

**THE RELATIONSHIP BETWEEN INITIAL PUBLIC OFFER  
PRICE AND THE POST LISTING MARKET PRICE AT THE  
NAIROBI SECURITIES EXCHANGE FOR LISTED STATE  
OWNED ENTERPRISES**

**STUDENT NAME**

**LILLIAN MATHA KILUKU**

**REGISTRATION NUMBER**

**D63/60301/2013**

**A RESEARCH PROPOSAL SUBMITTED IN PARTIAL  
FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF  
THE DEGREE OF MASTER OF SCIENCE IN FINANCE,  
SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI**

**November, 2014**

# DECLARATION

## Students Declaration

This research proposal is my original work and has not been presented for a degree in any other University

Signed .....

Date .....

**Lillian Matha Kiluku**

**Reg: D63/60301/2013**

## Supervisor's Declaration

This research proposal has been submitted for examination with my approval as the candidate's University Supervisor.

Signed .....

Date .....

**Mr. James Karanja**

## **ACKNOWLEDGEMENT**

First and foremost, I thank the Almighty God for His grace, mercy and providence which enabled me to undertake this project.

To Mr. James Karanja, my supervisor, thank you for your support, wise guidance and criticism that have enabled me to come up with this paper. I will always be indebted to you. May God continue to bless you always.

Finally, to my colleagues at work and all my lecturers and fellow students in the Msc Finance program thank you for your understanding and support during the entire course and project.

## **DEDICATION**

I dedicate this project to my parents, Fredrick Kiluku Ngwenze and Eunice Ngwenze and my siblings Faith, Geoffrey, Felistus and Nicodemus for the support and encouragement they gave me during my study period.

## ABSTRACT

Initial Public Offer (IPO) is the first sale of stock by a private company to the public with the objective of raising funds for expansion and growth. Studies have shown that most IPOs long run underperformance of listed companies in the developed economies is because of a time-varying phenomenon. According to Rock and Ritter (1986), under pricing is necessary to induce uninformed investors to participate in IPO offering when faced with adverse selection from informed investors. This often leads to first day price not reflecting a fair value of the IPO. Ritter (1991) and Loughran and Ritter (1995) posit that a long-term investor who buys shares of a firm right after it goes public may realize abnormal negative risk-adjusted returns and long run underperformance. This study tried to show whether these findings apply to initial public offers issued at the NSE with the overall objective of determining the relationship between IPO price and post listing market price of listed State Owned Enterprises on the NSE in Kenya. The study is empirical in nature and involves the use of secondary data available at the NSE and CMA data base. Out of the 58 companies registered and trading at the NSE, only 3 were chosen for the study; that the listed State Owned Enterprises. Data analysis involves the use of descriptive statistics such as mean, variance, standard deviation, Pearson's correlation coefficient and regression analysis. All the firms that were chosen for the study were underpriced which constituted to 100% of the population. The results of the study found that there is a positive relationship between IPO price and the first day price with a significance level of + 0.0110 and that under pricing also has a positive relationship with IPO pricing. The conclusion is that IPO price affects post listing market price.  $R^2$  of 0.9485 showed that 94.85% is explained by the model with a lower standard error of estimate of 3.869. This study would be useful to various stakeholders such as institutions intending to list, policy makers, investors and the academia. Policy Makers would also use the study to design policies that guide the operations in the market with respect to IPO

pricing and information dissemination in prospectuses about the companies intending to list in future. The findings of this study would also be important to academia as would help them identify any gaps existing in the initial public offer process.

# TABLE OF CONTENTS

DECLARATION .....	ii
ACKNOWLEDGEMENT .....	iii
DEDICATION .....	iv
ABSTRACT.....	v
TABLE OF CONTENTS.....	vii
ABBREVIATIONS .....	x
CHAPTER ONE: INTRODUCTION.....	1
1.1 Background of the Study.....	1
1.1.1 Initial Public Offer Price and Ownership Structure.....	3
1.1.2 Post Listing Market Price .....	5
1.1.3 Initial Public Offer Price, Ownership Structure and Post Listing Market Price .....	7
1.1.4 Listed State Owned Enterprises in the Nairobi Securities Exchange.....	9
1.2 Research Problem.....	9
1.3 Research Objective.....	11
1.4 Value of the Study.....	11
CHAPTER TWO: LITERATURE REVIEW .....	13
2.1 Introduction .....	13
2.2 Theoretical Review .....	13
2.2.1 Winners Curse Theory.....	14
2.2.2 Self Interest Theory .....	15
2.2.3 Book Building Theory .....	16
2.2.4 Lawsuit Avoidance Theory .....	17

2.3 Determinants of Post Listing Market Price of Listed State Owned Enterprises	18
2.4 Empirical Studies	19
2.5 Summary of Literature Review	24
CHAPTER THREE: RESEARCH METHODOLOGY	26
3.1 Introduction	26
3.2 Research Design	26
3.3 Population	26
3.4 Data Collection	27
3.5 Validity and Reliability	27
3.6 Data Analysis	27
CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION	29
4.1 Introduction	29
4.2 Descriptive Statistics	29
4.3 Correlation Analysis	31
4.4 Regression Analysis	31
4.5 ANOVA	32
4.6 Summary and Interpretation of Findings	33
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS	35
5.1 Introduction	35
5.2 Summary of Findings	35
5.3 Conclusion	36
5.4 Recommendations to Policy and Practice	37
5.5 Limitations of the Study	37
5.6 Suggestions for Further Research	38



REFERENCES .....	40
APPENDIX 1: LISTED PUBLIC ENTERPRISES.....	44

## **ABBREVIATIONS**

- CMA – Capital Markets Authority
- EMH – Efficient Market Hypothesis
- IPO – Initial Public Offer
- NSE – Nairobi Securities Exchange
- SOE – State Owned Enterprises

# CHAPTER ONE: INTRODUCTION

## 1.1 Background of the Study

An initial public offering can be defined as the first selling of a company's stock to outside investors and then letting the stock trade in public markets (Brigham & Ehrhardt, 2005). When going public, firms are faced with the difficult decision of how to determine the offer price for their shares. This continues to be a considerable practical and theoretical importance for investors and academicians. However, despite considerable research efforts, IPO valuations are still largely mysterious (Giordano et al, 2008). This paper aims to fill this research gap by looking at firm specific determinants affecting IPO under pricing. First day returns of IPOs tend to be high indicating that there is a downward bias in the offer price compared with the first day price of the shares in the secondary trading market. A large number of IPOs do therefore appear to be under priced. Under pricing refers to the situation where shares that have gone public are offered to investors at prices considerably lower than the price that they later trade at the stock market.

A private or state owned corporation can choose to sell its shares to members of the public in a securities market through an Initial Public Offer (IPO) among many other forms of stock introduction. An initial public offer is a type of public share sale where a portion of the equity of a privately held company is sold to the public with the expectation that a liquid market will develop (Ritter, 1998). This usually converts a business from one that is privately owned to one that is publicly owned. Going public has various advantages, the primary advantage being that it helps a company raise capital that it may then use to fund research and development, capital expenditure or even to pay off existing expensive debt in its books (KPMG, 2008). It also helps

increase public awareness of the company and this may generate publicity for their products and help increase their market share (Ernst and Young, 2012). In the case of Kenya, the relevant security market is Nairobi Securities Exchange (NSE). The NSE can be defined as the meeting place between those who want to sell securities and those who want to buy securities in the Kenyan market.

A stock market is where shares or securities are issued and traded through exchanges or over the-counter markets. It is also known as the equity market and is one of the important areas of a market economy as it provides access to capital to companies, ownership in the company for primary investors and the potential of gains based on the firm's future performance for secondary investors. In the Vision 2030 policy paper, the capital market is expected to play a key role towards making Kenya a developed country. Part of this growth will be spurred by the listing of private and government owned firms in NSE giving the general populace a chance to own equity in such firms and participate in their management and profitability. This underscores the need for investors to understand the worth of investing in both the short and long term as well as the investment climate. Capital Markets Authority (CMA), which regulates and supervises NSE, through its investor education campaign, has succeeded in increasing the level of participation in the capital markets by proactively engaging in outreach programmes.

It is well known that initial public offers face numerous challenges in the process of price discovery. This is because the market is usually not certain about the quality of the company while the issuing company does not know the market demand of its shares (Gregoriou, 2006). Issuers therefore delegate the offer price decision to the

investment bank that underwrites the offer (Baron, 1982) because these investment banks repeatedly bring firms public, have strong incentives to build a reputation as valuation experts and are able to certify that the offer price reflects fundamental value (Ibbotson and Ritter, 1995).

Recent research studies have looked at under pricing resulting from information asymmetry between the parties involved in the IPO. Issues that are characterized by greater uncertainty are more underpriced to compensate for the higher cost of learning about these firms' true values (Rock, 1986, Baron 1982). Other studies have observed that underpricing is also related to the information underwriters obtain from informed investors during the registration period. Underwriters compensate investors for the information they provide by only partially incorporating it the offer price, thus allowing the informed investors to earn especially high return on the first day the IPO firm trade (Benveniste and Spindt, 1989). This study seeks to establish if there exists a relationship between initial public offer price and the post listing market price at the Nairobi Securities Exchange for listed public enterprises in Kenya.

### **1.1.1 Initial Public Offer Price and Ownership Structure**

The valuation of IPOs is quite relevant from an economic efficiency perspective because this is the first opportunity that managers of such companies get to observe the price signals from the public capital markets. Such signals can either affirm or repudiate management's belief regarding its future growth opportunities (Aggarwal, Bhagat and Rangan, 2007). Very little is publicly known about the IPO valuation process used by underwriters because the process is unobservable. This is made even worse in some jurisdictions like the United States where earnings and cash flow

forecasts of IPO firms are generally unavailable in Securities and Exchange Commission documents and underwriters are prohibited from publishing opinions concerning valuations before an IPO (Kaplan and Ruback, 1995). Information on IPO valuation in Kenya is also not released to the general public, and therefore the actual methodology used and considerations made are usually not clear.

However, some general information on the process still exists. The first stage of the IPO valuation process, in most markets, is composed of the book building process, a method that was first developed in the United States of America (Sherman, 2000; Cornelli and Goldreich, 2001). During this book building process the company's management meets institutional investors in a road show across multiple cities in order to enable these institutional investors to place indications of interest. Book building usually involves the creation and measurement of demand while at the same time acting as a basis of price revision through the collection of indications of interest from potential investors (Ritter and Welch, 2002). The second stage is the use of pricing models along with certain subjective considerations to come up with a price that will be adjusted based on the results of the book building process.

Perotti (1995) presents a theoretical model of IPO underpricing and the privatization of State owned enterprises under government policy uncertainty. In the model, the government maximizes the sum of expected revenues from IPOs and SOEs, plus the dividends on the retained shares during the privatization process. Under policy uncertainty, the government may choose to retain a large stake in the State-owned enterprises, and to underprice a partial sale to signal its commitment to future pro-market privatization policies.

At the Nairobi Securities Exchange (NSE), growth of IPOs has been associated with legal and regulatory framework by Capital Markets Authority (CMA). The government's investor incentives in the 2001/2002 national budget reduced the corporation tax rate from 30% (for local companies) and 32.5% (for foreign companies) to 25% on newly listed companies for three years from the date of listing encouraged companies to attain listing status. The companies are required to offer at least 20% of their share capital to the public. In addition, companies interested in listing at the NSE that have not paid their due taxes are eligible for a tax amnesty (forgiving past evasions of tax) subject to their full disclosure of assets, liabilities and income during the period immediately following their listing and subsequent payment of taxes due in full.

### **1.1.2 Post Listing Market Price**

In Kenya, some initial public offers for example, Safaricom Limited have proven to be quite risky investment. Investors often find it hard predicting what the stock will do on its initial day of trading and in the near future, because there is often no information to evaluate the company. In addition, most IPOs are of companies going through a transitory growth period, that exhibit high uncertainty with respect to their future values. The price that would minimize the risk trade-off and serve as the optimum for both the issuer and the underwriter is the market price of the issuing company's stock.

If the underwriter sets the offer price at exactly this value, the issuer will be able to raise the maximum amount and the underwriter will be able to get the maximum spread. At that price, all the shares are sold eliminating the risk of under subscription.

In theory an offer price above the market price should result in an under subscription resulting in higher gains for the issuer if the issue has been underwritten and lower proceeds if it has not as well as lower proceeds for the underwriter. At a price below market price issuers receive lower proceeds and underwriters receive a lower spread but the risk of under subscription is significantly reduced (Gregoriou, 2006).

Under pricing is typically but not exclusively indicated if the opening day's closing price is higher than the offer price (Paleari and Vismara, 2007). A lot of studies have been conducted on the issue of under pricing and conclusive evidence has been obtained showing that this phenomenon is widespread across many if not all of the security exchanges (Loughran, Ritter and Rydqvist 1994). It has also been observed that IPO under pricing varies over time, a factor which is attributed to changes in the characteristics of companies going public together with changes in the objectives and incentives of company owners and prospective investors (Loughran and Ritter, 2002). Negative initial returns caused mostly by overpricing are less studied and as a result, less understood. Normally, the commitment to support the issue reduces the underwriter's incentive to deliberately overstate the issue price (Benveniste, Busaba and Wilhelm, 1996).

Under pricing and over pricing are therefore shown by comparing the issue price with the closing price of the initial trading day. The simple return for an individual stock is a measure of the stock's performance during the Initial Public Offer and may fluctuate in response to factors which affect either the particular stock or the general market.



### **1.1.3 Initial Public Offer Price, Ownership Structure and Post Listing Market Price**

According to Chemmanur and Liu (2003), they stated that in reality the offer prices of initial public offers rarely if ever reflect the market price of their respective companies. This is because the determination of the offer price is done using various pricing models along with certain subjective considerations. These subjective considerations are influenced first and foremost by the overall objective of the issue which can broadly be to either raise additional capital or the exit of an investor, the market sentiment at the time of the stock issue and lastly, the conflicting objectives of the underwriter to raise as much money as possible while avoiding under subscription of the share issue. The particular pricing model used also depends on both the market environment into which the company will sell its shares and the internal characteristics of the company itself (Chemmanur and Liu, 2003).

Dewenter and Malatesta (1997) reported a much greater degree of IPO underpricing for government privatizations in emerging markets than in well-developed economies. In their survey of 109 government privatization IPOs across eight countries, they estimated the following average IPO returns: Canada 2.5%, France 11.4%, Hungary 14.9%, Japan 16.0%, United Kingdom 18.0%, Malaysia 52.2%, Poland 50.0%, and Thailand 46.6%. Their explanation was that privatizing governments may pursue objectives that are political, rather than maximizing the firm's value in the privatization process. For example, the government may allocate underpriced shares to the employees who might otherwise have misgivings about privatization. Underpricing may thus be related to the size of the employee shares in an offering.

Jones et al (1999) investigated a sample of 639 privatizations in 59 nations, including developed economies (United Kingdom, France, Canada) and developing or transitional economies (Hungary, Poland, China). The evidence presented in all these studies indicated that IPOs of State-owned companies, like those of privately-owned companies, tended to be underpriced. Further, they found that *ceteris paribus* the privatizations of SOEs were more underpriced than private firm IPOs.

Dewenter and Malatesta (1997) argue that government may pursue political objectives rather than maximizing firm's value in the privatization process. For example, government may allocate under-priced shares to the employees who may otherwise have misgivings about privatization.

Perotti (1995) suggests that a partial sale and possibly its underpricing are signals of commitment and gradual sales are the signs of government's willingness to bear residual risk. Perotti (1995) conclusion has shed light on the empirical puzzle why the typically large, well-known privatized firms with a long track record are usually underpriced more than those mostly new or little-known private IPO's, which is difficult to reconcile with the traditional explanation for partial sales and underpricing based on asymmetric information over asset values. Perotti (1995) research model implies that IPO underpricing is positively related to the uncertainty of government policies, negatively related to the size of IPOs, and positively related to the size of government ownership and the length of time the government is expected to retain significant ownership.

The resulting difference between the offer price arrived at and the market price of the firm or company is the subject of this study, with a particular focus on the listed State Owned Enterprises in the Nairobi Securities Exchange.

#### **1.1.4 Listed State Owned Enterprises in the Nairobi Securities**

##### **Exchange**

For an enterprise to be classified as a listed Public Enterprise the government should own at least 51% of the entity and it should be listed in the Nairobi Securities Exchange. With reference to the approved privatization programme, only four (3) enterprises that meet this requirement are listed in the Nairobi Securities Exchange. Kenya Electricity Generating Company (KenGen) was privatized through an IPO in the year 2006 leaving the Government of Kenya with a stake of 70%. This entity is listed in the Nairobi Securities Exchange.

Kenya Reinsurance Corporation was also privatized in the year 2007 through an IPO and the Government of Kenya has a stake of 60% in the company that is also listed. In the current Privatization Program which was approved by the Cabinet on 11<sup>th</sup> December 2008 and gazette on 14<sup>th</sup> August 2009, twenty six (26) entities were approved for privatization. National Bank of Kenya (NBK) is also listed in the Nairobi Securities Exchange. In National Bank of Kenya, the Government of Kenya owns 70.55% of the entity.

#### **1.2 Research Problem**

On comparison of the IPO prices and post listing market prices, three basic findings are expected that is the subject of an initial public offer with its offer price. The IPO

price can be lower than, equal to or higher than the post listing market price at the time of the IPO. Each one of these relationships is as likely as the other depending on the market conditions surrounding an initial public offer as well as the competence and experience of the underwriter. The main challenge in trying to determine the above relationship comes from trying to determine the market price of a company whose shares were offered to the public through an IPO. Most of the studies carried out on the issue of under pricing and over pricing in the developed markets assume that the first trading day's closing price represents the post listing market price of the company that the market has correctly priced (Gregoriou, 2006).

Little research has been done in the area of under or over valuing or pricing of IPOs in Kenya or as compared to other regions of the world. However, some research still exists. Ocheng (2011) sampled 15 Kenyan IPOs for the period 1990-2008 and found that the average initial market adjusted returns for the first three days of listing is about 64.3 percent indicating a significant level of under pricing. Statistical analysis also indicated that the level of IPO under pricing in Kenya is related to listing delays, offer size, offer price, oversubscription rate and the type of issuer.

Thuo (2009) also performed a similar study which confirmed under pricing of IPOs at the Nairobi Securities Exchange as well as long term under performance. She examined 5 initial public offers issued between 1998 and 2008 and she used descriptive statistics and regression analysis to measure the performance of these IPOs. An average market adjusted initial return of 70.06% was reported on the first day of trading and cumulative average return of 0.98% was reported at the end of 15

months. This particular study differs from all the above local studies in that it attempts to calculate a more representative market price of an issuing company's shares.

There are a few studies that have been done on IPOs in Kenya. For instance (Ngahu, 2006) did a study on book value of a share issue price and first day trading prices of IPO. Jumba, (2002) studied IPO performance in Kenya while Maina, 2006 did an analysis of IPO performance in Kenya. Moko, (1995) did a study on the relationship between offer price and the subscription rate of IPO at the NSE. This study aims to fill the research gap in the existing literature by investigating the relationship that exists between the initial public offer price and the post listing market price at the Nairobi Securities Exchange for listed state owned enterprises.

## **Research Questions**

The research questions therefore is to find out is there a relationship between IPO pricing and post listing market value of listed SOEs in the Nairobi Securities Exchange?

### **1.3 Research Objective**

This study is aimed at determining the relationship that exists between the initial public offer price and the post listing market price at the Nairobi Securities Exchange for listed state owned enterprises.

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

The results of this study are bound to be insightful to different users and in particular the Academicians attain knowledge and understanding of under pricing IPOs in

Kenya and the relative strength of the various factors that affect IPO pricing and will add more to financial literature.

Individuals and Corporate Investors will attain details of factors that investors both individuals and corporate need to take into account when deciding to invest in future IPOs in Kenya.

The Government and Regulators will be interested in understanding the right price to issue shares to avoid under pricing as they are constantly in the stock market to raise capital for infrastructural development. The regulator has an interest to ensure that firms are optimally priced to improve the confidence of investors in IPOs and deepen the capital market in Kenya.

Firms have an interest to raise funds in the market and as such they would be interested in understanding the factors that they need to take into account in pricing their firms. Particularly firms would be interested to ensure that initial public offers do not diminish their opportunities to raise capital in future.

The issuing companies that will be provided with a better understanding of the local IPO market and the underwriters and transaction advisors who will be exposed to the trends surrounding IPO under pricing and over pricing in the local market thereby enable them to further refine their valuation techniques.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

Review of literature was undertaken to support the study carried out in this research project. This chapter on the literature review contains a review of the empirical studies that have been conducted in multiple locations and across multiple time periods on the relationship between the IPO prices and their corresponding post listing market prices. These findings are supported by details of the theories affecting and explaining particular relationship, specifically detailing those theories that explain IPO under pricing as well as over pricing.

### **2.2 Theoretical Review**

Post listing market prices seem to be exceptions to the efficient market hypothesis (EMH) which defines the degree of efficient market pricing in terms of the relevant information available (Fama, 1976). In a stylized version of efficient markets, an IPO would arrive at the correct levels where all the supply and demand is at equilibrium on the first day itself, and from that point on the stock reacts to the flow of news. But in reality, market participants take time to adjust to events before reaching an equilibrium price. The price of a stock in a perfect market setting should also ideally be a reflection of its demand. The unique setting of an IPO deviates from this premise due to the absence of that channel of communication (Qeska and Bakshi, 2010).

Bossaerts (2004) further reinforces this idea by stating that the efficient market hypothesis is too strict for the IPO market due to the limited information about IPOs in the market. The ongoing debate is whether the anomalies of IPO initial under pricing and long term under performance are a manifestation of market inefficiency

caused by the irrational behaviors of investors and issuing companies. Many theories, most of which are not mutually exclusive have been put forward to explain these anomalies. Chen and Mohan (2001) stated that ‘Most of the theoretical and empirical studies hold that initial under pricing is undertaken deliberately’. Many reasons have been put forward to explain why underwriter under price new issues and why these issues under perform in the long run.

Perotti, (1995) argues that government firms tend to be underpriced as a way of the government to signal its intention not to interfere in the firm following the issue particularly in high regulated industries which are vulnerable to changes in government policy. Habib and Ljungqvist, (2001) argue that under pricing is a substitute for costly marketing expenditure. Tinic, (1988) argued that issuers under price to reduce costly marketing expenditure. Benveniste and Spindt, (1989) argue that investment banks use their discretion to extract information from investors which reduces overall under pricing and thus increases the sales proceeds.

### **2.2.1 Winners Curse Theory**

The ‘winners curse’ theory (Rock, 1986) also provides a plausible explanation for under pricing. The ‘winners curse’ is a well known phenomenon in common value auctions and bidding behavior. Bidders systematically fail to take into account factors in auction environments indicating that the winning bid is very likely to be an over bid, resulting in expected loss. The two most general and robust results that emerge from past experimental studies of the winners curse are that it is alive and well and that it is persistent, vanishing very slowly if at all (Charness and Levin, 2005).



According to Rock (1986) firms in conjunction with underwriters under value an IPO in order to keep IPO markets functioning by providing liquidity to both investors and owners. This results in each individual investor receiving a smaller allocation of shares that will yield initial positive returns and ensure this that they will remain active in the IPO market.

### **2.2.2 Self Interest Theory**

A possible reason for under pricing may be the self interest of investment bankers (Baron and Holmstrom, 1980; Baron, 1982). According to Baron and Holmstrom (1980), most new security issues are managed and distributed by investment banking syndicates that perform three basic services for the issuers of the securities. First, they offer advice and counsel regarding the type of security to be issued, coupon rates, maturity, offer price etc. Secondly, they provide an underwriting function by bearing all the risks associated with the proceeds of the issue and thirdly, they provide a distribution function by selling the securities to investors.

They identified an incentive problem that was mainly centered on the tradeoff between the offer price decision and the distribution effort made to place the issue. Distribution involves substantial costs and therefore a banker would be expected to limit those costs to the extent that is feasible. The most common way of limiting those costs is to under price the new issue. This incentive problem was described by Van Horne (1977) in the following way, ‘the underwriter wants a price that is high enough to satisfy the issuer but low enough to make the profitability of successful sale to investors reasonably high’.

Baron and Holmstrom further identified two principle forces that can work to mitigate the incentive to under price. The first is that the investment banking industry is to some extent competitive and a banker that continuously prices new issues lower than the industry norm will likely loose some market share. The second force is the sophistication of the issuer because if the issuer is financially sophisticated and makes comparisons with similar security issues, the investment banker is forced to price closer to market.

### **2.2.3 Book Building Theory**

Benveniste and Spindt (1989) looked at how informational frictions affected the marketing of IPOs in an attempt to explain the under pricing and long run underperformance anomalies. Their analysis focused on the role an investment banker plays in eliciting information about the market value of an IPO during the pre-selling period. They modeled the pre-market activity as an auction, conducted by the investment banker, in which investors bid with indications of interest.

The basic difficulty facing an underwriter wishing to collect information useful to pricing an issue is that investors have no incentive to reveal positive information before the stock is sold. By keeping such information to themselves until after the offering, investors can expect to benefit. They would pay a lower initial price for the stock and they could sell it at the full information price in the post offering market.

They suggested that underwriters may therefore knowingly partially adjust offer prices in order to compensate investors for truthfully revealing information regarding the market demand of an issue, especially positive information. This is known as the

book building explanation. They further demonstrated that an underwriter can use the leverage of expected future profits to reduce under pricing and thus increase the efficiency of the capital acquisition process. Benveniste and Spindt also came up with a possible explanation for the long run under performance phenomenon in their book building model. They argued that subsequent performance is positively correlated with the initial price revision that was undertaken during the book building process. If there was more disclosure of negative than of positive information performance may be negative in the future.

#### **2.2.4 Lawsuit Avoidance Theory**

Another possible reason for under pricing that has been put forward is lawsuit avoidance (Hughes and Thakor, 1992; Tinic, 1998). This is because some underwriters may stand to face legal action if the market price of a new share issue significantly drops below the offer price.

This was empirically tested by Lin, 2004. She specifically tested the insurance effect of the lawsuit avoidance hypothesis which states that firms that are subject to higher litigation risks under price their issues more to reduce the likelihood of being sued in connection with their IPO. She examined the relationship between IPO under pricing and litigation risk in an international setting and found a positive relationship between the IPO price and litigation risk in a cross country setting but not in single country settings. This confirms the lawsuit avoidance theory as a possible contributor to under pricing.

## **2.3 Determinants of Post Listing Market Price of Listed State Owned Enterprises**

### **2.3.1 Ownership**

Underpricing will be greater in instances where the government is attempting to signal its intention not to interfere in the firm when compared to IPO of private firms (Perotti, 1995). Jones et al (1999) observed that the political aim of the government in creating wider ownership in the UK require a higher degree of under pricing for political reasons.

### **2.3.2 Age and Size of Firms**

The age and size of firms determine the post listing market price of IPOs. Older and larger firms are expected to have lower underpricing because future cash flow growth rates are easier to predict for mature companies for which more information is available. A negative relationship between under pricing and both Age and Size is expected as observed by Giordano et al, 2008 using a study of companies going public in Europe.

### **2.3.3 Net Earnings**

Firms with higher net earnings are expected to have higher underpricing because it's difficult for investors to distinguish between transitory and permanent earnings. Managers may window dress their accounting numbers to make the firm look better before going public (Teoh et al, 1998).

### **2.3.4 Market Return**

Market return is also another determinant of post listing market price of IPOs. Firms would delay their equity offerings if they know that they are currently undervalued. When there is a bull market IPO are valued on the prospects of growth that at least partially over estimated. A higher underpricing is expected because high quality firms would like to under price to avoid other low quality firms from imitating them, (Welch 1993).

### **2.3.5 Leverage**

Leverage is also another determinant because indebted firms are more often priced at the IPO upon fulfillment expectations in cash flow growth rates higher underpricing is expected in more leveraged firms. Prior studies have observed a positive relationship between underpricing and leverage (Giordano et al, 2008).

## **2.4 Empirical Studies**

The relationship between the initial public offer price and its corresponding post listing market price has been the subject of a lot of research in many of the jurisdictions with developed capital markets.

A study by Loughran and Ritter (2002) which looked at 3,025 new issues from 1990 to 1998 in the U.S also found that on average, an IPO gained by 14.1% on its first day of trading leading to \$27 billion being left on the table by issuing companies. They defined money being left on the table as the first day price gain multiplied by the number of shares sold. If the shares had been sold at the opening day's closing market price rather than the offer price, the proceeds of the offering would have been higher

by an amount equal to the amount left of the table. Alternatively, the same proceeds would have been raised by selling fewer shares resulting in less dilution of the pre-issue shares. Loughran and Ritter were puzzled by the fact that issuers rarely complain about leaving money on the table since it was equivalent to selling a company's stock at a fraction of its value.

According to Ritter and Welch (2002) the concept of under pricing where firms' exhibit positive first day returns is the first of several anomalous aspects of the process by which firms go public. According to this publication between the years 1998 and 2001, the number of firms going public in the U.S exceeded one per business day and their shares traded on average 18.8 percent above the price at which the company sold them on the first day of trading. For an investor buying shares at the first day's closing price and holding them for three years, IPOs returned 22.6 percent, this underperformed the CRSP value weighted market index by 23.4 percent and underperformed seasoned companies with the same market capitalization and book to-market ratio by 5.1 percent. In a nutshell, these numbers summarize the patterns of short term under pricing and long term under performance.

Ibbotson and Jaffe (1975) presented evidence of the existence of 'hot issue' markets which they defined as periods during which the initial performance of IPOs is exceptionally high. In their study they also point to the most well known investigations into these issue that were done on the Securities and Exchange Commission's (SEC) report on the special study of security markets (28) in the U.S and the SEC 'hot issue' hearings of 1972. They also found a strong concentration of IPO activity in certain periods. Loughran, Ritter and Rydqvist (1994) found that

similar patterns can be observed internationally and they even go further by claiming that issuers ‘time’ their IPOs to coincide with periods of excessive optimism. This is consistent with the findings of Lee, Shleifer and Thaler (1991).

Limento and Djuariah (2013) set out to discuss the correlation between Ratio Analysis and macroeconomic indicators with stock price in nine publicly listed transport companies in Indonesia for the period 2005 to 2011. The ratio indicators included Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), Debt-Equity Ratio (DER), Total Asset Turnover (TAT), Current Ratio (CR), Price Book Value (PBV) and Earnings per Share (EPS). Macroeconomic indicators used were inflation, GDP and Risk Free Rate (SBI). The regression result showed that ROA, ROE, NPM, CR, DER, PBV, Inflation, SBI and GDP have insignificant correlation with stock price movement while TAT and EPS have a significant correlation with share price.

Olowoniyi & Ojenike (2012) investigated the determinants of stock returns of listed firms in Nigeria. Panel econometric approach was used to analyze panel data (2000 to 2009) obtained from 70 listed firms. The Fixed Effect, Random Effect and Hausman-test based on the difference between fixed and random effects estimators were conducted. Stock return (dependent variable) was measured by dividend layout, expected growth was measured by capital expenditure divided by total assets, size was proxied by logarithm of firms’ total assets, profitability was proxied by ratio of earnings before interest, tax and depreciation on total assets, tangibility was measured by total fixed assets divided by net profit after tax while leverage was measured by ratio of book value of total debt to total assets. The findings suggested that with the

exception of profitability and tangibility (which were significantly and negatively related to stock return), all the independent variables were positively and significantly related to stock return. The findings of this research implied a need to further assess how tangibility and profitability can be improved upon to raise the level of stock return. This will ensure the correctness of several policies formulated to stabilize the financial base of firms based on either capital structure or stock return.

Waweru (2010) sought to establish if there exists a relationship between stock prices and news of an IPO at NSE. Secondary data (2004 to 2009) was obtained and analyzed using the Comparison Period Return Approach (CPRA). The mean portfolio daily return was calculated for the IPO within the window period. The study found that issuing of IPOs at NSE had both positive and negative effects on daily mean returns. Negative effects (declining mean daily returns) were on the days nearing the IPOs events which were the result of buyer and seller expectation in the market so as to capitalize on the new issue while positive effects (normalcy is restored) were in the days after the IPOs event which was the result of buyer-seller initiated trading. Further research could be carried out on whether other factors combined with the announcement of an IPO could affect share prices and also the effect of stock splits on share prices.

Kipngetich, Kibet, Guyo & Kipkoskey (2011) investigated determinants of IPO pricing in Kenya. They explored the extent to which investor sentiment, post-IPO ownership retention, firm size, board prestige and age of the firm affect IPO pricing of firms listed at NSE. Secondary data (1st January 1994 to 31st December 2008) was used and analyzed using multiple regression analysis and presented using descriptive



statistics. Average under-pricing of 49.44 percent was observed in Kenyan IPOs for the period under study and all the variables tested were found not to significantly influence IPO offer price at the 5 percent level of significance. The study concluded that public information disclosed in the prospectus was insignificantly mirrored in IPO offer prices and that rational theory cannot explain the effect of investor sentiment in IPO market in Kenya given that investor sentiment and board prestige were negatively related to IPO offer price. Further research is needed on the role of regulatory authorities, especially as regards disclosure requirements, in protecting potential investors as the publicly available information provided in the prospectus may not reflect all pertinent facts to inform sound investment decisions.

Aduda, Masila & Onsongo (2012) sought to investigate the determinants of development of NSE. The study employed secondary data (2005 to 2009) to model the impact of macroeconomic and institutional factors on the development of NSE. The macroeconomic factors included income level, savings and investment, stock market liquidity, macroeconomic stability and private capital flows. Institutional factors included political risk, bureaucratic quality, law and order, corruption and democratic accountability. Using regression analysis, it was found that stock market development was determined by stock market liquidity, institutional quality, income per capita, domestic savings and bank development while macroeconomic stability (proxied by inflation) and private capital flows were found to have no relationship with stock market development. Further, research is needed to establish whether macroeconomic instability and foreign private capital flow affect stock market development. Also, behavioral factors could be considered in development of stock

markets as well as comparison of different factors affecting stock market growth in the East African Community countries.

Ochege (2011) carried out research into the issue of IPO under pricing at the Nairobi Securities Exchange because of its apparent contradiction to the efficient market hypothesis. After examining 15 Kenyan IPOs for the period 1990-2008, he found that the average initial market adjusted return for the first three days of listing is about 64.3%.

Buigut, Soi, Koskei & Kibet (2013) on their study on the relationship between capital structure and share prices in NSE assessed the effect of debt, equity and gearing ratio on share price. Using panel data pertaining to the energy sector over the period 2006 to 2011 and employing multiple regression analysis, the results indicated that debt, equity and gearing ratio were significant determinants of share prices for the sector under consideration. Further, gearing ratio and debt were found to positively affect share prices while equity negatively affected share prices.

## **2.5 Summary of Literature Review**

The review of literature highlighted a number of themes that are relevant to this study. Firstly, it highlighted the importance that has been placed on the issue of IPO pricing in different capital markets. It also stated how prevalent the mis-pricing of initial public offers is with both under valuing and over valuing of IPOs being common practice, with the former being the more common of the two. Consequently, this review has also brought out different theories and schools of thought about why both under pricing and over pricing with reference to first day closing prices occur. The

factors that affect the post listing of market prices can be categorized into firm, industry, country, international, market or non-market factors, economic or non-economic factors. The extent of factors could help explain why studies applying different variables come up with differing and sometimes opposing views on share price determinants.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter outlines the research methodology that was adopted in this research project whose objective of the study was to determine the relationship between initial public offer price and the post listing market price at the Nairobi Securities Exchange for listed state owned enterprises.

### **3.2 Research Design**

The researcher adopted descriptive survey design to determine the relationship between initial public offer price and the post listing market price at the Nairobi Securities Exchange for listed state owned enterprises. Descriptive design was appropriate as it involved a careful in-depth study of the IPO prices and post listed market prices of listed State Owned Enterprises. In addition quantitative analysis was carried out in data collection and analysis .The design was also suitable because it addressed the major objective and research question in the study adequately. The method provided a framework for examining the current conditions, trends and status of events.

### **3.3 Population**

A population is a well defined set of people, services, elements, groups of things or households that are being investigated (Bryman and Bell, 2003). The target population in this study consisted of 3 listed State Owned Enterprises which are listed in the Nairobi Securities Exchange. The sample size was the same as the population size.

### **3.4 Data Collection**

Data collection is gathering empirical evidence in order to gain new insights about a situation and answer the questions that necessitated the study. Secondary data was used and collected from the annual financial reports of the companies. The data was collected from the annual financial reports of the four companies under study for the respective IPO periods of the three entities that make up the sample size. The IPO year for KenGen was 2006, Kenya Reinsurance was 2007 and National Bank of Kenya was 1994. This study entailed the use of secondary data from annual reports of the sampled quoted companies and internet sources. Daily stock share prices, volumes and NSE indices were collected from the Nairobi Securities Exchange, the internet and websites of the firms under study.

### **3.5 Validity and Reliability**

Data was collected from the source to ensure accuracy as a basis for generalizations. This was done to ensure validity and reliability of the data.

### **3.6 Data Analysis**

Cooper and Schindler (2006) data analysis is the process of editing and reducing accumulated data to a manageable size, developing summaries, looking for patterns and applying statistical techniques. The data collected from different sources will be organized and analyzed using MS Excel and statistical package (SPSS). This research was empirical in nature. The methodology involved determination of IPO mispricing by calculating the abnormal initial return. The abnormal initial return is a percentage return from the IPO share price to the first day market price. The result is further adjusted for what the market offered to get the performance level. Data was analyzed

using descriptive statistics such as mean, variance and standard deviation and Pearson's correlation coefficient.

The abnormal initial return is the under pricing/overpricing of the IPO price. It is estimated as the difference between the closing price ( $P_{i,t}$ ) at time  $t$  and IPO price ( $P_{i,0}$ ) divided by the IPO price as shown by the following model:

$$R_{i,t} = (P_{i,t} - P_{i,0}) / P_{i,0} \times 100$$

Where:

$R_{i,t}$  is the return of stock  $i$  at time  $t$

$P_{i,t}$  is the price of stock  $i$  at time  $t$

$P_{i,0}$  is the IPO price of stock  $i$ .

It was assumed that any price volatility between issue price and trading date is irrelevant to the investors who buy and hold till date of sale.

# CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

## 4.1 Introduction

This chapter concentrates on data analysis, results and discussion. Data was collected, analyzed and presented in frequencies and converted in percentage and thereafter presented in tabular forms.

## 4.2 Descriptive Statistics

**Table 4.2.1 Comparing post listing market price and IPO prices**

Company	IPO Share Price ( $P_0$ )	First Day Closing Price ( $P_1$ )	Comment
Kenya Reinsurance	9.50	16.00	Undervalued
KenGen	11.90	40.00	Undervalued
National Bank of Kenya	10.00	26.00	Undervalued

Table 4.2.1 illustrates a comparison between post listing market price and IPO prices. The illustration shows that the listed State Owned Enterprises are undervalued. The basis for indicating an IPO share price as under priced or over priced is indicated below:

If : First Day Closing Price < IPO Share Price - Overvaluation

First Day Closing Price > IPO Share Price - Undervaluation

First Day Closing Price = IPO Share Price - Neither undervaluation nor  
overvaluation

**Figure 4.2.2 Bar graph comparing post listing market price and IPO prices**

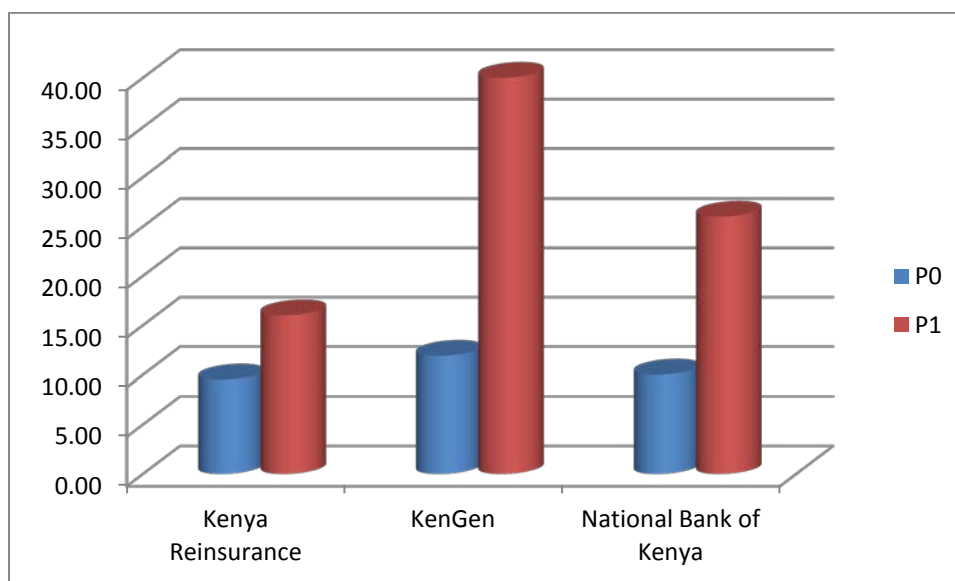


Figure 4.2.2 above also show the percentage under pricing of the three state owned enterprises listed in the NSE where KenGen has the highest percentage of under pricing of 40% and Kenya Reinsurance having the least of 16%.

**Table 4.2.3: Table showing percentage under pricing**

Company	IPO Year	IPO Share Price (P <sub>0</sub> )	First Day Closing Price (P <sub>1</sub> )	Percentage Underpricing
Kenya Reinsurance	2007	9.50	16.00	68%
KenGen	2006	11.90	40.00	236%
National Bank of Kenya	1994	10.00	26.00	160%

**Source: research findings (2014)**

The first day price shows the intrinsic value of the shares as would be sold in the market that day. No firm traded at par. All the firms were underpriced and there is no consistent trend that directly links the degree of under pricing to post listing market price.



### 4.3 Correlation Analysis

	IPO Share Price ( $P_0$ )	First Day Closing Price ( $P_1$ )	Percentage Underpricing
IPO Share Price ( $P_0$ )	1		
First Day Closing Price ( $P_1$ )	0.974	1	
Percentage Underpricing	0.929	0.989	1

\*. Correlation is significant at the 0.05 level (1-tailed).

Correlation table displays Pearson coefficients and the number of cases with non-missing values and assumes that data is normally distributed. Pearson correlation is a measure of linear association between variables and varies between -1 and +1. The analysis above shows that IPO share price has a strong and positive (Pearson correlation coefficient = 0.974) influence on the first day closing price. It is also positively related to the degree of under pricing (Pearson correlation coefficient = 0.929).

This indicated that the IPO share had a high and significant correlation to the post listing market price and the degree of under pricing. The positive values in both correlation matrixes indicated the positive relationship that exists between the IPO price, post listing market price and the degree of under pricing.

### 4.4 Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Percentage under pricing	0.929	0.864	0.728	0.438
First day closing price – $P_1$	0.974	0.9485	0.897	3.869

**(a) Predictor: (Constant), IPO Share Price –  $P_0$**

Source: research findings, 2014

Table 4.7 shows the R, (squared), adjusted R and standard error of estimate. R is the correlation between the observed and predicted values of the dependent variable. R for the first day closing price is 0.974 showing that there is a strong correlation between IPO share price and future price of the share.

#### 4.5 ANOVA

Model		Sum of Squares	df	Mean Squares	F	Sign.
Percentage under pricing	Regression	1.218	1	1.218	6.343	0.2406
	Residual	0.192	1	0.192		
	Total	1.410	2			
First day closing price –P1	Regression	275.697	1	275.677	18.418	0.0110
	Residual	14.969	1	14.9688		
	Total	290.666	2			
<b>(a)Dependent Variable: Percent under pricing*, First day closing price_P1</b>						

**Source: research findings, 2014**

s the proportion variation of the dependent variable (under pricing and first day price) explained by the model. Adjusted R corrects the anomalies in values and shows the goodness of fit in the model. From the table,  $R = 0.974$  shows that there is a strong relationship between IPO price and first day closing price and (0.9485) shows that 94.85% is explained by the model with a lower standard error of estimate of 3.869. The significance value of 0.0110 is less than 0.05 and therefore shows that IPO price affects post listing market price. This result therefore shows that initial offer price has significant effect on the future price performance.

## **4.6 Summary and Interpretation of Findings**

Taking into account the performance of the companies in the sample from the date of their IPOs, it can conclusively be seen that all of the 3 (100%) were undervalued as at their IPO dates. These results are in agreement with the results of other studies that have been carried out in the local market such as Thuo (2009) that showed evidence of repeated and sustained IPO undervaluation or underpricing. The study assumed that the closing day's market price is a reliable estimate of the post listing market price.

The mean over pricing is 155% meaning that the issue prices of the undervalued IPOs at the NSE are on average more than double their intrinsic values. This is similar to the findings of the study that was carried out by Purnanandam and Swaminathan (2004) in India to investigate whether IPOs were really under priced. The similarity in the results arises despite the different valuation techniques that have been adopted.

The next question after identifying this trend is whether this is done deliberately or because of poor forecasting / incompetence on the part of the underwriters. A case can be made that it is done deliberately so that the issuing company can take advantage of excessive optimism in the market to raise as much capital as possible or that the issuing company may sometimes issue shares at a discount in order to guarantee the success of an IPO in a bearish market. A more likely answer is that the undervaluation is as a result of poor forecasting techniques caused by over optimistic or pessimistic valuers. This cause seems more plausible given the excessive premiums and discounts that have been identified in this study. However, further research still needs to be conducted to conclusively establish the causes of these deviations.

From the data analysis results, R for the first day closing price is 0.974 showing that there is a strong correlation between IPO share price and future price of the share.

(0.9485) shows that 94.85% is explained by the model with a lower standard error of estimate of 3.869. The significance value of 0.0110 is less than 0.05 and therefore shows that IPO price affects post listing market price. This result therefore shows that initial offer price has significant effect on the future price performance.

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Introduction**

This chapter presents the summary of findings, conclusions and makes recommendations based on the study findings in chapter four. It also presents suggestion for further study in specific area related to the variables under study.

### **5.2 Summary of Findings**

The objective of the study was to establish the relationship between IPO price and post listing market price of listed State Owned Enterprises at the NSE. In this regard, a comparison was made using the IPO year of the three listed State Owned Enterprises namely Kenya Reinsurance, KenGen and National Bank of Kenya.

Secondary data was used to carry out the analysis. It provided information on the IPO prices and the first day closing price which was used to indicate the post listing market price. The research methodology used was a quantitative descriptive design and panel data was used. There was no sampling since the population of the study was small and easily accessible. Data was analyzed statistically using descriptive statistics of mean rating and standard deviation through the use of Statistical Product and Service Solutions (SPSS).

The results of this study showed that there is a strong relationship between IPO price and first day closing price (post listing market price). By use of the regression model and looking at the variables collectively, this study showed that 94.85% of variation is explained by the model.

The results show that IPO share price is positively correlated with first day price at (0.974) with a significance level of 0.0110. This shows that lower IPO share prices have lower post listing market prices and degrees of under pricing and vice versa. A significant level 0.0110 shows that first day price of a share price has a significant effect on the performance of the share. (0.9485) shows that 94.85% is explained by the model with a lower standard error of estimate of 3.869. The significance value of 0.0110 is less than 0.05 and therefore shows that IPO share price affects post listing market price.

### **5.3 Conclusion**

IPOs face numerous challenges in the process of price discovery, primarily because the market is not certain about the quality of the company and the issuing company does not know the market demand for its shares. It is for this reason that it is recommended that the IPO price be equal to the post listing market price of the company. An issue price that is matched with the corresponding post listing market price will benefit all the parties to the transaction since the offer is likely to be fully subscribed resulting in the full uptake of the company's shares and the maximum spread for the underwriters. However, the party that will derive the most benefit will be the investor since he would have purchased the shares at their intrinsic value thereby protecting him against any future price reversals below the issue price that may be caused by inaccurate valuation.

It should however be noted that the main aim of an IPO is for a company to raise as much capital as possible with the lowest amount of shares possible and therefore a

premium above the fundamental value should be expected in the issue price. However, such a premium should be reasonable enough to satisfy both the interests of the issuing company and the investors purchasing the shares.

#### **5.4 Recommendations to Policy and Practice**

Based on the results of this study, the researcher recommends that underwriters, valuers and transaction advisors refine or completely re-examine their IPO valuation techniques and methods in order to prevent the gross over valuation of IPOs. This is because over valuing IPOs may adversely affect investors once these IPO enter the market. They can accomplish this primarily through better forecasting techniques that take into account the strengths, weaknesses, opportunities and threats faced by the company as well as its particular industry and the economy in general.

Investor protection agencies such as the Capital Markets Authority should also be more vigilant in protecting would be investors who may wish to take up company shares in an IPO. While they cannot directly affect the actions of the issuing company and the underwriters when it comes to price setting, they may be able to sensitize them on the importance to put investor interest at the centre of their decision making processes. They should also sensitize investors on prevailing valuation trends so as to equip them with all the information necessary for them to make informed investment decisions.

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

The research study was limited to only 3 companies listed in the Nairobi Stock Exchange for analysis as they were the only listed State Owned Enterprises in the last

five years hence limited variables. The daily data for the firms and variables was numerous and from multiple sources hence the need to limit the variables and firms. It will be of great important to introduce other variables in the model or expand the period of study to cover a significantly longer period rather than the period covered in this study.

## **5.6 Suggestions for Further Research**

Studies should be carried out to investigate further the relationship between the post listing market price and issue price of IPO at the NSE using a similar approach but utilizing a larger sample. Due in part to time constraints, the sample utilized here is relatively small and further research making use of a larger sample would be able to further reinforce or discount the results presented in this study.

Further research on this particular relationship should also be carried out beyond the NSE to include regional security markets as well as other security markets in Africa. The results can then be compared to local studies and any trends identified. Similar studies employing different present value valuation techniques such as the dividend discount approach can also be carried out to estimate the post listing market prices of IPOs at their listing dates in order to compare the fundamental prices based on these valuations with the IPO issue prices.

Finally, further research should be conducted to investigate the underlying causes of overvaluation and undervaluation that were identified in this research project. Broadly, there are two main causes for the mispricing of IPOs, it may either be



deliberate on the part of the underwriters and the issuing company or it may be a result of poor forecasting at the time of the IPO.

## REFERENCES

- Aduda, J., Masila, J. M., & Onsongo, E. N. (2012). The Determinants of Stock Market Development: The Case for the Nairobi Stock Exchange. *International Journal of Humanities and Social Science*, 50-62.
- Buigut, K. Soi, N. Koskei, I. & Kibet, J. (2013). The Effect of Capital Structure on Share Price on Listed Firms in Kenya. A Case of Energy Listed Firms. *European Journal of Business and Management*, Vol. 5, No. 9, 2013
- Baron, D. P. (1982). A model of the demand for investment banking advising and distribution services for new issues, *Journal of Finance* 37, 955-976.
- Baron, D. P., Holmstrom, B. (1980). The investment banking contract for new issues under asymmetric information: Delegation and the incentive problem. *Journal of Finance*, 35, 1115-1138.
- Benveniste, L. M. & Spindt, P.A.(1989). How investment banks determine the offer price and allocation of new issues, *Journal of Financial Economics*, 24 343-362.
- Benveniste, L. M., Busaba, W. Y., Wilhelm, W. J. (1996). Price stabilization as a bonding mechanism in new equity issues. *Journal of Financial Economics*, 42,223-255.
- Brigham, E. (2005) *Financial Management*, 13th Edition.
- Bryman, A. & Bell, E. (2003). *Business Research Methods*. New York, U.S.A: Oxford university press.
- Chen, C.& Mohan, N. (2001). Information content of lock-up provisions in initial public offerings. *International Review of Economics and Finance*, 10, 41-59.
- Cooper, D. R., Schindler, P.S. (2006). *Business Research Methods*. (8th ed.). U.S.A: McGraw-Hill.

- Cornelli, F. & Goldreich, D. (2001). Bookbuilding and strategic allocation, *Journal of Finance*, 2337-2369.
- Dewenter, K. L. & Malatesta, P. H. (1997). Public Offerings of State-Owned and Privately-Owned Enterprises: An International Comparison, *Journal of Finance*, vol. 52, no.4, 1659-1679.
- Dewenter, K.L. & Malatesta, P.H. (1997). Public offerings of state owned and privately owned enterprises: an international comparison, *Journal of finance* 52, 1659- 79.
- Ernst & Young. (2012). Guide to going public. Retrieved August 10, 2013, from [http://www.ey.com/Publication/vwLUAssets/Ernst\\_and\\_Young\\_guide\\_to\\_going\\_public/\\$FILE/Guide\\_to\\_Going\\_Public.pdf](http://www.ey.com/Publication/vwLUAssets/Ernst_and_Young_guide_to_going_public/$FILE/Guide_to_Going_Public.pdf)
- Fama, E. F. (1976). *Foundations of Finance: Portfolio Decisions and Security Prices*. New York, U.S.A: Basic books.
- Giordano, C., Stephano P. & Silvo V.(2008).*IPO pricing: growth rates implied in offer prices*, University of Bergamo research paper.
- Gregoriou, G. N. (2006). *Initial Public Offering: An International Perspective*. Oxford, UK: Butterworth-Heinemann.
- Habib, M. & Ljungqvist, A. (2001). Underpricing and entrepreneurial wealth losses in IPOs: theory and evidence, *Review of Financial Studies* 14, 433-458.
- Hughes, P. J. &Thakor, A. V.(1992). Litigation risk, intermediation, and the underpricing of initial public offerings, *Review of Financial Studies* 5, 709-742.
- Ibbotson, R. G., Jeffrey F., Jaffe. (1975). "Hot issue" markets. *Journal of Finance*, 30, 1027-1042.

- Jones, S. L., Megginson, W. L., Nash, R.C. & Netter, J.M. (1999). Share issue privatisation as financial means to political and economic ends, *Journal of Financial Economics*, Vol.53, pp.217-53.
- Jumba, N. W.(2002).*Initial Public Offer Performance in Kenya*, Unpublished MBA Thesis, University of Nairobi.
- Kipngetch, T. J. Kibet, B. J. Guyo, S. A. & Kipkoskey, B. J. (2011). Determinants of Initial Public Offer Pricing in Kenya. *The Centre for Innovations in Business and Management Practice*, London, UK.
- KPMG. (2008). Going Public. Retrieved August 10, 2013, from <http://www.kpmg.com/CN/en/IssuesAndInsights/ArticlesPublications/Documents/Going-Public-200806.pdf>
- Li, S. Q. (2004). Cai Jing Times ([www.caijingshibao.com](http://www.caijingshibao.com)), Vol. 572, July 2004.
- Loughran, T. & Ritter, J. R. (2002). *Why Has IPO Under-pricing Changed Over Time?*University of Florida, Financial Management, Autumn 2004 pp. 5 – 37.
- Loughran, T., Ritter, J. R., Rydqvist, K. (1994). Initial public offerings: International insights. *Pacific Basin Finance Journal*, 2, 165-199.
- Moko, S.K (1995).*The relationship between offering price at subscription rate of initial public offering at the NSE*, Unpublished MBA Thesis, University of Nairobi.
- Nairobi Securities Exchange (NSE) website, [www.nse.co.ke](http://www.nse.co.ke)
- Ngahu, J. M. (2006). *Book Value Per Share Issue Price and 1st Day Trading Prices of IPOs at NSE*. Unpublished MBA Project, University of Nairobi.
- Ochege, R. O. (2011). *Determinants of Initial Public Offer Underpricing: Evidence from the Nairobi Stock Exchange* (Masters research project, University of Nairobi). Retrieved from the University of Nairobi digital repository.

- Olowoniyi, A. O. & Ojenike, J. O. (2012). *Determinants of Stock Return of Nigerian Listed Firms*. Obafemi Awolowo University, Ile-Ife, Nigeria.
- Perotti, E.C. (1995). *Credible privatisation*. American Economic Review, Vol.85, pp.847-59.
- Ritter, J. R. (1998). *Initial public offerings*. Contemporary Finance Digest, 2, 5-30.
- Ritter, J. & Welch, I. (2002). *A review of IPO activity, Pricing and allocations*, Yale ICF working paper No. 02-01.
- Rock, K.(1986). Why new issues are underpriced, *Journal of Financial Economics* 15, 187-212.
- Rock, K. (1986). Why new issues are underpriced? *Journal of Financial Economics*, 15, 187-212.
- Teoh, S. H., Welch, I, & Wong, T.J. (1998). Earnings management and long run market performance of initial public offerings, *Journal of Finance* 53, 1935-1974.
- Thuo, G. W. (2009). *The Short-run Performance of Initial Public Offerings in the NSE*. Unpublished MBA Project, University of Nairobi.
- Waweru, J. M. (2010). *Reaction of Share Prices to Issue of IPOs from the NSE: Empirical Evidence*. Unpublished MBA Project, University of Nairobi.

### APPENDIX 1: LISTED PUBLIC ENTERPRISES

<b>S/N</b>	<b>COMPANY</b>	<b>PUBLIC SHARE</b>	<b>SECTOR</b>
1.	Kenya Electricity Generating Company	70%	Energy
2.	National Bank of Kenya	70.55%	Banking
3.	Kenya Reinsurance Corporation	60%	Insurance

Source: Privatization Commission website [www.pc.go.ke](http://www.pc.go.ke)