

**THE RELATIONSHIP BETWEEN CAPITAL STRUCTURE AND  
AGENCY COSTS OF FIRMS LISTED AT THE NAIROBI  
SECURITIES EXCHANGE**

**BY GEORGE PETER ONSOMU**

**D61/60653/2013**

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT  
OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF  
MASTER OF BUSINESS ADMINISTRATION, SCHOOL OF  
BUSINESS, UNIVERSITY OF NAIROBI**

**OCTOBER 2014**

## DECLARATION

I declare that this research project is my original work and has not been presented for the award of any degree in any university.

Signed .....

Date.....

George Peter Onsomu

D61/60653/2013

This research project has been submitted for the examination with my approval as the University Supervisor.

Signed .....

Date.....

Mr. Herick Ondigo

Lecturer

Department of Finance and Accounting

School of Business

University of Nairobi

## **ACKNOWLEDGEMENTS**

This study is as a result of hard work in which I have been accompanied and supported by many people to whom I am happy to express my gratitude. In particular, I would like to express my sincere appreciation to my supervisors Mr. Herick Ondigo for his valuable guidance and inspiration throughout the study.

I would also like to acknowledge the assistance provided by the staff at the resource centre of the Nairobi Security Exchange in securing the data.

Finally, I would like to thank my family and friends for sharing with me the difficulties encountered during the process of finalizing this study.

I wish you all peace and God's abundant blessings.

## **DEDICATION**

I dedicate this research report to my family and colleagues for being supportive during my studies.

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## LIST OF ABBREVIATIONS

<b>AIMS</b>	Alternative Investment Market Segment
<b>ANOVA</b>	Analysis of Variance
<b>CDSC</b>	Central Depository and Settlement Corporation
<b>CMA</b>	Capital Markets Authority
<b>EPS</b>	Earnings per share
<b>FISMS</b>	Fixed Income Securities Market Segment
<b>MIMS</b>	Main Investment Market Segment
<b>OLS</b>	Ordinary Least Squares
<b>PA</b>	Principal-Agent
<b>PP</b>	Principal-Principal
<b>CEO</b>	Chief Executive Officer
<b>COB</b>	Chairman of the Board



## ABSTRACT

Under agency theory, organizations incur agency costs as a means to reduce agency conflicts between shareholders (principal) and the managers (agents). The divergent views by different researchers especially from outside Africa in respect to agency costs, create a knowledge gap to determine to what extent capital structure affects the agency costs of companies listed at NSE given Kenya's uniqueness in terms of culture, laws and regulations. Some of the studies carried so far in this field gives conflicting outcomes as to the effect of capital structure on agency costs. The objective of the study was to investigate the relationship between capital structure and agency cost of listed companies at the Nairobi Securities Exchange. The following research question guided the study: how does capital structure relate to agency costs of listed firms? In answering this question, the study used efficiency cost ratio as a proxy for agency costs, Long term debt to equity as a proxy for capital structure and two other variables that affects agency costs; this are information asymmetry as measured by market value/Book value per share and ownership concentration measured by corporate ownership/Equity. The historical data for these were obtained from the Nairobi Securities Exchange and the Capital Markets Authority data banks. The correlation research design was used in the study. The study covered a target population of all companies quoted at Nairobi Securities Exchange between 1<sup>st</sup> January 2009 and 30<sup>th</sup> December 2013. The study used secondary data from Nairobi Security Exchange. Statistical Package for Social Scientist (SPSS) was used to aid in analyzing data. Regression analysis was applied to determine the effect of capital structure on agency costs. A simple regression was used to test the main model and t-test was used as a test of significance. The key findings revealed that there was a positive correlation between capital structure and agency costs. The main conclusion from our analysis is that indeed capital structure determines agency costs. Given the evidence from this research, it's evident that capital structure positively affects agency costs of listed firms at the Nairobi Securities Exchange. Some of the policy recommendations of the study are; Firms should formulate incentive schemes for managers who are able to reduce agency costs with an increase or decrease in the use of debt in the firm's capital structure. Also looking forward, identifying and the use of appropriate and more unified estimation techniques will be most welcome, the reason why there is no consensus in the literature about the shape of the capital structure-agency costs relationship, is because there is no universal estimation technique, this study serves as a first attempt towards establishing a more pragmatic empirical model for agency cost modeling and its determinants.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

The distinguishing characteristic of public quoted companies is the separation of ownership of assets from the control of assets. While ownership of these assets is vested in the shareholders of the firm, control of these assets is in the hands of professional managers (Brealey and Meyers, 2003). A number of researchers have provided insights of the problems known as agency costs which may arise as a result of this separation (Brealey and Myers, 2003; Baker and Powell, 2005). Whereas shareholders have an interest in increasing the firms' value, managers may want to pursue selfish goals of increasing perquisites, company size and markets value. The question asked by many is how the shareholders can mitigate the selfish interests of managers.

On the other hand, managers are employed to use their skills, judgment or experience on behalf of shareholders. In order to do, so they need a significant element of discretion and relative freedom of actions. Such freedom can often be abused if they are not called to account for their actions. Given the information asymmetry between the shareholders and managers, where managers know more about the firm, we do not expect a firm to operate as well as it would have if all information were costlessly shared. Berle and Means (1932) in their study of modern corporations found that even though the state seek to regulate corporations, the cooperation's are becoming more powerful and make every effort to avoid such regulations. Jensen (1986) argues that agency problems are more likely to prevail in large companies.

Corporate literature suggests several techniques by which agency conflicts can be reduced. The techniques can be distinguished between internal and external mechanisms. Internal mechanisms include compensation contracts, bonding and monitoring activities within the firm, whereas external mechanisms include monitoring activities by the capital markets and legislators. However perfect control is extremely costly thus out of question (Vasiliou, Eritios & Daskalakis, 2005). For this reason agency problems can never be

perfectly solved and managers may never act totally in the best interest of shareholders. As a result, shareholders experience loss in wealth due to divergent behavior of managers especially when there is free cash flows in firms with low growth opportunities.

When managers objective differ from those of shareholders, the presence of internally generated cash flow in excess of the required to maintain existing assets in place, creates the potential for those funds to be squandered (Richardson, 2005). Agency cost is more severe in low growth free cash flow firms where the economic interests of shareholders and managers diverge substantially, and information sharing is costly. Jensen (1986) argues that managers in firms with large free cash flows have incentives to waste original resources on the negative Net present value projects and financing their perquisites rather than payout cash to shareholders through dividends or share purchase schemes. The impact of free cash flows on organizational inefficiencies is more pronounced in low growth firms because such firms have few positive net present value projects. Berle and Means (1932) believed that not all managerial objectives are self-serving, they believed that rather than furthering their own interests, or even those of shareholders, the management may act in the interest of society as a whole.

### **1.1.1 Agency Cost**

Agency costs emanate from agency relationships that arise because of separation of ownership and management. Agency costs refer to the sum of the costs of designing, implementing, and maintaining the appropriate control system within organizations and the residual loss resulting from the difficulty of solving control problems completely (Jensen and Meckling, 1992). In other words, these are costs incurred by the owners of the firm to monitor the activities of agents who may pursue divergent interest from that of the principals or owners of the firm. These costs include costs of internal audit, external auditors and non-executive directors (Mustapha and Ahmed, 2011). In essence, these costs are part of the mechanisms employed by the shareholders to protect their investments while at the same time guaranteeing the success and the going concern of the firm. Ang et al. (2000) claims that the magnitude of these costs is limited by how well the owners and delegated third parties, such as banks, monitor the actions of the outside

managers. Because banks generally require a firm's managers to report result honestly and to run business efficiently with profit, bank monitoring complements shareholder monitoring of managers, indirectly reducing owner-manager agency costs. That is, by incurring monitoring costs to safeguard their loans, banks lead firms to operate more efficiently by better utilizing assets and moderating perquisites consumption in order to improve the firm's reported financial performance to the bank. Thus, lower priority claimants, such as outside shareholders, should realize a positive externality from bank monitoring, in the form of lower agency costs.

### **1.1.2 Capital Structure**

Kochhar (1997) defines capital structure as a mixture of financial liabilities (debt and equity) that is used to finance firm operations. A firm's capital structure refers to the mix of its financial liabilities. As financial capital is an uncertain but critical resource for all firms, suppliers of finance are able to exert control over firms Debt and equity are the two major classes of liabilities, with debt holders and equity holders representing the two types of investors in the firm. Each of these is associated with different levels of risk, benefits, and control. While debt holders exert lower control, they earn a fixed rate of return and are protected by contractual obligations with respect to their investment. Equity holders are the residual claimants, bearing most of the risks, and, correspondingly, have greater control over decisions.

Capital structure has also been defined as mix of a company's long-term debt, specific short-term debt, common equity and preferred equity, it is how a firm finances its overall operations and growth by using different sources of funds. Debt comes in the form of bond issues or long-term notes payable while equity is classified as common stock, preferred stock or retained earnings. Short-term debt such as working capital requirements is also considered to be part of the capital structure.

(<http://www.businessdictionary.com>).

### **1.1.3 Effect of Agency Costs and Capital Structure**

Jensen and Meckling (1976) argue that the existence of the debt reduces the amount of equity and enables a higher level of insider ownership. Jensen (1986) also argues that the existence of the debt in the firm's capital structure acts as a bonding mechanism for company managers. By issuing debt, rather than paying dividends, managers contractually bind themselves to payout future cash flows in away unachievable through dividends. Easterbrook (1984) in the study of agency cost expectation of dividends, argues that external capital market monitoring brought to companies by debt financing, forces managers in value maximizing strategies, rather than personal utility maximization. The bankruptcy costs of debt and the personal embarrassment arising from bankruptcy acts as an effective incentive mechanism to encourage managers to be more efficient.

This gives three different reasons that could lead to managerial efficiency due to use of debt in a firm. Firstly the debt decreases the firm's free cash flows which reduce the manager's ability to use corporate resources for empire building purposes (Jensen, 1986). Secondly the managers increase efficiency in order to meet debt payment objectives to avoid bankruptcy, in the process managers' act in the best interest of shareholders (Grossman and Hart, 1882). Thirdly, an increase in debt could increase monitoring by lenders (Papa, 2007). Lenders incur monitoring costs to safeguard their money. This makes firms operate more efficiently by utilizing and moderating perquisite consumption so as to improve performance reported to the lenders (Ang, Cole and Lin, 2000).

Payout of cash to shareholders creates conflict between managers and shareholders. The payout reduces resources under the managers' control and thereby reducing their power. On the other hand, managers have a tendency to cause their firms grow beyond their optimal size. The higher the growth of resources, the higher the manager's power, which can also lead to increase in manager compensation. Conflict between shareholders and managers over payout policies are more severe when the firm generates substantial free cash flows with low payout ratio, the managers are tempted to invest in projects with low returns and engage in organizational inefficiencies (Jensen, 1986).

Large cash balances provide firms with the flexibility in investment decisions while shielding them from capital market discipline imposed when issuing securities. This reduced market supervision leads to agency theory to predict that cash rich firms will over invest at the expense of shareholders (Mahar, 1998). Jensen (1986) study of the benefits of debt in disgorging these excesses cash in the hands of managers and substitution of debt for dividends gives insight of how shareholders, manager conflict can be resolved. The use of debt, bonds managers to repay capital and interest in the future. Failure to meet the obligation, creditors can take the firm into bankruptcy court. Therefore, debt reduces agency costs by reducing cash available for spending at the discretion of managers. The control of debt is more important in organs that generate large cash flows but have low growth prospects. In this organizations, the pressure to waste cash flows by investing them in economic projects is most serious.

#### **1.1.4 Firms Listed at the Nairobi Securities Exchange**

Nairobi Security Exchange is a market for securities, licensed and regulated by the Capital Markets Authority. It was constituted in 1954 as a voluntary association of stockbrokers and registered under the societies Act. It has the mandate of providing a trading platform for listed securities and overseeing its member firms. The Central Depository and Settlement Corporation (CDSC) provide clearing, delivery and settlement services for securities traded at the Nairobi Securities Exchange. It oversees the conduct of the Central Depository Agents comprised of stockbrokers and investment banks which are members of NSE and custodians. Some of the securities traded in NSE include ordinary shares, preference shares and debentures. The membership of NSE has grown over the years from one brokerage firm at initiation to the current membership of 19 firms and 61 listed companies.

NSE is guided by rules and regulations. For instance for a company to be listed at NSE it has to meet the listing requirements which include: minimum capital requirements, prospectus showing accounts for the last five years, disclosure requirement, minimum share issue requirement, minimum number of shareholders and filing accounts every year with Capital Markets Authority (CMA). On 11th September 2006, NSE implemented live

trading on the automated trading system as part of its modernization strategy. The Nairobi Stock Exchange (NSE) was established in 1954. NSE is a market that deals in the exchange of securities issued by publicly quoted companies and the Government. A major role that the stock exchange has played and continues to play in the Kenyan economy is that it promotes a culture of thrift, or saving. The very fact that institutions exist where savers can safely invest their money and in addition earn a return is an incentive to people to consume less and save more (NSE, 2005). The market has evolved over the years and currently boosted of an Electronic Trading System.

NSE is divided into three market segments; Main Investment Market Segment (MIMS), Alternative Investment Market Segment (AIMS) and Fixed Income Securities Market Segment (FISMS). MIMS is the major segment of the market. The minimum eligibility conditions and listing requirements for this segment include but not limited to the fact that the company must have a minimum authorized, issued and fully paid up share capital of Kshs 50 million and net assets of Kshs 100 million before the public offering of shares (NSE, 2005). It is important to further note that the firms in this segment are further segmented according to the nature of the industry into Agricultural, Commercial and Services, Finance and Investment, and lastly Industrial and Allied.

AIMS are a smaller segment compared to MIMS. The minimum eligibility conditions and listing requirements for this segment include but not limited to the fact that the company must have a minimum authorized, issued and fully paid up share capital of Kshs 10 million and net assets of Kshs 20 million before the public offering of shares (NSE, 2005). FISMS is a debt capital market segment whereby Companies intending to list their commercial papers or corporate bonds in the fixed income securities must satisfy the eligibility requirements similar to those of MIMS. At NSE, this segment is still underdeveloped, currently with only the 4% and 7% Kenya Power & Lighting Preference shares.

## **1.2 Research Problem**

Managers act as agents of the providers of capital in any organization. However, more often than not the relationship between management as agents and shareholders as principals is punctuated with conflicts of interest with the resultant agency costs. Agency costs constitute the summation of the monitoring expenditures by the principal, the bonding expenditures by the agent and the residual loss (Jensen & Meckling, 1976). Agency costs manifest in various forms such as executive perks, drops in productivity, free cash flow inefficiencies, as well as loss of firm value.

Managerial actions and interest may, therefore, not be aligned with shareholders. Consequently, free cash flow can pose a challenge especially when the monitoring and accountability mechanisms are not sufficient enough to guarantee that excess cash is returned to stockholders. Once management has fulfilled their contractual obligations may misappropriate excess funds financially to align their pockets instead of maximization of share wealth (Baker& Anderson, 2010). Wealth maximization requires that managers undertake investments whose return on investment exceed the cost of financing and maximize share value. Unfortunately, this may not be the case. The managers' personal financial interests may override stockholder interests with free cash flows available. This is the basis of agency conflicts and their resultant costs (Meckling, 1976). As a solution, more debt in the capital structure of the firm decreases the agency cost. This binds managers to focus on repaying the principal and interest to avoid financial distress and bankruptcy through effective resource utilization (Zhang and Li, 2008).

In Kenya, there are many instances of NSE listed firms that have in the recent past been placed under receivership, liquidated or delisted partially due to issues of financial impropriety associated with the agency problem. Firms such as National bank, Commercial Bank and Uchumi supermarkets top the list. Some studies have been carried out at world stage with a core concentration on the relationship between agency cost and capital structure. Hang (2009) did a study on the role of capital structure and managerial incentive compensation in controlling the free cash flow agency problem. His findings



indicate that a negative correlation exists between the capital structure and free cash flow. On the other hand, Lingling (2004) looked at the impact of ownership structure on the capital financing in relation to agency costs free cash flow problem and capital structure. He found out that the nature of capital structure of a firm especially high capital structure reduces the free cash flow problem and thus agency costs.

Much of this literature has, therefore, presented a case whereby firms with adequate free cash flow, usually, face agency conflicts and costs between stockholders and management. However, much of this literature is alien to the Kenyan business context in general and specifically when dealing with firms listed in the NSE. There is no known research that has been conducted on the relationship between agency costs and capital structure of NSE listed firms, in Kenya. This leaves a knowledge which needs to be addressed by this study. The study will, therefore, seek to answer the following question; what is the relationship between agency cost and capital structure of firms listed at the NSE?

### **1.3 Objective of the Study**

To determine the relationship between agency costs and capital structure of firms listed at the Nairobi Securities Exchange.

### **1.4 Value of the Study**

The study contributes to the literature of the relationship between agency costs and capital structure of companies listed in the NSE. It is hoped that findings of this study are valuable to academicians who may find useful research gaps that may stimulate interest in future research in this area of capital structure and agency costs. Also, sometimes managers fail to make certain disclosures of important information to the market. This is coupled with the separation of ownership and management, investors are not able to make fair judgments when investing. The study provides insights on the relationship between agency costs and capital structure which may help investors gather more information regarding their investment and therefore make better decisions. They are,

therefore, more enlightened when it comes to voting for vital decisions which affects them as regards to the firm's performance.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews the relevant literature of the study under the following sections; theoretical framework, review of empirical studies and chapter summary.

#### **2.2 Theoretical Review**

The study will review some of the recognized theories in relation to agency theory and capital structure. Some of these theories are; agency theory, basic principal agent model, stakeholders theory, principal agent problem, theory of information asymmetry and agency theory.

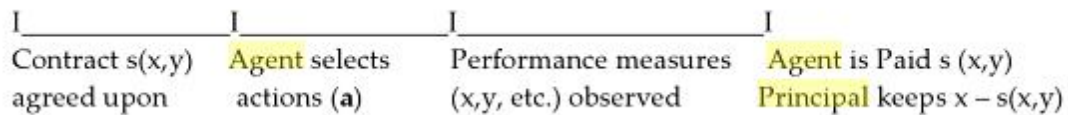
##### **2.2.1 Agency Theory**

Jensen and Meckling (1976) define agency relationship as a contract under which one party, the principal engages another party, the agent to perform some services on their behalf. The principal delegates some decision-making authority to an agent. The delegations of decision making by the principal and resulting decisions of labor are helpful in promoting efficiency and productivity. The principal hires or retains the agent because of the agent's specific talents, knowledge and capabilities to increase the value of assets. All or some of the principal's decision rights over assets is transferred to the agent (Moldoveanu & Martin, 2001). Such delegation means the principal has to place trust in the agent. Agency theory looks at the conflicts of interest, which may arise between the principal and the agent when the motives of the agents are questionable, and trust no longer exists. The principal seeks to gain information by inspection or evaluation and designing systems to ensure the agent's acts in the principal's interests (Barle and Mean, 1932).

### 2.2.2 A Basic Principal Agent Model

In Hoque (2006) the simplest form of the agency model can be viewed to comprise two parties: the principal & agent. The principal is expected to supply capital, bear the risk and construct incentives while the agent is required to complete tasks, make decisions on the principal behalf and to bear the risk.

The normal sequence of events over a single time period may be viewed as follows:



The sequence begins with a compensation contract between principal and agent specifying the performance measures upon which the agent compensation will be assessed. Let the compensation function be denoted by 'S' and 'X' as the outcome of the firm and 'Y' as the vector of performance measures used in the contract, choose a vector of actions, which include operating decisions, financing decisions or investment decisions. The agent actions along the exogenous factors (generally modeled as random variables) influence the realization of performance measures and the outcome of the firm as well. After the performance measures are jointly observed, the agent is paid according to the terms of the contract.

Key assumptions in the overall sequence of events are: First the outcome of the firm, i.e. X can be measured in monetary terms and relate to a single period e.g. as end of period cash flow or the liquidating dividends of the firm gross of the compensation paid to the agent. Another assumption is that the agent chooses an action and the principal is not able to fully observe this choice, and there is a stochastic term attached to the agent's output. Thus, both the agent and principal assumes a certain amount of risk and in general, the greater the risk assumed, the higher the agent compensation.

### 2.2.3 Stakeholders Theory

Fontrodona and Sison (2006) argued against the common belief that the shareholders are the sole owners of the firm. They claimed that the firm has a number of actors/stakeholders whose interest must be protected. For example, managers and

employees take risks by committing their labor to the company just as investors take risks by entrusting their capital to the firm. With different actors claiming ownership of the company, there can be no justification that owner managed firms reduce agency costs. Rather, there are multiple relationships among the owners of different factors of production. For this reason, stakeholder theory, which takes into account the different actors, offers a more comprehensive view of the firm than shareholder theory.

#### **2.2.4 The Principal Agent Problem Theory**

The basic principal agent problem is confronted by fundamental issues. The principal and agent are utility maximisers, whereby both parties seek to maximize their returns. Secondly, not always that those interests of the principal and agent are aligned (Berle and Mean 1932, Jensen and Meckling, 1976). The agent may not act to the best interest of the principal e.g the principal and agent may differ in their risk preference resulting in the agents action being different from that expected by the principal, unless the risk preferences are known and made clear between the parties, that's prior to the contract formation and factored into the compensation, the agency problem is likely to increase.

#### **2.2.5 Information Asymmetry and Agency Theory**

Further, the agency problem is seen to exacerbate under conditions of information asymmetry, in that one party has more information than the other (Jensen and Meckling, 1976). It's actually an agent who is seen to possess information advantage over the principal. Information asymmetry may in turn lead to two types of the agency problem, moral hazard and adverse selection. Moral hazard, at times, referred to as hidden costs, relates to the lack of effort by managers. The principal is restricted to assess the agent's action directly. In such situations, the manager may be tempted to consume perquisites in excess of what was agreed or take ease on the jobs as the principal is not able to observe managers' action.

Adverse selection; arise even when the principal is able to observe managers behavior but is unable to ascertain if the effort extended by the agent is the most appropriate behavior. For example, the manager may choose an accounting policy that maximizes reported net

income in order to gain higher bonuses. Investors may not receive full and proper disclosures of the firm's prospects, and managers stand to gain from non-disclosure. Another example is when the job is complex, and the agent misrepresents his/her ability to complete the task. The principal is not able to verify agent's ability at the time of hiring or even when the agent is working on the project.

## **2.3 Determinants of Agency Costs**

Several studies have highlighted specific characteristics of companies that determine agency costs. However, the results of both theoretical and empirical studies are not always unambiguous. Based on the data availability, the following determinants of agency costs are analyzed in this paper: managerial ownership, debt financing, ownership concentration, board of directors, managerial compensation, growth opportunities, information asymmetry, and debt contracts.

### **2.3.1 Managerial Ownership**

Also several studies by (Fama and Jensen, 1983; Fleming et al., 2005; Dan and Xiao-yu, 2010; Chuang et al., 2010) show practical evidence explaining that increasing separation level of ownership and managerial control rights lead to the inevitability of increased agency cost. They demonstrate that there is a strong correlation between the managerial control rights in cash flows and agency problems. They admit that in the case of increasing managerial control rights (represented by managerial ownership) in cash flow, this will lead to motivate management of the company to work hard to maximize its personal wealth. As long as management wealth is related to other shareholders' wealth in the company, no conflict of interests will be existent; in that, no agency problems and no agency costs.

Nevertheless, other studies such as (Wang, 2010; Jun et al. 2008) have another opinion that lies in the notion that in case of increased managerial ownership in the company's capital, this gives the managers immunity against punishment. Consequently, it will create a new kind of conflict that lies in the management's controlling on the cash flows of the company and could involve in other projects to maximize their benefit apart from

shareholders' benefit. On the other hand, to own a part of the company's capital is not harmful or not useful; several studies admitted such a notion by explaining the important role of managerial ownership which has the motivation role to make the managers keen to maximize profitability of the company and reduce agency cost of its ownership (Margaritis and Maria, 2010; Chen et al., 2006). As a result, managerial ownership is a double-edged sword. One edge is represented by shared benefits which arise from the fact that a manager having a stake in the capital is logically seeking to maximize both his wealth and that of others as well. The other edge is the negative side represented by the managers' bad intention to direct company's resources for their personal benefit which eventually affects shareholders' wealth.

### **2.3.2 Ownership Concentration**

Another alternative for alleviating agency problems is through concentrated ownership. Theoretically, shareholders could take themselves an active role in monitoring management. However, given that the monitoring benefits for shareholders are proportionate to their equity stakes (Grossman and Hart, 1988), a small or average shareholder has little or no incentives to exert monitoring behaviour. In contrast, shareholders with substantial stakes have more incentives to supervise the management and can do so more effectively (Shleifer and Vishny, 1986; Shleifer and Vishny, 1997 and Friend and Lang, 1988). In general, the higher the amount of shares that investors hold, the stronger their incentives to monitor and, hence, protect their investment. Although large shareholders may help in the reduction of agency problems associated with managers, they may also harm the firm by causing conflicts between large and minority shareholders. The problem, usually, arises when large shareholders gain nearly full control of a corporation and engage themselves in self-dealing expropriation procedures at the expense of minority shareholders (Shleifer and Vishny, 1997). Also, as Gomez (2000) points out, these expropriation incentives are stronger when corporate governance of public companies insulates large shareholders from takeover threats or monitoring and the legal system does not protect minority shareholders because either of poor laws or poor enforcement of laws. Furthermore, the existence of concentrated

holdings may decrease diversification, market liquidation and stock's ability to grow and, therefore, increase the incentives of large shareholders to expropriate firm's resources.

### **2.3.3 Board of Directors**

Corporate governance research recognizes the essential role performed by the board of directors in monitoring management (Fama and Jensen, 1983; Weisbach, 1988 and Jensen, 1993). The effectiveness of the board as a corporate governance mechanism depends on its size and composition. Large boards are, usually, more powerful than small boards and hence, considered necessary for organizational effectiveness. For instance, as Pearce and Zahra (1991) point out, large powerful boards help in strengthening the link between corporations and their environments, provide counsel and advice regarding strategic options for the firm and play crucial role in creating corporate identity. Other studies, though, suggest that large boards are less effective than large boards. The underlying notion is that large boards make coordination, communication and decision-making more cumbersome than it is in smaller groups. Recent studies by Yermack, 1996; Eisenberg et al., 1998 and Bender et al., 2004 support such a view empirically.

The composition of the board is also important. There are two components that characterize the independence of the board, the proportion of non-executive directors and the separated or not roles of chief executive officer (CEO) and chairman of the board (COB). Boards with a significant proportion of non-executive directors can limit the exercise of managerial discretion by exploiting their monitoring ability and protecting their reputations as effective and independent decision makers. Consistent with that view, Byrd and Hickman (1992) and Rosenstein and Wyatt (1990) propose a positive relationship between the percentage of non-executive directors on the board and corporate performance. Lin et al. (2003) also propose a positive share price reaction to the appointment of outside directors, especially when board ownership is low, and the appointee possesses strong ex-ante monitoring incentives. Along a slightly different dimension, Dahya et al. (2002) find that top-manager turnover increases as the fraction of outside directors increases. Other studies find exactly the opposite results. They argue that non-executive directors are usually characterized by lack of information about the



firm, do not bring the requisite skills to the job and, hence, prefer to play a less confrontational role rather than a more critical monitoring one (see, for example, Agrawal and Knoeker, 1996; Herman 10 and Weisbach, 1991, and Franks et al., 2001).

#### **2.3.4 Debt Contracts**

Lenders seek in most cases to make contracts between them and company's management whereby they determine some restrictions to limit making further decisions from the management side, where such decisions may negatively affect company's ability to accomplish its obligations, such as reducing the issuance of new debt or specify a maximum of dividends and set a minimum limit for liquidity and debts (Shi and Xiao – Zhong, 2011). These contracts are considered among the main determinants of managers' behavior in the emergence of agency cost of ownership; this is taken from two angles. Firstly, the management is subject to strong control by capital market members represented by investors, creditors, banks, etc. secondly , making debt contracts leads to increasing company's financial risk, which may lead to motivate managers to reduce agency cost to keep on the financial ability of the company to meet debt and burdens on time (Harvey et al.,2004).

#### **2.3.5 Managerial Compensation**

Another important component of corporate governance is the compensation package that is provided to firm management. Recent studies by Core et al. (2001) and Murphy (1999) suggest, among others, that compensation contracts, whose use has been increased dramatically during the 90's, can motivate managers to take actions that maximize shareholders' wealth. In particular, as Core et al. (2001) point out, if shareholders could directly observe the firm's growth opportunities and executives' actions no incentives would be necessary. However, due to asymmetric information between managers and shareholders, both equity and compensation related incentives are required. For example, an increase in managerial compensation may reduce managerial agency costs in the sense that satisfied managers will be less likely, *ceteris paribus*, to utilize insufficient effort, perform expropriation behaviour and, hence, risk the loss of their job. Despite the central importance of the issue, only a few empirical studies examine the impact of managerial

compensation components on corporate performance. For example, Jensen and Murthy (1990) find a statistically significant relationship between the level of pay and performance. Murphy (1995), finds that the form, rather than the level, of compensation, is what motivates managers to increase firm value. In particular, he argues that firm performance is positively related to the percentage of executive compensation that is equity based.

More recently, Hutchinson and Gul (2004) analyze whether or not managers' compensation can moderate the negative association between growth opportunities and firm value. The results of this study indicate that corporate governance mechanisms such as managerial remuneration, managerial ownership and non-executive possibly affect the linkages between organizational, environmental factors (e.g. growth opportunities) and firm performance. Finally, Chen (2003) analyzes the relationship between equity value and employees' bonus. He finds that the annual stock bonus is strongly associated with the firm's contemporaneous but not future performance.

Despite its potentially positive impact on firm value, compensation may also work as "infectious greed" which creates an environment ripe for abuse, especially at significantly high levels. For instance, remuneration packages, usually, include extreme benefits for managers such as the use of private jet, golf club membership, entertainment and other expenses, apartment purchase, etc. Benefits of this sort, usually, cause severe agency conflicts between managers and shareholders. Therefore, it is possible that the relationship between compensation and agency costs is non-monotonic.

### **2.3.6 Growth Opportunities**

The magnitude of agency costs related to underinvestment, asset substitution and free cash flow differ significantly across high-growth and low-growth firms. In the under investment problem, managers may decide to pass up positive net present value projects since the benefits would mainly accrue to debt-holders. This is more severe for firms with more growth-options (Myers, 1977). Asset substitution problems, which occur when managers opportunistically substitute higher variance assets for low variance assets, are

also more prevalent in high-growth firms due to information asymmetry between investors and borrowers (Jensen and Meckling, 1976). High-growth firms, though, face lower free cash flow problems, which occur when firms have substantial cash reserves and a tendency to undertake risky and usually negative NPV investment projects (Jensen, 1986).

Given the different magnitude and types of agency costs between high-growth and low-growth firms, we expect the effectiveness of corporate governance mechanisms to vary with growth opportunities. In particular, if agency problems are associated with greater underinvestment or information asymmetry (a common problem in high-growth firms), we expect corporate governance mechanisms that mitigate these kinds of problems to be more effective in high-growth firms (Smith and Watts, 1992; Gaver and Gaver, 1993). However, if, as argued by Jensen (1986), agency problems are associated with conflicts over the use of free cash flow (a common problem in low-growth firms), we expect governance mechanisms that mitigate such problems to play a more important role in low-growth firms (Jensen, 1986). Also, Lasfer (2002) points out that the high-growth firm (low-growth firms) rely more on managerial ownership (board structure) to mitigate agency problems. Finally, Chen (2003) finds that the positive relationship between annual stock bonus and equity value is stronger for firms with greater growth opportunities.

### **2.3.7 Information Asymmetry**

The nonconforming information is another source of the problems of agency conflicts. Managers provide information in their reports when readers expect that this information reflects a good situation of work progress, while managers utilize this information to achieve performance and decisions leading to achieve their own interests and create negative impacts on shareholders' interest. In support for this idea, Harris and Raviv (2010) admit that the information would never be fully revealed on the part of the managers due to agency problems.

The early beginnings of addressing information asymmetry were made by the economist Hayek (1945) who emphasized the importance of knowledge and how knowledge and its distribution have an active role in contributing to economic development. That was when he dealt with the nature of the economic problem in society in his article titled "The use of knowledge in society". Hayek demonstrated that the organization's good performance depends on the importance of knowledge possessed by a decision maker; but unfortunately, he did not deal with the cost of knowledge transfer to the decision maker; so he was criticized by Jensen and Meckling (1995) as they manifested that it was necessary to take into account the cost associated to knowledge transfer. They, however, praised the great role played by Hayek in demonstrating the importance and role of what is called "information asymmetry" which occupied a wide scope in the literature on agency conflict.

### **2.3.8 Debt Financing**

Problems within a firm are, usually, related to free cash-flow and asymmetric information problems (Jensen, 1986; Myers and Majluf, 1984). Debt obligations help to the reduction of agency problems caused by these factors. Debt is an important influence on agency costs. Bank debt provides significant signaling characteristics that can mitigate informational asymmetry conflicts between managers and outside investors (Jensen, 1986; Stulz, 1990; and Ross, 1977). Berlin and Mester (1992) argue that the renegotiation of the loan is easier because banks are well informed and typically small in number. The bank's willingness to renegotiate and renew a loan indicates the existence of a good relationship between the borrower and the creditor, and that is a further good signal about the quality of the firm. Fama (1985) argues that banks have a comparative advantage as lenders in minimizing information costs and can get access to information not otherwise publicly available. In addition to debt source, the maturity structure of debt may matter. Short-term debt may be more useful than long-term debt in reducing agency problems related to free cash-flow and in signaling high quality to outsiders. Myers (1977) suggests that the short-term debt could alleviate agency conflicts between managers and shareholders such as the underinvestment problem. Flannery (1986) argues that firms with large potential information asymmetries are likely to issue short-term debt because

of the larger information costs associated with long-term debt. Also, short-term debt can be advantageous especially for high-quality companies due to its low refinancing risk (Diamond, 1991). If yield curve is downward sloping, issuing short-term debt increases firm value (Brick and Ravid, 1985).

## **2.4 Review of Empirical Studies**

The study will review empirical studies on both international and local fonts to find out what others have done and the outcome of their findings in respect to the relationship between capital structure and agency costs.

### **2.4.1 International Evidence**

In a global perspective, MengMeng (2013). In his empirical study also set out to find the relationship between capital structure and agency costs of Chinese listed firms, the population of the study was from all listed companies at Shanghai and Shenzhen stock markets. A sample of 775 listed companies from Shanghai and Shenzhen stock markets was selected during three years period 2010 to 2012 , the study centered on the relationship between agency cost and capital structure, the researcher used two econometrics methods which are ordinary least squares (OLS) and panel data respectively. Capital structure was calculated by debt-to-asset ratio and long-term liability rate while agency cost was measured by overhead expenses rate and asset turnover rate. The result showed that agency cost has a slightly negative correlation to debt-to-asset ratio, and there is a positive and insignificant correlation relationship between long-term liability rate and agency cost.

Nirosha and Stuart (2012) in their study, set out to investigate agency costs and ownership structure in unlisted small businesses in New Zealand. The study used panel data to investigate agency costs, both principal-agent (PA) and principal-principal (PP), in 240 small businesses not listed on the New Zealand Stock Exchange between, 1998-2008 inclusive. Results showed that both forms of agency cost vary according to industry, the life of the business and size. The results indicated the degree of owner involvement in the business firm PA and PP agency costs. Moreover, the study found

nonlinear relationship between agency costs and ownership structure align with convergence of interest hypothesis and managerial entrenchment hypothesis. It is noted that the distortion between equity returns and debt returns gives rise to a preference for quasi equity and distorts the productive base and effective pricing of risk. The analysis indicated that there is considerable variability in the burden of agency cost and that this raises the potential for regulatory and policy reforms that may enhance the productivity and growth in the sector.

Results indicated firm's debt has a significant impact on firms PA and PP agency costs. However, the debt issues for smaller businesses were found to be problematic. First, the provision of finance from banks is likely to be mechanical, requiring personal guarantees and mortgage of family home as collateral. Second, to avoid the lower ranking equity in case of failure, owners exhibit performance for quasi-equity. This distorts the productive base and effective pricing of risk. This finding showed that the increase of availability and accessibility of small firm finance can have the benefit of low PA and PP agency conflicts.

Zhang (2009) investigated the role of capital structure and managerial incentive compensation in controlling the free cash flow agency problem. The result of the study suggested that debt and executives can act as substitutes in reducing the free cash flow problem. He also pointed out that the free cash flow problem is more in the firms with low growth prospects and mature. The usage of debt was more beneficial as a monitoring device, and there was a negative relationship between the capital structure and free cash flow. The study also suggested that there was a more pronounced effect in firms that had more severe agency problem.

McKnight and Weir (2009) sought to examine the relationship between corporate governance; ownership structure and agency cost in UK publicly traded firms. They used three proxies to measure the agency cost which included; the ratio of sales to total assets, the free cash flow and the firm growth prospect. The analysis showed a significant negative relationship between the free cash flow and the debt. The result was consistent

with the free cash flow theory given by Jensen in 1986. According to the results, an increase in debt reduced the free cash available to a firm and consequently reduced the agency cost.

Lingling (2004) sought to investigate the impact of ownership structure on the debt financing in the context of free cash flow problem on Japanese firms. In his study, he investigated the implications of free cash flow theory in capital structure policy of listed Japanese firms. The study focused primarily on relations between capital structure and free cash flow. The results of the study showed that there is a negative relationship between the free cash flow and debt, and the results was more significant for low growth firms than the higher growth firms. The results of the study showed that the capital structure has a disciplinary role in reducing free cash flow problem.

Tian (2002) in his study of Chinese listed firms showed that most banks having government shared ownership had a positive relationship between capital structure and size of managerial perquisites. These findings suggest that the role of debt on government shared ownership does not function in China.

#### **2.4.2 Local Evidence**

In the local perspective, Chomba (2013) studied the effect of capital structure on the corporate governance of companies listed at the Nairobi securities exchange. Results from the study indicate that most firms in the NSE use more debt or long term liability as a source of financing than equity capital from shareholders.

At the same time Emenyi (2013) undertook a research to establish a relationship between agency cost and capital structure for companies listed at the Nairobi Securities Exchange. The study found the p-value of the F test to be less than alpha ( $0 < .05$ ) hence concluded that there was a significant relationship between agency cost and capital structure.

Also, Pamba, (2013) did a study on the effect of ownership Structure and corporate governance on capital structure decisions of firms listed on the Nairobi securities exchange. The study found out that firms with larger board size, more independent

directors and managerial shareholding have a negative relationship between debts to equity ratio. This is because, as the board size, percentage of independent director and managerial shareholding increases they tend to bring down a firms debt to reduce risk and bankruptcy cost.

Marietta (2012) also did research on the influence of capital structure on firms' performance, a case of selected firms' listed in Nairobi securities exchange, Kenya The result of the research explains a significantly positive relationship between Equity and return on equity and return on assets as measures of firm performance, while Debt and firms age has a negative correlation with return on equity and return on asset.

Chelangat (2012) looked at the relationship between managerial discretion and the capital structure of firms listed at the Nairobi Securities Exchange. 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. According to the study, there is strong evidence that managerial discretion does influence the capital structure of firms.

## **2.5 Summary of Literature Review**

The literature review has shown that there exist adequate theoretical and empirical studies that inform the agency problem; which arise because of information asymmetry and competing interest between the principals and agents. One school of thought suggest that the way of solving the agency problem is by increasing debt in the capital structure. This is because these firms have to abide by the borrowing agreements of paying the principal and interest or else they risk legal action or being declared bankrupt. Also, the lenders, usually, monitor the activity of this organizations to ensure that their loaned funds are well utilized and not wasted, this effect reduces agency costs incurred by shareholders.

The other school of thought holds that increasing debt does not reduce agency cost, rather it increases agency costs. Much of the above literature, in actual fact, has a higher concentration on firms outside Africa in general and not those in the listing at NSE.



Therefore, the divergent views by different researchers especially from outside Africa in respect to agency costs, creates a knowledge gap to determine to what extent capital structure affects the agency costs of companies listed at NSE given Kenya's uniqueness in terms of culture, laws and regulations. Such research will help Kenyan firms to institute appropriate mechanisms to cushion themselves from the effect of conflict of interests between managers and shareholders.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter specifies the methods and procedures that were employed in this study. It ensures that data collected related to the objectives of the study and that data analysis yielded results that answered the research questions.

#### **3.2 Research Design**

This research utilized a descriptive design in its methodology. The design was used to establish a relationship between agency costs and capital structure of firms listed in the NSE. The research design is a plan, structure and strategy of investigation so conceived as to obtain answers to research questions or problems (Kumar, 2005).

A research design is an understanding of conditions for collection and analysis of data in a way that combines their relationships with the research to the economy of procedures (Chandran, 2004). This study used a correlation design. A correlation design is used to examine the relationship between two or more variables (William, 2011). Given that the study was seeking to assess the relationship between agency costs and capital structure of firms listed in the NSE in Kenya, a descriptive design was selected for the study.

#### **3.3 Population**

For the purpose of this study, the population was from all the 61 companies quoted at the Nairobi securities exchange as at 31<sup>st</sup> December 2013, (appendix 1). The period of research was year 2009-2013 inclusive. The study was limited to companies listed at the NSE because of greater availability, accessibility and reliability of data than those of private companies, unlisted companies and parastatals.

### **3.4 Data Collection**

For the purpose of this study, secondary data was utilized; data was extracted from financial annual reports of all companies listed at the NSE for the period under study. The financial reports were obtained from the NSE data bank. The following reports were extracted for each company in the sample; Annual sales, Total annual overheads expenses, Total long term liabilities at end of each year, Total assets at end of each year.

### **3.5 Data Analysis**

Statistical Package for Social Scientist (SPSS version 14) was used to aid in analyzing data. The F-test was used to measure the association between the dependent and independent variables while regression analysis was applied to determine the effect of capital structure on the agency costs. A simple regression was used to test the main model and t-test used as a test of significance.

According to Baker and Powell (2005), there are two types of agency costs, direct and indirect agency costs. Shareholders incur direct costs in order to reduce potential conflicts with managers. This is bonus stocks options plans; audit fees, managerial incentives and infrastructure put in place to control the behavior of managers. Indirect costs results from managers failure to make profitable investments due to risk aversion, managers exerting insufficient work efforts, poor investment decisions, choosing inputs and outputs that suit their preferences, executive perquisites. The risk that agents will use organizational resources for their own benefits.

#### **3.5.1 Analytical Model**

The analysis of data was achieved through the use of Statistical Package for Social Scientists (SPSS). This was to answer the research questions and explain the associations and dependencies between the variables of the study. Multivariate regression analysis resulted in a prediction equation that describes the relationship between a dependent variable and independent variables (Gujarati, 2000).

The model is as explained below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:

Y = is the agency cost measured using indirect costs, that is the value lost by shareholders due to managers exerting insufficient effort and making decisions that suit their own selfish interests. The cost will be determined by using efficiency ratio.

Efficiency ratio = Annual overhead expenses/Annual sales.

$\beta_0$  = the intercept and the constant to the equation reflecting agency cost that doesn't depend on the company structure.

$X_1$  = Capital structure measured by long term debt to equity ratio = Long term debt/Equity.

$X_2$  = Information asymmetry as measured by Market value of shares/Book value of shares.

$X_3$  = Ownership concentration as measured by percentage of large scale shareholders.

Percentage of large scale shareholders = Large investor (institutional investors) shareholding/Total equity.

$\beta_i$  = The sensitive coefficient that show the change in the agency cost due to a unit change in the independent variables.

$\varepsilon$  = Is the error term of the model and captures the estimation errors and errors due to omission of other variables that affect agency cost apart from the capital structure.

### **3.5.2 Test of Significance**

The study used Pearson correlation coefficient (r), analysis of variance (ANOVA) and F-test to test for significance. The Pearson correlation coefficient (r) is a measure the strength and direction of the linear relationship between two variables, describing the direction and degree to which one variable is linearly related to another. Its value ranges

between +1 and -1 inclusive, where 1 is total positive correlation, 0 is no correlation, and -1 is total negative correlation.

The *F*-test is used to test if the variances of two populations are equal which can be two-tailed test or a one-tailed test and the appropriateness of the multiple regression models. A significant *F* indicates a linear relationship between *Y* and at least one of the *X*'s. It is used when the sample size is small i.e.  $n < 30$ . The ANOVA test is used to determine the impact independent variables have on the dependent variable in a regression analysis.

## CHAPTER FOUR

### DATA ANALYSIS, RESULTS AND FINDINGS

#### 4.1 Introduction

This chapter presents data analysis and interpretation of the research findings. The chapter examines, categorizes, and tabulates the evidence so as to address the study's objective. The study sought to establish the relationship between capital structure and agency costs for firms listed at the Nairobi Securities Exchange. The sample comprised of all the firms listed at the Nairobi Securities Exchange in the period 1<sup>st</sup> January 2009 31<sup>st</sup> December 2013. The analysis of regressions, results and the findings of the study are respectively discussed.

#### 4.2 Descriptive Statistics

The findings presented in Table 4.1 indicate the mean, median and standard deviation of the means for the main variables of the study namely efficiency ratio, long term debt, concentrated ownership and information asymmetry. The statistics are the sample averages over the study period.

**Table 4.1: Descriptive statistics of key variables**

	Mean	median	Maximum	Minimum	Standard deviation
Efficiency ratio	0.1075	0.1510	0.3504	0.0183	0.0697
Long-term debt ratio	0.1939	0.0166	2.4394	0.0003	0.2728
Concentrated ownership	0.2403	0.1124	0.0878	0.0001	0.1531
Information asymmetry	0.0380	0.0280	0.0370	0.0000	0.2309

**Source: Research Findings**

Based on the data obtained, the average efficiency ratio is 10.75% and its corresponding standard deviation is 6.97% while the minimum value of efficiency ratio is 1.83% which existed at Kakuzi Ltd in 2013 and the maximum value is 35.04% which existed at

Safaricom limited in 2009. The long term debt is arrived at in an average of 19.39% and a standard deviation of 27.28% while the maximum value of the long term debt ratio is 0.03% that existed at Longhorn Kenya Ltd in 2013 and a maximum value of 243.9% that existed at East African Breweries Ltd in 2009.

### 4.3 Inferential Statistics

The findings of both regression analysis to test the existence a relationship between the variables and correlation analysis to test the direction and strength of the relationships between agency costs, capital structure, ownership concentration and information asymmetry are hereby as discussed below.

#### 4.3.1 Regression Analysis

A regression analysis was conducted on capital structure against agency cost, which was based on efficiency ratio and the control variables: capital structure, information asymmetry and ownership concentration. The regression equation was as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Data for the above variables was generated for 61 companies listed in the NSE that covered the years 2009 to 2013 (Refer appendix ii).

**Table 4.2: The Coefficients of the Model**

	Coefficients	Standard errors	t-Stat	P-value	Tolerance	VIF
Intercept/constant	0.185674	0.131229	1.53113	0.132113	-	-
Long-term debt to equity	0.032669	0.001857	3.271081	0.003218	0.897	1.002
Ownership concentration	0.02683754	0.007287	3.928713	0.000273	0.895	1.032
Information asymmetry	0.4068286	0.083788	5.83432	-	0.732	1.208

**Source: Research Findings**

The table above depicts the relationship that exists between the independent variables and the dependent variables in terms of numerical forming the following relationship from the equation given above i.e.

$$\text{Agency cost} = 0.1857 + 0.327X_1 + 0.02684X_2 + 0.4068X_3 + 0.13122$$

From the equation developed above, it means that, once capital structure increases by 1 unit, agency cost increases by 0.327 units. When ownership concentration increases by 1 unit, agency cost increases by 0.02684 units and when information asymmetry increases by 1 unit, agency cost increases by 0.4068 units. The error term is given by 0.13122 units.

#### 4.3.2 Correlation Analysis

The correlation analysis was carried out to determine and measure the strength and direction of the linear relationship between two variables, describing the direction and degree to which one variable is linearly related to another.

**Table 4.3: Correlation Analysis**

		Efficiency ratio	Long-term debt to equity	Ownership concentration	Information asymmetry
Pearson correlation	Efficiency ratio	1	0.128	0.342	0.063
	Long-term debt to equity	0.128	1	0.106	0.047
	Ownership concentration	0.342	0.106	1	0.131
	Information asymmetry	0.063	0.047	0.131	1



		Efficiency ratio	Long-term debt to equity	Ownership concentration	Information asymmetry
P value	Efficiency ratio	1	0.078	0.011	0.328
	Long-term debt to equity	0.078	1	0.169	0.226
	Ownership concentration	0.011	0.169	1	0.078
	Information asymmetry	0.328	0.226	0.078	1

**Source: Research Findings**

From the table above, there existed a positive relationship between agency costs and long term debt ( $r = 0.128$ ), a positive relationship between agency costs and ownership concentration ( $r = 0.342$ ) and finally a positive relationship between capital structure and information asymmetry ( $r = 0.063$ ). The correlation between agency cost and capital structure is significant since the p-value is 0.078, similar to ownership concentration which is significant as the p-value is 0.011 and finally the p-value of agency costs to information asymmetry is 0.328 which is significant.

#### **4.4 Interpretation of the Findings**

From the analysis of the results obtained, it can be seen that capital structure has a significant positive relationship to agency cost as measured by the annual long term debt meaning that the higher the use of the long-term debt in the process of the operational activities will lead to an improvement in a company's operating expenses. This does not agree with the results of the research by Zheng (2013) who found out that there was no significant influence between the capital structure and agency costs which means that the use of long-term debt does not influence agency costs. However, the results of the research are in agreement with the findings of the research by Ellul (2005) and Lin (2006) who found out that there existed positive effects between capital structure and agency costs.

The use of long-term debt allows the managers of various companies to manage the funds as the operations of the companies or investment activities in the future due to the overdue refunds provided long enough. This means that with an increase in the operational activities of the company, the cost of operation will also increase. The use of long-term debt provides an opportunity for the managers to do much beyond the providers of the funds that are used in the unilateral benefit without the consent of the owners (Zheng 2013). The use of long term debt will make the managers of various companies manage the funds effectively and hence play in debts righteously.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1. Introduction**

This chapter presents the summary, conclusions and recommendations derived from the findings of the study. The chapter presents a brief summary of the study; conclusions; limitations of the study; and recommendations.

#### **5.2 Summary**

The objective of the study was to investigate the relationship between capital structure and agency cost of listed companies at the Nairobi Securities Exchange. The following research question guided the study: how does the capital structure relate to agency costs of listed firms? In answering this question, the study applied historical data to get the efficiency ratio, long term debt ratio, information asymmetry and ownership concentration ratios, the historical data of all these ratios were obtained from the Nairobi Securities Exchange and the Capital Markets Authority data banks. The key findings revealed that there positive correlation between capital structure and agency costs

#### **5.3 Conclusion**

This paper selects all the 61 listed companies from the Nairobi Securities exchange during the five-year period from 2009 to 2013, studies the relationship between the capital structure and the agency cost. Capital structure is calculated by the long-term debt to equity ratio while the agency cost is measured by the efficiency ratio which is obtained from the annual overhead expenses to the sales ratio. The hypothesis is used in establishing the multiple regression models (Analytical model), which is then used in carrying out an empirical analysis. The results show that, long-term debt to equity ratio has significant and positive effect on the on the agency cost which is measured by the efficiency ratio. Wang (2010) capital structure has the most effect on the agency cost measured by the efficiency ratio. The increase in the debt of the company so as to fund its operations or to expand its operation will lead to the production of a load of operations in any firm. Coupled with the increased operations of the company, the need for monitoring

so that an increase in the costs that are incurred for the increased operational activities will be allocated efficiently.

#### **5.4 Recommendations for Policy**

From the analysis carried out and the discussion obtained, there are suggestions that can be given for further research. By applying this suggestion, future research on the relationship between capital structure and agency costs will be relative. Given that it is now evident that capital structure positively affects agency costs of listed firms at the Nairobi Securities Exchange, firms should formulate incentive schemes for managers to reduce agency costs with an increase in the use of debt in the firms capital structure. Looking forward, by identifying the use of inappropriate estimation techniques as an important reason why there is no consensus in the literature about the shape of the capital structure-agency costs relationship, this study serves as a first attempt towards establishing a more pragmatic empirical model for agency cost modeling and its determinants. However, there is still scope for further methodological improvements on agency cost modeling.

#### **5.5 Limitations of the Study**

There are factors that impede satisfactory results to be obtained. The study was conducted on 61 listed companies only. This makes the sample size too low, and it will not reflect the private sector as the companies researched are only public companies. Also the period of research from 2009 until 2013 is another limiting factor. The five year period covered is not enough period to provide conclusive results as to the effect of capital structure on agency costs. The other limiting factor is the number of independent variables that were used in the model that affects the agency costs, in this study capital structure, information asymmetry and ownership concentration variables were used, these variables can be expounded to include other key variables apart from the once used to show how they also affect agency costs. The other limitation is how to measure agency costs, there is no universally accepted way of measuring agency costs, this is because agency costs can be measured either directly or indirectly.

## **5.6. Areas for Further Research**

A promising avenue for research is to consider potential interrelations between the alternative mechanisms of agency cost controls available to firms as well as interactions between capital structure and environmental or other internal organizational factors. A fruitful area for future research would also be to examine the effect of other variables apart from information asymmetry and concentration ownership that were used in this research, to find out how these other variables affects agency costs. Also another area of research will be to examine the effect of capital structure of firms not listed at the Nairobi Securities Exchange, this will include private businesses and parastatals which were beyond the scope of this study and can hence be left to further research.

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**APPENDIX I**  
**LIST OF FIRMS QUOTED AT THE NSE AS AT 31<sup>ST</sup> DECEMBER**  
**2013**

**AGRICULTURAL**

- 1 Eaagads Ltd
- 2 Kapchorua Tea Co. Ltd
- 3 Kakuzi Ltd
- 4 Limuru Tea Co. Ltd
- 5 Rea Vipingo Plantations Ltd
- 6 Sasini Ltd
- 7 Williamson Tea Kenya Ltd

**COMMERCIAL AND SERVICES**

- 8 Express Ltd
- 9 Kenya Airways Ltd
- 10 Nation Media Group Ltd
- 11 Standard Group Ltd
- 12 TPS Eastern Africa (Serena) Ltd
- 13 Scangroup Ltd
- 14 Uchumi Supermarket Ltd
- 15 Hutchings Biemer Ltd
- 16 Longhorn Kenya Ltd

**TELECOMMUNICATION AND TECHNOLOGY**

- 17 Safaricom Ltd

**AUTOMOBILES AND ACCESSORIES**

- 18 Car and General (K) Ltd
- 19 CMC Holdings Ltd
- 20 Sameer Africa Ltd
- 21 Marshalls (E.A.) Ltd

**BANKING**

- 22 Barclays Bank Ltd
- 23 CFC Stanbic Holdings Ltd

24	I&M Holdings Ltd
25	Diamond Trust Bank Kenya Ltd
26	Housing Finance Co Ltd
27	Kenya Commercial Bank Ltd
28	National Bank of Kenya Ltd
29	NIC Bank Ltd
30	Standard Chartered Bank Ltd
31	Equity Bank Ltd
32	The Co-operative Bank of Kenya Ltd
	<b>INSURANCE</b>
33	Jubilee Holdings Ltd
34	Pan Africa Insurance Holdings Ltd
35	Kenya Re-Insurance Corporation Ltd
36	Liberty Kenya Holdings Ltd
37	British-American Investments Company ( Kenya) Ltd
38	CIC Insurance Group Ltd
	<b>INVESTMENT</b>
39	Olympia Capital Holdings ltd
40	Centum Investment Co Ltd
41	Trans-Century Ltd
	<b>MANUFACTURING AND ALLIED</b>
42	B.O.C Kenya Ltd
43	British American Tobacco Kenya Ltd
44	Carbacid Investments Ltd
45	East African Breweries Ltd
46	Mumias Sugar Co. Ltd
47	Unga Group Ltd
48	Eveready East Africa Ltd
59	Kenya Orchards Ltd
50	A.Baumann CO Ltd
	<b>CONSTRUCTION AND ALLIED</b>

51	Athi River Mining
52	Bamburi Cement Ltd
53	Crown Berger Ltd
54	E.A.Cables Ltd
55	E.A.Portland Cement Ltd
	<b>ENERGY AND PETROLEUM</b>
56	KenolKobil Ltd
57	Total Kenya Ltd
58	KenGen Ltd
59	Kenya Power & Lighting Co Ltd
60	Umeme Ltd
	<b>GROWTH ENTERPRISE MARKET SEGMENT</b>
61	Home Afrika Ltd

Source: Nairobi Stock Exchange website (<https://www.nse.co.ke>)

**APPENDIX II: RAW DATA**

<b>Company</b>	<b>Year</b>	<b>Sales Ksh. '000'</b>	<b>Overhead expense Ksh. '000'</b>	<b>Equity Ksh. '000'</b>	<b>Long- term debt Ksh. '000'</b>	<b>Corporate ownership Ksh. '000'</b>	<b>Market value Ksh</b>	<b>Book value Ksh</b>
A.Baumann CO Ltd	2013	3,478,010	470,500	5,402,750	795,820	3,550,000	11	5
Athi River Mining	2013	15,450,670	947,710	22,500,000	13,800,900	15,600,745	88	5
Athi River Mining	2012	11,400,569	769,010	20,450,260	13,329,740	15,600,745	45	5
Athi River Mining	2011	8,180,992	758,740	16,095,887	9,993,361	10,743,500	158	5
Athi River Mining	2010	5,964,670	623,327	13,358,440	8,431,518	10,743,500	183	5
Athi River Mining	2009	5,144,822	620,754	8,787,329	4,658,399	6,733,200	111	5
B.O.C Kenya Ltd	2013	1,294,550	547,500	1,454,811	-	950,000	902	10
B.O.C Kenya Ltd	2012	1,204,500	478,699	1,328,551	-	950,000	100	10
B.O.C Kenya Ltd	2011	1,205,372	376,530	1,315,600	-	950,000	100	10
B.O.C Kenya Ltd	2010	1,155,379	352,573	1,521,385	-	950,000	132	10
B.O.C Kenya Ltd	2009	1,285,373	397,242	1,533,794	-	950,000	150	10
Bamburi	2013	33,928,000	3,275,000	31,510,000	5,525,000	12,504,000	150	5
Bamburi	2012	37,491,000	3,015,000	30,861,000	5,166,000	12,504,000	133	5



Bamburi	2011	35,884,000	2,010,000	24,174,000	4,231,000	12,504,000	125	5
Bamburi	2010	28,075,000	2,336,000	21,626,000	4,216,000	12,504,000	187	5
Bamburi	2009	23,820,000	2,562,000	19,378,000	4,022,000	12,504,000	156	5
Barclays Bank Ltd	2013	22,850	3,481	184,900	4,499	112,000	17	2
Barclays Bank Ltd	2012	18,145	2,896	184,825	4,499	112,000	42	2
Barclays Bank Ltd	2011	16,336	1,296	165,994	4,474	112,000	20	2
Barclays Bank Ltd	2010	15,674	1,457	170,876	4,351	112,000	75	2
Barclays Bank Ltd	2009	14,770	2,747	164,876	4,294	112,000	45	2
British American Tobacco	2013	3,932,000	6,935,000	9,716,000	2,450,000	6,200,000	926	10
British American Tobacco	2012	30,503,560	14,714,086	9,083,000	2,025,898	6,200,000	493	10
British American Tobacco	2011	28,818,391	15,650,541	6,412,067	1,977,849	6,200,000	246	10
British American Tobacco	2010	22,603,910	10,576,979	5,114,312	1,900,596	6,200,000	270	10
British American Tobacco	2009	18,719,542	8,779,231	4,672,076	1,547,455	6,200,000	178	10
British-American Investments Company ( Kenya) Ltd	2013	25,670,050	1,980,650	14,569,150	4,897,720	8,500,500	30	10
British-American Investments Company ( Kenya) Ltd	2012	23,970,570	1,750,925	12,472,324	5,907,420	7,545,000	6	10
British-American Investments	2011	19,760,520	1,648,901	8,557,448	3,644,610	6,529,500	5	10

Company ( Kenya) Ltd								
Car and General (K) Ltd.	2013	5,711,529	4,695,638	2,090,003	633,783	1,500,000	38	5
Car and General (K) Ltd.	2012	6,086,106	5,017,506	1,862,329	536,670	1,500,000	23	5
Car and General (k) Ltd.	2011	4,779,318	750,558	1,536,764	276,041	1,500,000	47	5
Car and General (k) Ltd.	2010	4,349,489	750,863	1,288,858	221,552	1,500,000	42	5
Car and General (k) Ltd.	2009	2,997,342	477,620	1,120,991	208,038	1,500,000	33	5
Carbacid Investments Ltd.	2013	921,753	109,018	1,652,770	209,880	5,380,000	27	5
Carbacid Investments Ltd.	2012	576,092	69,747	1,467,365	226,922	5,380,000	125	5
Carbacid Investments Ltd.	2011	620,083	89,745	1,453,030	151,851	5,380,000	92	5
Carbacid Investments Ltd.	2010	552,853	63,425	1,445,608	142,237	5,380,000	156	5
Carbacid Investments Ltd.	2009	387,115	54,679	1,309,831	146,750	5,380,000	103	5
Centum Investment Co Ltd	2013	24,789,010	875,170	11,041,242	1,000,000	7,663,050	60	1
Centum Investment Co Ltd	2012	18,664,501	758,220	9,559,377	-	7,663,050	14	1
Centum Investment Co Ltd	2011	16,919,520	797,420	7,856,167	-	5,505,000	22	1
Centum Investment Co Ltd	2010	11,954,400	4,508,411	5,859,392	-	4,853,500	16	1
CIC Insurance Group Ltd	2013	57,166,290	4,861,770	16,589,040	4,396,410	8,505,000	11	10
CIC Insurance Group Ltd	2012	54,852,901	4,796,842	14,069,551	3,197,799	8,505,000	14	10

CIC Insurance Group Ltd	2011	49,663,810	4,196,830	11,120,796	2,595,699	8,505,000	-	10
CIC Insurance Group Ltd	2010	50,790,680	5,078,490	6,567,549	863,287	5,000,000	-	10
CIC Insurance Group Ltd	2009	43,004,107	4,799,510	3,490,495	820,199	2,705,000	-	10
CMC Holdings Ltd.	2013	12,227,882	1,861,778	5,837,436	313,756	5,000,000	14	13
CMC Holdings Ltd.	2012	11,738,774	1,810,109	5,736,158	679,590	5,000,000	10	13
CMC Holdings Ltd.	2011	11,805,399	2,159,639	5,145,429	431,402	5,000,000	9	13
CMC Holdings Ltd.	2010	12,726,920	1,614,590	5,454,979	424,298	5,000,000	9	13
CMC Holdings Ltd.	2009	11,728,127	1,369,695	5,273,147	459,837	5,000,000	9	13
Crown Berger Ltd	2013	5,985,840	1,320,995	2,785,910	685,410	1,250,000	119	5
Crown Berger Ltd	2012	4,432,877	1,267,740	2,258,263	669,019	1,250,000	43	5
Crown Berger Ltd	2011	3,853,569	1,152,975	2,215,352	646,037	1,250,000	21	5
Crown Berger Ltd	2010	3,068,468	1,089,771	1,972,337	492,268	1,250,000	36	5
Crown Berger Ltd	2009	2,543,657	968,218	1,858,452	532,286	1,250,000	25	5
Diamond Trust Bank Kenya Ltd	2013	16,579,014	7,332,628	18,626,921	3,807,801	9,200,000	260	4
Diamond Trust Bank Kenya Ltd	2012	10,039,098	3,212,146	13,248,819	3,911,680	9,200,000	115	4
Diamond Trust Bank Kenya	2011	7,364,179	2,481,417	10,259,679	2,109,519	9,200,000	91	4

Ltd								
Diamond Trust Bank Kenya Ltd	2010	6,461,453	2,941,940	8,088,198	1,892,700	9,200,000	135	4
Diamond Trust Bank Kenya Ltd	2009	4,695,985	2,257,251	7,020,417	1,958,015	9,200,000	70	4
E.A Portland Cement	2013	4,567,292	1,260,462	7,272,879	2,263,591	3,000,000	70	5
E.A Portland Cement Ltd	2012	8,614,806	3,000,298	7,090,257	2,357,448	3,000,000	56	5
E.A Portland Cement Ltd	2011	10,172,140	4,537,885	5,702,918	2,100,179	3,000,000	47	5
E.A Portland Cement Ltd	2010	9,408,711	3,976,786	5,701,201	1,836,650	3,000,000	54	5
E.A Portland Cement Ltd	2009	8,101,377	3,459,870	6,102,252	1,512,392	3,000,000	33	5
E.A.Cables Ltd	2013	5,128,540	673,810	3,975,100	863,332	2,000,000	16	1
E.A.Cables Ltd	2012	4,300,608	596,220	3,716,416	791,387	2,000,000	12	1
E.A.Cables Ltd	2011	4,971,665	643,665	2,918,720	644,888	2,000,000	11	1
E.A.Cables Ltd	2010	3,604,366	528,860	3,119,083	872,774	2,000,000	16	1
E.A.Cables Ltd	2009	2,811,861	484,294	2,296,299	635,519	2,000,000	20	1
Eaagads Ltd	2013	3,098,650	1,587,951	980,000	543,690	350,000	43	1
Eaagads Ltd	2012	2,043,332	1,277,868	980,000	624,452	350,000	39	1
Eaagads Ltd	2011	2,376,862	1,426,866	980,000	709,398	350,000	47	1

Eaagads Ltd	2010	2,113,774	1,279,724	980,000	624,408	350,000	45	1
Eaagads Ltd	2009	2,998,157	1,198,382	980,000	571,806	350,000	23	1
East African Breweries ltd.	2013	59,062,000	12,640,000	32,533,849	7,413,590	3,900,000	274	2
East African Breweries ltd.	2012	55,522,000	12,039,000	29,428,000	7,165,823	3,900,000	233	2
East African Breweries ltd.	2011	44,895,000	9,972,000	27,008,546	6,862,495	3,900,000	195	2
East African Breweries ltd.	2010	38,679,000	7,412,000	26,004,195	6,620,187	3,900,000	181	2
East African Breweries ltd.	2009	34,408,000	6,289,000	21,652,464	64,125,973	3,900,000	145	2
Equity bank ltd	2013	31,890,000	5,399,000	51,555,000	26,736,000	350,809,180	47	1
Equity bank Ltd	2012	28,310,000	5,340,000	42,916,000	25,612,000	350,809,180	19	1
Equity bank ltd	2011	22,834,000	2,509,000	34,285,000	18,178,900	350,809,180	16	1
Equity bank ltd	2010	19,045,000	1,913,000	27,204,000	15,789,450	350,809,180	27	1
Equity bank ltd	2009	15,278,000	1,044,000	22,908,000	11,234,565	350,809,180	14	1
Eveready East Africa Ltd	2013	1,250,010	400,540	1,170,800	245,900	700,500	4	1
Eveready East Africa Ltd	2012	1,374,789	358,389	1,150,729	105,476	700,500	4	1
Eveready East Africa Ltd	2011	1,373,847	317,070	1,016,908	79,076	700,500	5	1
Eveready East Africa Ltd	2010	1,635,106	327,851	1,195,824	123,592	700,500	5	1
Eveready East Africa Ltd	2009	1,645,193	405,841	997,672	74,800	700,500	6	1

Express Ltd	2013	546,789	89,458	389,741	126,945	319,000	8	5
Express Ltd	2012	229,908	65,941	334,118	135,831	319,000	7	5
Express Ltd	2011	450,324	112,962	357,319	202,043	319,000	5	5
Express Ltd	2010	856,512	179,401	781,758	397,396	319,000	7	5
Express Ltd	2009	892,928	189,657	802,366	389,913	319,000	4	5
Home Afrika Ltd	2013	438,905	76,800	875,750	233,570	555,000	5	1
Housing Finance Co Ltd.	2013	5,440,059	2,886,682	5,859,507	1,433,650	2,850,000	48	5
Housing Finance Co. Ltd.	2012	5,068,815	3,118,780	5,137,245	1,097,359	2,850,000	22	5
Housing Finance Co. Ltd.	2011	3,464,079	1,562,517	4,717,364	329,927	2,850,000	20	5
Housing Finance Co. Ltd.	2010	2,475,814	1,074,826	4,257,407	321,598	2,850,000	19	5
Housing Finance Co. Ltd.	2009	1,804,122	656,579	4,073,376	220,443	2,850,000	18	5
Jubilee holdings ltd.	2013	95,100,000	21,500,000	62,410,658	34,201,581	1,143,100	411	5
Jubilee holdings ltd.	2012	78,456,290	16,784,578	8,699,689	2,378,960	1,143,100	173	5
Jubilee holdings ltd.	2011	57,653,290	13,456,723	6,711,651	1,546,797	1,143,100	155	5
Jubilee holdings ltd.	2010	56,754,378	10,435,987	5,577,363	1,245,690	1,143,100	184	5
Jubilee holdings ltd.	2009	47,654,785	8,674,532	3,794,098	1,009,865	1,143,100	115	5
Kakuzi	2013	1,384,375	355,387	2,904,028	666,334	1,800,000	220	5

Kakuzi	2012	2,043,332	417,975	2,801,225	624,452	1,800,000	72	5
Kakuzi	2011	2,376,862	355,981	2,756,765	709,398	1,800,000	70	5
Kakuzi	2010	2,113,774	443,270	2,210,504	624,408	1,800,000	80	5
Kakuzi	2009	2,008,157	337,596	1,888,294	571,806	1,800,000	32	5
Kapchorua Tea Co. Ltd	2013	2,549,450	372,801	495,600	372,367	257,000	150	5
Kapchorua Tea Co. Ltd	2012	1,406,794	294,218	495,600	341,851	257,000	176	5
Kapchorua Tea Co. Ltd	2011	1,246,636	178,243	495,600	319,713	257,000	145	5
Kapchorua Tea Co. Ltd	2010	1,130,108	130,570	495,600	266,582	257,000	132	5
Kapchorua Tea Co. Ltd	2009	743,079	143,344	495,600	271,966	257,000	117	5
KenGen Ltd	2013	16,451,195	10,575,209	74,128,739	73,934,313	1,538,853	11	3
KenGen Ltd	2012	15,872,111	10,266,022	70,179,554	61,850,220	1,538,853	13	3
KenGen Ltd	2011	14,389,027	10,013,507	69,418,587	64,166,527	1,538,853	14	3
KenGen Ltd.	2010	10,998,429	8,558,448	70,530,868	59,636,829	1,538,853	17	3
KenGen Ltd.	2009	12,652,388	8,246,999	66,980,112	25,793,197	1,538,853	15	3
KenolKobil Ltd	2013	109,687,453	4,130,644	6,646,294	14,854,274	21,350,511	10	1
KenolKobil Ltd	2012	192,527,486	6,855,379	6,445,725	667,552	21,350,511	9	1
KenolKobil Ltd	2011	222,440,715	5,378,475	11,650,461	1,529,666	21,350,511	9	1

KenolKobil Ltd	2010	101,760,803	4,033,421	12,705,512	94,974	213,505,511	10	1
KenolKobil Ltd	2009	96,692,834	3,957,925	11,454,628	75,929	21,350,511	13	1
Kenya airways	2013	96,860,000	19,469,000	61,209,000	40,620,000	1,975,004	9	5
Kenya airways	2012	107,897,000	19,404,000	53,676,000	30,653,000	1,975,004	14	5
Kenya airways	2011	85,836,000	20,675,435	56,552,900	33,386,000	1,975,004	32	5
Kenya airways	2010	70,743,000	19,876,540	52,683,000	32,710,000	1,975,004	60	5
Kenya airways	2009	71,829,000	21,764,509	54,257,000	37,081,000	1,975,004	20	5
Kenya commercial bank	2013	11,642,416	4,374,437	17,568,906	3,628,169	8,000,000	59	1
Kenya commercial bank	2012	11,467,574	5,983,706	15,481,622	3,655,414	8,000,000	33	1
Kenya commercial bank	2011	10,981,046	3,904,546	44,365,027	4,292,762	8,000,000	17	1
Kenya commercial bank	2010	7,177,973	2,942,881	39,129,771	2,356,968	8,000,000	22	1
Kenya commercial bank	2009	6,244,287	2,733,469	36,329,842	2,001,332	8,000,000	21	1
Kenya Orchards Ltd	2013	1,137,510	234,785	1,150,050	453,780	750,000	130	5
Kenya Power & Lighting Co Ltd	2013	47,916,237	21,130,634	47,405,675	39,907,832	60,000,000	15	20
Kenya Power & Lighting Co Ltd	2012	45,007,884	19,679,846	43,511,553	21,512,025	60,000,000	17	20
Kenya Power & Lighting Co	2011	43,625,849	17,865,238	40,231,865	20,138,964	60,000,000	22	20



Ltd								
Kenya Power & Lighting Co Ltd	2010	41,326,954	15,628,492	38,684,297	37,598,237	60,000,000	200	20
Kenya Power & Lighting Co Ltd	2009	38,564,892	14,235,687	34,586,239	21,211,800	60,000,000	146	20
Kenya Re-Insurance Corporation Ltd	2013	119,567,890	13,400,675	15,769,010	9,238,540	8,550,000	18	3
Kenya Re-Insurance Corporation Ltd	2012	117,569,010	16,852,070	14,613,155	9,174,802	8,550,000	11	3
Kenya Re-Insurance Corporation Ltd	2011	110,015,790	12,500,760	11,526,485	7,569,956	8,550,000	7	3
Kenya Re-Insurance Corporation Ltd	2010	112,740,951	10,585,710	10,573,502	6,667,427	8,550,000	11	3
Kenya Re-Insurance Corporation Ltd	2009	96,071,050	8,705,245	9,099,925	5,900,708	8,550,000	12	3
Liberty Kenya Holdings Ltd	2013	12,874,000	1,984,470	5,587,500	3,950,710	2,550,000	23	5
Liberty Kenya Holdings Ltd	2012	9,847,211	1,500,472	5,421,591	3,296,190	2,550,000	77	5
Liberty Kenya Holdings Ltd	2011	9,268,925	961,950	4,174,597	3,600,620	2,550,000	7	5
Limuru Tea Co. Ltd	2013	326,495	76,395	124,000	67,253	85,000	900	20

Limuru Tea Co. Ltd	2012	116,012	49,391	124,000	53,450	85,000	670	20
Limuru Tea Co. Ltd	2011	102,504	42,655	124,000	36,045	85,000	620	20
Limuru Tea Co. Ltd	2010	123,859	19,531	124,000	27,782	85,000	450	20
Limuru Tea Co. Ltd	2009	91,130	52,399	124,000	11,693	85,000	123	20
Longhorn Kenya Ltd	2013	1,033,295	233,992	763,000	4,500	450,000	23	1
Longhorn Kenya Ltd	2012	775,943	274,004	661,675	9,600	450,000	19	1
Longhorn Kenya Ltd	2011	1,100,947	336,271	709,653	22,920	450,000	18	1
Longhorn Kenya Ltd	2010	526,853	233,449	523,000	-	450,000	-	-
Longhorn Kenya Ltd	2009	639,952	273,818	431,357	-	450,000	-	-
Marshalls (E.A.) Ltd.	2013	234,306	68,779	392,129	5,280	110,000	11	5
Marshalls (E.A.) Ltd.	2012	263,078	81,577	592,629	11,964	110,000	12	5
Marshalls (E.A.) Ltd.	2011	604,815	260,093	555,676	25,879	110,000	15	5
Marshalls (E.A.) Ltd.	2010	592,843	275,364	807,218	45,786	110,000	19	5
Marshalls (E.A.) Ltd.	2009	894,585	324,897	690,958	76,980	110,000	24	5
Mumias Sugar	2013	11,957,823	3,690,881	13,288,970	2,981,335	4,200,000	2	2
Mumias sugar	2012	15,542,686	3,126,094	15,723,686	2,925,531	4,200,000	2	2
Mumias Sugar	2011	15,795,300	2,755,684	14,476,007	2,396,834	4,200,000	6	2

Mumias Sugar	2010	15,617,738	2,821,213	10,999,852	2,192,476	4,200,000	13	2
Mumias Sugar	2009	11,803,279	2,329,254	10,039,469	2,382,814	4,200,000	7	2
Nation media	2013	13,373,700	1,505,200	8,243,400	84,400	72,000	312	3
Nation media	2012	12,346,800	1,456,800	7,323,500	137,200	72,000	222	3
Nation media	2011	11,245,800	1,192,900	6,122,400	163,000	72,000	140	3
Nation media	2010	9,602,500	1,215,400	5,422,100	93,700	72,000	167	3
Nation media	2009	8,189,800	1,112,500	4,713,700	89,300	72,000	118	3
National Bank of Kenya Ltd	2013	2,570,560	659,010	10,900,670	3,165,900	5,000,000	27	5
National Bank of Kenya Ltd	2012	1,147,408	417,656	10,449,976	3,458,301	5,000,000	17,25	5
National Bank of Kenya Ltd	2011	2,443,850	897,737	19,456,474	5,974,210	5,000,000	20	5
National Bank of Kenya Ltd	2010	2,697,823	675,904	9,929,611	4,984,010	5,000,000	39	5
National Bank of Kenya Ltd	2009	2,159,441	696,486	7,907,692	1,709,582	5,000,000	39	5
NIC Bank Ltd	2013	14,674,700	3,805,010	16,540,010	5,321,090	4,250,000	70	5
NIC Bank Ltd	2012	11,467,574	3,500,673	15,481,622	5,831,981	4,250,000	38	5
NIC Bank Ltd	2011	6,831,580	2,739,635	10,522,953	1,977,719	4,250,000	24	5
NIC Bank Ltd	2010	4,757,544	2,288,448	8,353,229	1,865,185	4,250,000	46	5
NIC Bank Ltd	2009	4,425,440	1,850,801	6,792,254	786,510	4,250,000	31	5

Olympia Capital Holdings ltd	2013	16,008,210	488,400	1,250,810	765,980	752,000	3	5
Olympia Capital Holdings ltd	2012	11,742,490	437,630	1,067,228	542,210	752,000	4	5
Olympia Capital Holdings ltd	2011	6,890,640	295,010	647,259	-	550,000	5	5
Pan African Insurance	2013	532,400	222,000	3,230,000	1,355,900	90,000	121	5
Pan African insurance	2012	595,000	186,000	2,629,000	3,694,000	90,000	112	5
Pan African Insurance	2011	1,056,000	200,000	2,123,000	5,136,000	90,000	86	5
Pan African Insurance	2010	1,308,000	240,000	1,832,000	7,200,000	90,000	66	5
Pan African Insurance	2009	574,000	318,000	1,325,000	7,860,000	90,000	56	5
Rea vipingo	2013	2,570,103	726,367	2,095,870	480,897	400,000	27	5
Rea vipingo	2012	2,571,725	662,713	1,722,145	396,489	400,000	17	5
Rea vipingo	2011	2,115,616	556,694	146,860	394,644	400,000	15	5
Rea vipingo	2010	1,441,668	477,750	281,068	989,099	400,000	18	5
Rea vipingo	2009	1,371,090	421,152	214,222	975,450	40,000	11	5
Safaricom	2009	70,479,587	21,532,271	51,330,367	4,680,000	1,500,000	4	0
Safaricom	2013	124,287,856	40,841,114	80,265,128	12,000,000	15,000,000	13	0
Safaricom	2012	106,995,529	33,192,834	72,081,698	12,202,079	15,000,000	9	0
Safaricom	2011	94,832,227	29,683,910	67,454,091	12,282,495	150,000,000	3	0

Safaricom	2010	83,960,677	24,811,033	62,763,117	7,908,388	1,500,000	6	0
Sameer Africa Ltd	2011	3,757,076	148,446	2,249,788	450,162	1,287,000	7	5
Sameer Africa Ltd	2010	3,414,746	62,199	2,168,142	426,816	1,287,000	5	5
Sameer Africa Ltd	2009	3,353,160	221,464	2,282,567	364,255	1,287,000	4	5
Sameer Africa ltd.	2013	4,029,841	456,521	2,679,613	571,236	1,287,000	8	5
Sameer Africa Ltd.	2012	4,083,631	298,761	2,326,723	480,768	1,287,000	5	5
Sasini ltd	2013	2,816,834	716,620	6,382,911	1,940,206	160,600	14	1
Sasini ltd	2012	2,779,883	673,890	6,426,802	1,910,550	160,600	11	1
Sasini ltd	2011	2,665,877	611,330	6,762,172	2,352,627	160,600	12	1
Sasini ltd	2010	2,297,927	576,977	6,489,979	2,116,420	160,600	13	1
Sasini ltd	2009	2,182,090	437,829	5,661,822	2,051,037	160,600	6	1
Scangroup Ltd.	2013	3,850,394	867,358	8,251,785	346,178	51,811,360	46	1
Scangroup Ltd.	2012	4,231,835	752,009	4,899,630	358,058	51,811,360	43	1
Scangroup Ltd.	2011	3,597,260	911,116	4,354,909	337,430	51,811,360	42	1
Scangroup Ltd.	2010	2,345,554	640,585	3,577,805	191,143	51,811,360	62	1
Scangroup Ltd.	2009	1,624,029	401,148	2,366,222	11,620	51,811,360	26	1
Standard chartered bank ltd	2013	16,250,000	5,420,000	42,530,000	8,625,000	5,000,000	340	5

Standard chartered bank ltd	2012	13,742,202	8,398,595	30,752,814	4,906,762	5,000,000	235	5
Standard chartered bank ltd	2011	9,851,294	7,245,637	20,694,456	4,126,940	5,000,000	160	5
Standard chartered bank ltd	2010	8,115,564	5,888,524	20,331,122	5,715,085	5,000,000	258	5
Standard chartered bank ltd	2009	7,337,278	5,043,049	13,992,155	3,960,439	5,000,000	161	5
Standard group	2013	4,263,397	231,896,533	2,024,137	461,760	3,000,000	33	5
Standard group	2012	3,617,816	1,932,661	1,838,902	543,943	3,000,000	28	5
Standard group	2011	3,174,907	1,635,229	1,654,066	663,672	3,000,000	25	5
Standard group	2010	2,932,508	1,562,457	1,428,573	732,453	3,000,000	46	5
Standard group	2009	2,767,835	1,406,290	1,261,428	891,572	3,000,000	38	5
The Co-operative Bank of Kenya	2013	24,541,725	13,171,000	36,773,649	10,252,392	9,000,000	22	1
The Co-operative Bank of Kenya	2012	24,536,127	11,387,000	29,367,000	8,072,000	9,000,000	23	1
The Co-operative Bank of Kenya	2011	183,060,000	9,231,000	20,951,000	2,846,000	9,000,000	18	1
The Co-operative Bank of Kenya	2010	15,671,000	7,354,000	19,980,000	5,133,000	9,000,000	13	1
The Co-operative Bank of Kenya	2009	11,718,000	5,888,000	15,656,000	2,493,000	9,000,000	9	1

Total Kenya	2013	154,626,092	4,323,842	15,379,060	1,117,028	10,732,950	30	5
Total Kenya	2012	119,788,989	4,652,729	14,192,676	854,765	1,032,950	28	5
Total Kenya	2011	105,590,360	3,962,404	9,194,818	3,020,584	1,032,950	30	5
Total Kenya	2010	79,206,640	2,564,299	9,579,853	3,276,000	1,032,950	29	5
Total Kenya	2009	41,311,598	1,387,542	8,962,191	3,978,000	1,032,950	15	5
TPS Eastern Africa (Serena) Ltd	2013	6,739,700	1,639,510	11,750,682	2,548,901	5,000,000	37	1
TPS Eastern Africa (Serena) Ltd	2012	5,439,600	1,348,540	11,438,115	3,256,705	5,000,000	34	1
TPS Eastern Africa (Serena) Ltd	2011	5,465,975	1,573,501	11,516,544	3,469,720	5,000,000	39	1
TPS Eastern Africa (Serena) Ltd	2010	4,480,128	1,195,834	10,265,172	2,768,787	5,000,000	23	1
TPS Eastern Africa (Serena) Ltd	2009	4,077,657	978,474	6,008,161	1,943,771	5,000,000	11	1
Trans-Century Ltd	2013	13,487,229	2,293,137	21,845,754	8,505,563	11,000,000	23	10
Trans-Century Ltd	2012	10,701,621	2,036,391	22,424,264	8,065,792	11,000,000	24	10
Trans-Century Ltd	2011	6,794,650	1,348,889	11,236,478	3,371,518	5,000,000	27	10
Trans-Century Ltd	2010	5,414,887	991,019	8,733,331	3,168,545	5,000,000	20	10

Trans-Century Ltd	2009	5,514,570	872,510	6,458,540	2,458,540	5,000,000	13	10
Uchumi supermarket	2013	14,270,598	3,177,240	2,925,412	200,000	48,000	10	5
Uchumi supermarket	2012	13,802,191	2,711,285	2,657,810	80,309	48,000	8	5
Uchumi supermarket	2011	10,770,961	3,568,945	2,462,533	183,368	48,000	11	5
Uchumi supermarket	2010	9,559,962	3,134,876	1,859,073	320,140	48,000	15	5
Uchumi supermarket	2009	5,200,020	1,784,100	-	6,008,161	-	-	-
Umeme Ltd	2013	975,330	197,572	950,660	579,940	300,000	12	10
Umeme Ltd	2012	859,552	150,840	451,756	432,619	300,000	10	10
Unga Group Ltd.	2013	16,547,036	2,723,590	2,956,879	149,364	1,000,000	45	5
Unga Group Ltd.	2012	15,976,763	1,558,405	2,675,765	453,088	1,000,000	23	5
Unga Group Ltd.	2011	13,214,442	1,867,905	3,744,951	345,150	1,000,000	9	5
Unga Group Ltd.	2010	11,424,454	1,345,760	3,364,703	355,354	1,000,000	12	5
Unga Group Ltd.	2009	11,643,639	1,456,890	3,146,387	334,142	1,000,000	10	5
Williamson Tea Kenya Ltd	2013	4,239,501	1,423,671	437,820	238,590	255,000	300	5
Williamson Tea Kenya Ltd	2012	3,607,409	1,553,910	437,820	280,968	255,000	287	5
Williamson Tea Kenya Ltd	2011	3,284,909	1,991,219	437,820	1,074,119	255,000	248	5
Williamson Tea Kenya Ltd	2010	2,723,187	1,499,906	437,820	909,731	255,000	279	5



Williamson Tea Kenya Ltd	2009	1,489,982	1,344,641	437,820	349,183	255,000	123	5
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**Source: NSE, CMA Statistical Bulletins & Share Registers**