equity over debt when the leverage ratio is high. In the case of managerial discretion proxies, beneficial ownership, board size and director age yield statistically significant estimates. Firms with large block holder holdings tend to prefer repurchasing equity versus debt. In addition, there seems to be strong preference for repurchasing debt over equity when directors are older. Both of these proxies suggest that higher managerial discretion is associated with a preference of repurchasing debt over equity. The evidence on the board size, however, suggests that larger boards tend to prefer repurchasing equity over debt and is inconsistent with the evidence on the block holders and director age.

In summary, these results consistently predict preference for equity over debt when firms have higher levels of managerial discretion. In the case of repurchase decisions proxies measuring higher levels of managerial discretion seem to be associated with a stronger preference for repurchasing debt over equity. One exception, board size, which predicts a preference for repurchasing equity over debt, seems to reflect the tendencies of firms with large boards to prefer outside financing (with greater emphasis on equity compared to debt) over raising capital internally.

4.4 Accumulated stock returns and leverage deficits

Tables 4.4.1 and 4.4.2 below present the results of an endogenous switching model that examines the changes in leverage over a three-year window for low-discretion and high-discretion regimes.

The regression model is as follows:

Switching regression:

Managerial Discretion $i,t\text{-}3^* = Zi,t\text{-}3\ \gamma + ui,t\text{-}3$

High-discretion regime:

$\Delta Di,[t,t\text{-}3] = \beta 0HD + \beta 1HD$ Financing History $i,[t,t\text{-}3] + \beta 2HD\ (Di,t\text{-}3 - D\ Ti,t\text{-}3) + \varepsilon i,tHD$ when $ui,t\text{-}3 \geq - Zi,t\text{-}3\ \gamma$

Low-discretion regime:

$\Delta Di,[t,t\text{-}3] = \beta 0LD + \beta 1LD$ Financing History $i,[t,t\text{-}3] + \beta 2LD\ (Di,t\text{-}3 - D\ Ti,t\text{-}3) + \varepsilon i,tLD$ when $ui,t\text{-}3 < - Zi,t\text{-}3\ \gamma$

The dependent variable $\Delta Di,[t,t\text{-}3]$ is the change in leverage ratio from year t-3 to year t. Zi,t represent the vector of managerial discretion proxies that include percentage of beneficial ownership, Board size (natural logarithm of board size), Director age (natural logarithm of median director age), CEO-Chair duality (indicator variable), Outsiders on the board (percentage of independent directors on the board), and CEO age (natural logarithm of CEO age). Financing history variables are calculated separately for each firm over a 3-year window. $Di,t\text{-}3 - D\ Ti,t\text{-}3$ is leverage deficit which is separated into positive and negative values. Positive Financial Deficit (FD≥0, equals to Financial Deficit if it is greater than or equal to zero and zero otherwise), Negative Financial Deficit (FD<0, is (-1) Financial Deficit if it is greater than zero and zero otherwise), Yearly Timing (YT) is the covariance between Financial Deficit and Market-to-Book, Long-term Timing (LT) interaction of average Market-to-Book and average Financial Deficit, 3-year cumulative stock return (R) is the sum of the natural logarithm of monthly stock returns over a three-year window. Leverage deficit, $Di,t\text{-}3 - D\ T\ i,t\text{-}3$, which is the difference between observed leverage ratio and the target proxy at the beginning of the observation period (year t-3) is separated into Positive Leverage

Deficit (LD≥0) equals to Leverage Deficit if it is greater than or equal to zero and zero otherwise and Negative Leverage Deficit (LD<0) is (-1) Leverage Deficit if it is greater than zero and zero otherwise. Table 4.4.1 presents the results for the book leverage while table 4.4.2 presents the results for the market leverage. Each table reports the *P*-value for the hypotheses test on the difference between the coefficient estimates in the high- and low-discretion regimes.

Table 4.4.1: Changes in Book Leverage

Selection Equation	% of beneficial ownership	Board Size	Director Size	CEO Chair	Outside Director	CEO Age			
	0.0055	0.149	0.594	-0.015	-0.27	0.305			
	(0.11)	(1.85)	(1.35)	(-0.36)	(-1.275)	(1.25)			
Structural Equation	FD≥0	FD<0	YT	LT	R	LD≥0	LD<0	Sigma	Rho
Low Discretion	0.021	-0.63	-0.032	-0.017	-0.032	-0.247	0.22	0.199	0.712
	(2.38)	(-2.205)	(-1.28)	(-1.37)	(-7.90)	(-9.85)	(7.18)	(8.94)	(3.88)
High Discretion	0.94	-0.235	-0.87	-0.525	-0.018	-0.61	0.86	0.068	-0.218
	(5.56)	(-7.335)	(-1.46)	(-4.90)	(-9.01)	(-3.28)	(5.82)	(26.52)	(-0.85)
P- value (Low-High):	0.000	0.000	0.140	0.001	0.000	0.000	0.000		

Table 4.4.2: Changes in Market Leverage

Selection Equation	% ben. own	Board Size	Director Size	CEO Chair	Outside Director	CEO Age			
	-0.027	0.307	1.013	-0.019	-0.446	0.509			
	(-0.38)	(4.75)	(4.56)	(-0.45)	(-3.38)	(3.52)			
Structural Equation	FD≥0	FD<0	YT	LT	R	LD≥0	LD<0	Sigma	Rho
Low Discretion	0.041	-0.110	-0.027	-0.029	-0.64	-0.221	0.139	0.122	0.051
	(8.28)	(-4.75)	(-2.15)	(-5.24)	(-28.87)	(-7.56)	(8.43)	(60.78)	(0.70)
High Discretion	0.105	-0.205	-0.081	-0.028	-0.097	-0.052	0.097	0.049	0.084
	(10.01)	(-10.30)	(-2.44)	(-3.58)	(-53.37)	(-4.48)	(18.71)	(31.91)	(1.22)
P- value (Low-High):	0.000	0.000	0.003	0.000	0.000	0.000	0.000		

The results presented in Table 4.4.1 and 4.4.2 are consistent with the idea that managerial discretion is an important factor in explaining how firms' capital structures change over time in response to their financing, investment and stock price histories. In the case of negative financial deficit, which indicates that the firm has a financing surplus, the decline in book leverage due to a one standard deviation increase in negative financial deficit is about a 3.4 percent larger in the high-discretion regime compared to that of low-discretion regime and the difference is statistically significant.

Tables 4.4.3 and 4.4.4 below illustrate the percentage change in the predicted propensity of being in the high discretion regime due to a one standard deviation increase in the discretion proxy where the values of the variables in the base case are set equal to their sample mean.

Table 4.4.3: Changes in Book Leverage

The percentage change in the likelihood of being in the high discretion regime	% ben own.	Board Size	Director Age	CEO Chair	Outside Director	CEO Age	
	-0.38	4.61	4.94	0.714	-4.64	3.74	
The percentage change in leverage	FD≥0	FD<0	YT	LT	R	LD≥0	LD<0
Low Discretion	1.49	-0.63	-0.35	-1.04	-2.82	-3.55	2.33
High Discretion	6.71	-2.82	-0.98	-3.25	-1.87	-0.62	0.92

Table 4.4.4: Changes in Market Leverage

The percentage change in the likelihood of being in the high discretion regime	% ben own	Board Size	Director Age	CEO Chair	Outside Director	CEO Age	
	-1.72	9.34	8.89	0.93	-7.09	6.02	
The percentage change in leverage	FD≥0	FD<0	YT	LT	R	LD≥0	LD<0
Low Discretion	3.08	-1.17	-0.33	-1.85	-5.96	-2.71	1.52
High Discretion	7.82	-2.17	-0.97	-1.87	-9.18	-0.53	0.85

The results in table 4.4.3 and 4.4.4 indicate that managers with more discretion in their financing choices, who desire to achieve lower debt ratios, tend to issue equity after favourable stock price performance. This systematic activity leads to lower leverage ratios for the group of firms that have high-discretion managers.

The effect of cumulative stock returns on changes in debt ratio is strongly negative in both the book and market leverage regressions for both low- and high-discretion regimes. When

measured in market values, the decline in leverage due to cumulative stock returns is about 50 percent larger in the high-discretion regime than in the low discretion regime. When measured in book values, however, the decline in leverage is 5.6 percent in the low-discretion regime and 3.2 percent in the high-discretion regime.

4.5 Summary

The data was collected from the Nairobi Securities Exchange as well as from the questionnaires with an objective of investigating the relationship between managers, discretion and the capital structure of firms listed at the Nairobi Securities Exchange. Financial statements for 47 firms were analysed for a three year period from year 2008 to 2010 to not only establish whether there is discretion but also whether discretion influences the capital structure.

From the study, there is strong evidence that managerial discretion does influence the capital structure of firms and that firms tend to rebalance their capital structures over time regardless of the level of managerial discretion. However, the speed at which firms move towards their capital structure is much lower in the high-discretion regime. Furthermore, the asymmetry between the leverage increasing and leverage decreasing adjustments towards a target ratio seem to be less relevant for the high-discretion regime.

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents discussion of the key findings presented in chapter four, conclusion drawn based on the findings and recommendations, as well as the limitations or constraints encountered during the study.

5.2 Summary of findings and conclusion

The main objective of the study was to investigate the relationship between managerial discretion and capital structure of firms listed at the Nairobi Securities Exchange. By empirically examining the role of managerial discretion on financing decisions and the capital structure changes, the study sheds some light on how firms with high-discretion managers become less levered. The results support the view that managerial discretion has substantial influence on firms' financing decisions, and that the change in firms' capital structures in response to firms' financing needs, stock price histories, financing activities following favourable market valuations, and their tendencies to maintain a target capital structure vary significantly due to managerial discretion.

The analyses of financing decisions show that issuance regressions consistently predict preference for equity over debt when firms have higher levels of managerial discretion. In the case of repurchase decisions, proxies measuring higher levels of managerial discretion seem to be associated with a stronger preference for repurchasing debt over equity. The analyses of capital structure dynamics indicate that changes in leverage ratios in response to positive and negative financial deficits is greater when managers have greater levels of discretion. Furthermore, results suggest that debt changes are more sensitive to issuance activities than

repurchase activities when managers have high-discretion, consistent with the findings on financing decisions.

Largely, the evidence on the timing variables shows that the decline in debt ratios due to a systematic issuance activity following favourable stock price performances is much larger when managers have high-discretion - consistent with their desire to achieve low debt ratios.

5.3 Recommendations

It can be argued that unlike their low discretion counterparts, managers with high-discretion do not necessarily finance their growth opportunities with less debt. Or it could be that high-discretion managers tend to work for firms that do not have very good investment opportunities; hence, consideration of financing growth opportunities with equity does not become an issue. On the whole, the evidence on the timing variables shows that the decline in debt ratios due to a systematic issuance activity following favourable stock price performances is much larger when managers have high-discretion; consistent with their desire to achieve low debt ratios.

Care should therefore be taken in regard to managers with high discretion as there is a thin line between making financing decisions to achieve lower debt ratios and to invest beyond their firms' growth potential. Some high discretion managers can use these decisions to build empires of their own and thus need for regulation of issuance of debt and equity regardless of levels of discretion.

5.4 Limitations of the study

This study like all other studies was bound to be constrained in one way or another. First is the lack of sufficient data from the Nairobi Securities Exchange and Capital Markets Authority so as to generalize the result of the study.

Another limitation encountered during the study was that the literature review section heavily relied on research carried out in the developed economies whose securities markets are larger compared to our Nairobi Securities Exchange.

5.5 Suggestion for further research

Future research can examine how the interaction between discretion and capital structure affects investment choices. High-discretion managers may make these financing decisions to achieve lower debt ratios or to invest beyond their firms' growth potential. Research has provided considerable evidence linking overinvestment problems to managerial incentives. Therefore, it is interesting to consider the other possibility and see whether managers with discretion make these financing decisions to reduce their risks, or to build empires for themselves.

References

Admati, Anat R., Paul Pfleiderer, and Josef Zechner, (1994). Large shareholder Activism, risk sharing, and financial market equilibrium. *Journal of Political Economy.* 102, 1097-1130.

Agrawal, Anup & Charles R. Knoeber, (1996): Firm performance and mechanisms to Control agency problems between managers and shareholders, *Journal of Financial and Quantitative Analysis* 31, 377-397.

Almazan, Andres, Javier Suarez, and Sheridan Titman (2006): Stakeholder, transparency and capital structure, (University of Texas at Austin).

Almeida, Heitor and Murillo Campello, (2007): Financial constraints, asset tangibility, and corporate investment, *Review Financial Studies* 20, 1429-1460.

Anderson, Ronald C., and D. Scott Lee, (1997): Field guide for research using ownership data, *Journal of Financial and Quantitative Analysis* 32, 1-11.

Anderson, Ronald C., and D. Scott Lee, (1997): Ownership studies: The data source does matter, *Journal of Financial & Quantitative Analysis* 32, 311-29.

Asquith, Paul, and David W. Mullins, (1986): Equity issues and offering dilution, *Journal of Financial Economics* 15, 61-89.

Auerbach, Alan J., (1985): *Real determinants of corporate leverage* (University of Chicago Press, Chicago).

Baker, Malcolm, and Jeffrey Wurgler, (2002): Market timing and capital structure, *Journal of Finance* 57, 1-32.

Barclay, Michael J., and Clifford G. Holderness, (1991): Negotiated block trades and corporate control, *Journal of Finance* 46, 861-878.

Bebchuk, Lucian A., and Alma Cohen, (2005): The costs of entrenched boards, *Journal of Financial Economics* 78, 409-433.

Bebchuk, Lucian A, Alma Cohen and Allen Ferrel, (2004): What matters in corporate? governance? Olin Discussion Paper No. 491, (Harvard Law School).

Becht, Marco, Patrick Bolton, and Ailsa Roell, (2003): Corporate governance and control, in George Constantinides, Milton Harris, and Rene Stulz, eds.: *Handbook of the economics of finance* (Elsevier).

Berger, Philip G., Eli Ofek, and David L. Yermack, (1997): Managerial entrenchment and capital structure decisions, *Journal of Finance* 52, 1411-1438.

Berk, Jonathan, Richard Stanton, and Josef Zechner, (2007): Human capital, bankruptcy and capital structure, Working Paper (University of California, Berkeley).

Brickley, James A., Jeffrey L. Coles, and Gregg Jarrell, (1997): Leadership structure: Separating the CEO and chairman of the board, *Journal of Corporate Finance* 3, 189-220.

Brickley, James A., Jeffrey L. Coles, and Rory L. Terry, (1994): Outside directors and the adoption of poison pills, *Journal of Financial Economics* 35, 371-390.

Burkart, Mike, Denis Gromb, and Fausto Panunzi, (1997): Large shareholders, monitoring, and the value of the firm, *Quarterly Journal of Economics* 112, 693-728.

Core, John E., Robert W. Holthausen, and David F. Larcker, (1999): Corporate governance, chief executive officer compensation, and firm performance, *Journal of Financial Economics* 51, 371-406.

Dlugosz, Jennifer, Rudiger Fahlenbrach, Paul Gompers, and Andrew Metrick, (2006): Large blocks of stock: Prevalence, size, and measurement, *Journal of Corporate Finance* 12, 594-618.

Donaldson, Gordon (1961): *Corporate debt capacity: A study of corporate debt policy and the determination of corporate debt capacity* (Harvard Business School, Division of Research, and Harvard University).

Fama, Eugene F., (1980): Agency problems and the theory of the firm. *Journal of Political Economy* 88, 288-307.

Fama, Eugene F., and Kenneth R. French, (1997): Industry costs of equity, *Journal of Financial Economics* 43, 153-193.

Fama, Eugene F., and Michael C. Jensen, (1983): Separation of ownership and control, *Journal of Law and Economics* 26, 301-325.

Flannery, Mark J., and Kasturi P. Rangan, (2006): Partial adjustment toward target capital structures, *Journal of Financial Economics* 79, 469-506.

Frank, Murray Z., and Vidhan K. Goyal, (2003): Testing the pecking order theory of capital structure, *Journal of Financial Economics* 67, 217.

Frank, Murray Z., and Vidhan K. Goyal, (2007): Corporate leverage: How much do managers really matter? (Working Paper, Hong Kong University of Science & Technology).

Friend, Irwin, and Larry H. P. Lang, (1988): An empirical test of the impact of managerial self interest on corporate capital structure, *Journal of Finance* 43, 271-281.

Garvey, Gerald T., and Gordon Hanka, (1999): Capital structure and corporate control: The effect of antitakeover statutes on firm leverage, *Journal of Finance* 54, 519-546.

Gompers, Paul, Joy Ishii, and Andrew Metrick, (2003): Corporate governance and equity prices, *Quarterly Journal of Economics* 118, 107-155.

Goyal, Vidhan K., and Chul W. Park, (2002): Board leadership structure and CEO turnover, *Journal of Corporate Finance* 8, 49-66.

Graham, J. R and C. R. Harvey, (2001): The theory and practice of corporate finance: Evidence from the field, *Journal of Financial Economics:* 60, 187-243.

Grossman, Sanford J., and Oliver D. Hart, (1980): Takeover bids, the free-rider problem, and the theory of the corporation, *Bell Journal of Economics* 11, 42-64.

Grossman, Sanford J., and Oliver D. Hart. (1982): Corporate financial structure and managerial incentives, in John McCall, ed.: *The economics of information and uncertainty* (University of Chicago Press, Chicago).

Grossman, Sanford J., and Oliver D. Hart, (1988): One share-one vote and the market for corporate control, *Journal of Financial Economics* 20, 175-202.

Hadlock, Charles J., (1998): Ownership, liquidity, and investment, *RAND Journal of Economics* 29, 487-508.

Hall, Brian J., and Jeffrey B. Liebman, (1998): Are ceos really paid like bureaucrats? *Quarterly Journal of Economics:* 113, 653-691.

Harris, Milton, and Artur Raviv, (1988): Corporate control contests and capital structure, *Journal of Financial Economics* 20, 55-86.

Hart, Oliver, and John Moore, (1995): Debt and seniority: An analysis of the role of hard claims in constraining management, *American Economic Review* 85, 567-585.

Hermalin, Benjamin E., and Michael S. Weisbach, (1988): The determinants of board composition, *RAND Journal of Economics,* 19, 589-606.

Hermalin, Benjamin E., and Michael S. Weisbach, (1998): Endogenously chosen boards of directors and their monitoring of the CEO, *American Economic Review* 88, and 96-118.

Hermalin, Benjamin E., and Michael S. Weisbach, (2003): Boards of directors as an endogenously determined institution: A survey of the economic literature, *Economic Policy Review, Federal Reserve Bank of New York* 7-26.

Holderness, Clifford G., (2003): A survey of block holders and corporate control, *Federal Reserve Bank of New York Policy Review* 51-54.

Hovakimian, Armen, Tim Opler and Sheridan Titman,(2001): The debt-equity choice, *Journal of Financial and Quantitative Analysis* 36, 1-24.44

Hu, Xiaoqiang, and Fabio Schiantarelli, (1998): Investment and capital market imperfections: A switching regression approach using U.S. Firm panel data, *Review of Economics and Statistics* 80, 466-479.

Israel, Ronen, (1992): Capital and ownership structures, and the market for corporate control, *Review of Financial Studies* 5, 181-198.

Jalilvand, Abolhassan, and Robert S. Harris, (1984): Corporate behavior in adjusting to capital structure and dividend targets: An econometric study, *Journal of Finance* 39, 127-145.

Jensen, Michael C., (1986): Agency costs of free cash flow, corporate finance, and takeovers, *American Economic Review* 76, 323-329.

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

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

Jung, Kooyul, Yong-Cheol Kim, and Rene M. Stulz, (1996): Timing, investment opportunities, managerial discretion, and the security issue decision, *Journal of Financial Economics* 42, 159-185.

Kahn, Charles, and Andrew Winton, (1998): Ownership structure, speculation, and shareholder intervention, *Journal of Finance* 53, 99-129.

Kayhan, Ayla, and Sheridan Titman, (2007): Firms' histories and their capital structures, *Journal of Financial Economics* 83, 1-32.

Klein, April, (1998): Firm performance and board committee structure, *Journal of Law and Economics* 41, 275-303.

Lemmon, Michael L., Michael R. Roberts, and Jaime F. Zender, (2008): Back to the beginning: Persistence and the cross-section of corporate capital structure, *Journal of Finance* forthcoming.

Litov, Lubomir P., and Kose John, (2006): Corporate governance and financing policy: New evidence, Working Paper (Washington University in St. Louis).

Maddala, G. S., (1986): *Limited-dependent and qualitative variables in econometrics* (Cambridge University Press, New York).

Marsh, Paul, (1982): The choice between equity and debt: An empirical study, *Journal of Finance* 37, 121-144.

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

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

Mehran, Hamid, (1992): Executive incentive plans, corporate control, and capital structure, *Journal of Financial and Quantitative Analysis* 27, 539-560.

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

Morellec, Erwan, Boris Nikolov, and Norman Schuerhoff,(2008):Capital structure and managerial entrenchment: Evidence from a structural estimation, Working Paper (University of Lausanne).

Myers, Stewart C. (1977): Determinants of corporate borrowing, *Journal of Financial Economics* 5, 147-175.

NACD. (1996): Blue Ribbon Commission Report on Director Professionalism (National Association of Corporate Directors Washington, DC).

Novaes, Walter, and Luigi Zingales, (1995): Capital structure choice when managers are in control: Entrenchment versus efficiency, NBER Working Papers.

Petersen, Mitchell A., (2008): Estimating standard errors in finance panel data sets: Comparing approaches, *Review of Financial Studies* forthcoming.

Ritter, Jay, (2002): Investment banking and securities issues, in George Constantinides, Milton Harris, and Rene Stulz, eds.: *Handbook of the economics of finance*.

Ross, Stephen A., (1977): The determination of financial structure: The incentive-signaling approach, *Bell Journal of Economics* 8, 23-40.

Safieddine, Assem and Sheridan Titman,(1999): Leverage and corporate performance: Evidence from unsuccessful takeovers, *Journal of Finance:* 54, 547-580.

Shleifer, Andrei, and Robert W. Vishny, (1986): Large shareholders and corporate control, *Journal of Political Economy* 94, 461-488.

Shyam-Sunder, Lakshmi, and Stewart C. Myers, (1999): Testing static tradeoff against pecking order models of capital structure, *Journal of Financial Economics* 51, 219-244.

Strebulaev, Ilya A., (2007): Do tests of capital structure theory mean what they say?, *Journal of Finance* 62, 1747-1787.

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

Stulz, Rene M., (1990): Managerial discretion and optimal financing policies, *Journal of Financial Economics* 26, 3-27.

Taggart, Robert A., Jr., (1977): A model of corporate financing decisions, *Journal of Finance* 32, 1467-1484.

Vafeas, Nikos, (2003): Length of board tenure and outside director independence, *Journal of Business Finance & Accounting* 30, 1043-1064.

Weisbach, Michael S., (1988): Outside directors and CEO turnover, *Journal of* *Financial Economics:* 20, 431-460.

Welch, Ivo, (2004): Capital structure and stock returns, *Journal of Political Economy* 112, 106-131.

Williamson, Oliver E.(1988): Corporate finance and corporate governance, *Journal of Finance:* 43, 567-591.

Yermack, David, (1996): Higher market valuation of companies with a small board of Directors; *Journal of Financial Economics:* 40, 185-211.

Zwiebel, Jeffrey, (1996): Dynamic capital structure under managerial entrenchment, *American Economic Review* 86, 1197-1215.

APPENDIX 1

BUSINESS QUESTIONNAIRE

1. Please indicate your age

   Below 35 yrs ☐   45-55 years ☐

   35-45 years ☐   Above 55 years ☐

2. How long have you worked in the organization?

   0-5years ☐   10-15 years ☐

   6-10 years ☐   Above 15 years ☐

3. Please indicate your position in the organization

   Chief Executive Officer ☐   Chief Accountant ☐

   Finance Director/Manager ☐   Other: Specify ....

4. Are you a member of the Board of Directors in your organization?

   Yes ☐   No ☐

5. To what extent does your company prefer issuing the following sources of financing?

	Very low Extent	low Extent	Moderate	High Extent	Very high Extent
Bonds	☐	☐	☐	☐	☐
Commercial Papers	☐	☐	☐	☐	☐
Money Market loans from Local financial institutions	☐	☐	☐	☐	☐
Offshore loans from international Financial institutions	☐	☐	☐	☐	☐
Syndicated Loans	☐	☐	☐	☐	☐
New issue of shares	☐	☐	☐	☐	☐

6. What would you as an individual prefer as a source of financing in your organization?

    Debt ☐   Equity ☐

7. Do you believe a manager's discretion can influence his/her choice of either debt or equity as a form of financing?

    Yes ☐   No ☐

THANK YOU FOR YOUR FEEDBACK

APPENDIX 2: TARGET LEVERAGE

Dependent variables are book and market leverage.

Target Leverage				
	Book Leverage		Market leverage	
Market / Book	-0.011	16.96	-0.035	54.06
Prop., plant, and equip	0.035	8.33	0.036	8.63
R&D	-0.024	5.72	-0.016	3.81
R&D indicator (=1 if R&D=0)	0.021	10.30	0.031	10.05
Selling expense	-0.06	2.24	-0.016	6.86
EBITDA	-0.182	29.01	-0.203	35.04
Size	0.017	38.17	0.009	19.55
Observations	47		47	
Probability $>X^2$	0.00		0.00	

Target Leverage						
	N	Mean	St.D	p50	min	max
Book leverage deficit	47	-0.013	0.09	-0.017	-0.316	0.373
Change in book leverage	47	0.006	0.79	0.003	-0.424	0.469
Target Book Leverage	47	0.242	0.045	0.245	0.69	0.405
Market Leverage deficit	47	-0.024	0.92	-0.039	-0.304	0.324
Change in market leverage	47	0.009	0.096	0.007	-0.422	0.46
Target market leverage	47	0.207	0.056	0.212	0.031	0.424

APPENDIX 3: DESCRIPTIVE STATISTICS

	N	mean	St D.	p50	min	max
FINANCIAL CHARACTERISTICS						
Book Leverage	47	0.231	0.105	0.231	0.002	0.5
Market Leverage	47	0.178	0.115	0.16	0.001	0.498
Net Equity Issues	47	0.035	0.130	0.004	-0.088	1.555
Net Debt Issues	47	0.032	0.114	0.011	-0.349	0.791
Change in retained earnings	47	0.005	0.074	0.015	-0.483	0.196
FIRM CHARACTERISTICS						
Market /Book	47	0.897	0.626	0.691	0.103	4.989
Prop., Plant , and equip	47	0.145	0.111	0.115	0	0.495
R&D	47	0.031	0.141	0	0	2.362
R&D Indicator (-1 if R&D=0)	47	0.253	0.25	0.5	0	0.5
Selling Expense	47	0.156	0.207	0.116	0.005	2.884
EBITDA	47	0.055	0.068	0.061	-0.959	0.54
Size	47	2.724	0.911	2.677	-2.649	6.351
3- year cum. Return	47	0.059	0.456	0.091	-3.127	4.129
MANAGERIAL DISCRETION PROXIES						
Percentage of Beneficial ownership	47	0.193	0.136	0.176	0	0.495
Board size	47	3.988	1.409	4	1.5	18
Director Age	47	28.52	3.085	28.75	16.25	42
CEO – Chair duality	47	0.292	0.247	0.5	0	0.5
Outsiders on the board	47	0.363	0.088	0.389	0	0.5
CEO age	47	27.20	4.28	27	13.50	45