# EFFECT OF GOVERNMENT OWNERSHIP ON FINANCIAL PERFORMANCE: A SURVEY OF PARTIALLY PRIVATISED FIRMS LISTED AT THE NAIROBI STOCK EXCHANGE (NSE)

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#### DECLARATION

This research project is my original work and has not been submitted for examination in any

other University. Signature: .... Date: 8.11.2011. OMINDI NIXON D61/79033/2010 This research project has been submitted for examination with my approval as a university supervisor.

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#### **DEDICATION**

To those who inspire.

#### ABSTRACT

Despite massive literature on effects of governments' ownership, there is still no consensus on the impact of government ownership/control on firm performance. The objective of the study was to assess the effect of government ownership/control on the financial performance of partially privatised listed firms.

This study adopted a descriptive survey design. The population of this study was the 56 firms listed on the Nairobi Stock Exchange as at August of 2011. A sample of 16 firms with government shareholding was selected. Secondary data was collected from the annual financial statements of the companies sampled from the Capital Markets Authority, Nairobi Stock Exchange or the respective company premises (including their websites). Data on government ownership/control and firms' financial performance was sought from the annual reports and financial statements. For performance, three year (2008 – 2010) data for each of the firms was sought. A descriptive, univariate and multivariate analysis of data was performed with the aid of SPSS.

The descriptive results showed that 7% of firms listed on the NSE are government controlled either ownership by the treasury or a combination of the treasury and other government affiliated institutions. Using non-parametric tests, the study found that there were no statistically significant differences between those which were controlled by the government and those that were not with respect to all the variables except for the shares owned by the treasury. Further, the analysis revealed no significant differences in the performance of government controlled firms and non-government controlled firms. From the rank and normal regression, government shareholding and control did not significantly influence

performance of firms. The study concluded that financial performance of firms listed on the NSE is not affected by government shareholding or control. It is recommended that the government does not necessarily need to shed of its shareholding as has been the practice in the recent past where the Treasury sells of their shareholding to the public to reduce their control on the firms. This is because the financial performance of partially privatized listed firms is indifferent to the government shareholding or control.

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#### ABBREVIATIONS

AIMS Alternative Investment Market Segment

CEO Chief Executive Officer

CRT Controlling Rights Transfer

FMS Fixed Income Market Segment

IPO Initial Public Offer

MIMS Main Investment Market Segment

MSOE Marketised State Owned Enterprises

NSE Nairobi Stock Exchange

OECD Organisation for Economic Cooperation and Development

OLS Ordinary Least Squares

PE Public Enterprises

PLC Public Listed Corporation

ROA Return on Assets

SHSE Shanghai Stock Exchange

SOE State Owned Enterprises

SPSS Statistical Package for the Social Sciences

US United States

# CHAPTER ONE INTRODUCTION

### 1.1 Background of the Study

Economists usually perceive government ownership as being harmful to firm performance. For example, Estrin and Perotin (1991) argue that firms with the government as owner will not concentrate on profit maximisation since the government has dual objectives of political and economical and that corporate performance in such firms will be inferior due to weaker governance arrangements. Shleifer and Vishny (1998), show that private ownership is favoured to government ownership because the government extorts firms to the merits of politicians and bureaucrats. Megginson and Netter (2001) conclude that the weight of empirical research is now decisively for the proposition that privately owned firms are more efficient and more profitable than otherwise comparable government-owned firms. This has led to increased interest in dissociation of the state from production of goods and services, (World Bank, 1995).

The main assumption is that privatisation generates sufficient funds and that the privatised enterprise, apart from being large, continues to operate efficiently post privatization and that the divestiture price at least equals the government's investment in the enterprise; the proceeds are used for repaying a corresponding amount of public debt. Megginson and Netter (2001) notes that change of ownership that accompanies privatisation often leads to improved efficiency. Empirical findings however show that the government is either reluctant to sell or only sells a stake thus retaining a proportion of ownership especially in large and strategic entities (Wei and Varela, 2003; Bortolotti and Faccio, 2004; Huang and Wang, 2004; Omran,

2004; Ranja, 2004; Boubakri, Cosset and Guedhami, 2005; Tian and Estrin, 2007; Garcia, Anson and Rodriguez, 2008; Roland, 2008; OECD, 2010).

A key decision to be made by the privatizing government is the method through which the assets of the Public Entity (PE) are transferred to private ownership and in so doing the proportion to be transferred. This takes into account both political decisions and economic factors such as asset valuation. Factors highlighted as influencing privatization method and ownership proportion include: (1) the history of the asset's ownership, (2) the financial and competitive position of the PE, (3) the government's ideological view of markets and regulation, (3) the past, present, and potential future regulatory structure in the country, (4) the need to pay off important interest groups in the privatization, (5) the government's ability to credibly commit itself to respect investors' property rights after divestiture, (6) the capital market conditions and existing institutional framework for corporate governance in the country, (7) the sophistication of potential investors, and, (8) the government's willingness to let foreigners own divested assets (Megginson and Netter, 2001).

# 1.1.1 Government Ownership and Firm Performance

The effects of government ownership on firms' productive efficiency have been an important research topic in both the economic and management literatures. Gorriz and Fumas, (1996), portend that the lack of consensus on the ownership-performance issue is not surprising because public versus private firms' performance may depend on management and institutional arrangements as well as the market and competition conditions in which the firms operate. The important question thus would be who actually controls the firm and thus influences its performance.

Property rights theory suggests that ownership influences firm performance as different owners pursue distinctive goals and have diverse incentives. Under government ownership, a firm is run by bureaucrats who maximise an objective function that is a weighted average of social welfare and his/her personal agenda as opposed to under private ownership, where the objective is profit (shareholder value) maximisation. Government-owned firms are viewed as less productively efficient than their private sector counterparts operating in similar environment due to (i) the objectives given to the managers of government-owned firms are hazily defined, and tend to change as the political circumstances and relative strengths of different interest groups evolve (Levy, 1987; De Alessi, 1983; Backx, Carney and Gedajlovic, 2002) and (ii) that the non-transferability of ownership, lack of a share price and the generic intricacy residual claimants (citizens) would have in expressing their views, tend to magnify the agency losses, (Zeckhauser and Horn, 1989).

Most privatisation especially those through the capital markets, ends up with a mixed ownership regime embodying elements of government and private ownership. Bos (1991) looks at the behaviour of mixed ownership firms note that on one hand, mixed ownership may facilitate the role of the government as a "steward" in private firms that are dominated by a strategic investor or where there is a lack of market discipline. On the other hand, mixed ownership arrangements may blend the worst qualities of government and private ownership. Thus, the resulting effects of mixed ownership on firm performance are not clear from a theoretical perspective. Boardman and Vining (1989) found that mixed ownership perform no better and often worse than government owned firms, which may be caused by the conflict between public and private shareholders. Their finding concurs with the analytical and empirical productivity growth investigations of Ehrlich, Gallais-Hamonno, Liu and

Lutter, (1994). Contrary, Backx, Carney and Gedajlovic (2002) while looking at the airline industry, found that those with mixed ownership tend to perform better than government owned.

Since Berle and Means (1932) seminal contribution, it is known that diffuse ownership in without suitable internal and external governance mechanisms exposes minority shareholders to the risk of expropriation by managers. Large shareholders may reduce the agency costs of managerial control (Jensen and Meckling, 1976; Shleifer and Vishny, 1986) but ownership concentration has also been associated with the extraction of private benefits by controlling shareholders at the expense of outside investors (Claessens, Djankov, Fan, and Lang 2002; Johnson, La Porta, Lopez and Shleifer, 2000). The government may therefore provide special benefits to privatised firms such as shielding privatised companies from competition, creating a favourable regulatory environment, subsidised loans, and guaranteed contracts, (Bortollio and Faccio, 2004). These benefits may outweigh the cost of political interference thus better performance.

Analysis of financial performance will employ two measures, the first is Tobin's Q, an adjusted measure of the market value of the firm which is the sum of the market value of equity and book value of debt over the book value of total assets, (Tian and Estrin, 2007; Wei and Varela, 2003; Hess, Gunasekarage and Hovey, 2010). Secondly, return on assets, ROA, an accounting measure of profitability. It helps to evaluate the result of managerial decisions on the use of assets which have been entrusted to them, (Tian and Estrin, 2007; Ongore, 2011).

#### 1.1.2 Listed Firms in the NSE

Prior to August 2011, the Nairobi Stock Exchange (NSE) was categorized into three market segments; Main Investment Market Segment (MIMS); Alternative Investment Market Segment (AIMS); and Fixed Income Market Segment (FIMS). The MIMS segment was further categorized in four sectors, namely: agricultural; industrial and allied; finance and investment; and commercial and services. They have since been re-classified into 12 sectors to align them with various sectors of the economy (NSE, 2011). These sectors are agricultural (7 companies), commercial and services (8 companies), telecommunication and technology (2 companies), automobiles and accessories (4 companies), banking (10 companies), insurance (4 companies), investment (3 companies), manufacturing and allied (9 companies), construction and allied (5 companies), and energy and petroleum (4 companies). The other two sectors are fixed income securities market segment which lists preference shares and bonds (NSE, 2011). There are therefore 56 companies currently listed and trading on the NSE.

There are sixteen (16) privatised companies in Kenya with government ownership. Examples of such companies include Kenya Commercial Bank, KenGen, National Bank of Kenya, Kenya Airways, Mumias Sugar Company etc. The composition of government's ownership in privatised firm varies across these companies, ranging from 1% to 70%. This offers an opportunity to study the relationship between government ownership and financial performance of firms. The NSE has been selected as a focus of this study given the availability of secondary data for all the firms listed on the NSE hence it will be easier to collect the data and the data will also be very reliable.

#### 1.2 Problem Statement

Despite massive literature on effects of governments' ownership, (Boardman and Vining, 1989; Nellis, 1994; Wei and Varela, 2003; Bortolotti and Faccio, 2004; Huang and Wang, 2004; Tian and Estrin, 2007; Ongore, 2011), there is still no consensus on the impact of government ownership/control on firm performance. Estrin, Hanousek, Kocenda and Svejnar (2007), through their survey, notes the inconclusiveness of recent empirical findings on the effect of government ownership on performance.

Wang (2004) fail to identify any significant negative relationship between government ownership and company performance, while (Sun and Tong, 2002, 2003) using market to book ratio, net income to sales and operating income to sales, to measure performance, only identify marginal significant negative relationship (at the 10% level) for the market to book ratio. Wang (2005) documents a sharp decline in the operating performance of Chinese firms after going public and attributes it to high levels of information asymmetry in emerging markets which is prone to agency effects, where the manager is entrenched and extracts value from non-controlling shareholders' interests; while Wei et al. (2003) find that, compared with the performance changes of the fully state owned enterprises during the same period, listed firms after share issue privatizations have higher productivity though not profitability. Bai et al., (2004) and Wei et al., (2005) note a convex relationship between government ownership proportion and firm performance.

Bos (1991) argues that when the state has a dominant ownership position, it may have an incentive to closely monitor management, thus reduce agency costs for other shareholders, hence increasing profitability and firm value. Conversely, government ownership may be less

desirable to private ownership in competitive markets for such as the government's preference for socio-political goals as opposed to value maximisation; ability to appoint political allies at the expense of experienced staff to managerial positions; and higher transaction cost (Vining and Boardman, 1992; Megginson et al., 1994; Boycko et al., 1996; Djankov and Murrell, 2002).

The existing literature on Kenyan post privatisation ownership structure and performance is relatively scarce and tends to be descriptive. Most, studies however, only describe the process, or compare pre and post privatisation performance of privatised firms or contribution of privatisation to economic performance via their impact on the stock market. (Welch, 1998; Weche, 2003; Hongo, 2006; Thambu, 2006; Birya, 2009), and discuss very briefly the impact of government ownership/control on performance of partially privatised firms. Thus, much remains to be done in order to understand the effect of government ownership/control on firms' financial performance in Kenya.

The fact that little has been done on effect of government ownership/control on financial performance in Kenya offers a gap in literature that the present study seeks to address. The study thus poses the question: does government ownership have an effect on financial performance of partially privatised, listed companies? This will be done by comparing the government equity ownership and financial performance of privatised firms. It is expected that privatised firms without government controlled (less than 50% stake) ownership perform better than those with government controlled ownership due to change of ownership and control. When privatised listed companies are controlled by government, the old bureaucratic

# CHAPTER TWO LITERATURE REVIEW

#### 2.1 Introduction

This chapter presents the literature review. First, a theoretical review is provided focusing on the theories related to ownership structure and privatisation in firms. Secondly, the empirical review of the studies done on government ownership and its effect on performance in firms is shown. The summary of chapter as well as the research gap is provided.

#### 2.2 Theoretical Review

The theories discussed in this section are property rights theory, incentive contract theory, and public choice theory.

# 2.2.1 Property Rights Theory

As developed by economists such as Coase (1960), Alchian and Demsetz (1973) property rights theory explains differences in organisational behaviour solely on the basis of the individual incentives created by the structure of property rights. The property right (principal agent) theory argues that changes in the allocation of property rights alter the structure of incentives faced by decision makers in the firm and hence lead to changes in both managerial behaviour and company performance (Sappington and Stiglitz, 1987). Company management can be regarded as agents for shareholders in the case of private ownership and for the department or ministry of government in the case of public ownership. Privatization will immediately result in both a shift in the objectives of principals and the incentives to be offered to the management.

Shareholders in large corporations cannot monitor management as closely as the owner of the classical firm could oversee his enterprise. However, in this view, the market generates the needed spur to prevent corporate management from dissipating value through excessive salaries or slack attention. If returns from the enterprise are low, shareholders will sell their stock and the price will be depressed. In the extreme case, the firm may be acquired by outsiders and the managers may lose their jobs. These crucial deterrents to inefficient management are unavailable in the public sector. Since "shareholders" (citizens) have no transferable property rights in public enterprise, they cannot sell stock as a signal of dissatisfaction with performance; even moving to another jurisdiction is costly. Moreover, there is no "market for corporate control": public enterprises cannot be taken over by bidders who believe that they can make more efficient use of the assets. Hence, according to the theory, there is no check on the dissipation of value by the management of public enterprises (Sappington and Stiglitz, 1987).

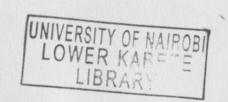
Proponents of the property rights theory perceive human action as purely individualistic and they will take great care, the more they stand to gain from the property than in cases of diluted their property rights. Private ownership concentrates rights and rewards; public ownership dilutes them. De Alessi (1980, 1983) notes the specific characteristic of state owned firms is that individual citizens have no direct claim on their residual income and are not able to transfer their ownership rights. Ownership rights are exercised by some level in the bureaucracy, which does not have clear incentives to improve firm performance.

# 2.2.2 Incentive Contract Theory

This theory asks, why do private firms exhibit better performance than their public counterparts and what is essential to increase public firms' efficiency? It is evident from a theoretical perspective, that incentive and contracting problems build inefficiencies due to public ownership, (Laffont and Tirole, 1991; Hart, 2003; Szentpéteri, 2006; Roland, 2008). This is attributed to the fact that managers of government-owned enterprises pursue objectives that differ from those of private firms (political view) and face little monitoring (management view). Not only are the managers' objectives warped, they also have softened budget constraints emerging from the fact that bankruptcy is not a real threat to managers of public enterprises, since it is in the government's own interest to bail them out in case of financial distress, (Kornai, Maskin and Roland, 2003).

Managerial perspective, tells us that monitoring is poorer in publicly owned firms and therefore the incentives for efficiency are low-powered (Vickers and Yarrow, 1989). The impossibility of complete contracts is fundamental in explaining why ownership indeed matters (Williamson, 1985; Sappington and Stiglitz, 1987). Williamson (1985), argues that the impossibility of writing complete contracts with the private owners would make PE's to function at least as well as privately owned firms (under the same conditions), whereas "selective intervention" by the government whenever unforeseen contingencies arise could result in a socially preferred effect. This is because the government is viewed to always have the right social welfare function as an objective to be maximised.

Political view argues that political meddling is what distorts the objectives and the constraints faced by public managers (Shapiro and Willig, 1990; Shleifer and Vishny, 1994;



Sheshinski and López-Calva, 2003). Traditionally the theoretical case for public ownership has been hinged on considerations of allocative efficiency under which properties of resource allocation in the economy taken as a whole; whereas the case for private ownership is vested on productive efficiency where incentives and constraints are provided by the market. The Sappington and Stiglitz (1987), and Williamson (1985) findings show that in a complete contracts world, there would be no difference between allocative and productive efficiency under both public and private ownership. Therefore, it isn't clear what merits privatisation could bring under this framework. Selective intervention portends that the government can reach the same level of productive efficiency as the private sector by aping the behaviours of a private firm; then a nationalised firm should produce at least as efficiently as a privatised one.

Vickers and Yarrow (1988) consider the lack of incentives as the main argument against state ownership. Other theoretical findings include the price policy (Shapiro and Willig, 1990), political intervention and human capital problems (Shleifer and Vishny, 1994). One way through which the government resolved these cited deficiencies is by inviting private owners and thus reducing its stake in the firms.

# 2.2.3 Public Choice Theory

This theory focuses on political considerations in the study of both public and private enterprises conditional on political influence. It portends that due to rational voter ignorance, rational voter irrelevance, and rent seeking, politicians are only interested in policies that will have them voted back, (Starr, 1988; Boycko, Shleifer and Vishny, 1996; Bayliss, 2001). It is through this theory that the "Theory of Governmental Failure" emerged. Government failure

occurs when a government intervention causes a more inefficient allocation of resources than would occur if not for that intervention. The theory argues that the fact that the market is inefficient does not imply that government will do any better (Browning and Browning, 1983).

This is attributed to i) rational voter ignorance, ii) rational voter irrelevance, iii) rent seeking, iv) logrolling, v) voting mechanism (majority rule) and vi) short-sightedness effect where politician execute policies with short-term benefits with costs being futuristic. A fundamental public choice argument favouring privatisation is the belief that decision-makers in public enterprises seek to maximise their own vested interest which in most cases is not identical to the public interest. This results to PEs operating with higher costs and lower productive efficiency than their private counterparts (World Bank, 1995). Theoretical literature thus portends that transfer of ownership and controlling interest from the government to the private sector will align the goals of the PE with those of the market hence increasing allocative and productive efficiency (Starr, 1988). Empirical evidence however does not pin point how much the government should transfer to private hands so has to have maximum allocative and productive efficiency, (Qi, Wu and Zhang, 1999; Tian and Estrin, 2007).

# 2.3 Empirical Literature

# 2.3.1 Privatisation and Firm Performance

Jelic, Briston and Aussenegg (2003) reviewed the choice of privatization method and the financial performance of newly privatised firms in transition economies. Their paper focused on the determinants of the financial long-run performance of privatised firms in Poland, Hungary, and the Czech Republic for the period 1991 to 2001. They noted that, smaller

companies with a lower percentage of state-retained ownership outperform large state-dominated enterprises. This was consistent with the view of Boycko et al., (1996) that a higher percentage sold reduces the likelihood of government's involvement in management and ultimately leads to a better performance of newly privatised companies. They concluded that long-run performance is mainly influenced by the extent of retained state ownership, the choice of privatization method, and firm size.

Debrah and Toroitich (2005) in a case study of Kenya Airways explored the transformation of Kenya Airways from a loss-making public entity (PE) to a very successful, profitable African airline and its relationship with KLM-Royal Dutch Airlines. They analyzed the circumstances leading to the creation of Kenya Airways and the managerial and financial problems pre-privatisation. They explored the benefits of privatization for the airline and the country as whole and highlighted lessons learned from this experience for the privatization process and strategies in Africa.

Weche (2005) examined the effect of pre and post financial performance of firms privatised through the NSE. His study sought to find out if there is a major difference in performance of public enterprises, privatised through the NSE and develop a predictive model for six public enterprises that were privatised through the NSE. Using regression and correlation analysis performed a z-test on the ratios computed. He observed that privatisation led to improved performance in the commercial sector but not industrial sector. Profitability ratios were directly related to leverage and inversely related to performance. Liquidity ratios however showed mixed results. His analysis of profitability ratios showed no significant increase post privatisation and as such, he concluded that privatisation ought to be viewed as a long term

strategy. Other ratios increased with the exception of leverage and activity ratios that did not increase for industrial sector firms. On methods, he observed that IPO was the most preferred method since it reduced the variances that arose over the net value of PEs.

Hongo (2006) set up to assess the rate of transfer of ownership of privatised public enterprises and its relationship with firm performance of privatised companies in Kenya. She hypothesized that faster privatisation led to better performance as advocated by the property rights theory that the private owners are more efficient in resource allocation. Using chi-square test, she examined the financial statement of 10 privatised firms listed at the NSE for a period between 1990 and 2004, looking at the ratios before and after privatisation. She noted that all firms recorded better post privatisation performance. However, rapid privatisation translated to significant increase in profitability ratios and thus financial performance. As for gradual privatisation, she observed mixed results. In addition, she observed that some firms despite slow privatisation, had continued improved performance, this she attributed to other factors such as changes in CEO as these two firms had a history of short CEO tenure in office. She recommended that the government should adopt rapid privatisation since it leads to better performance.

Thambu (2006) examined privatisation and performance of public corporations listed in the NSE undertook a census survey of eleven firms privatised listed at the NSE and reviewed the profitability, efficiency and leverage ratios, she noted that they improved after privatisation. Her conclusion is in line with the findings of Weche (2005).

Birya (2009) examined the effect of privatisation on financial performance of commercial banks listed at the NSE. Using a descriptive census design, on a population of privatised

banks quoted at the NSE, she analysed, using students-t test, the variations to test whether there was any significant difference two years before and two years after privatisation. She found that banks performed better after privatisation thus supporting her hypothesis that privatisation led to improved performance.

Ongore (2011) investigated the effects of ownership structure on performance of listed companies in Kenya using agency theory as an analytical framework. He operationalised ownership structure in terms of ownership concentration (percentage of shares owned by the top five shareholders) and ownership identity (actual identity of shareholders). Using Return on Assets, Return on Equity and Dividend Yield to measure performance, he studied forty two firms listed using both primary and secondary data. The study found that Ownership Concentration and Government Ownership have significant negative relationships with firm performance. This was consistent with the findings of (Vickers and Yarrow, 1988; Shapiro and Willig, 1990; Shleifer and Vishny, 1997) who argued that state-owned enterprises are political firms with citizens as the shareholders, but these citizens have no direct claim to the residual income of those firms thus cede their ownership rights to the bureaucracy which does not have clear incentives to improve performance of the corporations. He noted that despite deliberate policy of divestiture, aimed at reducing state ownership of corporations with a view to attracting private sector participation in management of the fledgling public entities, government ownership of firms was found to still impact firm performance negatively thus an indication that the divestiture program in Kenya was yet to reach a critical level where its value can begin to reflect on corporate performance. This study differs from Ongore's study since it looks at the effect of government ownership/control (as defined by the proportion of equity ownership) on firm performance.

#### 2.3.2 Government Control and Firm Performance

Qi, Wu and Zhang (1999) studied the relationship between shareholding structure and corporate performance of partially privatised firms listed at the Chinese stock exchange. Using a sample consisting of all firms listed on the SHSE between 1991 and 1996, they found that return on equity decreases in the proportion of state shares and increases in the proportion of legal-person shares while firm performance improves as the relative dominance of legal-person shares over state shares increases. For firms that do not have both state and legal-person shares, they found a higher return on equity of firms with legal-person but no state shares than that of firms with state but no legal-person shares. Looking at the relation between firm performance and tradable shares, they noted that diffused ownership by individual domestic and foreign investors does not improve firm performance. They concluded that ownership structure composition and relative dominance by either the state or legal-person shareholdings can affect the performance of SOE transformed, listed firms.

Wei and Varela (2003) investigated the relation between state ownership and firm performance for China's newly privatised firms in 1994 (164 firms), 1995 (175 firms) and 1996 (252 firms) using Tobin's Q and monthly stock returns. They observed that in a single equation setting, Tobin's Q is convex with respect to state ownership and negatively related to size as expected, whereas stock returns are positively related to the standard deviation, as expected, and size. It appears that newly privatised firms gained capital and higher market values, and that their increased size is paying off in terms of their stock returns (but not Tobin's Q). They also observed that international ownership has an unpredictable effect on performance of newly privatised firms in China, and domestic institutional ownership does not appear to result in improved performance. Possibly, domestic institutional owners do not

necessarily have the proper incentives to positively influence the firm's management in China as many are state-owned and managers in these paid by the state. They concluded that firm performance is not an important determinant of state ownership. Rather firm size and its strategic industry status are the main determinants of the state's equity ownership in China's newly privatised firms.

Xu, Zhu and Lin (2002), studied politician control, agency problems, and firm performance in China. Using data from national survey of the ownership restructuring of state-owned industrial enterprises in China, they found that the performance outcome of the restructuring hinged greatly on the lessening of politician control and agency problems through increasing business autonomy, reducing the state's ownership stakes and introducing more effective corporate governance mechanisms. Specifically, they found that post-restructuring operating performance and managerial perception of the restructuring's success increased with the degree of decision-making autonomy (especially in labour policies) and proper representation of shareholder interest (as indicated by the use of the one-share-one-vote principle and shareholding-based composition of board structure); yet they decrease with the extent of ownership and management appointment by the government. They concluded that a large deviation of ownership from control (as proxied by the divergence between ownership and board structure) hurts performance and that some of the factors conventionally thought to be important for performance, such as the size of the board, how board members are appointed, and whether CEO also acts as the chairman of the board, do not have a significant impact on performance.

Liu and Sun (2002) while looking at the class of shareholdings and its impacts on corporate performance reviewed state shareholding composition in Chinese publicly listed companies. Using newly established shareholding classes, they compared performance of four different pair-classes, for all Chinese quoted companies from 1993 – 2000, the state direct control versus the state indirect control, the state industrial company shareholdings versus the state solely owned asset management company shareholdings, the focused or specialised company shareholdings versus the diversified company shareholdings, and the wholly listed company shareholdings versus the partial listed company's parent shareholdings. The performance comparison of different classes of shareholdings on the Chinese companies exhibits consistent and significant evidence that the class of shareholding does matter for performance. They noted that the least inefficient shareholding class among the 8 different classes ranked by the study is the indirect state control of the wholly listed industrial companies with focused business as the controlling shareholder of the public corporations.

Huang and Wang (2004), exploring the effect of ultimate privatization on the performance of Chinese listed companies, looked at the effect of transferring ultimate control of a state-owned company from the government to private owners. Using a sample of 127 Chinese listed companies that have had controlling blocks transferred from the government to private owners; they show that firm performance improved significantly following the transfer. In addition, gains in profitability and efficiency were more prominent when the new controlling shareholder is an "outsider", one who does not own shares in the company prior to the transfer of control. They noted that the positive effect on firm profitability diminished when the government transfers its shares to an insider. Further examination on the potential sources of performance improvement implied that private owners especially outsiders tend to hire

new CEO and offer incentive pay schemes to executives. They also observed that corporate insiders are less effective in value creation when compared to outside buyers. Their findings suggest that the Chinese government should continue to reduce its controlling ownership in listed companies, as the transfer of control to private owners enhances operating efficiency and profitability.

Bortolotti and Faccio (2004) studied the evolution of the control structure of a large sample of privatised firms from OECD countries. They noted that governments do not relinquish control after privatization. Governments in fact still control (through ownership or golden shares) 62.4 percent of privatised firms as of the end of 2000. Analysing the effects of government's reluctance to privatise on firm value, they show that the market-to-book ratios of privatised firms converge through time to those of a control sample. They found that the convergence did not depend on the relinquishment of control rights by the governments. On the contrary, when they took into account possible endogeneity of government's stakes, they found that privatised firms where the government is a large shareholder outperform companies more fully privatised. This they concluded that under some circumstances, the agency costs of private ownership may more than offset the costs of political interference in firms.

Kang, Kim and Xu (2007) investigated the impact of ownership structure on firm performance. They evaluated, using data on listed firms from 1994 to 2002 the different effects of three types of ownership structure, namely, SOEs, MSOEs, and private shareholding and whether a change in controlling shareholder from the government to MSOEs leads to improvement in firm performance. The paper also investigated the effects of

non-controlling large shareholding and ownership concentration of the largest shareholder on firm performance. They found that firms controlled by MSOEs outperformed ones controlled by the government and that, changes in control-rights from the government to MSOEs enhanced firm performance. Further, they found that non-controlling large shareholders played active roles in corporate governance in China by blocking political intervention or monitoring the management. Their study also exhibited some evidence that non-controlling large shareholders of MSOEs actively involved in improving market performance while those in private entity actively involved in enhancing accounting performance. These results also suggested that equity ownership of the controlling shareholder is positively correlated with firm performance and thus consistent with fact that there is little deviation between voting and cash flow rights in the firms under the ultimate control of the State in China.

Tian and Estrin (2007) investigated whether retained state shareholding in Chinese PLC reduced corporate value. Using a large data set of Chinese public listed companies between 1994 and 2004, they generated evidence on how government ownership influences company performance. They found that the detrimental effects of government shareholding initially decline as the state ownership stake increases, up to a holding of around 25%, and increases thereafter. On average, state ownership reduces value by between 10% and 20% at the minimum, relative to entirely private firms. They also noted that negative impact of dominant state ownership was rather less; only around 5%. Their results confirmed findings in the literature for other economies that the overall impact of government shareholding is negative in China. They also observed that the marginal effect of government shareholding on corporate performance can be positive, when the government is a large shareholder. Regarding corporate governance, Chinese firms can benefit from a concentrated owner,

whether that owner is private or the state. Moreover, in the Chinese context, the state has the power to distort outcomes in favour of the firms that it owns, and it has the incentive to do so when its shareholding stakes are high. Therefore, the government can be both detrimental and beneficial to corporate value.

Yu, Van-Ees and Lensink (2008) investigating the effect of state control and group affiliation on corporate performance, for a sample of Chinese firms for the 2004-2006, found, on average, a significant and positive effect of group affiliation, and a negative effect of state control. They attributed the negative effect of state-control to suggestions that weak governance arrangements, political interference, and weak incentive to innovate and contain costs may be problematic for state-controlled firms. Their comparison of the four types of firms indicates that private group firms outperform all other types, that state controlled group firms outperform private stand-alone firms and state-controlled stand-alone firms, and that private stand-alone firms outperform state controlled stand-alone firms. In terms of corporate value creation, their analysis suggested a hierarchy in the following order: (1) private firms that are affiliated to a group; (2) state controlled firms that are affiliated to a group; (3) private stand-alone firms, and (4) state controlled stand-alone firms. They concluded that restructuring enterprises by forming business groups, even without replacing the government as the ultimate owner of the firm, can be a successful reform strategy for Chinese stateowned enterprises.

Wu, Wang, Lin, and Bai (2010) investigated the effects of full privatization through controlling rights transfer (CRT) between 1996 and 2001. They hypothesized that a fullyprivatised company performs worse than a state-controlled company owing to the higher level of wealth expropriation by the private block shareholder. Their analysis showed that performance deteriorates significantly owing to excessive expropriation by controlling shareholders after privatization. In particular, they found that fully privatised firms perform worse than state-controlled enterprises due to greater expropriation by private block shareholders than expropriation by state block shareholders. Furthermore, increase in expropriation is negatively related to performance change. Their results suggested that privatization may not yield the expected efficiency gains in transition economies. They also emphasize the importance of curbing the private block shareholders from exploiting minority shareholders in the process of privatization.

Hess, Gunasekarage and Hovey (2010) in an attempt to explore the effect of the dominance of state and private block-holders and control on firm performance, investigated the relationship between ownership structure and performance for a comprehensive sample of Chinese listed firms for the years 2000-2004. They tested the ownership-performance relationship for the state and for sub-samples with predominantly private shareholders. Using both an ordinary least squares and a two-stage least squares analysis, which treats ownership concentration as endogenous, they found evidence that large private block-holdings are to the benefit of firm value for the full sample while for smaller samples of companies without or with very low shareholdings by the various state players, they noted some evidence that large private block shareholdings might be to the detriment of firm value. Their findings were consistent with that of Tian and Estrin (2007) on U-shaped state ownership-performance relationship. The implication was that firms dominated by the various state players (directly or indirectly) continue to maintain a greater respect by the market and outperform those with lower levels of state block-holdings. They concluded that effects of government holdings in

mitigating minority shareholder expropriation or manipulation of the market at such lower levels of state ownership are limited. There might even be the opposite effect as local bureaucrats hinder firms in their profit maximizing strategies to the extent that they extract value for their own benefit.

# 2.4 Summary of Literature and Research Gap

The review in this chapter has vividly shown the mixed results from various researchers in various economies on the link between government ownership/control and firm performance. Further, there is no research done on the Kenyan context despite the rising number of privatisation where the government often retains a proportion as opposed to ultimate privatisation. These provide a gap in literature that the present study seeks to bridge.

# CHAPTER THREE RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter presents the methods used to carry out the study. It contains research design to be used in the study, the target population, sample size and sampling method, data collection and analysis methods and tools.

## 3.2 Research Design

This study adopted a descriptive survey design. A descriptive survey is present-oriented research that seeks to accurately describe the situation as it is. Descriptive research is defined as a process of data collection to test the hypothesis or answer questions concerning the current status of the subject study (Mugenda and Mugenda, 2003). This method was selected because it enabled the researcher to meet the objectives of the study.

# 3.3 Population

The population of this study was the firms listed on the Nairobi Stock Exchange. Currently, there are 56 firms listed on the NSE and the list is provided as appendix I. The 56 firms were the target population.

# 3.4 Sample

The sample size was composed of listed firms on the NSE with government ownership.

There are sixteen (16) such firms on the NSE (appendix II).

## 3.5 Data Collection

Secondary data was used in this study. The data was collected from the annual financial statements of the companies sampled. This can be collected from the Capital Markets

Authority, Nairobi Stock Exchange or the respective company premises (including their websites). Data on government ownership/control and firms' financial performance was sought from the annual reports and financial statements. For performance, three year (2008 – 2010) data for each of the firms was sought.

# 3.6 Data Analysis

The following model was used:-

Perf (Tobin Q or ROA) =  $\alpha + \beta_1 GOV\_CONT + \beta_2 GOV\_SIZE^2 + \beta_3 AGE + \beta_4 SIZE + \beta_5 TAN + \beta_6 LEV + \beta_7 IND + e$ .

Where Perf is a proxy for performance (Tobin Q or ROA), GOV\_CONT, and GOV\_SIZE<sup>2</sup> are government control, and government shareholding size respectively. Control variables included age, size, tangible, leverage, and industry. α and θ represents y-intercept error term respectively. These are defined in Table 1 below. The data was organized using MS Spreadsheets with all the variables in Table 1 for all the 16 firms in the sample. These were then transferred into the SPSS version 19. Descriptive statistics especially the mean scores and median values were then used to show the characteristics of firms sampled. Tests of differences were done using non-parametric tests. The model above was then analysed using multiple regression analysis. In order to determine the effect of government ownership on firm performance, the regression output was interpreted based on the R<sup>2</sup>, significance of F-statistic, and p values of coefficients of independent variables. The regression was done for each of the dependent variables (Tobin Q and ROA). The same interpretations were made for the effect of government shareholding on firms' financial performance. The results were presented in tables.

Table 1: Definition of variables

Variables	Definition	
Dependent va	ariables	
Tobin's Q	This is the adjusted market value of the firm. It is calculated as the market value of equity and book value of debt over book value of asset.	
ROA	A proxy of corporate accounting profitability. It is calculated as net profit over total assets.	
Independent	variables	
GOV_CONT	This is a dummy variable for government control. If government has more than 50% stake in a firm, the firm scores a value of 1 otherwise 0.	
GOV_SIZE <sup>2</sup>	This is the size of government shareholding in a company. It is calculated as the government-owned shares over total common shares.	
Control varia	bles	
AGE	This measures the number of years the company has been listed on the NSE as at 2010	
SIZE	This is corporate size. It is calculated as the log form of total assets in 2010.	
TAN	Tangible - an indicator of the asset structure or the capital intensity. It is calculated as fixed assets over total assets.	
LEV	Leverage - an indicator of the capital structure. It is calculated as total liabilities over the book value of total assets.	
IND	Is an industry dummy measured using dummies 1-7.	

#### CHAPTER FOUR

### DATA ANALYSIS, RESULTS AND DISCUSSION

### 4.1 Introduction

This chapter presents the data analysis results and discussion. The chapter is organised as follows. Section 4.2 presents the descriptive results. Section 4.3 presents the univariate analysis results where the conditions for parametric analysis are tested and the subsequent analysis carried out to show the differences between government-controlled firms and those that are not controlled by the government. Then section 4.4 presents the hypothesis testing using non-parametric tests. Multivariate analysis results are shown in section 4.5 where the conditions for ordinary least square (OLS) regression are first tested, thereafter, multiple regression analysis was performed.

### 4.2 Descriptive Analysis

The descriptive results are shown in table 2. The results show the lowest (minimum) and the highest (maximum) values for each variables, the mean and standard deviations. According to the statistics in table 2, the proportion of shared led by the Treasury ranged between a minimum of zero and a maximum of 70%. The mean shareholding by the Treasury was 21.2% with a standard deviation of 22.4%. The proportion of shares held by other government institutions ranged between a minimum of zero to a maximum of 48.1%. The average shareholding by government affiliated institutions was 12.7% with a standard deviation of 15.4%. The combined government shareholding ranged from a minimum of 4.5% to a maximum of 71.2%. The average total government shareholding was 34.1% with a standard deviation of 23.1%. The age of the companies on the stock exchange ranged from a

minimum of 3 years to a maximum of 39 years. The average age of the firms on the NSE was 17.27 years with a standard deviation of 10.44 years.

Tobin's Q, which represents firm performance, has an average value of 0.58 and is much lower than most reported values such as in Wei et al. (2005) (i.e. 2.92) and Hennessy et al. (2007) (i.e. 2.49). The minimum value was 0.14 while the maximum value was 0.87. Another performance measure, ROA ranged from a minimum of zero to a maximum of 0.27. The mean ROA was 0.09. The ratio of fixed assets to total assets (Tangibles) ranged from a minimum of 0.005 to a maximum of 0.783. The mean was 0.425. The results show that on average, these firms had higher proportions of tangible assets (57.5%). The results also showed that outside debt does not seem to be a popular method of financing for these companies; an average company has a debt-to-equity ratio (Leverage) of only 23 per cent.

Table 2: Descriptive statistics

	Minimum	Maximum	Mean	Std. Deviation
Tobin Q	.145	.869	.581	.243
ROA	.000	.274	.086	.086
Treasury	.000	.700	.212	.224
Government institutions	.000	.481	.127	.154
Total Government shares	.045	.712	.341	.231
Govt Size <sup>2</sup>	.002	.507	.166	.181
Age	3.00	39.00	17.27	10.44
Size	13.97	19.34	17.17	1.43
Tangibles	.005	.783	.425	.303
Leverage	.001	.844	.234	.236

# 4.3 Univariate Analysis

It is very important to determine whether the data are parametric or not, in order to decide which statistical techniques should be used. If parametric tests are used when the data are not parametric, then the results are expected to be unreliable (Field, 2005:63). There are some

assumptions of parametric tests which should be checked before deciding upon the appropriate test. These tests are carried out as follows.

# 4.3.1 Test of Normality of Distribution

This test is carried out and shown in table 3. The advice from SPSS is to use the Shapiro-Wilk's statistic for normality when sample sizes are small (n < 50) (Innes, 2007). Therefore, with fewer than 50 cases the Shapiro-Wilks statistic for normality was used. If the test is significant (p<.05), then the distribution is not normal and the null hypothesis is rejected and if the test is insignificant ((p>.05), then the distribution is considered normal and the null hypothesis is not rejected (Field, 2005:93). From the results, the test was for all the variables except total government shares, age, and size, were significant. The distribution is therefore not normal for all the variables in the study.

Table 3: Tests of normality

TALL BLOCK OF THE STREET	Kolmogo	rov-Sm	irnov	Shapi	ro-Wi	lk
	Statistic	df	Sig.	Statistic	df	Sig.
Tobin Q	.219	15	.052	.850	15	.017
ROA	.214	15	.062	.868	15	.032
Treasury	.182	15	.193	.862	15	.026
Govt institutions	.274	15	.004	.781	15	.002
Total Government shares	.166	15	.200	.915	15	.159
Govt Size squared	.238	15	.022	.826	15	.008
Age	.197	15	.123	.891	15	.070
Size	.110	15	.200	.961	15	.706
Tangibles	.243	15	.017	.843	15	.014
Leverage	.275	15	.003	.838	15	.012

# 4.3.2 Homogeneity of variance

Levene's test is used to test homogeneity of variance for groups of data. If Levene's test is significant at  $(P \le 0.5)$ , then the assumption of homogeneity of variance between the groups is rejected. If, however, Levene's test is non-significant  $(P \ge 0.5)$  then the assumption of

homogeneity of variance between the groups is accepted (Field, 2005). From the results in table 4, the Levene's test was non-significant hence the assumption of homogeneity is accepted. The data is therefore homogeneous.

Table 4: Test of homogeneity of variance based on mean

	Levene statistic	Df1	Df2	Sig
Tobin Q	0.240	13	4.311	0.632
ROA	4.523	13	12.262	0.053
Treasury	4.311	13	3.918	0.058
Govt institutions	3.269	13	3.718	0.094
Total Govt Shares	1.313	13	9.500	0.273
Govt. Size <sup>2</sup>	0.351	13	4.932	0.564
Age	1.746	13	3.740	0.209
Size	0.247	13	7.476	0.627
Tangibles	1.413	13	4.353	0.256
Leverage	0.003	13	5.738	0.955

#### 4.3.3 Level of Measurement

Each of the parametric approaches assumes that the dependent variable is measured at the interval or ratio level, i.e., using a continuous scale (Pallant, 2001). In this study, the dependent variables, Tobin's Q and ROA, were measured on a continuous scale.

# 4.3.4 Independence

Independence means that the data from different participants are independent; therefore the behaviour of one participant does not affect the behaviour of another (Field, 2005). Pallant (2001) added that the observations that make up the data should be independent of one another. This assumption is not satisfied by this study. Table 5 presents the correlation coefficients between the independent variables. There is multicollinearity between size of government shares (Gov\_size<sup>2</sup>) and government control. Leverage is also strongly correlated with size of the firm and while industry is strongly correlated with tangibles.

As the four assumptions of parametric tests, and particularly the first (normality) and the last (independence) were not satisfied completely, it was decided to use non-parametric tests, which many statisticians (Field, 2005; Pallant, 2001; Dancey and Reidy, 2002) have recommended to be used in such cases.

# 4.4 Hypotheses Testing

The following are the hypotheses which the present study seeks to test:

Hypothesis 1: There are no statistically significant differences between government controlled firms and non-government controlled firms in terms of their performance, government shares, age, size, tangibles, and leverage.

Hypothesis 2: There are no statistically significant differences between performance of firms in terms of their industry classification and control.

Correlation matrix for independent variables Table 5:

Sr. No.		1	2	3	4	5	6	7	8	9	10
1	Treasury	1									
2	Gov institutions	307	1								
3	Total Government shares	.757**	.389	1							
4	Gov Size <sup>2</sup>	.741**	.380	.975**	1						
5	Government Control	.648**	.293	.817**	.876**	1					
6	Age	554*	.305	333	295	061	1				
7	Size	.476	379	.194	.202	.105	145	1			
8	Tangibles	.204	407	081	122	162	074	.229	1		
9	Leverage	.367	275	.168	.090	.049	.027	.534	.175	1	
10	Industry	.277	295	.063	.089	.144	.032	124	.635*	.076	1

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

# 4.4.1 Testing Hypothesis 1

### 4.4.1.1 Mann-Whitney U Test

The Mann-Whitney test has been used in this study to determine whether there are significant differences between two groups of companies: companies that are controlled by the government and those that are not controlled by the government. This method tests hypothesis 1. This method has been selected because the scale is continuous. The results are shown in table 6. The results of the Mann-Whitney U test show that there are no statistically significant differences between the two groups of companies, those which were controlled by the government and those that were not with respect to all the variables except for the shares owned by the Treasury (Asymp. Sig = 0.024) and the total shares owned by the government (Asymp. Sig = 0.004). This is expected as the control is measured by the proportion of shares the government holds in a company. Thus it is important to note that from the analysis, financial performance of the firms did not differ between the two groups: government controlled and non-government controlled.

#### 4.4.1.2 Kendall's Rank Correlation

Kendall's rank correlation was chosen because it is a better estimate of the correlation in the population as more accurate generalization can be drawn from Kendall's statistic than from Spearman's (Field, 2005). The results in table 7 show that there was a significant correlation between tangibles and Tobin's Q (p<0.05). None of the other correlations were significant.

Table 6: Mann-Whitney U test results

	Tobin O	ROA	Treasury	Gov_ins	Gov_size	Gov_size <sup>2</sup>	Size	Tan	Lev	Age
Mann-Whitney U	18.000	12.000	5.000	17.000	.000	.000	21.000	18.000	19.000	17.000
Wilcoxon W	84.000	22.000	71.000	83.000	66.000	66.000	87.000	28.000	85.000	27.000
Z	522	-1.306	-2.260	655	-2.872	-2.872	131	522	392	656
Asymp. Sig. (2-tailed)	.602	.192	.024	.512	.004	.004	.896	.602	.695	.512
Exact Sig. [2*(1-tailed Sig.)]	.661ª	.226ª	.026ª	.571ª	.001ª	.001ª	.949ª	.661ª	.753 <sup>a</sup>	.571ª

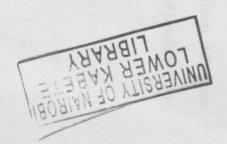
a. Not corrected for ties.

b. Grouping Variable: Government Control

Table 7: Kendall's tau correlations between dependent and independent variables

	Tobin Q	ROA
Treasury	.210	230
Gov_ins	232	077
Gov size	.105	181
Gov_size <sup>2</sup>	.105	181
Age	293	.000
Age	010	067
Tangibles	010 .524**	.010
Leverage	.238	238

\*\* Correlation is significant at the 0.01 level (1-tailed).



### 4.4.2 Testing Hypothesis 2

To test H2, a one-way analysis of variance (Kruskal-Wallis test) was used to test whether more than two independent groups significantly differ from each other (Field, 2005:736). It is a non-parametric alternative to one way ANOVA. It is used when the data do not meet the assumptions required for the parametric ANOVA (Dancey and Reidy, 2002:532). As mentioned by Pallant (2001:263) it is similar to a Mann-Whitney test but it allows comparison to be made among more than one group. Scores are converted into ranks and the mean rank for each group is compared. In this study Kruskal-Wallis was used because there are seven groups of industries and the data do not meet the assumptions of parametric tests.

The first hypothesis was tested using Mann-Whitney and Kendall's rank correlation as the independent variables were continuous (ratio and interval). The next hypothesis; industry type, is categorical. Therefore, Kruskal-Wallis was used to examine the relation between the industry type and government control.

Table 8: Association between Industry Membership and Financial Performance

and the management of the	Tobin Q	ROA
Chi-Square	8.613	3.167
df	6	6
Asymp. Sig.	.197	.788

The results of the test shown in table 8 revealed that there is no significant difference between the seven industries at the 5% level and 1% level and 6 degrees of freedom (Chi-Square = 8.613 for Q and 3.167 for ROA; p=.197 for Q and .788 for ROA).

Table 9: Association between government control and financial performance

	Tobin Q	ROA
Chi-Square	.273	1.705
df	1	1
Asymp. Sig.	.602	.192

The results of the test shown in table 9 revealed that there is no significant difference in performance of government controlled firms and non-government controlled firms at the 5% level and 1% level and 1 degree of freedom (Chi-Square= 0.273 for Q and 1.705 for ROA; p=.602 for Q and .192 for ROA).

# 4.5 Multivariate Analysis

# 4.5.1 Testing Conditions for Multiple Regression

In order for a multiple regression analysis to be run, a number of assumptions for the same must be checked. These assumptions are normality, non-multicollinearity, homoscedasticity of variance, independence of errors and outliers. Normality was already tested using Shapiro-Wilk and it was shown that the distribution was not normal. Non-multicollinearity was tested using correlation analysis and it was found that some of the independent variables were significantly correlated. Homoscedasticity of Variance refers to residuals at each level of the independent variable being similar. This was tested using Levene's test and since the Levene's test was insignificant at (P≤.0.5) for all of the variables, then the assumption of homogeneity of variance between the groups is accepted. Tabachnick and Fidell (2001) believed that homoscedasticity of variance is related to the assumption of normality. Therefore, if the assumption of normality is not met, the assumption of homoscedasticity will not be met either. The independence of errors (also called autocorrelation) is usually tested using the Durbin-Watson test. The test statistic varies between 0 and 4, and a value of 2

indicates uncorrelation of errors. Negative correlation occurs if the value of the test is significantly above 2, while positive correlation occurs if the value is significantly below 2 (Field, 2005). The Durbin-Watson was 1.943 thus there was no serial autocorrelation. Outliers are the values that can have a remarkable influence on the correlation coefficient particularly in small samples, because they are significantly lower or higher than other values in the data set (Pallant, 2001). They can under - or over - estimate the value of r the correlation coefficient. The standard deviations of residual statistics were checked and none of the standard deviations exceeded 2 standard deviations. The advice from SPSS is that the standard deviations should not exceed 3. If it does then there exist outliers.

Most of the assumptions of multiple regressions were met except for the normality of distribution and multicollinearity. But the data was homogeneous; there was no serial autocorrelation, no outliers, and no homoscedasticity of variance. A decision is therefore made to use rank regression analysis as opposed to OLS regression analysis. To do this, the data must be first transformed.

#### 4.5.2 Transformation of Data

Cooke (1998:210) stated that data transformation is beneficial if problems of linearity, normality and homoscedasticity of variance exist. Transformation of data is useful if the assumptions of Standard Ordinary Least Square (OLS) are not entirely fulfilled. OLS is not preferable because of the non-normality of the distribution of most of the dependent and independent variables. Cooke (1998:209) added that a recent development in dealing with such problems is to transform the data and use Rank Regression rather than conventional

OLS. The data was transformed into normal score and rank scores. Normal score transformation was done using Van der Waerden's formula.

### 4.5.3 Ranked and Normal Score OLS Regression Analysis

Full rank and normal score OLS regression models were run for each of the dependent variables – Tobin's Q and ROA. From table 10, the ranked score regression of the Tobin's Q model explained around 26.8%, measured by adjusted R<sup>2</sup> with an F-ratio of 1.732, which is insignificant with a probability more than 0.05. The t tests show that none of the independent variables had a significant impact on the performance as measured by Tobin's Q at 5% level.

Table 10: Full rank regression model of Tobin's Q

R	$\mathbb{R}^2$	Adjusted R <sup>2</sup>	SE of estimate		F	Sig. F
0.796	0.634	0.268	3.	826	1.732	0.243
Coefficients	В	Std. Error	Beta	t-value	Sig.	
Constants	6.450	5.346		1.207	0.267	
Gov size <sup>2</sup>	-0.286	0.519	-0.286	-0.550	0.599	
Gov cont	4.030	4.621	0.413	0.872	0.412	
Age	-0.238	0.288	-0.236	-0.825	0.437	
Size	-0.322	0.293	-0.322	-1.102	0.307	
Tan	0.732	0.369	0.732	1.986	0.087	
Lev	0.171	0.306	0.171	0.559	0.593	
Industry	0.004	0.740	0.002	0.005	0.996	

From table 11, the ranked score regression of the ROA model explained around 53.1%, measured by adjusted R<sup>2</sup> with an F-ratio of 0.307, which is insignificant with a probability more than .0.05. The t tests showed that none of the independent variables had a significant impact on the performance as measured by ROA at 5% level.

Table 11: Full rank regression model of ROA

R	$R^2$	Adjusted R <sup>2</sup>	SE of	SE of estimate		Sig. F
0.484	0.235	-0.531	5.	533	0.307	0.929
Coefficients	В	Std. Error	Beta	t-value	Sig.	
Constants	5.875	7.731		0.760	0.472	
Gov_size <sup>2</sup>	0.444	0.750	0.444	0.592	0.573	
Gov_cont	-6.566	6.683	-0.672	-0.983	0.359	
Age	0.144	0.416	0.143	0.345	0.740	
Size	0.097	0.423	0.097	0.228	0.826	
Tan	-0.060	0.533	-0.060	-0.112	0.914	
Lev	-0.436	0.443	-0.436	-0.985	0.357	
Industry	0.593	1.070	0.288	0.555	0.596	

From table 12, the normal score regression of the Tobin's Q model explained around 35.8%, measured by adjusted R<sup>2</sup> with an F-ratio of 2.117, which is insignificant with a probability more than 0.05. The t tests showed that none of the independent variables had a significant impact on the performance as measured by Tobin's Q at 5% level.

Table 12: Normal score regression model of Tobin's Q

R	$R^2$	Adjusted R <sup>2</sup>	SE of	SE of estimate		Sig. F
0.824	0.679	0.358	0.	0.696		0.172
Coefficients	В	Std. Error	Beta	t-value	Sig.	
Constants	-0.332	0.488		-0.679	0.519	
Gov_size <sup>2</sup>	-0.326	0.538	-0.326	-0.606	0.564	
Gov_cont	0.933	0.914	0.492	1.021	0.341	
Age	-0.283	0.289	-0.281	-0.980	0.360	
Size	-0.326	0.281	-0.326	-1.161	0.284	
Tan	0.678	0.339	0.678	1.998	0.086	
Lev	0.291	0.309	0.291	0.936	0.379	
Industry	0.021	0.136	0.052	0.153	0.883	

From table 13, the normal score regression of the ROA model explained around 60%, measured by adjusted R<sup>2</sup> with an F-ratio of 0.250, which is insignificant with a probability

more than .0.05. The t tests showed that none of the independent variables had a significant impact on the performance as measured by ROA at 5% level.

Table 13: Normal score regression model of ROA

R	$\mathbb{R}^2$	Adjusted R <sup>2</sup>	Adjusted R <sup>2</sup> SE of estimate		F	Sig. F
0.447	0.200	-0.600	1.	099	0.250	0.956
Coefficients	В	Std. Error	Beta	t-value	Sig.	
Constants	-0.023	0.771		-0.029	0.997	
Gov size <sup>2</sup>	0.345	0.850	0.345	0.406	0.697	
Gov cont	-1.218	1.443	-0.642	-0.844	0.426	
Age	0.091	0.456	0.091	0.201	0.847	
Size	0.143	0.444	0.143	0.322	0.757	
Tan	-0.103	0.536	-0.103	-0.193	0.852	
Lev	-0.366	0.488	-0.366	-0.749	0.479	
Industry	0.087	0.214	0.217	0.405	0.697	

### **CHAPTER FIVE**

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### 5.1 Introduction

This chapter presents the summary of research findings in section 5.2, conclusion of the study in section 5.3, recommendations for policy and practice in section 5.4, the limitations of the study in section 5.5 and suggestions for further research in section 5.6.

### 5.2 Summary and Discussion of Findings

This study was designed to assess the effect of government ownership and control on the financial performance of partially privatized listed firms. Using a combination of descriptive, univariate, and multivariate analysis, the results were revealed and presented in chapter 4. Here is a summary of those findings.

A sample of 15 (25.9%) firms listed on the Nairobi Stock Exchange with complete data was used in this study. Of the 15 firms, only 4 (or 26.7%) are controlled by the government as their shares exceed 50% in these firms. This on the other hand means that about 7% of firms listed on the NSE are government controlled either ownership by the treasury or a combination of the treasury and other government affiliated institutions. Differences in financial performance of firms were tested using non-parametric tests because the conditions for performing parametric tests were not fully met. The results of the Mann-Whitney U test show that there are no statistically significant differences between the two groups of companies, those which were controlled by the government and those that were not with respect to all the variables except for the shares owned by the treasury (Asymp. Sig = 0.024) and the total shares owned by the government (Asymp. Sig = 0.004). The rank correlation showed that there was a significant correlation between tangibles and Tobin's Q (p<0.05)

while none of the other correlations were significant. The results are consistent with the results of a number of studies such as Kole and Mulhedrin (1997) in the US, Feng, Sun and Tong (2004) in China. These findings support the view that it is not who owns but the institutional governance framework in place that affects financial performance.

The Kruskal-Wallis test for industry differences in performance showed no significant difference between the seven industries at the 5% level and 1% level and 6 degrees of freedom (Chi-Square = 8.613 for Q and 3.167 for ROA; p=.197 for Q and .788 for ROA). The same tests also showed no significant difference in performance of government controlled firms and non-government controlled firms at the 5% level and 1% level and 1 degree of freedom (Chi-Square= 0.273 for Q and 1.705 for ROA; p=.602 for Q and .192 for ROA).

The study performed a rank regression analysis instead of the Pearson regression because the conditions for the latter were not fully met. Both the ranked and normal score OLS regressions did not reveal any significant influence of the independent variables on either Tobin's Q or the ROA at 5% level. Further, none of the F-statistics were significant.

### 5.3 Conclusion

This study concludes that there are very few firms on the NSE that the government of Kenya still retains some shares (about 26% of the firms). Further, the government controls only about 27% of these firms. Therefore, the government does not control a significant number of firms listed on the NSE.

The study concludes that there are no significant differences in the performance of government controlled firms and non-government controlled firms. Neither government ownership nor government control leads to differences in firms' financial performance.

The study concludes that firm performance is not influenced by the government shareholding or by the government control. This means that whether the government has some shares in a company or not or whether it has the controlling shares, the performance of firms listed on the NSE is not affected by such shareholding or control.

#### 5.4 Recommendations

Based on the findings of this study, it is recommended that the government does not necessarily need to shed of its shareholding as has been the practice in the recent past where the Treasury sells of their shareholding to the public to reduce their control on the firms. This is because the financial performance of partially privatized listed firms is indifferent to the government shareholding or control.

There is also need to rethink on the government policy to sell off state corporations. As much as it has been fashionable to do the same, evidence in this study suggests that firm performance is unaffected by government ownership. Therefore, efforts to sell off government owned enterprises that began in the 90s through Structural Adjustment Programs (SAP) should be channels towards better corporate governance and overall management of the organisations.

### 5.5 Limitations of the Study

One of the major limitations of this study is that the number of companies in which government owns shares is very small. This reflects the growing trend of the government to sell of its shares in most companies in which it used to have shares. Therefore, it is difficult to generalise the results of this study because the sample sizes used are relatively small.

Secondly, the R<sup>2</sup> (explanatory power) in multiple regression analysis ranged between 20% and 68% which means that the multiple regression model, which contained seven variables, explains about 20% - 68% of the variation in performance. Further, the F statistic was insignificant in all the models. Although this percentage is considerable, it means that other variables that were not included could affect the performance. Actually, the non-significance tells us that the variable do not explain any variation in the independent variable. This means that performance is explained by something else other than ownership.

Lastly, there were some instances in which the shareholding of the government changed yet the present study did not analyse the effect of this change and only used the current shareholding as at 2010. This might affect the accuracy of results in terms of the proportion of shares held by the government and hence the control in each of the firms. Further, control was measured as the total number of shares held by the treasury and all the government institutions such as NSSF. Thus the interpretation of results on control should consider this definition of control.

### 5.6 Suggestions for Further Research

There is need for future studies to use interviews over and above the use of secondary data in order to establish other factors which might influence financial performance of firms in which government has retained some shareholding in.

This study can be replicated with the inclusion of other firms in which government does not hold any shares in to determine whether there are significant differences in firms in which the government has some shareholding and those that the government does not have any shareholding in.

#### REFERENCES

- Alchian, A. & Demsetz, H. (1973). The property right paradigm. Journal of Economic History, 33 (17), 16-27.
- Backx, M., Carney M., & Gedajlovic E. (2002). Public, private and mixed ownership and the performance of international airlines. *Journal of Air Transport Management* 8, 213-220.
- Bai, C.E., Liu, Q., Lu, J., Song, F. & Zhang, J. (2004). Corporate governance and market valuation in China. *Journal of Comparative Economics* 32, 599–616.
- Bayliss, K. (2001). Privatisation of electricity distribution: Some economic, social and political perspectives. Centre on Regulation and Competition, Working Paper Series, University of Manchester, April.
- Berle, Adolf & Gardiner Means (1932). The modern corporation and private property. New York, Macmillan.
- Birya, F.T. (2009). Effect of privatization on financial performance of commercial banks listed at the NSE. *Unpublished MBA Project*. University of Nairobi.
- Boardman, A.E. & Vining, A.R. (1989). Ownership and performance in competitive environments: A comparison of the performance of private, mixed, and state-owned enterprises, *Journal of Law and Economics* 32, 1-33.
- Bortolotti, B. & Faccio, M. (2004). Reluctant privatization. Working Paper 04-37, Fondazione Eni Enrico Mattei.
- Bos, D. (1991). Privatization: a Theoretical Treatment. Clarendon Press, Oxford.
- Boubakri, N. & Cosset, J.C. (1998). The financial and operating performance of newly privatised firms: Evidence from developing countries. *Journal of Finance*, Vol. 53(3), 1081–1110.

- Boubakri, N., Cosset, J. and Guedhami, O. (2005): Post privatization corporate governance: the role of ownership structure and investor protection. *Journal of Financial Economics*, No 76 (2), 369-399.
- Boycko, M., Shleifer, A. & Vishny, R.W. (1996). A Theory of privatization. Economic Journal, 106, 309–319.
- Browning, E. & Browning J.M. (1983). *Public Finance and the Price System*. New York: Macmillan Pub. Co.
- Claessens, S., Djankov, S., Fan, J.P.H. & Lang, L.H.P. (2002). Disentangling the incentive and entrenchment effects of large shareholdings. *Journal of Finance* 57 (6), 2741–71
- Coase, R. (1960). The problem of social costs. Journal of Law and Economic, (3), 1-44.
- Cooke, T. E. (1998). Regression analysis in accounting disclosure studies. *Accounting & Business Research*, 28 (3), 209-224
- De Alessi, L. (1980). The economics of property rights: a review of the evidence. in Zerbe R.O.,(Ed). Research in Law and Economics. JAI Press, Greenwich, Conn.
- De Alessi, L. (1983). Property rights transaction costs and x-efficiency: an essay in economic theory. *American Economic Review* 73, 64-81.
- Debrah Y.A. & Toroitich, O.K. (2005). The making of an African success story: The privatization of Kenya airways. *Thunderbird International Business Review, Vol.* 47(2) 205–230. Retrieved from: http://www.au.af.mil/awc/africom/documents/kenyaairways.pdf.
- Djankov, S. & Murrell, P. (2002). Enterprise restructuring in transition: A quantitative survey. *Journal of Economic Literature*, 40, 739–793.
- Ehrlich, I., Gallais-Hamonno, G., Liu, Z. & Lutter, R. (1994). Productivity growth and firm ownership: an analytical and empirical investigation. *Journal of Political Economy* 102, 1006-1038.

- Estrin, S., Hanousek, J., Kocenda, E. & Svejnar, J. (2007). Effects of privatization and ownership in transition economies. *Discussion paper No. 2007-181*, CERGE-EI. Retreived on 12/8/2011 from: http://home.cerge-ei.cz/hanousek/jel\_survey/.
- Estrin, S. & Perotin, V. (1991). Does ownership always matter? *International Journal of Industrial Organization 9 (1)*, 55–73.
- Feng Fang, Sun Qian and Tong Wilson H. S. (2004). Do government-linked companies underperform? *Journal of Banking & Finance*, 2004, vol. 28, issue 10, pages 2461-2492
- Field, A. (2005) Discovering Statistics Using SPSS: (and sex, drugs and rock 'n' roll), London, Sage.
- Garcia, L.C., Anson, S.G. and Rodriguez, V.S, (2008). Post privatisation ownership concentration: Determinants and influence on firm efficiency. Project ECO2008-01439/ECON.
- GOK (2005) Privatisation Act. Government of Kenya: Nairobi
- Gorriz, C.G., & Fumas, V.S. (1996). Ownership structure and firm performance: Some empirical evidence from Spain. *Managerial and Decision Economics*, 17, 575-586.
- Hart, O. (2003). Incomplete Contracts and Public Ownership: Remarks, and an Application to Public-Private Partnerships. *The Economic Journal, Vol. 113, No. 486*, Conference Papers, C69-C76, Blackwell Publishing for the Royal Economic Society. URL: http://www.jstor.org/stable/3590047
- Hess, K., Gunasekarage, A. & Hovey M. (2010). State-dominant and non-state-dominant ownership concentration and firm performance: Evidence from China", *International Journal of Managerial Finance*, Vol. 6 Iss: 4, 264 – 289.
- Hongo, A.A. (2006). Gradual vis a vis rapid privatization & financial performance of privatised companies quoted in NSE. *Unpublished MBA Project*. University of Nairobi.

- Huang, Z. & Wang, K. (2004). Ultimate privatization and change in firm performance: Evidence from China. *Unpublished Research Thesis*, Tsinghua University Retrieved from:
  - http://ccg.tsinghua.edu.cn/uploads/%E5%8A%A0%E5%85%A5%E6%88%91%E4%BB%A C/Ultimate%20Privatization%20and%20Change%20in%20Firm%20Performance.pdf
- Jelic, R., Briston, R. & Aussenegg, W. (2003). The choice of privatization method and the financial performance of newly privatised firms in transition economies. *Journal of Business Finance and Accounting* 30, 905-930.
- Jensen, M.C. & Meckling, W.R. (1976). Theory of the firm: managerial behaviour, agency costs, and ownership structure. *Journal of Financial Economics*, 3: 305-60.
- Johnson, S., La Porta, R., Lopez-de-Silanes, F. & Shleifer, A. (2000). Tunnelling. American Economic Review Papers and Proceedings, 90, 22-27.
- Kang Y.S., Kim, B.Y., & Xu, C. (2007). Ownership structure and firm performance: evidence from the Chinese corporate reform. Retrieved from http://www.wcu-snuecon.co.kr/upload/catalogue\_file/61796e7fc2454ed44934011693693431.pdf
- Komai, J., Maskin, E & Roland, G. (2003) Understanding the soft budget constraint. Journal of Economic Literature Vol. XLI, 1095–1136
- Kole, S., & Mulherin, J. (1997). The Government as a Shareholder: A Case from the United States1. The Journal of Law and Economics, 40(1), 1-22. Retrieved from http://www.journals.uchicago.edu/doi/abs/10.1086/467364
- Laffont, J.J. and Tirole, J. (1991), Privatization and incentives. Journal of Law, Economics and Organization, 7, 84–105.
- Levy, N. (1987). A theory of public enterprise behavior. Journal of Economic Behaviour and Organization, 8, 75-96.
- Liu, G.S. & Sun, S.P. (2002). "The class of shareholdings and its impacts on corporate performance: a case of state shareholding composition in Chinese publicly listed

- companies" Economics and Finance. *Working papers*, Brunel University, 02-19 Retreived from: http://www.brunel.ac.uk/about/acad/sssl/ssslresearch/efwps##2002.
- López-Calva, L.F. (1998). On privatization methods. Harvard Institute for International Development, Development Discussion Papers-Central America Project, Series No. 665, Harvard University.
- Megginson, W.L., Nash, R.C. & Randenborgh M.V. (1994). The financial and operating performance of newly privatised firms: An international empirical analysis. *Journal* of Finance, 49, 403-452.
- Megginson, W.L. & Netter, J.M. (2001). From state to market: A survey of empirical studies on privatization. *Journal of Economic Literature*, 39, 321-389.
- Mugenda, O. & Mugenda, G. (2003). Research Methods: Quantitative and Qualitative Approaches. ACTS, Nairobi Kenya.
- Nellis, John. 1994. Is privatization necessary? World Bank Viewpoint Note 17, Washington D.C.: World Bank.
- NSE (2011) NSE Handbook 2010 Edition. Nairobi Stock Exchange: Nairobi
- Organisation for Economic Cooperation and Development. (2010). *Privatisation in the 21<sup>ST</sup>*Century: summary of recent experiences. Paris OECD. Retreived from: www.oecd.org/daf/corporate-affairs.
- Omran, M. (2004). The performance of state-owned enterprises and newly privatized firms:

  Does privatization really matter? World Development 32, 1019-1041. Retreived from:

  http://www.investment.gov.eg/fr/Publications/NonPeriodicPublications/Documents/

  MWORLDDEVELOPMENT.pdf
- Ongore, V.O. (2011). The Relationship between ownership structure and firm performance: An empirical analysis of listed companies in Kenya. *African Journal of Business Management Vol.* 5(6), 2120-2128.

- Qi, D., Wu, W. & Zhang, H. (2000). Shareholding structure and corporate performance of partially privatised firms: Evidence from listed Chinese companies. *Pacific-Basin Finance Journal* 8 (5), 587–610.
- Pallant, J. (2001) SPSS Survival Manual; A Step by Step Guide to Data Analysis Using SPSS for windows (versions 10 and 11), Buckingham, Open University Press.
- Ranja, T. (2004). Privatization in East Africa: Gaps and omissions in the techniques. Economic and Social Research Foundation. Retrieved on 11/8/2011 from http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=895621
- Roland, G. (2008). *Privatisation: Successes and failures*. Columbia University Press.

  Retrieved from http://books.google.ca/books?id=lUNqywVGWLwC&pg=PA9&source=gbs\_toc\_r&c ad=3#v=onepage&q&f=false.
- Sappington, D.E. & Stiglitz, J. (1987). Privatization, information, and incentives. *Journal of Policy Analysis and Management* 6, 567–582.
- Shapiro, C. & Willig, R. (1990). Economic rationales for the scope of privatization, in: Suleiman and Waterbury (eds.). *The Political Economy of Public Sector Reform and Privatization*, Westview Press.
- Sheshinski, E. & López-Calva. L.F. (2003). Privatization and Its Benefits: Theory and Evidence. CESifo Economic Studies, Vol. 49, (3), 429–459.
- Shleifer, A. & Vishny R. (1986). Large shareholders and corporate control, *Journal of Political Economy*, 94: 461-88.
- Shleifer, A. & Vishny, R. (1994). Politicians and firms. Quarterly Journal of Economics 109, 995–1025.
- Shleifer, A. & Vishny, R. (1998). The grabbing hand: Government pathologies and their cures. Harvard Univ. Press, Cambridge, MA. Retrieved from: http://www.entrepreneur.com/tradejournals/article/67532371.html.

- Starr, Paul. (1988). The meaning of privatization. Yale Law and Policy Review, 6, 6-41. Retrieved from: http://www.jstor.org/pss/40239271.
- Szentpéteri, Á. (2006). Government objectives, incentives, and privatization. *Unpublished PhD Thesis*, Economics Department. Retrieved on 10/8/2011 from: http://www.econ.ceu.hu/download/thesis/Thesis Szentpeteri.pdf.
- Sun, Q. & Tong, H.S. (2003). China share issue privatization: The extent of its success. Journal of Financial Economics 70, 183--222.
- Sun, Q., Tong, H.S. & Tong, J. (2002). How does government ownership affect firm performance? Evidence from China's privatization experience. *Journal of Business Finance & Accounting* 29, 1-27.
- Tian, L. & Esrin, S. (2007). Retained state shareholding in Chinese PLCs: Does government ownership always reduce corporate value? *Journal of Comparative Economics*, 36, 74-89. Retrieved on 8/8/2011 from: http://personal.lse.ac.uk/estrin/Publication%20PDF's/Retained%20state%20shareholding%20 in%20Chinese%20PLCs.pdf.
- Thambu, Z. (2006). Privatization & performance of public corporations listed in the NSE. Unpublished MBA Project. University of Nairobi.
- Vickers, J. & Yarrow, G. (1988) Privatization: An economic analysis. MIT Press Series on the Regulation of Economic Activity, no. 18. Cambridge, Mass. and London: MIT Press.
- Vickers, J. & Yarrow, G. (1989). Privatisation in Britain. In MacAvoy, P.W. et al Privatisation and State Owned Enterprises, Kluwer Academic Publishers, Boston.
- Vining, A.R. & Boardman, A.E. (1992). Ownership versus competition: Efficiency in public enterprise, *Public Choice*, 73, 205-239.
- Wang, C. (2005). Ownership and operating performance of Chinese IPOs'. *Journal of Banking & Finance 29*, 1835-1856.

- Wang, X., Xu, L.C. & Zhu, T. (2004). State-owned enterprises going public: The Case of China. Economics of Transition, 12, 467–488.
- Weche, E.A. (2005). Pre and post financial performance of firms privatised through the NSE.
  Unpublished MBA Project. University of Nairobi.
- Wei, Z. & Varela, O. (2003). State equity ownership and firm market performance: Evidence from China's newly privatised firms. Global Finance Journal, 14, 65-82.
- Wei, Z., Varela, O., D'Souza J. & Hassan, M.K. (2003). The financial and operating performance of China's newly privatised firms. *Financial Management* 32, 107-126.
- Wei, Z., Xie, F. & Zhang, S. (2005). Ownership structure and firm value in china's privatised firms. *Journal of Financial Quantitative Analysis*, 40, 87–108.
- Welch, D. & Fremond, O., 1998. The case-by-case approach to privatization. techniques and examples. *Papers* 403, World Bank - Technical Papers.
- Williamson, O. (1985). The economic institutions of capitalism: firms, markets, rational contracting. London: Macmillan
- World Bank (1995) Bureaucrats in business: the economics and politics of government ownership. World Bank, Oxford University Press.
- Wu, L., Wang, Y., Lin, B. & Bai, Y. (2010). Full Privatization, expropriation, and firm performance: Evidence from China. William A. Orrne Working Paper Series
- Xu, L.C., Zhu, T. & Lin, Y. (2001). Politician control, agency problems, and firm performance: Evidence from a national survey of ownership restructuring in China. Retrieved from: <a href="http://www.econometricsociety.org/meetings/esem02/cdrom/papers/225/ownership-restructuring">http://www.econometricsociety.org/meetings/esem02/cdrom/papers/225/ownership-restructuring</a>.
- Yu, H., Hans, V.S. & Lensink, R. (2007). State Control, Group Affiliation and Corporate Performance: Evidence from China's Listed Firms. Retrieved from: http://sf.cufe.edu.cn/news/jiangzuo/20100701.

Zeckhauser, R.J. & Horn, M. (1989). The control and performance of state-owned enterprises. In P.W. MacAvoy, W.T. Stanbury, G. Yarrow, and R.J. Zeckhauser, (Eds). Privatization and State-owned Enterprise, Kluwer, Boston, MA, 7-57.

#### APPENDICES

# Appendix I:Listed Firms on the NSE

#### AGRICULTURAL

- 1. Eaagads Ltd Ord 1.25 AIM
- 2. Kakuzi Ord.5.00
- 3. Kapchorua Tea Co. Ltd Ord Ord 5.00 AIM
- 4. Limuru Tea Co. Ltd Ord 20.00 AIM
- 5. Rea Vipingo Plantations Ltd Ord 5.00
- 6. Sasini Ltd Ord 1.00
- Williamson Tea Kenya Ltd Ord 5.00 AIM

#### COMMERCIAL AND SERVICES

- 8. Express Ltd Ord 5.00 AIM
- 9. Hutchings Biemer Ltd Ord 5.00
- 10. Kenya Airways Ltd Ord 5.00
- 11. Nation Media Group Ord. 2.50
- 12. Scangroup Ltd Ord 1.00
- 13. Standard Group Ltd Ord 5.00
- 14. TPS Eastern Africa (Serena) Ltd Ord 1.00
- 15. Uchumi Supermarket Ltd Ord 5.00

#### TELECOMMUNICATION & TECHNOLOGY

- 16. AccessKenya Group Ltd Ord. 1.00
- 17. Safaricom Ltd Ord 0.05

#### **AUTOMOBILES & ACCESSORIES**

- 18. Car & General (K) Ltd Ord 5.00
- 19. CMC Holdings Ltd Ord 0.50
- 20. Marshalls (E.A.) Ltd Ord 5.00
- 21. Sameer Africa Ltd Ord 5.00

#### BANKING

- 22. Barclays Bank Ltd Ord 2.00
- 23. CFC Stanbic Holdings Ltd ord.5.00

- 24. Diamond Trust Bank Kenya Ltd Ord 4.00
- 25. Equity Bank Ltd Ord 0.50
- 26. Kenya Commercial Bank Ltd Ord 1.00
- 27. Housing Finance Co Ltd Ord 5.00
- 28. National Bank of Kenya Ltd Ord 5.00
- 29. NIC Bank Ltd 0rd 5.00
- 30. Standard Chartered Bank Ltd Ord 5.00
- 31. The Co-operative Bank of Kenya Ltd Ord 1.00

#### INSURANCE

- 32. Kenya Re-Insurance Corporation Ltd Ord 2.50
- 33. CFC Insurance Holdings Ltd ord.1.00
- 34. Jubilee Holdings Ltd Ord 5.00
- 35. Pan Africa Insurance Holdings Ltd 0rd 5.00

#### INVESTMENT

- 36. Centum Investment Co Ltd Ord 0.50
- 37. City Trust Ltd Ord 5.00 AIM
- 38. Olympia Capital Holdings ltd Ord 5.00

#### MANUFACTURING & ALLIED

- 39. A.Baumann & Co Ltd Ord 5.00 AIM
- 40. B.O.C Kenya Ltd Ord 5.00
- 41. British American Tobacco Kenya Ltd Ord 10.00
- 42. Carbacid Investments Ltd Ord 5.00
- 43. East African Breweries Ltd Ord 2.00
- 44. Eveready East Africa Ltd Ord.1.00
- 45. Kenya Orchards Ltd Ord 5.00 AIM
- 46. Mumias Sugar Co. Ltd Ord 2.00
- 47. Unga Group Ltd Ord 5.00

### **CONSTRUCTION & ALLIED**

- 48. Athi River Mining Ord 5.00
- 49. Bamburi Cement Ltd Ord 5.00

- 50. Crown Berger Ltd 0rd 5.00
- 51. E.A.Cables Ltd Ord 0.50
- 52. E.A.Portland Cement Ltd Ord 5.00

#### **ENERGY& PETROLEUM**

- 53. KenGen Ltd Ord. 2.50
- 54. KenolKobil Ltd Ord 0.05
- 55. Kenya Power & Lighting Co Ltd Ord 2.50
- 56. Total Kenya Ltd Ord 5.00

#### FIXED INCOME SECURITIES MARKET SEGMENT

#### PREFERENCE SHARES

- 1. Kenya Power & Lighting Ltd 4% Pref 20.00
- 2. Kenya Power & Lighting Ltd 7% Pref 20.00

#### BONDS

- 3. Treasury Bonds
- 4. Corporate Bonds

# Appendix II: Partially Privatised Listed Firms in the NSE

### COMMERCIAL AND SERVICES

- Kenya Airways Ltd Ord 5.00
- 2. Uchumi Supermarket Ltd Ord 5.00

### TELECOMMUNICATION & TECHNOLOGY

3. Safaricom Ltd Ord 0.05

### **AUTOMOBILES & ACCESSORIES**

4. CMC Holdings Ltd Ord 0.50

### BANKING

- 5. Kenya Commercial Bank Ltd Ord 1.00
- 6. Housing Finance Co Ltd Ord 5.00
- 7. National Bank of Kenya Ltd Ord 5.00

#### INSURANCE

8. Kenya Re-Insurance Corporation Ltd Ord 2.50

#### MANUFACTURING & ALLIED

- 9. British American Tobacco Kenya Ltd Ord 10.00
- 10. East African Breweries Ltd Ord 2.00
- 11. Eveready East Africa Ltd Ord.1.00
- 12. Mumias Sugar Co. Ltd Ord 2.00

#### CONSTRUCTION & ALLIED

- 13. Bamburi Cement Ltd Ord 5.00
- 14. E.A.Portland Cement Ltd Ord 5.00

#### **ENERGY& PETROLEUM**

- 15. KenGen Ltd Ord. 2.50
- 16. Kenya Power & Lighting Co Ltd Ord 2.50