RELATIONSHIP BETWEEN CAPITAL MARKET DEVELOPMENT AND ECONOMIC GROWTH IN KENYA

BY:

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DECLARATION

I, Kollie A. Dorko, hereby declare that this project is my own work and effort and that it has not been submitted anywhere for any award.

Signature: 11/08/2012

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Date: 8/11/12

Dr. Josiah O. Aduda, Supervisor

DEDICATION

I am dedicating this research work to my mothers, Mrs. Windor K. Dorko and Mrs. Korpo S. Dorko, and my deceased father, Mr Samuel K. Dorko for their enormous support, encouragement, and care towards my academic sojourns.

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The staff of Jomo Kenyatta Library of the University of Nairobi who provided me the opportunity of using their facilities especially the MBA and the Electronic Library sections. From these able staff, I was able to access not only research reports from earlier MBA research findings but was able to access scholarly publication from the wider academic sphere.

The research direction which includes the generation of the research idea, to its conceptualization, to the drafting of the research proposal, to the analysis of samples and preparation of the report was provided by my supervisor Dr. Josiah Aduda.

In my literature review I have cited quite a lot of scholarly publications: some from earlier MBA students' research findings and others from the wider academia. These are works without which I could not have had a scholarly insight into this research

ABSTRACT

The study was carried out on firms listed on the Nairobi Securities Exchange (NSE) with the intention of finding out how economic growth was affected by the developments in the level of market capitalization. This was out of the fact that most researches dwelt so much on the relationship between market capitalization and GDP.

Regression model was used to study the relationship between economic growth and stock market development. The two variables were measured by percentage economic growth rate and market capitalization respectively. The data used were collected from the Nairobi Securities Exchange for the period spanning twelve years from 2000. The annual value of a listed firm's capitalization was taken as reported in the financial records and such values added to get the total capitalization for that year. The data for economic growth for the same period was got from the database of the United Nations Statistics Department.

Analysis of the data revealed that there was a 0.45 correlation between the two variables indicating that the two co-moved. The regression analysis found a weak positive relationship with the level of growth rate that is independent of market capitalization being 2.445 %. The variable part had a variation coefficient of 0.00003 which is positive. Both the regressed variables were statistically significant as was the whole regression as indicated by an F-statistic of 26.70679. However, the coefficient of determination was low, meaning that there was a large portion of the variation in growth rate that was not captured by the regression model. This was expected as economic growth is a result of many other variables in and out of the securities market.

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TABLE OF ABBREVIATIONS

ARDL	Autoregressive Distributed Lag
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
IFC	International Finance Corporation
IMF	International Monetary Fund
NSE	Nairobi Securities Exchange
OIC	Organisation of Islamic Cooperation

CHAPTER ONE
INTRODUCTION

1.1 Background

The increasing importance of financial markets across the world has reinforced the general conviction that finance is an important element of economic growth. As such, the emphasis has remained on economic growth and stock market development. Being an important pillar of the economy of a country, the stock market plays a key role in the growth of the industry and commerce which ultimately affects the economy of the country to a large extent. This is the rationale that the industrial bodies, government advisors and even the central bank of any country keep a close eye of observation on the activities of the stock market (Nazir, Nawaz, &Gilani, 2010).

The financial sector plays a crucial role in economic development. The depth and width of the financial sector has generally been found to promote economic growth. It has been observed that well-functioning capital markets increase economic efficiency, investment and growth. Kenya's capital market has been described as both narrow and shallow. The stock market and private bond market have seen a rise of less than 1% of growth financing despite the aim to achieve an annual economic growth of 10% by 2030 with an investment rate of 30% to be financed mainly through domestic resources. There has been significant focus on the capital market with for example the institutional development of the stock market and introduction of new instruments in the bonds market. It has been assumed that these efforts will facilitate mobilization of adequate resources and allocation of these resources efficiently to achieve growth objectives (Ngugi, Amanja & Maana, 2010).

The development of the capital market is an important component of financial sector development and it supplements the role of the banking system in economic development. Specifically, capital markets assist in price discovery, liquidity provision,

reduction in transaction costs, and risk transfer. They reduce information cost through generation and dissemination of information on firms leading to efficient markets in which prices incorporate all available information. Stock markets provide market liquidity that enables implementation of long term projects with long term payoffs thereby promoting a country's economic growth endeavour. Moreover, efficient capital markets not only avail resources to investors, they also facilitate inflow of foreign financial resources into the domestic economy (Yartey & Adjasi, 2007).

Contemporary economies of developing countries are changing due to rapid changes in the world economy. The emergence of international financial industry for worldwide network of transactions altered the role of international economy. Increased financial flows have altered the role of private capital and subsequently affect resource allocation. The economies of developing countries are witnessing changes in the composition of capital flows because world equity market is expanding rapidly. Foreign direct investment (FDIs) and stock market boom are the indicators of the changing world economic order. Earlier, most of the developing nations were facing serious liquidity problems thus compromising economic growth (Shahbaz, Ahmed, & Ali, 2008).

An organized and managed stock market is believed to have the ability to stimulate investment opportunities by recognizing and financing productive projects that lead to economic activity, mobilizing domestic savings, allocating capital proficiency, helping to diversify risks, and facilitating exchange of goods and services. Undoubtedly, stock markets are expected to increase economic growth by increasing the liquidity of financial assets, making global and domestic risk diversification possible, promoting wiser investment decisions, and influencing corporate governance, i.e., solving institutional problems by increasing shareholders' value. In addition to the above, stock markets are best indicator to forecast future economic activity and describe actual casual effect between future economic growth and stock prices. On the contrary, the relationship between stock market development and real economic growth can be explained as any change in stock market will eventually change the cost of rental capital provided, the

firm's cost of borrowing will become high as compared to income generated on its investment- it slows down the growth of the economy (Caporale, Howells &Soliman, 2004).

Furthermore, stock markets play an important role in allocation of capital to corporate sector that in turn stimulates real economic activity. Many countries were facing financial constraints particularly developing countries, where bank loans are restricted to some favourable groups of companies and personage investors. This limitation can also reflect constraints in credit markets. Due to stagnant bank's return from lending to specific groups of borrowers, this return does not increase as the interest rate to borrowers rises. Efficient stock markets provide guidelines as a mean to keep appropriate monetary policy through the issuance and repurchase of government securities in the liquid market, which is an important step towards financial liberalization. Similarly, well-organized and active stock markets could modify the pattern of demand for money, and would help create liquidity that eventually enhances economic growth (Mirakhor& Villanueva, 1990).

1.1.1 Economic Growth

The term growth generally carries a connotation of quantitative increase. Perhaps the most explicit statement that this connotation should be critical in interpreting is the concept of economic growth that is found in the writings of Kuznets. Kuznets argues rather forcefully that economic growth is essentially a quantitative concept and hence if we are to make substantial progress in the empirical and theoretical analyses of the growth phenomenon we must consider the quantitative aspect as basic. This point is generally accepted (Kuznets, 1955).

However, there remains widespread disagreement on the magnitude which should be considered as the relevant measure of growth. Indeed, the only unifying element in the various quantitative definitions of economic growth is the achievement of high states of human welfare measured by the contribution of economic activities. In defining

economic growth in this sense, it is argued that economic activity is a purposive activity. That economic activity can only be identified and its results measured if there is a prior identification of the underlying purpose of that activity. It is admitted that the concept of purpose is somewhat vague, that a single purpose cannot be objectively established but must be imputed, that empirical verification of any imputed purpose is impossible. Among the measures of economic growth the one most widely employed is per capita national income. It is argued that given inter-temporal constancy in the basic wants of human beings, an increase in per capital income provides a relatively unambiguous indicator of an improvement in economic welfare (Kuznets, 1955). This research adopts the quantitative changes in the per capita income of a country to operationalize economic growth.

1.1.2 The Stock Market

A stock market or equity market is a public entity (a loose network of economic transactions) for the trading of company stock (shares) and derivatives at an agreed price; these are securities listed on a stock exchange as well as those only traded privately. A stock market brings together individual retail investors, institutional investors such as mutual funds, banks, insurance companies and hedge funds, and also publicly traded corporations trading in their own shares (Shy & Tarkka, 2002).

The Nairobi Stock Exchange is now one of the most active securities market in Africa. It was developed from the efforts of Francis Drummond in 1951, an Estate Agent, who had approached Sir Ernest Vasey (at that time the Finance Minister of Kenya), and impressed upon him the idea of setting up a stock exchange in East Africa. The two, together, approached London Stock Exchange officials in July of 1953 culminating into the formation of the Nairobi Stock Exchange as an overseas stock exchange attached to the London Stock Exchange (NSE, 2011).

Initially Africans and Asians were not permitted to trade. This was held until after the attainment of independence in 1963. In 1988 the first privatization through the NSE was realized, and the successful sale of a 20% government stake in Kenya Commercial Bank

was done (NSE, 2011). February 18, 1994 recorded the highest 20-Share Index in NSE history (NSE, 2011). As on 4th April 2012, the Market Capitalization stood at Ksh. 939.89 billion with a record of 6,122,700.00total shares traded.

Market capitalization (often simply market cap) is the total value of the tradable shares of a publicly traded company; it is equal to the share price times the number of shares outstanding. Capitalization could be used as a proxy for the public opinion of a company's net worth and is a determining factor in some forms of stock valuation. The total market capitalization on a securities exchange is the sum of the market capitalization of the traded shares (Khrawish, Siam, & Jaradat, 2010).

Levine & Zervos (1998) found positive and significant correlation between stock market development and long-term economic growth. There are two schools of thought on the relation of stock market development and economic growth: one holds that stock market development is important for economic growth, the other holds that it is not. Greenwood and Smith (1996) showed that stock markets lower the costs of mobilizing savings and facilitate savings thus promoting economic growth. On the other hand, increased liquidity may reduce growth via the reduction in saving rates due to uncertainty about savings and adversely affect corporate governance on account of investors' myopia about market liquidity (Demirguc-Kunt& Levine, 1996).

1.2 Statement of the Problem

Economists' understanding of the role of financial systems as a driver of long-term economic growth has evolved considerably in recent years. Financial systems are recognized to affect growth through the accumulation and allocation of capital. Countries with efficient financial systems are able to better harness their long-term growth potential. There is a tendency of all the players in the formal production process to converge at the securities exchange with the aim of mobilizing funds (Boissonneault, 2003).

A research conducted by Brasoveanu, Dragota, Catarama & Semenescu (2008) examined the correlation between capital market development and economic growth in Romania using a regression function. The results showed that capital market development is positively correlated with economic growth, with the strongest link being from economic growth to capital market, suggesting that financial development follows economic growth, economic growth determining financial institutions to change and develop. There generally seems to be such relationship between economic growth and capital market development in the developed countries.

Studies by Odhiambo (2010), Omoke (2010) and Ndung'u (2010) showed that Kenya is one of the emerging African economies with its securities exchange ranked as one of the most active and developed in Africa and with a strong positive relationship between stock market development and GDP. Most research shows most of the western countries with more advanced securities markets do not necessarily have a strong positive relationship between stocks market development and economic growth. Research in developing countries has not been richly done and there is no evidence of research to directly connect market capitalization with GDP growth rate. It is with this in context that this research is to be conducted. This research therefore seeks to answer the question: is there a positive relationship between the stock market development (as measured by market capitalization) and economic growth measured by GDP growth rate?

1.3 Objective of the study

To determine the relationship between capital market development and economic growth

1.4 Significance of the study

The findings of this study will be significant to the following parties in the identified ways. The management of the stock exchange will be able to know the sensitivity of the

activity at the NSE to the economic growth of this country. As a result of getting to know this importance, they will be able to put in place carefully thought out policies hand in hand with the other financial players in Kenya to help drive economic growth.

Investors in securities on the stock market are interested in knowing how their investment contributes to national development. This is because the companies traded on the NSE mobilize local and international sources of funds for the production of goods and services. Establishing the relationship between economic growth and market capitalization will enable the investors to know what level of investment is required to achieve a set target of economic growth especially with the Vision 2030 in mind.

The findings of this research will be of critical importance in the scholarly discussion on the topics concerning the importance of the securities exchange market in the economies of the world. It therefore means future researchers will import the findings of this research and use them to advance related research arguments.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

There seems to be no general agreement between the development of the financial capital markets and economic growth of the nations of the world and theory has substantiated this. This chapter provides a review of the theory behind the relationship between economic growth and capital market and provides a review of the various studies that provide empirical evidence in the study of these variables.

2.2 Review of Theories

2.2.1 Basic Economic Growth Theory

In the Basic Economic Growth Model – Primary factors of production under a basic model are capital stock and labour (economically active population). Output is a function of capital and labour. At a national level, an aggregate production function can be represented by the formula $Y = f(K, L)$ where Y is output, K is capital and L is labour. Increased output (Y) depends on increases in the capital stock (K) through investment and depreciation, and increases in labor supply (L) through population growth. The amount of investment in capital stock depends on savings and is calculated by multiplying the average savings rate in a country by national output. Labour supply is based on demographics. As capital and labour increase, economic output grows (Aghion &Howitt, 2012).

2.2.2 Economic Growth Theory of Lewis

The two-sector model of economic growth developed by William Arthur Lewis (1915-1991) is a classical economic model, as opposed to a neoclassical one. Lewis believed that neoclassical economics does not accurately describe the condition of economically less-developed countries because it assumes that labour is in short supply. Lewis's model posited two sectors in the economy of a LDC: the modern and the traditional. The modern sector is small and uses considerable amounts of capital, whereas the traditional sector is large and not capital-intensive. Very little, if any, capital accumulation occurs in

the traditional sector, while a large amount of excess labour exists there-which Lewis called the reserve army of labourers.

An increase in the amount of capital in the modern sector would increase the marginal product of labor in the modern sector and thereby increase total output there-whereas it would not affect the traditional sector at all. Thus, for Lewis, capital accumulation in the modern sector is the method for growing a less developed economy without doing any real damage to the traditional sector. According to Lewis's model, capital accumulation in the modern sector will lead to rising incomes as well as rising income inequality-signs of economic growth and development.

Based on the Lewis model, if a country shows a lack of economic growth and development, it means that the country needs to modernize its traditional sector by industrializing; investment of additional capital can help it do so (Stolyarov, 2012).

2.2.3 Harrod-Domar Growth Model

During the 1940s economists Roy Harrod and Evsey Domar independently developed an economic growth model based on a fixed-coefficient, constant returns to scale function (this function assumes that capital and labour are used in a constant ratio to each other to determine total output). The model assumes that labour and capital are always used in a fixed proportion to produce out equal amounts of output. The model's equation is $Y = K/v$ where v is a constant found by dividing capital (K) by investment (Y) – v is the capital-output ratio. This ratio is primarily a measure of the productivity of capital or investment. The Harrod-Domar model focuses on two critical aspects of the growth process: saving and the efficiency with which capital is used in investment.

2.2.4 Solow (Neoclassical) Growth Model

In the 1950s, Robert Solow presented a new model of economic growth that addressed limitations in the Harrod-Domar model. He replaced the fixed-coefficients production function with a neoclassical production function. This model allowed for substitution between the factors of production so that the relative endowments of capital and labor

could be reflected (rather than the fixed ratios required by the Harrod-Domar model). The neoclassical production function has curved, rather than L shaped, isoquants allowing flexibility in using different combinations of capital and labour.

Output can be expanded in one of three ways: increases through fixed and equal portions of labour and capital; increases in capital; or increases in labour. The Solow Growth Model assumes a production function with the property of diminishing returns where each additional increment in capital per worker results in less output. However, technological change is seen as increasing productivity. The neoclassical production function showed increasing technology or knowledge as labour augmenting and increasing output.

2.2.5 Financial Development and Economic Growth Theory

The costs of acquiring information, enforcing contracts, and making transactions create incentives for the emergence of particular types of financial contracts, markets and intermediaries. Different types and combinations of information, enforcement, and transaction costs in conjunction with different legal, regulatory, and tax systems have motivated distinct financial contracts, markets, and intermediaries across countries and throughout history. In arising to ameliorate market frictions, financial systems naturally influence the allocation of resources across space and time (Merton & Bodie, 1995).

For instance, the development of liquid stock and bond markets means that people who are reluctant to relinquish control over their savings for extended periods can trade claims to multiyear projects on an hourly basis. This may profoundly change how much and where people save. In particular, financial systems produce information about possible investments and allocate capital, monitor investments and exert corporate governance after providing finance, facilitate the trading, diversification, and management of risk, mobilize and pool savings, and ease the exchange of goods and services (Levine, 2004).

While all financial systems provide these financial functions, there are large differences in how well financial systems provide these functions. Financial development occurs when financial instruments, markets, and intermediaries ameliorate – though do not

necessarily eliminate – the effects of information, enforcement, and transactions costs and therefore do a correspondingly better job at providing the five financial functions. Thus, financial development involves improvements in the: production of ex ante information about possible investments; monitoring of investments and implementation of corporate governance; trading, diversification, and management of risk; mobilization and pooling of savings, and exchange of goods and services. Each of these financial functions may influence savings and investment decisions and hence economic growth. A large growth accounting literature suggests that physical capital accumulation per se does not account for much of long-run economic growth (Jorgenson, 2005).

Financial arrangements that improve resource allocation and lower risk may lower saving rates. In a growth model with physical capital externalities, therefore, financial development could retard economic growth and lower welfare if the drop in savings and the externality combine to produce a sufficiently large effect (Levhari&Srinivasan, 1969).

Financial markets spur economic growth by producing information and allocating capital. There are large costs associated with evaluating firms, managers, and market conditions before making investment decisions. Individual savers may not have the ability to collect, process, and produce information on possible investments. Since savers will be reluctant to invest in activities about which there is little reliable information, high information costs may keep capital from flowing to its highest value use. Thus, while many models assume that capital flows toward the most profitable firms, this presupposes that investors have good information about firms, managers, and market conditions. (Bagehot, 1873)

Financial intermediaries may also reduce the costs of acquiring and processing information and thereby improve resource allocation. Without intermediaries, each investor would face the large fixed cost associated with evaluating firms, managers, and economic conditions. Consequently, groups of individuals may form financial intermediaries that undertake the costly process of researching investment possibilities for others. Financial intermediaries look like banks in that they accept deposits and make loans (Boyd &Prescott, 1986).

Stock markets may also stimulate the production of information about firms. As markets become larger and more liquid, agents may have greater incentives to expend resources in researching firms because it is easier to profit from this information by trading in big and liquid markets (Grossman &Stiglitz, 1980) Intuitively, with larger and more liquid markets, it is easier for an agent who has acquired information to disguise this private information and make money by trading in the market. Thus, larger more liquid markets will boost incentives to produce this valuable information with positive implications for capital allocation (Merton, 1987).

Financial intermediaries also monitor firms and exert corporate governance. Corporate governance is central to understanding economic growth in general and the role of financial factors in particular. The degree to which the providers of capital to a firm can effectively monitor and influence how firms use that capital has ramifications on both savings and allocation decisions. To the extent that shareholders and creditors effectively monitor firms and induce managers to maximize firm value, this will improve the efficiency with which firms allocate resources and make savers more willing to finance production and innovation. In turn, the absence of financial arrangements that enhance corporate governance may impede the mobilization of savings from disparate agents and also keep capital from flowing to profitable investments. Thus, the effectiveness of corporate governance mechanisms directly impacts firm performance with potentially large ramifications on national growth rates (Stiglitz & Weiss, 1983).

In terms of intermediaries, Diamond (1984) develops a model in which a financial intermediary improves corporate governance. The intermediary mobilizes the savings of many individuals and lends these resources to firms. This "delegated monitor" economizes on aggregate monitoring costs and eliminates the free-rider problem since the intermediary does the monitoring for all the investors. Furthermore, as financial intermediaries and firms develop long-run relationships; this can further lower information acquisition costs.

In terms of economic growth, a number of models show that well-functioning financial intermediaries influence growth by boosting corporate governance. Bencivenga& Smith

(1993) show that financial intermediaries that improve corporate governance by economizing on monitoring costs will reduce credit rationing and thereby boost productivity, capital accumulation, and growth. This improves credit allocation among competing technology producers with positive ramifications on economic growth.

From a different perspective, Boyd & Smith (1992) show that differences in the quality of financial intermediation across countries can have huge implications for international capital flows and hence economic growth rates. They show that capital may flow from capital scarce countries to capital abundant countries if the capital abundant countries have financial intermediaries that are sufficiently more effective at exerting corporate control than the capital scarce regions. Thus, even though the physical product of capital is higher in the capital scarce countries, investors recognize that their actual returns depend crucially on the monitoring performed by intermediaries

Financial intermediation also enables risk amelioration. With information and transactions costs, financial contracts, markets and intermediaries may arise to ease the trading, hedging, and pooling of risk with implications for resource allocation and growth. Traditional finance theory focuses on cross-sectional diversification of risk. Financial systems may mitigate the risks associated with individual projects, firms, industries, regions, countries, etc. Banks, mutual funds, and securities markets all provide vehicles for trading, pooling, and diversifying risk. The financial system's ability to provide risk diversification services can affect long-run economic growth by altering resource allocation and savings rates (Levine, 2004).

Acemoglu & Zilibotti (1997) carefully model the links between cross-sectional risk, diversification, and growth. They assume that: high-return, risky projects are frequently indivisible and require a large initial investment; people dislike risk; there are lower return, safe projects, and capital is scare. In the absence of financial arrangements that allow agents to hold diversified portfolios, agents will avoid the high-return, risky projects because they require agents to invest disproportionately in risky endeavours. They show that financial systems that allow agents to hold a diversified portfolio of risky

projects foster a reallocation of savings toward high-return ventures with positive repercussions on growth.

The standard link between liquidity and economic development arises because some high-return projects require a long-run commitment of capital, but savers do not like to relinquish control of their savings for long-periods. Thus, if the financial system does not augment the liquidity of long-term investments, less investment is likely to occur in the high-return projects. Hicks (1969) argues that the products manufactured during the first decades of the Industrial Revolution had been invented much earlier (Bencivenga, Smith, & Starr, 1995).

Financial intermediaries facilitate pooling of savings. Pooling is the costly process of agglomerating capital from disparate savers for investment. Mobilizing savings involves overcoming the transaction costs associated with collecting savings from different individuals and overcoming the informational asymmetries associated with making savers feel comfortable in relinquishing control of their savings (Carosso, 1970).

In light of the transaction and information costs associated with mobilizing savings from many agents, numerous financial arrangements may arise to mitigate these frictions and facilitate pooling. Specifically, mobilization may involve multiple bilateral contracts between productive units raising capital and agents with surplus resources. The joint stock company in which many individuals invest in a new legal entity, the firm, represents a prime example of multiple bilateral mobilizations (Levine, 2004).

Financial systems that are more effective at pooling the savings of individuals can profoundly affect economic development by increasing savings, exploiting economies of scale, and overcoming investment indivisibilities. Besides the direct effect of better savings mobilization on capital accumulation, better savings mobilization can improve resource allocation and boost technological innovation. Without access to multiple investors, many production processes would be constrained to economically inefficient scales. Thus, good projects would not fail for lack of capital (Sirri & Tufano, 1995).

Financial arrangements that lower transaction costs can promote specialization, technological innovation and growth. The links between facilitating transactions, specialization, innovation, and economic growth were core elements of Adam Smith's (1776) Wealth of Nations. He argued that division of labor -- specialization -- is the principal factor underlying productivity improvements. With greater specialization, workers are more likely to invent better machines or production processes (Smith, 1776).

Greenwood & Smith (1996) modelled the connections between exchange, specialization, and innovation. More specialization requires more transactions. Since each transaction is costly, financial arrangements that lower transaction costs will facilitate greater specialization. In this way, markets that promote exchange encourage productivity gains. There may also be feedback from these productivity gains to financial market development. If there are fixed costs associated with establishing markets, then higher income per capital implies that these fixed costs are less burdensome as a share of per capita income. Thus, economic development can spur the development of financial markets.

2.2.6 Capital Market Development

Well-developed securities markets are the backbone of any financial system. Apart from providing the medium for channelizing funds for investment purposes, they aid in pricing of assets and serve as a barometer of the financial health of the economy. The main impulse for developing securities markets, including both equity and debt segments, depends on country-specific histories and more specifically, in the context of the financial system, it relates to creating more complete financial markets, avoiding banks from taking on excessive credit, risk diversification in the financial system, financing government deficit, conducting monetary policy, sterilising capital inflows and providing a range of long-term assets (Odhiambo, 2010).

A well-developed Capital Market should exhibit internal efficiency. The market must also exude external efficiency by reacting quickly to new news. Existing prices therefore should reflect all available information. Such markets should be liquid and deep.

Securities markets that are liquid ensure assets can be bought or sold easily. If there are numerous buyers and sellers, the market becomes deep. Continuity of the market means prices do not change substantially from one transaction to another unless significant new news arises. Marketability means high ability to sell an asset quickly. Finally, new information is brought to the market in a timely and accurate way (Nicholls, 2006).

2.3 Review of Empirical Studies

A study conducted by Nazir, Nawaz & Gilani (2010) was cognizant of a strong relationship between economic growth and stock market development. The study investigated the stock market development and economic growth relationship by using the two major measures of stock market development, namely: size of the market and liquidity prevalent in the market in terms of market capitalization. The results revealed that (higher) economic growth can be attained by increasing the size of the stock markets of a country as well as the market capitalization in an emerging market like Pakistan.

The study utilized 23 observations, i.e. from 1986 to 2008 and found the coefficient between economic growth and market capitalization to be 18.5, with a standard error of 34.88, and a t-statistic of 1.63 with a probability of 0.0998. This led to the conclusion that the development of the stock market influences the process of economic growth in Pakistan positively and significantly (Nazir, Nawaz & Gilani, 2010).

Odhiambo, (2010) examined the dynamic causal relationship between stock market development and economic growth in South Africa using the newly developed ARDL-Bounds testing procedure. The study used three proxies of stock market development, namely stock market capitalization, stock market traded value and stock market turnover, against real GDP percapita, a proxy for economic growth. Using data from 1971 to 2007, the empirical results showed that the causal relationship between stock market development and economic growth is sensitive to the proxy used for measuring the stock market development. The results were found to apply irrespective of whether the causality is estimated in the short-run or in the long-run.

Omoke (2010) endeavoured to establish the relationship between capital market development and economic growth in Kenya. He analysed the cause and effect relationships between these two variables. His study concluded that there's a strong positive relationship between GDP and change in stock market prices but a weak relationship between GDP, market capitalization and trading volume.

Ndung'u (2011) conducted a study to establish the nature of relationship between economic growth and stock market developments in Kenya. The study concludes that there's a positive relationship between economic growth and measure of stock market development. It further posits that market liquidity indicators have a strong relationship with economic growth as compared to market size indicator (market capitalization ratio). The granger causality test used indicated that the nature of the relationship is from stock market development to economic growth.

Boubakari & Jin (2010) in their study explored the causality relationship between stock market development and economic growth based on the time series data compiled from five Euronext countries (Belgium, France, Portugal, Netherlands and United Kingdom) from the first quarter of 1995 to the fourth quarter of 2008. Granger causality test was used to find causality relationship between stock market proxies through market capitalization, total trade value, turnover ratio and economic growth. Causal relations were investigated for each country. The results of the study suggested a positive link between the stock market and economic growth for some countries for which the stock market is liquid and highly active. However, the causality relationship was rejected for the countries in which the stock market is small and less liquid.

Ujunwa & Salami (2010) also examined the impact of stock market development on long-run economic growth in Nigeria using time serial data for a 21-year period covering the period 1986-2006. The Ordinary Least Square regression was used to estimate the various models used. The gross domestic per capita growth was adopted as the dependent variable, the independent variables included total market capitalization, total value of shares traded, turnover ratio, while controlling for other variables that may introduce bias

in our results. The regression result showed stock market liquidity coefficient was negative in explaining long-run growth in Nigeria.

Brasoveanu et al (2008) had conducted a similar research which focused on correlations between capital market development and economic growth in Romania for the period 2000-2006. Using regression analysis the results showed that the capital market development was positively correlated with economic growth, with feed-back effect, but the strongest link was from economic growth to capital market.

Deb & Mukherjee (2008) did a study to examine the relationship between stock market development and economic growth for the Indian economy over decade or so. By applying the techniques of unit–root tests and the long–run Granger non-causality test proposed by Toda & Yamamoto (1995), they tested the causal relationships between the real GDP growth rate and three stock market development proxies. Their results were that there is strong relationship between the stock market development and economic growth.

Shafii & Aziz (2009) conducted a study to examine the long-run relationship between economic growth and stock market developments for 20 Organisation of Islamic Cooperation (OIC) member countries. Panel data from1989 to 2006 was examined through co-integration estimation procedure that can detect the existence of long-run relationship between the variables. The Johansen co-integration method was used to determine the existence of co-integration relationship among the variables under consideration. The results indicated that such relationship exists among the variables in Malaysia, United Arab Emirates, Turkey, Egypt, Bahrain, and Uzbekistan.

Mohtadi & Agarwal (2007) examined the relationship between stock market development and economic growth for twenty-one emerging markets over twenty-one years, using a dynamic panel method. Results suggested a positive relationship between several indicators of the stock market performance and economic growth both directly, as well as indirectly by boosting private investment behaviour. Thus they lent support both to the financial intermediation literature as well as to the traditional growth literature.

Filer, Hanousek, &Campos (1999) studied whether stock markets promote economic growth across several countries in the High Income, Upper Middle Income, Low Middle and Low income groups in the world with data from 1985 to 1997. In order to achieve as much consistency as possible, the study relied on data from the International Finance Corporation (IFC 1998 and earlier editions) for financial markets while growth rates and per capita GDP were obtained from International Monetary Fund (IMF).

There was evidence that stock markets, especially in more developed economies, incorporate expected future growth into current prices, a result that is consistent with efficient market hypotheses, and a strong relationship between stock market activity and future economic growth for the low and lower middle income countries in the sample but not in higher income countries with more developed alternative financial mechanisms. The lack of a strong link between economic growth and stock market development in developed countries was attributed to the availability of other vehicles of economic growth that diminish the importance of the stock market (Filer, Hanousek, &Campos, 1999).

2.4 Conclusion

The relationship between stock market capitalization and economic growth rate is not universal. Some results in both the developed countries and the less developed countries showed no significant relationship between these two variables. For the developed nation this was attributed to the diminished importance of the stock market relative to other more important development drivers. Among the less developed nations this was attributed to the poor nature of the capital market. On the contrary, the relationship was found to be strong and positive among the middle-income countries. This situation necessitates the need to establish where Kenya lies in this context.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology that will be used to conduct the study. It specifies the research design, what the target population was, how data was collected method and the method of analysis.

3.2 Research design

This investigation was a correlation study with the values of GDP growth rate as the dependent variable and the NSE market capitalization aggregates as the independent variable. The regression model of analysis was used because the study wanted to find out the mathematical relationship between the two variables across the years between 2001 and 2011.

3.3 Target Population

The listed companies on the Nairobi Securities Exchange (NSE) between 2001 and 2011 made up the target population (See appendix).

3.4 Sample

The market capitalization data for all the consistently listed firms and the annual economic growth rates from January 2001 to December 2011 were used. The companies listed for less than the earlier half the period were exempted.

3.5 Data Collection

The data on market capitalization were collected from the NSE data bank while the GDP growth rates were collected from the United Nations Statistics Division website. The data were collected electronically on an optical disc.

3.6 Data Analysis

This study used a regression analysis model in which the dependent variable was the annual GPD growth g while the independent variable was the market capitalization totals of firms consistently listed on the NSE for study period. The regression model was:

$$g = \alpha + \beta(CAP) + \epsilon$$

Where,

g = is the GDP growth rate,

CAP = is the annual market capitalization value of all the consistently listed firms

α = The GDP growth rate that is independent of market capitalization

β = The sensitivity of the GDP growth rate to market capitalization

ϵ = The error term.

The $t-test$ was used to determine the significance of the constant term, α, and the coefficient term, β. The $F-test$ was used to determine the importance of the regressions while the coefficient of determination, R^2, was used to determine how much variation in g was explained by variation inCAP. These tests were done at 95 % confidence level. The analysis was done using Microsoft EXCEL 07 software.

CHAPTER FOUR

DATA ANALYSIS

4.1 Introduction

This chapter discusses the analysis of the data used for this study. The chapter is organized such that the first part provides the presentation of the data in terms of the sample of the study, data collection, the descriptive statistics of the data used, and the regression analysis. The study found the relationship between economic growth and market capitalization to be positive but weak.

4.2 Data Presentation

4.2.1 The Sample of Study

This study was aimed at considering all the firms on the NSE but had to be adjusted to suit consistency in the trading of the listed firms. The firms that were not studied were those that registered data for less than four trading years from 2000 to 2011. However bias was against those that recorded less than four years during the earlier half of the study period as compared to those that registered less than half the number of years but toward the end of the study period. They were included for they were still trading and in the spirit of the research were still deemed eligible in the sample. Consequently five firms were eliminated: Hutchings Biemer Ltd, I.C.D.C Investments Co Ltd, Carbacid Investments Ltd, Olympia Capital Holdings ltd, and Kenya Orchards Ltd. This reduced the companies studied to fifty-three.

4.2.2 Data Collection

The data that were required were the market capitalization of the various firms at the time when the various firms were registering their annual financial reports with the NSE. These data were collected per company and their annual sum total paired with the GDP growth rates got from the database of United Nations Department of Statistics.

4.2.3 Descriptive Statistics

The values of each of the firms' reported market capitalization in a year were added to find the total capitalization in that year. This provided twelve observations of the dependent variables to be regressed with the GDP growth rates. The descriptive statistics of both the sets of data were calculated and are summarized in the table below. There were twelve observations for each variable making up twelve complete observations for the regression analysis.

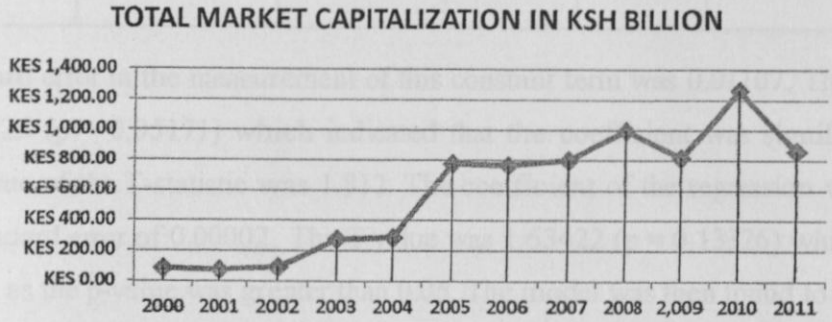
The highest value of market capitalization was achieved in 2010 when the reported total market value of the firms whose data were available was Ksh1, 265.225,945 billion. This was about 17 times of the market capitalization of 2000. The mean of the market capitalization was Ksh593.308895 Billion with a standard deviation of 406.684. The distribution had a kurtosis of -1.369162844 which shows it was a platykurtic distribution. The skewness was -0.052625804 showing the distribution was symmetric. The Shapiro-Wilkinson statistic at 95 % confidence level was 0.886 ($p = 0.105$) which indicated the distribution was normal as required in a regression.

The highest level of GDP growth was 0.07 achieved in 2007. The arithmetic average growth rate was 0.03958 with a standard deviation of 0.023. The kurtosis of the GDPs was -1.300690314 indicating a platykurtic distribution. The skewness was -0.400194042 which indicated slight negative skewness. The Shapiro-Wilkinson statistic at 95 % confidence level was 0.919 ($p = 0.276$) which also indicated the distribution was normal as required in a regression. The values of the Shapiro-Wilkinson tests are presented in Table 5 in the appendix.

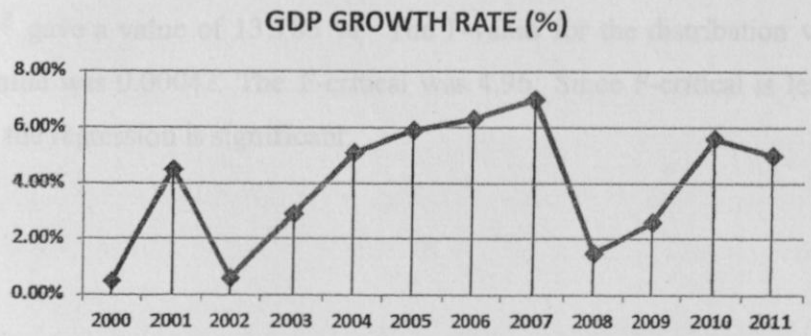
DESCRIPTIVE STATISTICS SUMMARY

STATISTIC	TOTAL CAP IN KSH BILLION	GDP GROWTH RATE
Mean	593.308895	0.039583333
Median	775.3661622	0.0475
Kurt	-1.369162844	-1.300690314
Skewness	-0.052625804	-0.400194042
Max	1265.225945	0.07
Min	75.64537799	0.005
Correlation	0.459	
Standard Deviation	406.684	0.023
Observations	12	12

The market capitalization has been on the general upward trend since 2000 when it was estimated at Ksh 75.6454 Billion and hitting the highest point in 2010 after which there was a drop to Ksh 864.2623 Billion. The chart below shows the trend.



The economic growth rate has also been on the upward trend as shown by the chart below. The lowest growth rate was 0.5 % in 2000. The highest rate was 7 % in 2007. It is noteworthy that economic growth rate hit local minimums in 2002 and 2008.



4.2.4 The Regression Analysis

The regression was done with the GDP growth rates as the dependent variable and the market capitalization totals as the independent variable. The table below which is also in the appendix provides a summary of the results of the regression. The constant term representing the GDP growth rate that is independent of the market capitalization was 2.445 %.

REGRESSION RESULTS

Independent Variable	Regression Coefficient	Standard Error	T-Value	P Value	Lower 95% CI	Upper 95% CI
Variable 0	0.02445	0.01107	2.20825	0.05171	-0.00022	0.04913
Variable 1	0.00003	0.00002	1.63422	0.13326	-0.00001	0.00006

The standard error in the measurement of this constant term was 0.01107. The T-statistic was 2.20825 (p = 0.05171) which indicated that the coefficient was significant as the critical value of the T-statistic was 1.812. The coefficient of the regression was 0.00003 with a standard error of 0.00002. The T value was 1.63422 (p = 0.13326) which was also significant as the p-value was greater than 0.05. The model was then found to be

$$g = 0.02445 + 0.00003(CAP) + \epsilon$$

The table below presents the statistics of the regression. The R^2 was 21.078 % which is an indication that though having an impact the variation in market capitalization did not explain the full variation in the GDP growth rates-it only explained 21.078 %. The adjusted R^2 gave a value of 13.185 %. The F-value for the distribution was 26.70679 whose p-value was 0.00042. The F-critical was 4.96. Since F-critical is less than the F calculated, the regression is significant.

REGRESSION STATISTICS

Residuals Variance	0.00044
R squared	0.21078
Adjusted R squared	0.13185
F-Value	26.70679
P-Value of F	0.00042

4.3 Summary and Interpretation of Findings

Much of the available studies to the effect of the stock exchange to the economic development of any nation seem to be country-specific; specific in the sense that the benefits realized from the stock exchange is basically dependent upon its role and the significance of the identified role in the economy. The researches seem to present three scenarios: that of the developed nations made up of the Northern America, Europe and the Far East, the newly industrializing states, and the Less Developed countries. The developed countries have sophisticated securities markets that are deep, wide and highly efficient in the technological and the market sense. However, these markets contribute less to the economy as shown by weak regression results. The situation is similar to the poorly developed countries, but with a different explanation as some countries have shallow, narrow and inefficient securities markets.

On the contrary, the newly industrializing countries have shown a strong relationship between the stock market and economic development. There are researches that show strong correlations and strongly significant regression results. This was an indication that the stock markets are significant drivers in such economies.

The objective of this research is to determine the relationship between capital market development and economic growth in Kenya. The capital market development concept was operationalized by the total market capitalization as reported in the annual reports of the listed firms. The rate of economic growth was captured by the rate of change in GDP. It was therefore assumed that development of the capital market is properly captured by increase in the value of market capitalization.

In this research the correlation between market capitalization and GDP growth rate was found to be 0.459 which is not very strong. This is attributable to the fact the GDP of a country is a result of many factor in a country and not just market capitalization. Further, the market capitalization itself is a result of many factors. The capitalization reported is based on stock prices at the time records are being prepared. However, the findings show that there is a co movement between capital market development and economic growth as measured by percentage change in GDP.

In the regression, the constant term was 2.445 %. This refers to that level of economic growth that is independent of the market capitalization variable. It is the level of economic growth that is achievable despite the level of capitalization of the NSE but, possibly, may vary as a result of some other factors not part of the regression model used for analysis. This value had a T-statistic of 2.20825 ($p = 0.05171$) showing that the value is statistically important.

The coefficient term of the regression was 0.00003 with a T-value of 1.63422 ($p = 0.13326$). This value showed how much of economic growth rate is directly affected by the increase in the value of market capitalization. The significance of this term is that it indicates that market capitalization is a significant contributor to the development of the nation through economic growth. In the case of this study, the contribution is positive. The stock market is therefore a contributor to the development of the Kenyan economy.

This research was done bearing in mind that there were variations in how economic growth relates to market capitalization among different countries of the world. Among the rich nations, the relationship was weak showing the diminished importance of the stock markets despite their sophisticated nature. The less developed countries showed similar results, but with different possible explanations as to why that was so. This inconclusiveness arises due to a myriad of reasons including poor record keeping and market inefficiency among other factors. The other category of countries showed positive relationships between market capitalization and economic growth. This was as a result of the increased importance of the stock market as an avenue of economic growth and development.

This research has properly indicated the nature of the relationship between the development of the capital market and the level of economic growth rate in Kenya for the last five years. The result is that there is a weak positive relationship between Market capitalization and economic development in Kenya. The finding of this study is in congruence with Omoke (2010) and Ndung'u (2011) who found a weak relationship between GDP and Market Capitalization in Kenya.

According to the data that was collected, there were two main sources of increase in the market capitalization: one, the increase in the number of traded stocks in form of new issues and in form of new listings like Safaricom and others; and two, the increase in the prices of the outstanding stocks. These two provided that there was an increase in the amounts Kenyans were investing in the purchase of stocks at the NSE. In short, therefore, the more money Kenyans invest on the Nairobi Securities Exchange by purchasing shares, the higher the spurred level of economic growth rate.

It is however not possible to conclude from the study whether there is an accurately defined cause-and-effect relationship between market capitalization and economic growth. This is because of the obvious nature that economic growth is a result of so many factors whose causal effects on economic growth have not been determined.

CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 Summary

This research was carried out on firms listed on the Nairobi Securities Exchange (NSE) with the intention of finding out how economic growth was affected by the developments in the level of market capitalization. This research was done out of the gap left by most researches on Kenya that dwelt so much on the relationship between market capitalization, trading volume, share prices and GDP and the mixed finding of similar researches that tended to be country-specific.

The research model that was used was a regression analysis that would relate economic growth and stock market development. The two variables were operationalized as a percentage with GDP growth rate as a proxy for economic growth rate and market capitalization as a proxy for capital market development. The data used were collected from the Nairobi Securities Exchange for the period spanning twelve years from 2000.The annul value of a listed firm's capitalization was taken as reported in the financial records and such values added to get the total capitalization for that year. The data for economic growth for the same period was got from the database of the United Nations Statistics Department.

Analysis of the data revealed that there was a weak positive relationship between economic growth and Market capitalization. This indicated that the development of the Kenyan securities market with respect to market capitalization had little impact on the economy. The development of this market has been through listing of more firms, already listed firms mobilizing funds through the NSE and investor interest in trading in shares as a method of investing resulting in higher stock prices.

5.2 Conclusion

The study established that the development of the NSE as measured by Market Capitalization has a weak positive relationship on economic growth rate measured by GDP growth rate. It is not only a mobilizer of funds for companies, but that, it also spurs economic growth. This conclusion is drawn out of the fact that there is an increase in economic growth if the value of firms on the Nairobi Securities Exchange increases. As discussed earlier, there are two main sources of increase in market capitalization, namely, increase in the prices of stocks and new listings. Whichever is the source, the meaning is that as more people invest in the listed firms, so does the economic growth rate increases. There could be a strong relationship between the activities of the listed firms and economic development.

The study indicates that the listed firms are part of the drivers of economic growth in Kenya. The encouragement of more listing of firms as a development strategy seems to be bearing fruit as most of the largest firms in Kenya are listed. Other firms that were originally owned by the government of Kenya have also been listed. All the large banks in Kenya like Barclays, Standard Chartered, Equity and Kenya Commercial Bank (KCB) are listed; large firms like Bamburi Cement, Kenya airways and such are listed. As a result the funds they mobilize through the Nairobi Securities Exchange are used to generate GDP for they are professionally managed.

It can also be concluded that if more funds are generated through the Nairobi Securities Exchange, there could be higher levels of economic growth. When the level of market capitalization was low like in 2000, so was the economic growth rate. As the level of market capitalization increased, an indication of its development, the economic growth responded positively by also increasing.

5.3 Policy Recommendations

It has been argued in this study that the importance of the Nairobi Securities Exchange cannot be ignored for it is a major spur of economic growth. This study, therefore, wishes to make the following recommendations. Mechanisms should be put in place to reinforce

the requirement that the listed firms operate professionally and efficiently for they provide a connection between the invested funds and economic growth.

The Nairobi Securities Exchange should be a well-guarded resource managed with care for it mobilizes resources that drive development in Kenya through the listed firms. Further it should be improved to become more efficient. Like the developed stock markets, there is need to invest more in technology that will improve the working inside the NSE as an organization and one that will lead to more accurate and speedy dissemination of information concerning firms. This will ensure that funds are mobilized and allocated in the most efficient ways.

There should be encouragement of more firms to come up and list their shares on the Nairobi Securities Exchange. The study found that the increase in market capitalization was, in part, as a result of more firms listing on the Nairobi Securities Exchange. This should be encouraged. The Nairobi Securities Exchange demands high level of management performance and conditions for a firm to remain listed. The firms that are listed will tend to realize this kind of improvement as a benefit of being registered. However, those that are not upholding such standards will have no other option than being eliminated. As such the funds of the investors will be directed towards better managed firms that will eventually spur economic growth.

The investors should be more demanding for the proper management of the Nairobi Securities Exchange and the companies they hold stocks in for the simple reason that the activities at the Nairobi Securities Exchange and the listed firms affect the life of Kenyans to a great extent. This is through the effect they have on the economic growth rate of the country.

5.4 Limitations of the Study

One of the weaknesses of this study is the operationalization of the capital market development. Development is, first of all, itself an ambiguous term which is difficult to measure using one variable let alone using market capitalization. This is further enhanced

by the fact that a single day's price is used to measure the market value of stocks. Indeed the market value of stocks keeps varying on hourly basis.

The period of study spans only twelve years starting 2000. During this period there was a general upward trend in both market capitalization and economic growth. It is not known whether actually the relation given by the regression model would be the same if the period was extended to, say, the year when the stock market began activity in Kenya.

It is not easy to tell from the study whether actually the stock market directly affects the economic growth rate of the country. What the study simply shows is that the two were moving in the same direction during the period of study but has fallen short of showing the connection. It is possible that other areas like the tourism industry in Kenya are the cause for trend in economic growth. This model and the study in general do not provide a settlement to these issues.

5.5 Suggestions for Further Studies

This study can be improved to provide more plausible results and answer the issues arising by looking at (but not limited to) the following areas: the period of study can be lengthened to the start of the Nairobi Securities Exchange or to the start of Kenya's independence era. This will make the results more acceptable and representative of the situation on the ground.

There is need to investigate whether the relationship between economic growth and market capitalization is a linear function. This study assumed the relationship is linear. This is just one of the possibilities. It therefore must be empirically confirmed that the relationship is linear. If not, then the true relationship should be found and used to provide true results.

Market capitalization varies on daily, if not hourly basis. The data used to capture capitalization is the historical data as it was on the day when the listed firms were presenting their financial reports to the Nairobi Securities Exchange as required by law. The study does not answer the question of what would be the findings if a more frequent data capture was used to capture the market capitalization.

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APPENDIX

CHART 1

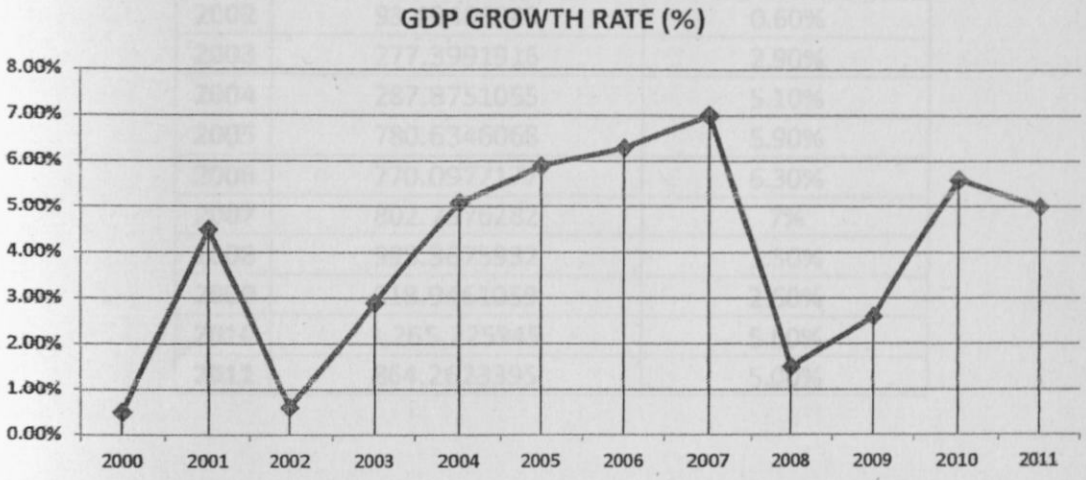

CHART 2

TABLE 1: TOTAL CAPITALIZATION AND GROWTH RATES

YEAR	TOTAL CAP IN KSH BILLION	GDP GROWTH RATE
2000	85.02105927	0.50%
2001	75.64537799	4.50%
2002	93.49406945	0.60%
2003	277.3991916	2.90%
2004	287.8751055	5.10%
2005	780.6346068	5.90%
2006	770.0977177	6.30%
2007	802.7376282	7%
2008	998.3675932	1.50%
2009	818.9461059	2.60%
2010	1,265.225945	5.60%
2011	864.2623395	5.00%

TABLE 2: REGRESSION RESULTS

Independent Variable	Regression Coefficient	Standard Deviation	T-Value	P Value	Lower 95% CI	Upper 95% CI
Variable 0	0.02445	0.01107	2.20825	0.05171	-0.00022	0.04913
Variable 1	0.00003	0.00002	1.63422	0.13326	-0.00001	0.00006

$$g = 0.02445 + 0.00003(CAP) + \epsilon$$

TABLE 3: REGRESSION STATISTICS

Residuals Variance	0.00044
R squared	0.21078
Adjusted R squared	0.13185
F-Value	26.70679
P-Value of F	0.00042

TABLE 4: DESCRIPTIVE STATISTICS

STATISTIC	TOTAL CAP IN KSH BILLION	GDP GROWTH RATE
Mean	593.308895	0.039583333
Median	775.3661622	0.0475
Kurt	-1.369162844	-1.300690314
Skewness	-0.052625804	-0.400194042
Max	1265.225945	0.07
Correlation	0.459	
Standard Deviation	406.684	0.023
Observations	12	12

TABLE 5: SHAPIRO-WILKINSON TEST FOR NORMALITY

	TOTAL CAP	GDP GROWTH RATE
Statistic	0.886	0.919
P-Value	0.105	0.276
Alpha	0.05	0.05
Deduction	Normal	Normal

TABLE 6a: CAPITALIZATION VALUES (2000-2005)

Company	2000	2001	2002	2003	2004	2005
1. Unilever Tea Kenya	0	0	0	3,225,750,000	4,423,187,500	4,423,187,500
2. Kakuzi	1,077,999,945	705,599,964	287,139,985	287,139,985	783,999,960	945,699,952
3. Rea Vipingo Plantations	222,000,000	174,000,000	153,000,000	309,000,000	570,000,000	1,230,000,000
4. Sasini Tea & Coffee	1,320,821,438	752,583,150	50,172,210	657,560,025	779,189,625	1,235,300,625
5. AccessKenya Group	0	0	0	0	0	0
6. Car & General (K)	0	0	0	1,515,013,888	334,194,240	646,108,864
7. CMC Holdings	388,472,960	218,516,040	418,822,410	1,651,010,080	2,670,751,600	2,294,418,420
8. Kenya Airways	3,462,116,130	3,485,196,904	3,623,681,549	2,654,289,033	4,431,508,646	11,078,771,616
9. Marshalls (E.A.)	338,237,991	263,393,840	263,393,840	87,078,291	251,879,355	215,896,590
10. Nation Media	2,460,031,470	1,541,976,248	4,492,231,380	10,214,478,495	9,091,420,650	13,547,999,400
11. Safaricom	0	0	0	0	0	0
12. Scangroup	0	0	0	0	0	0
13. TPS (Serena)	611,128,200	657,543,000	734,901,000	1,054,002,750	1,827,582,750	6,292,217,943
14. Uchumi Supermarket	2,565,000,000	2,730,000,000	996,000,000	0	0	0
15. Barclays Bank	13,967,500,000	13,424,535,000	18,685,000,000	57,040,648,000	40,743,320,000	407,387,000,000
16. Centum Investment	0	0	0	0	0	0
17. C.F.C Bank	1,206,000,000	1,080,000,000	1,104,000,000	3,960,000,000	8,352,000,000	11,700,000,000
18. Diamond Trust Bank	1,113,000,000	715,500,000	795,000,000	2,782,500,000	2,782,500,000	4,006,062,750
19. Equity Bank	0	0	0	0	0	0
20. Housing Finance	63,250,000	690,000,000	598,000,000	1,385,750,000	977,500,000	1,604,250,000
21. Jubilee Insurance	666,000,000	558,000,000	558,000,000	1,800,000,000	2,088,000,000	2,988,000,000
22. Kenya Commercial Bank	2,861,100,000	2,445,960,000	2,543,200,000	8,078,400,000	12,774,400,000	22,554,800,000
23. Kenya Re-Insurance	0	0	0	0	0	0
24. National Bank	630,000,000	580,000,000	730,000,000	2,670,000,000	3,780,000,000	5,750,000,000
25. NIC Bank	1,462,858,280	1,236,218,265	1,623,566,655	3,749,862,071	4,120,727,550	4,120,727,550
26. Olympia Capital	0	0	0	50,000,000	173,500,000	158,500,000
27. Pan Africa Insurance	528,000,000	628,800,000	336,000,000	1,128,000,000	1,008,000,000	1,920,000,000
28. Standard Chartered Bank	12,238,528,500	11,620,421,000	15,329,094,768	47,223,501,624	33,180,072,820	37,803,525,590
29. The Co-operative Bank	0	0	0	0	0	0
30. Athi River Mining	300,000,000	342,000,000	437,100,000	1,976,250,000	1,395,000,000	3,673,500,000
31. B.O.C Kenya	839,594,178	585,763,380	522,293,750	1,942,737,500	2,674,925,000	2,831,125,000
32. Bamburi Cement	12,340,637,450	6,061,415,718	15,879,457,344	45,732,868,650	34,481,131,125	50,814,298,500
33. British American Tobacco	6,050,000,000	4,900,000,000	5,400,000,000	27,600,000,000	20,000,000,000	20,400,000,000
34. Crown Berger	194,130,000	107,850,000	150,990,000	765,735,000	664,356,000	830,445,000
35. E.A.Cables	187,312,500	186,300,000	186,300,000	276,412,500	1,032,750,000	2,774,250,000
36. E.A.Portland	1,116,000,000	990,000,000	1,125,000,000	4,162,500,000	4,275,000,000	8,730,000,000
37. East African Breweries	6,260,156,081	8,405,849,900	8,995,016,745	24,640,894,356	48,874,248,540	98,187,815,870
38. Eveready East Africa	0	0	0	0	0	0

TABLE 6a Cont...

Company	2000	2001	2002	2003	2004	2005
39.KenGen	0	0	0	0	0	
40.Kenya Oil	816,448,572	690,453,422	816,448,572	2,741,654,464	5,090,204,060	12,700,311,12
41.Kenya Power & Lighting	4,075,092,000	2,314,494,000	684,457,200	2,532,096,000	7,002,828,000	8,783,208,00
42.Mumias Sugar	0	3,238,500,000	1,275,000,000	1,734,000,000	4,615,500,000	12,495,000,00
43.Sameer Africa	0	0	0	3,312,274,560	.3,479,280,000	5,984,361,60
44.Total Kenya	3,080,000,000	1,895,896,000	3,404,560,250	6,599,732,250	16,349,728,500	7,093,533,00
45.Unga Group	721,624,873	410,397,127	217,113,319	760,243,272	914,815,556	1,223,960,12
46.A.Baumann	54,912,944	26,688,459	34,560,594	34,560,594	21,120,363	31,680,54
47.City Trust	83,320,920	67,489,945	72,905,805	72,905,805	87,486,966	124,981,38
48.Eaagads	160,785,000	164,804,625	152,745,750	128,226,038	136,667,250	136,667,25
49.Express	80,400,000	89,520,000	0	43,200,000	251,043,000	444,153,00
50.Williamson Tea	761,799,840	875,632,000	46,572,320	46,572,320	612,942,400	700,505,60
51.Kapchorua	586,800,000	547,680,000	535,944,000	535,944,000	535,944,000	535,944,00
52.Limuru Tea	130,000,000	236,400,000	236,400,000	236,400,000	236,400,000	236,400,00
53.Standard Group	0	0	0	0	0	0

TABLE 6b: CAPITALIZATION VALUES (2007-2011)

Company	2006	2007	2008	2,009	2010	2011
1. Unilever Tea Kenya	3,910,000,000	3,176,875,000	450,799,977	622,299,968	1,597,399,919	0
2. Kakuzi	828,099,958	710,499,964	450,799,977	622,299,968	1,597,399,919	1,607,199,918
3. Rea Vipingo Plantations	1,530,000,000	1,173,000,000	1,020,000,000	666,000,000	1,074,000,000	960,000,000
4. Sasini Tea & Coffee	2,090,508,750	3,325,809,375	1,767,430,125	1,379,735,775	3,033,138,150	2,748,068,775
5. AccessKenya Group	0	4,647,339,689	4,224,310,377	4,122,519,766	2,748,346,511	946,652,687
6. Car & General (K)	1,008,152,624	1,269,938,112	1,002,582,720	935,743,872	1,047,141,952	640,538,960
7. CMC Holdings	5,778,535,280	7,453,824,920	10,984,072,944	5,827,094,400	7,546,087,248	7,866,577,440
8. Kenya Airways	48,469,625,820	43,853,470,980	24,004,005,168	9,116,905,809	27,696,929,040	7,547,413,163
9. Marshalls (E.A.)	215,896,590	345,434,544	271,310,048	345,434,544	273,469,014	179,913,825
10. Nation Media	22,318,546,380	23,245,514,760	10,267,957,440	16,828,041,360	26,238,801,524	26,867,275,812
11. Safaricom	0	0	144,000,000,000	120,000,000,000	222,000,000,000	140,000,000,000
12. Scangroup	3,935,250,000	4,730,250,000	5,737,931,030	5,627,586,203	14,426,056,476	12,549,496,284
13. TPS (Serena)	7,773,373,362	6,034,290,294	5,557,898,955	4,763,913,390	10,152,428,840	6,669,478,800
14. Uchumi Supermarket	0	0	68,573,142,000	61,104,780,000	84,867,750,000	0
15. Barclays Bank	104,557,068,000	107,272,836,000	68,573,142,000	61,104,780,000	84,867,750,000	18,467,222,400
16. Centum Investment	0	0	13,748,797,000	5,637,006,770	8,579,249,328	8,249,278,200
17. C.F.C Bank	13,884,000,000	20,124,000,000	16,421,052,660	12,315,789,495	20,663,157,931	12,042,105,284
18. Diamond Trust Bank	10,131,591,743	15,407,006,706	11,168,041,898	11,412,597,560	22,010,009,580	16,303,710,800
19. Equity Bank	12,588,472,450	54,331,485,750	65,168,875,552	53,134,850,237	99,049,285,285	76,832,623,165
20. Housing Finance	5,520,000,000	5,261,250,000	4,462,000,000	4,140,000,000	6,095,000	3,795,000,000
21. Jubilee Insurance	11,628,000,000	9,585,000,000	5,535,000,000	5,175,000,000	9,108,000,000	9,157,500,000
22. Kenya Commercial Bank	48,103,600,000	56,886,000,000	52,117,777,760	45,464,444,429	64,168,151,042	69,331,105,723
23. Kenya Re-Insurance	0	10,170,000,000	7,650,000,000	7,020,000,000	6,630,000,000	7,410,000,000
24. National Bank	11,600,000,000	9,350,000,000	8,600,000,000	7,800,000,000	10,850,000,000	5,810,000,000
25. NIC Bank	8,406,284,202	18,543,274,000	12,906,118,704	10,198,800,688	16,513,898,064	13,282,918,008
26. Olympia Capital	160,000,000	310,000,000	400,000,000	260,000,000	238,000,000	148,000,000
27. Pan Africa Insurance	4,392,000,000	4,776,000,000	2,976,000,000	2,160,000,000	3,144,000,000	1,344,000,000
28. Standard Chartered Bank	55,753,401,050	56,025,368,860	43,514,849,600	43,786,817,410	74,065,900,314	51,386,806,807
29. The Co-operative Bank	0	0	37,193,750,085	31,256,719,555	66,355,047,100	50,290,140,960
30. Athi River Mining	7,719,000,000	9,212,115,000	8,964,477,500	10,995,105,000	18,127,065,000	19,513,835,000
31. B.O.C Kenya	3,124,000,000	3,124,000,000	3,124,000,000	2,928,816,900	2,577,358,872	2,147,799,060
32. Bamburi Cement	78,036,244,125	71,140,017,900	59,888,280,375	56,621,646,900	67,873,384,425	52,629,094,875
33. British American Tobacco	19,700,000,000	13,900,000,000	13,100,000,000	17,800,000,000	27,000,000,000	585,000,000
34. Crown Berger	1,038,056,250	1,198,213,500	587,243,250	569,448,000	854,172,000	616,902,000
35. E.A.Cables	9,720,000,000	8,505,000,000	5,315,625,000	4,100,625,000	3,290,625,000	2,247,750,000
36. E.A.Portland	11,880,000,000	9,900,000,000	7,155,000,000	6,300,000,000	10,350,000,000	5,400,000,000
37. East African Breweries	91,598,029,570	101,482,709,020	157,364,096,844	114,662,281,620	143,130,158,436	170,807,260,896
38. Eveready East Africa	3,769,500,000	1,669,500,000	735,000,000	546,000,000	630,000,000	367,500,000

TABLE 6b Cont...

Company	2006	2007	2008	2,009	2010	2011
39. KenGen	86,285,687,148	57,157,397,856	53,859,855,672	31,986,159,185	37,591,980,898	18,686,072,376
40. Kenya Oil	10,474,700,360	9,915,371,700	9,713,623,920	7,358,806,000	14,717,612,000	18,397,015,000
41. Kenya Power & Lighting	13,372,632,000	16,537,752,000	16,854,264,000	11,552,688,000	15,825,600,000	1,186,920,000
42. Mumias Sugar	31,620,000,000	13,566,000,000	19,431,000,000	9,180,000,000	19,660,500,000	8,644,500,000
43. Sameer Africa	6,749,803,200	3,367,943,040	1,670,054,400	1,391,711,965	214,323,426	1,280,375,008
44. Total Kenya	6,012,201,750	5,908,433,828	5,602,070,592	5,147,136,750	5,017,377,000	2,854,714,500
45. Unga Group	1,132,478,568	924,279,165	858,033,901	757,088,730	927,433,694	942,575,469
46. A.Baumann	32,640,561	49,920,858	0	0	0	0
47. City Trust	237,464,622	243,713,691	0	0	0	0
48. Eaagads	418,041,000	361,766,250	293,432,625	289,413,000	558,727,875	257,256,000
49. Express	780,486,250	788,532,500	460,249,270	285,000,510	276,149,562	130,994,023
50. Williamson Tea	1,042,002,080	827,472,240	503,488,400	411,547,040	1,935,146,720	2,364,206,400
51. Kapchorua	535,944,000	535,944,000	293,400,000	266,016,000	571,152,000	469,440,000
52. Limuru Tea	236,400,000	236,400,000	183,000,000	183,000,000	180,000,000	541,200,000
53. Standard Group	0	4,176,676,653	3,663,751,450	2,784,454,102	3,369,685,683	1,758,901,868

LIST OF COMPANIES ON THE NSE

(Source: NSE)

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

COMMERCIAL AND SERVICES
8. Express Ltd
9. Kenya Airways Ltd
10. Nation Media Group
11. Standard Group Ltd
12. TPS Eastern Africa (Serena) Ltd
13. Scangroup Ltd
14. Uchumi Supermarket Ltd
15. Hutchings Biemer Ltd

TELECOM AND TECHNOLOGY
16. AccessKenya Group Ltd

AUTOMOBILES AND ACCESSORIES
17. Car and General (K) Ltd
18. CMC Holdings Ltd
19. Sameer Africa Ltd
20. Marshalls (E.A.) Ltd

BANKING
21. Barclays Bank Ltd
22. CFC Stanbic Holdings Ltd
23. Diamond Trust Bank Kenya Ltd
24. Housing Finance Co Ltd
25. Kenya Commercial Bank Ltd
26. National Bank of Kenya Ltd
27. NIC Bank Ltd
28. Standard Chartered Bank Ltd
29. Equity Bank Ltd
30. The Co-operative Bank of Kenya Ltd

INSURANCE
31. Jubilee Holdings Ltd
32. Pan Africa Insurance Holdings Ltd
33. Kenya Re-Insurance Corporation Ltd
34. CFC Insurance Holdings
35. British-American Invest (K) Ltd

INVESTMENT
36. City Trust Ltd
37. Olympia Capital Holdings ltd
38. Centum Investment Co Ltd
39. Trans-Century Ltd

MANUFACTURING AND ALLIED
40. B.O.C Kenya Ltd
41. British American Tobacco (K) Ltd
42. Carbacid Investments Ltd
43. East African Breweries Ltd
44. Mumias Sugar Co. Ltd
45. Unga Group Ltd
46. Eveready East Africa Ltd
47. Kenya Orchards Ltd
48. A.Baumann CO Ltd

CONSTRUCTION AND ALLIED
49. Athi River Mining
50. Bamburi Cement Ltd
51. Crown Berger Ltd
52. E.A.Cables Ltd
53. E.A.Portland Cement Ltd

ENERGY AND PETROLEUM
54. KenolKobil Ltd
55. Total Kenya Ltd
56. KenGen Ltd
57. Kenya Power & Lighting Co Ltd