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The Relationship between Initial Public Offering Costs and Underpricing in the South African Equity Market

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A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Business Administration

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ABSTRACT

The study examines the relationship between the costs of initial public offerings (IPOs) and IPO underpricing within the South African IPO market. The sample consists of 59 firms which listed on the Main Board of the JSE Securities Exchange (JSE) between 1994 and 2007. The study focuses on one main question: Is there a positive relationship between the costs of IPOs and IPO underpricing in the South African equity market?

An IPO is characterised by a high degree of risk due to less public historical information, no secondary trading and changing ownership structure. An IPO process with high risks and uncertainties leads to high transaction costs of the IPO. The IPO issuing firm compensates for the high risks in the IPO process by issuing the IPO at a discount to the investing public. Relying on the changing risk hypothesis of underpricing, it is hypothesized that high costs of IPOs entails high IPO underpricing.

The results of this study support the findings of previous studies that IPOs, on average, are overpriced, but find no evidence that a significant positive relationship exits between underpricing and costs. Several studies indicate that economic reforms spawn hot market IPO periods. The findings of the present study corroborate this assertion. Previous IPO studies reveal that IPOs cost less in hot market periods than in cold market periods. This is however inconsistent with the results of this study.

Furthermore, the present study explored if underpricing differs for different industries. The results are consistent with those of previous research that underpricing is lower in recession-proof industries than in non recession-proof industries. The avoidance of liquidity risk is a major driver of IPO activities and IPO issuing firms

DECLARATION

I, **Oluwatobi Christopher Oluwasona**, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Oluwatobi Christopher Oluwasona

Signed at ……

On the …….. day of ……. 2009

DEDICATION

To Glory, Paul, Hadassah and Blessing

For your support and sacrifice

ACKNOWLEDGEMENTS

To the Lord Jesus Christ, who has blessed me with the opportunity and resources to purse my studies…Thank you.

To my father, my late mother, and my wonderful sister who have always supported me in all my endeavours…Thank you.

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CHAPTER 1: INTRODUCTION

1.1 Purpose of the study

The purpose of the research is to examine the relationship between initial public offerings (IPOs) costs and underpricing in the South African equity market. This is an area of study for which there has been no published research in the South African equity market (Firer, Ross, Westerfield and Jordan 2004).

1.2 Context of the study

Initial public offering (IPO) is “the act of raising capital in connection with becoming a listed company on a public stock exchange” (Kalstad 2007:6) and the process whereby firms issue IPOs to raise capital from the public is a defining stage in the firm’s development.

Firms usually experience adjustments in their ownership structure, availability of capital and liquidity during the IPO process. However, one phenomenon which issuing firms often experience and that has been well documented in IPO related literature is the theory of underpricing (Kalev, Pham and Wong 2006, Loughran and Ritter 2003).

IPO underpricing is an initial abnormal return phenomenon and is defined as abnormal gains of a new issue relative to the offer price during the first day of trading. It is represented by a large positive gain of a new issue immediately after the IPO flotation period (Ström, N 2006, Chi and Padgett 2005). It is a universal phenomenon (Loughran and Ritter 2003).

Different rationales have been suggested regarding the core reason influencing underpricing. However, a specific question that has gone unanswered is if IPO underpricing is influenced by the estimated costs of IPOs. To date, this relationship has not been studied in any depth within the South African equity market.

Since the South African equity market remains the most sophisticated, advanced and capitalised in the whole of Africa (Yartey and Adjasi 2007), the fact that no study has investigated the South African equity market to shed light on the association between the estimated costs of issuing and listing IPOs and IPO underpricing creates a unique knowledge gap. Therefore, the objective of this study is to attempt to fill this void.

1.3 Problem statement

1.3.1 *Main problem*

The research problem of this study aims to examine the relationship between the costs of IPOs and IPO underpricing in the South African equity market.

1.4 Significance of the study

The study fills a gap in that, while IPO costs can be both substantial and strategic in raising new equity, (Van Horne 1989; Brealey and Myers 1991; Firer *et al* 2004) there has not been any attempt to investigate their relationship with IPO underpricing in the South African equity market.

The study of IPO underpricing is important because it poses a unique challenge to market efficiency and aftermarket liquidity of IPO issuing firms, which may hurt emerging firms trying to raise capital for expansion (Chi and Padgett 2005, Ström 2006). When firms issue capital at a discount, it results in fewer proceeds and hence, lost capital.

The contributions of the study are three-fold. First, the study provides a documentation of the unique features regarding the evolution of the post-independence South African equity market. Second, the study develops the costs of IPOs hypothesis to explain changes in IPO discounts from 1994 to 2007. Third, the study tests the costs of IPOs hypothesis to explain the changes in IPO underpricing within the same period.

1.5 Delimitations and limitations

1.5.1 *Delimitations*

This study will be limited to public offers raised via prospectuses on the Main Board of the JSE Securities Exchange ("JSE") from January 1, 1994 to December 31, 2007. The JSE is the licensed exchange in South Africa - licensed as an exchange under the Security Services Act 2004 - and Africa's premier exchange (JSE Securities Exchange South Africa "JSE" 2007).

1.5.2 *Limitations*

This study relies extensively on prospectus information and the JSE database. Thus the accuracy of the frame of the population is limited by errors and omissions that may exist within the identified primary and complimentary data sources.

1.6 Assumptions

The first assumption is that the prospectus information of companies that listed on the Main Board of the JSE within the period covered by the study are accurate reflections of the actual information related to those listings.

The second assumption is that the data provided by the monthly JSE market reports reflect the actual capital raised via new equity for the periods covered by the study.

Definition of terms

Table 1 Definitions and explanations of the terms and abbreviations used in this document

Term	Meaning	Reference
AFTERMARKET	“A secondary market available after sales in the original market are finished”	(Merriam-Webster Online Dictionary 2008)
COLD MARKETS	“A cold market is usually defined as a market with few offerings and lower initials returns”	(Ström 2006)
EQUITY SHARE CAPITAL	“Funds invested in a company plus the profits which have been ploughed back”	JSE Securities Exchange South Africa (2007)
HOT MARKETS	“A hot market is usually defined as a market with high number of offerings and high initials returns”	(Ström 2006)
IPOs	Initial Public Offerings. "This is a mechanism whereby the public may, via a prospectus published by the company, be invited to subscribe for shares in the company which have not yet been issued. Thereafter, the shares are created and listed on the exchange"	(Firer *et al* 2004)
“JSE”	“JSE Securities Exchange South Africa”	JSE Securities Exchange South Africa (2007)
LISTING	“Official granting of a quotation of a	JSE Securities

Term	Meaning	Reference
	company's shares on the "JSE". (A listing is granted when a company has fulfilled the Exchange's rules and requirements for listing"	Exchange South Africa (2007)
MAIN BOARD LISTING	"For companies with, among other things, a share capital of not less than R25 million and an audited profit level of at least R8 million before taxation at the time of listing"	JSE Securities Exchange South Africa (2007)
MARKET PRICE	"Ruling price of shares on the Jet System"	JSE Securities Exchange South Africa (2007)
NON SEASONED EQUITY OFFERINGS	"A non seasoned equity offering is the sale of new shares by a company whose shares are not already publicly traded. Also called initial public offering"	(SEO – Financial Dictionary 2007)
PROSPECTUS	"This is a requirement of Companies Act for every offer of shares to the public. It must be lodged with the Registrar of Companies, and must conform to Schedule 3 of the Companies Act. The purpose of the prospectus is to ensure that members of the public wishing to purchase the shares on offer are aware of certain key information concerning the company and its directors"	JSE Securities Exchange South Africa (2007)
SEASONED EQUITY OFFERINGS	"A seasoned equity offering is the sale of additional shares by a company whose shares are already publicly	(SEO – Financial Dictionary

Term	Meaning	Reference
	traded. Also called secondary share offering”	2007)
STOCK EXCHANGE	“Licensed market for the buying and selling of listed securities”	JSE Securities Exchange South Africa (2007)

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

Extensive prior research has documented several theoretical models to explain the reasons why IPO underpricing fluctuates over a period of time (Loughran and Ritter 2003; Cai, Helwege and Warga 2005; Kalev *et al* 2006; Ström 2006; Peng and Wang 2007).

For example, in a unique study on why IPO underpricing has changed over time, Loughran and Ritter (2003) claim that changing risk composition, realignment of objectives, and the changing issuer objective are responsible for changes in the level of underpricing over time. Changes in the risk component reflected by changes in technological or valuation uncertainty of the IPO process can result in changes in the level of underpricing. “This prediction follows from models where underpricing arises as an equilibrium condition to induce investors to participate in the IPO market” (Loughran and Ritter 2003:2).

The first part of the literature review is a brief overview and lays the foundation for the reasons why firms seek to raise capital in the first place. Equity finance, debt finance or an optimal mixture of both are available options for firms seeking to raise finance (Van Horne 1989; Brealey and Myers 1991; Deesomsak, Paudyal and Pescetto 2004; Firer *et al* 2004). Debt finance, as an alternative to equity finance, is well certified in empirical literature (Van Horne 1989; Brealey and Myers 1991; Pike and Neale 2003; Firer *et al* 2004) and will not be investigated further in this study.

The second part of the literature review will discuss IPOs and the reasons for their popularity among firms seeking to raise equity finance. The third part of the literature review covers the features of IPO costs. The fifth part presents the explanations of IPO underpricing changes over time.

The final part of the literature review presents a synopsis of the equity market development in Africa and the research proposition to be tested.

Table 2 Hypotheses explaining movements in IPO underpricing

Hypothesis	Assumption	Reference
Changing risk composition	Riskier IPOs will be underpriced by more than less-risky IPOs.	(Loughran and Ritter 2003:2)
Realignment of incentives	The management of issuing firms have increasingly lowered the incentive to bargain for a higher offer price due to changes in CEO fractional ownership, fewer IPOs containing secondary shares, increasing ownership fragmentation, and increases in the frequency and size of “friends and family” share allocations.	(Loughran and Ritter 2003:2)
Changing issuer objective function	Analyst lust hypothesis (increased importance of analyst coverage) and corruption hypothesis (the co-opting of decision-makers through side payments).	(Loughran and Ritter 2003:3)
Changing disclosure level	A high disclosure level decreases information asymmetry and therefore leads to a lower risk in the investment	(Ström 2006)
IPO flotation method	Introduction of an alternative flotation method – auction method – can help reduce IPO underpricing	Peng and Wang (2007)
Intended use of IPO proceeds	The extent of dollar detail an IPO issuer provides regarding their intended use of proceeds impacts the level of first-day underpricing	Leone, Rock and Willenborg (2006)

2.2. Raising Capital

All firms must, at varying times obtain capital to finance growth and expansion (Van Horne 1989; Brealey and Myers 1991; Firer *et al* 2004; Brau, Ryan and DeGraw 2006), augment cash flows during shortage of internal liquidity (Brau *et al* 2006; Tirole 2006), for synergy, for profitability and asset structure, for uniqueness, for competency and information asymmetry, and for control and block-holdings (Damodaran 2005).

Firms need to either borrow money (debt financing or various forms of debt), sell a portion of the firm, (equity financing or various form of equity), or obtain an optimal mixture of both in order to raise the necessary amount of capital (Van Horne 1989; Brealey and Myers 1991; Pike and Neale 2003; Firer *et al* 2004).

Capital structure decisions are decisions relating to the optimum mix of the debt and equity proportions of a firm's financial structure that best meets the investment needs of the firm (Van Horne 1989; Brealey and Myers 1991; Firer *et al* 2004; Damodaran 2005). These decisions are influenced by the environment in which the firm operates as well as firm-specific determinants such as share price performance; earnings volatility and non-debt tax shield (Deesomsak *et al* 2004; Brau *et al* 2006).

Table 3 Model of theories and expected relation between corporative factors and firm leverage (Deesomsak *et al* 2004)

Variables	Expected theoretical relation	Mostly reported in empirical literature	Theories
Tangibility	**Strong**	**Weak**	Agency theory: agency cost of debt, Trade-off theory: financial distress/business risk
Profitability	**Weak**	**Weak**	Pecking order theory. Trade-off theory bankruptcy costs. Other theory: dilution of ownership
	Strong		Trade-off theory: tax, Free cash flow theory. Signaling theory
Firm size	**Strong**	**Strong**	Trade-off theory: bankruptcy costs tax, Agency theory: agency cost of debt, Other theories: access to the market, economies of scale flow theory. Signaling theory
	Weak		Other theory: information asymmetry

Variables	Expected theoretical relation	Mostly reported in empirical literature	Theories
Growth opportunity	**Weak**	**Weak**	Agency theory: agency cost of debt, Trade-off theory: financial distress
	Strong		Signaling theory. Pecking order theory
Non-debt tax shield	**Weak**	**Weak**	Trade-off theory: tax
Liquidity	**Weak**	**Weak**	Agency theory: agency cost of debt Free cash flow theory. Pecking order theory. Use of internal sources
	Strong		Other theory: ability to meet short term obligation
Earnings volatility/risk	**Weak**	**Weak**	Trade-off theory: financial distress
	Strong		Agency theory
Share price performance	**Weak**	**Weak**	Market timing theory

2.2.1. Capital Structure: Strategic Considerations

Firms' decisions to go public are important elements of financial management and consist of "four strategic considerations" (Pike and Neale 2003:584).

Risk: If the existing level of capital structure is such that the level of borrowing is high, then investors will perceive the firm as having a high level of operating gearing (Van Horne 1989; Brealey and Myers 1991; Pike and Neale 2003) particularly if the environment in which the business operates is uncertain and sensitive to turbulence.

Ownership: Preference for debt financing presupposes the fact that founding members and directors fear dilution of ownership and would desire to retain control of the company's activities (Pike and Neale 2003). IPO management appears strongly attached to the firm and overwhelmingly committed to retaining as much ownership control as possible (Brau *et al* 2006).

Duration: The finance required should match the use to which it is put. It would be unwise to raise long-term finance if the projects to be funded have a relatively short life. This could result in the business being over-capitalised, and its inability to generate sufficient returns to service and repay the finance. On the other hand, not raising enough capital for long term projects will stifle the cash flow of the firm (Pike and Neale 2003).

Debt Capacity: A firm with a low level of level of borrowing has a greater capacity to raise debt than a similar firm with a higher level of borrowing. A firm's level of borrowing determines its financial leverage (Van Horne 1989; Brealey and Myers 1991; Pike and Neale 2003; Firer *et al* 2004).

2.3. Initial Public Offerings

The public may, via a prospectus published by a firm be invited to subscribe for non-seasoned shares in the company which are thereafter created and listed on the stock exchange or primary equity market (Van Horne 1989; Brealey and Myers 1991; Loughran and Ritter 2003; Firer *et al* 2004).

This mechanism, by which unseasoned issue of firms are listed on the stock exchange, is known as an offer for subscription or an initial public offer (Brealey and Myers 1991; Firer *et al* 2004). IPOs facilitate the raising of new equity capital and ensure that necessary stock exchange listing conditions such as the required spread of shareholders is achieved (Brealey and Myers 1991; Firer *et al* 2004). To achieve this, a firm will require the services of an investment banker (Van Horne 1989).

Fischer and Pollock (2004) examined the influence social capital and power on surviving transformational change and argue that one of the most significant and non repeatable events during many organisation's lifecycle is the transformation from private to public ownership through a successful IPO process. This transformation process is not without financial implications (Brealey and Myers 1991; Deesomsak *et al* 2004; Firer *et al* 2004; Brau *et al* 2006), and consequently a significant risk of failure (Fischer and Pollock 2004).

The IPO process brings along with it a number of challenges including organisational re-structure, reduced flexibility in managerial discretion, increased oversight from the firm's executive board of directors, and less tolerance of negative performance (Fischer and Pollock 2004).

IPOs have received a significant amount of attention in finance, strategy and organisational literatures, but its effects on laws and legal regimes have been largely overlooked (Fischer and Pollock 2004; Holmén and Högfeldt 2004). The effects of legal institutions and rules are most pronounced during the IPO period since they shape the endogenous decisions of firms whether to go public or not and affect the design of corporate charters and the initial ownership structure (Holmén and Högfeldt 2004).

IPOs play a decisive role in venture capital investments (Beninga, Helmantel and Sarig 2005; Neus and Walz 2005; Brau and Fawcett 2006). Specifically, Brealey and Myers (1991) and Neus and Walz (2005), demonstrate that among the different exit channels from start-up firms, the IPO of shares in the portfolio firm is often regarded as the most essential in terms of its contribution to a venture capitalist's return.

> "When First Meriam invested in Marvin Enterprises, it was not looking for a high income stream from investment; instead it was hoping for rapid growth that would allow Marvin to go public and give First Meriam an opportunity to cash in on some gains" (Brealey and Myers 1991:343).

2.3.1. Firms Decision to Issue IPOs

There are basically two theories supporting firms' decisions to use IPOs and they are: timing theories and life-cycle theories (Brau *et al* 2006). Market timing theories suggest that firms are able to recognise market inefficiencies and maximise firm value by issuing equity during hot market periods (Pike and Neale 2003; Khanna, Noe and Sonti 2005; Brau *et al* 2006; Ström 2006).

Market timing theories rely on the premise that bull markets favour higher IPO volume levels and more offerings by growth companies pursuing immediate expansion. Immediate low returns after IPOs are indicative of market timing theories. Lifecycle theories, on the other hand, conjecture that firms base financing decisions on the firm's development phase. These theories are more complex given the difficulty in forecasting data with prominent cyclical issues (Brau *et al* 2006).

Below are highlights some of the dominant life cycle and market timing literature related to the IPO process. This is summarised in Table 4 below.

Table 4 Brau *et al*'s representation of some dominant theories explaining the reasons why firms going public (Brau *et al* 2006)

Panel A. Life Cycle Theories	
Reference	**Theory**
(Scott 1976), (M&M 1963)	IPOs facilitate optimal capital structure
(Myers and Majluf 1984), (Myers 1984)	IPOs are natural consequence of the pecking order theory
(Zingales 1995)	Firms get a higher acquisition price after an IPO
(Black and Gilson 1998)	IPOs allow VCs to exit and founders to increase stakes
(Mello and Parsons 2000)	IPOs create a public market for increased founder liquidity
(Dhillon, Raman, and Ramirez 1999)	IPOs allow principals to immediately cash-out
(Chemmanur and Fulghieri 1999)	IPOs allow for optimal dispersion of ownership
(Maksimovic and Pichler 2001)	IPOs give first mover/reputation advantage
(Bradley, Jordan and Ritter 2003)	IPOs allow for the creation of an analyst following
Panel B. Market Timing Theories	
Reference	**Theory**
(Lucas and McDonald 1990)	Firms postpone IPOs if founders feel they are undervalued
(Choe, Masulis, and Nanda 1993)	Firms avoid IPOs when few other good firms are issuing
(Loughran and Ritter 1995)	IPOs occur during windows of opportunity
(Ritter and Welch 2002)	IPOs are more likely after public market valuations to perform

2.3.2. Methods of Issuing IPOs

Most empirical study on the methods of issuing IPOs agree that there are two widely used IPO issuing methods, the U.S. book-building method and the sealed-bid IPO auctions (Loughran and Ritter 2003; Pukthuanthong, Varaiya and Walker 2004; Sherman 2004). They are sometimes simply referred to as the auction method and the book-building method (Pukthuanthong *et al* 2004).

In the book-building method, the underwriter selects investors to whom shares will be allocated at the offer price; the underwriter thus controls investor selection, and share allocation (Pukthuanthong *et al* 2004). In other words, the process allows shares to be preferentially allocated (Sherman 2004).

Since the book-building method allows the underwriter to manage investor access to shares, both (Sherman 2004) and (Pukthuanthong *et al* 2004) argue that IPO issuance risk and amount spent on information acquisition for both issuing firms and investors are reduced. This limits either underpricing and aftermarket volatility. Book-building issued IPOs tend to outperform auction IPOs in the long term, but have higher underwriter spreads than auction IPOs (Sherman 2004; Pukthuanthong *et al* 2004).

In the auction method, any investor can bid the price and quantity of shares of shares sought in the IPO (Pukthuanthong *et al* 2004) and after all bids have been collected, the underwriter with the issuing firm can determine the offer price at which the quantity of shares offered will equal the quantity of shares demanded by investors (Pukthuanthong *et al* 2004; Sherman 2004).

Studies supporting the auction method submit that auction IPOs are less underpriced and have lower underwriter spreads (Pukthuanthong *et al* 2004; Sherman 2004). The free rider problem is the major disadvantage of the auction problem (Pukthuanthong *et al* 2004) in which the excessive bids is placed by investors in IPO auctions to secure underpriced shares.

Lack of aftermarket price support and analyst coverage are also known disadvantages of the auction method (Pukthuanthong *et al* 2004; Sherman 2004). Despite these disadvantages, some firms still prefer the auction method

of issuing IPOs. For example, the US search engine giant, Google, issued its IPO in 2004 using the auction method rather than the book-building method (Sherman 2004).

Table 5 Univariate comparison of auction and book-building IPO forms[1] (Pukthuanthong *et al* 2004)

Variable	Auction IPOs	Book-building IPOs	Tests of differences
	Mean	Mean	Means (p-value)
	Median	Median	Medians (p-value)
Underwriter rank	7.3	7.8	0.0695
	7.1	8.1	0.0153
% of technology firms	54.55%	74.25%	0.0265
Offer price revision	-14.43%	2.85%	0.0208
	-18.18%	-5.00%	0.0077
Underwriter spread	5.57%	7.03%	0.0029
	6.00%	7.00%	0.0011
Turnover	0.79	0.55	0.0217
	0.74	0.51	0.0169

Auction Method: Despite the relative trade-offs between auction issued IPOs and book-building issued IPOs, Sherman (2004) indicates that book-building method has become popular for IPOs worldwide over the last decade compared

[1] In Table 5, (Pukthuanthong *et al* 2004) consider firms that went public in the U.S. between January 1999 and December 2004. The characteristics of 11 firms that went public under an IPO auction arrangement with a sample of matched firms that went public via a boo-building contract. To be included in the matched sample, a boo-building firm must have had its IPO during the same year as the auction firm and must belong to the same industry. In the last column (Pukthuanthong et al 2004) present p-values for a t-test of differences in means and a Wilcoxon test of differences in medians.

to sealed-bid IPO auctions which have been abandoned in nearly all of the many countries in which they have been tried.

For example, France in the 1990s, Japan in 1997, Italy in the 1980s, Portugal in the 1980s, Switzerland in the 1980s, UK in the 1980s, Singapore in the 1990s, and Argentina in 1992, have all abandoned the auction method of issuing IPOs (Pukthuanthong *et al* 2004).

Only Israel remains committed to the auction method as its primary IPO method. Book-building method is not allowed in Israel (Pukthuanthong *et al* 2004). Inability of the underwriter to control entry to the auction and to provide an appropriate number of investors the incentive to carefully evaluate the IPO has largely contributed to the unpopularity of auction IPOs (Sherman 2004).

Underpricing is less evident in auction IPOs and this is an advantage over other methods (Loughran and Ritter 2003; Pukthuanthong *et al* 2004; Sherman 2004). Under subscription - too few bidders entering the auction, and oversubscription - too many bidders entering the auction, are attributable to many IPO auction failures, and is a major disadvantage (Pukthuanthong *et al* 2004).

Under subscription and oversubscription are direct consequences of lack of investor coordination which is a typical feature of the auction process. Besides, too many entrants to an auction do not carefully evaluate IPOs in terms of the reasonability of the IPO price. This phenomenon, called free-riders, and can lead to a distortion of the offer price (Pukthuanthong *et al* 2004).

Other disadvantages of auction IPOs include volatility of the after-market trading, lower IPO proceeds (Pukthuanthong *et al* 2004), and little or no control of underwriters over information acquisition (Sherman 2004).

Book-building Method: In book-building IPOs, the issuing firm and the underwriter have substantial control over information acquisition, which can be used to maximise IPO expected proceeds or to attract potential investors to more carefully evaluate the IPO cost resting on a more accurate aftermarket trading effect (Pukthuanthong *et al* 2004; Sherman 2004).

There is less uncertainty about the number of bidders in the book-building method which reduces the chance of oversubscription or under subscription. Book-building IPOs rarely, except by chance, lead to optimal IPO offering value (Sherman 2004).

2.4. Cost of IPOs: Classifications

Mola and Loughran (2003), Zervos (2004), and Brau *et al* (2006) support the evidence that the costs associated with IPOs can be broadly classified into two broad groups - direct and indirect costs. Firer *et al*'s (2004) approach appear more detailed with four main categories of costs of IPOs, namely, underwriting costs, other direct expenses, indirect expenses and underpricing. It is pertinent to note that underwriting costs are direct costs of IPOs and IPO underpricing indirect costs of IPOs (Brealy and Myers 1991; Mola and Loughran 2003; Brau *et al*, 2006).

Expectedly, the components of IPO costs differ for various countries and are usually available from a combination of web site searches of stock exchanges, regulatory bodies, and interviews with investment lawyers and the companies themselves (Zervos 2004). On the other hand, IPO underpricing is the largest component of indirect costs of IPOs (Leone *et al* 2007).

Direct costs of issuing new equity are higher than indirect flotation costs (Zervos 2004). Mola and Loughran (2003) examined the discounting and clustering of 4814 seasoned equity offering costs from 1986 to 1999, and demonstrated that, while direct costs have remained stable over the period, indirect costs steadily increased.

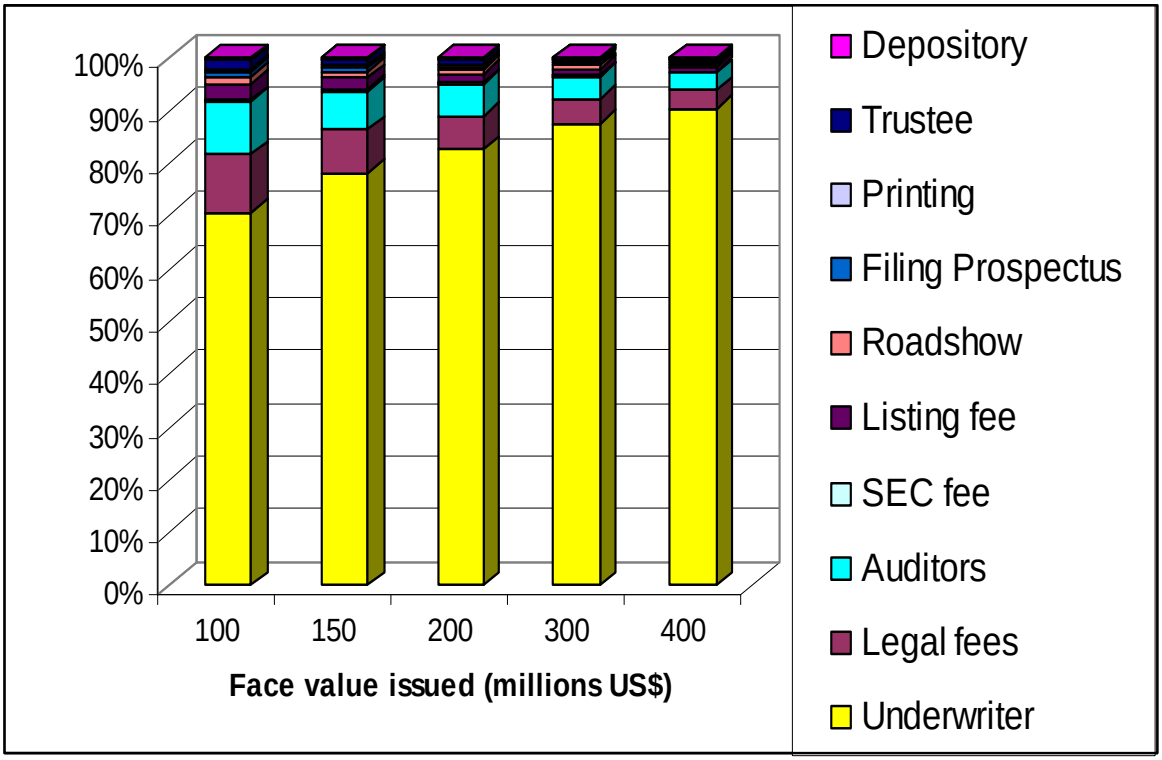


Figure 1 Costs of an ordinary IPO in the US (Zervos 2004)

2.4.1. Underwriting Fees

Underwriting is the process whereby an investment form accepts the risk that an IPO might not be fully subscribed by the public and undertakes to purchase any such shares (Van Horne 1989; Brealey and Myers 1991; Firer *et al* 2004; Zervos 2004; Ahn, Kim and Son 2007). Underwriting is not compulsory, although many IPOs involved in raising equity on the JSE are underwritten and is a direct cost to the issuing firm (Firer *et al* 2004).

Underwriters are investment firms that act as intermediaries between a firm issuing equities and the investing public (Van Horne 1989; Brealey and Myers 1991; Firer *et al* 2004). Although security dealers and brokers can equally perform the roles of underwriters, however, the markets for larger IPOs are dominated by the investment banks (Brealey and Myers 1991).

Underwriters play an important role in the IPO process (Van Horne 1989; Brealey and Myers 1991; Bruner, Chaplinsky and Ramchand 2004; Firer *et al* 2004; Ahn *et al* 2007). They usually assist corporate issuers to perform services

such as setting the price of new shares, distribute new issues, formulating the issue method, and advise issuing firms, (Van Horne 1989; Brealey and Myers 1991; Firer *et al* 2004, Ahn *et al* 2007).

On large IPOs, several underwriting firms may come together to form an underwriting syndicate to share the embedded risk in the IPO (Van Horne 1989; Brealey and Myers 1991; Firer *et al* 2004). Both Firer *et al* (2004) and Ahn *et al* (2007) agree that underwriters support issuing firms' stock prices in the aftermarket by stabilisation which involves the underwriter consenting to an agreement whereby it is precluded from selling the shares of the firm for a fixed period of time after listing on the stock exchange.

The compensation of underwriters has been a subject of interest of many studies. For example, underwriters compensation can be up to 2.5% of the total equity raised (Firer *et al* 2004), or a gross spread which is the difference between the offering price and the net per share proceeds times the total number of shares offered (Van Horne 1989; Ahn *et al* 2007).

Underwriting costs mostly consist of the underwriters fees (Van Horne 1989; Zervos 2004; Ahn *et al* 2007) but other expenses usually include legal fees, management fees and selling concessions, which is also known as the "Green Shoe provision" (Firer *et al* 2004:501). The range of underwriting costs may be wide depending on the characteristics of the firm and the IPO, but the IPO offer size remains the fundamental driver of the fee (Van Horne 1989; Zervos 2004; Ahn *et al* 2007).

Other core drivers include the credit quality of the firm, a highly competitive environment, the market reputation of the company (Zervos 2004), level of corporate governance in the IPO market, and the implicit collusion or strategic pricing among underwriters (Ahn *et al* 2007). Figure 2 shows a scatter diagram indicating a negative relationship between the offer size and the underwriting fee.

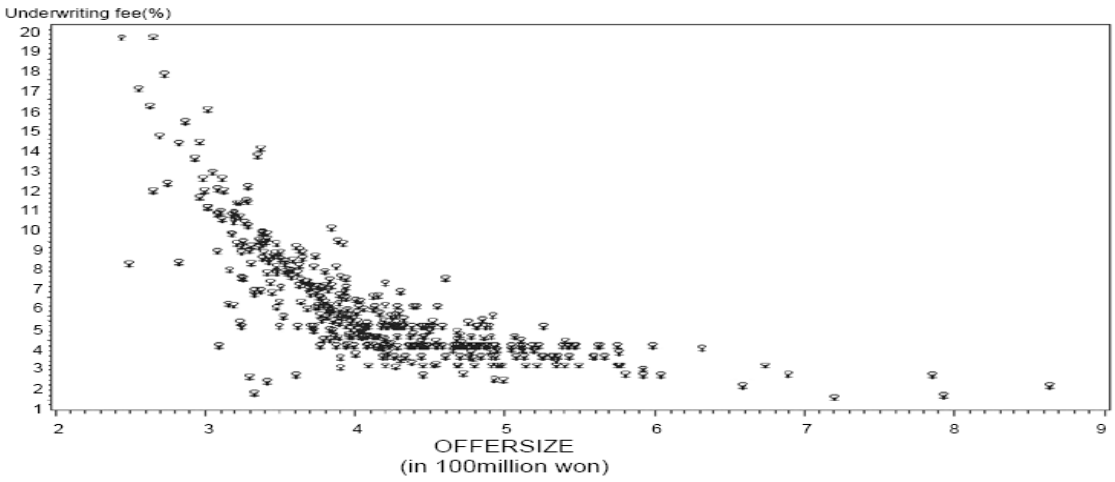


Figure 2 Scatter relating offer size and underwriting fees (%) for sample IPOs in Korea (Ahn *et al* 2007)

2.4.2. Other Direct Costs

Apart from underwriting costs, other direct costs associated with IPOs are listing fees, documentation fees, professional advisers' fees, printing fees, creation of share capital fees, issue duty, marketable securities tax, management fees, and selling concession as a percentage of the IPO (Bruner *et al* 2004). Evidences from different IPO literature suggest that direct costs of IPOs vary with IPO size (Bruner *et al* 2004; Ahn *et al* 2007).

Significant economies of scale are associated with direct IPO costs for large IPOs (Ahn *et al* 2007). Recent studies argue that simultaneous IPOs are associated with lower direct costs, likely because of the spreading of risk across domestic and international markets (Bruner *et al* 2004).

Other direct costs of issuing IPOs are also influenced by the embedded risk of IPO deals usually resulting in high costs for more risky deals. Market condition and lack of competition among rating agencies equally control other direct costs associated with IPOs (Zervos 2004). Other direct costs of issuing IPOs such as auditing fees and costly promotional shows are of concern to management in their decision to go public (Brau *et al* 2006).

2.4.3. Indirect Costs

There are certain other implicit costs incurred by firms in the process of issuing IPOs which are difficult to determine by their nature. They are usually not reported in the prospectus of the issuing firm (Firer 2004; Zervos 2004).

These indirect costs include, costs of management time spent working on the new issue, internal time, internal legal counsel costs, information disclosure costs and costs of lost confidentiality (Zervos 2004; Brau *et al* 2006). Since other indirect costs are difficult to estimate, they are excluded from most studies on the costs of IPOs (Zervos 2004).

2.5. Cost of IPOs: Various Equity Markets

As have been reiterated in earlier sections of the literature review, firms willing to raise equity and debt capital will necessarily incur transactional costs (Brealey and Myers 1991; Bruner *et al* 2004; Deesomsak *et al* 2004; Zervos 2004; Brau *et al* 2006). These costs, Brau *et al* (2006) reveal, are a source of concern to senior management (Mola and Loughran 2003; Chiang and Harikumar 2004; Zervos 2004).

Certain advantages which corroborate low transactional costs of raising IPOs exist both on a microeconomic and macroeconomic level (Chiang and Harikumar 2004; Zervos 2004; Ahn *et al* 2007). Significant economies of scale are such benefits; argue Esho, Sharpe and Tchou (2004) from a study on moral hazard and collective action clauses in the Eurobond market.

Moreover, in as much as companies need to raise equity and debt capital, such ambition depends on a well functioning stock exchange which will ease the listing process (Yartey and Adjasi 2007).

A well functioning IPO market will assist existing issuing firms to expand, have access to liquidity, advance profitability, and mitigate earnings volatility risk (Pike and Neale 2003; Deesomsak *et al* 2004; Firer *et al* 2004).

In some instances, efficient IPO markets have been linked to an efficient allocation of capital and positive implications on economy-wide competition (Zervos 2004).

2.5.1. Latin American Equity Market

Zervos (2004) compares the transaction costs of primary market issuance in Latin America using firms in the IPO markets of Brazil, Mexico and Chile as case studies and finds evidences of clusters in the issue costs of IPOs which are shown in Tables 6, 7 and 8. “Both aggregate and category fees vary widely across countries” (Zervos 2004:1).

In the Brazilian IPO market, small IPO issue costs cluster at about 3% and are thus quite high. Costs of IPOs for high IPO issue cluster at 2%. Esho *et al* (2004) report the presence of economies of scale phenomenon with costs of huge IPO offers.

Overall, costs of issuing new equity cluster between 2% and 4% in all the Latin American IPO markets under review. “Market participants consider the minimum IPO size to be above US$50 million in the Brazilian IPO market” (Zervos 2004:15).

Table 6 Costs of an ordinary IPO in Brazil (Zervos 2004)

(in BRL$ mns; US$ mns in brackets)

	50	150	300	600	1,200
Cost Category:	(17)	(51)	(101)	(203)	(405)
Investment Banking Fees	1,000,000	3,000,000	6,000,000	12,000,000	24,000,000
Regulatory fee - CVM	82,870	82,870	82,870	82,870	82,870
Registry, Clearing & Exchange Fees	15,546	23,866	36,346	61,306	111,226
Quarterly Enforcement fee - Bovespa	13,259	13,259	13,259	13,259	13,259
ANBID registry	5,000	15,000	30,000	30,000	30,000
Legal Fees	50,000	50,000	50,000	50,000	50,000
Publications	180,000	180,000	180,000	180,000	180,000
Road Show	50,000	50,000	50,000	50,000	50,000
Total Initial Costs	**1,396,675**	**3,414,995**	**6,442,475**	**12,467,435**	**24,517,355**
% of Issue Size	**2.79%**	**2.28%**	**2.15%**	**2.08%**	**2.04%**

Table 7 Costs of an ordinary IPO in Mexico (in Mexican Pesos) (Zervos 2004)

	Face Value Issued - 1000s Mexican Pesos, (approx US$1000s below)				
	200,000	500,000	1,000,000	2,000,000	4,000,000
Cost Category:	(18,180)	(45,500)	(91,000)	(181,800)	(363,640)
Investment Banking Fees	5,000,000	12,500,000	25,000,000	50,000,000	100,000,000
CNBV	360,000	900,000	1,558,288	2,458,288	4,258,288
technical study	14,456	14,456	14,456	14,456	14,456
Stock exchange registration	232,500	500,000	500,000	500,000	500,000
Indeval (depository)	625	625	625	625	625
Legal Fees	800,000	800,000	800,000	800,000	800,000
Prospectus	280,000	280,000	280,000	280,000	280,000
Road Show	200,000	200,000	200,000	200,000	200,000
Publications and Press	71,500	71,500	71,500	71,500	71,500
Rating Agency	504,850	642,850	872,850	1,150,000	1,150,000
Total Costs	**7,463,931**	**15,909,431**	**29,297,719**	**55,474,869**	**107,274,869**
% of Issue Size	**3.73%**	**3.18%**	**2.93%**	**2.77%**	**2.68%**

Table 8 Costs of an ordinary IPO in Chile (in US$) (Zervos 2004)

	Face Value Issued (1000s US$)				
Cost Category	10,000	20,000	50,000	100,000	200,000
Investment Banking Fees	150,000	300,000	750,000	1,500,000	3,000,000
Regulatory fee	5,576	6,336	6,336	6,336	6,336
Stock Management Fee	15,000	15,000	15,000	15,000	15,000
Stock exchange registration	2,498	3,240	5,402	7,200	7,200
Legal Fees	50,000	50,000	50,000	50,000	50,000
Marketing / Disclosure	20,000	20,000	20,000	20,000	20,000
Rating Agency	27,960	27,960	27,960	40,000	65,000
Total Costs	256,034	407,536	859,698	1,623,536	3,148,536
% of Issue Size	**2.56%**	**2.04%**	**1.72%**	**1.62%**	**1.57%**

Costs of issuing new equity are higher overall in Mexico than in either Brazil and in Chile. Costs of IPOs cluster at a range between 2.68% to 3.73% (Table 7). Zervos (2004) attributes this phenomenon to lower IPO issues in the Mexican IPO market compared to those of Brazil and Chile.

"There have not been many IPOs in the last five years, as many companies had been waiting to time the market and were faced with a global decline in equity market interest" (Zervos 2004:13). The higher the IPO volume in an IPO market, the lower the IPO costs (Derrien 2005; Ström 2006; Ahn *et al* 2007).

In the Chilean IPO market, IPO costs cluster at a range between 1.6% and 2.6%, making a narrower range compared to clustering patterns of Brazilian and Mexican IPO market. The IPO cost for a US$200 million IPO size group at 1.6%, and at 2.6% for smaller IPO issues of US$10 million (Zervos 2004).

2.5.2. United States Equity Market

Chen and Ritter (2000) examined underwriter fees on 2, 488 firm commitment IPOs in the US from January 1985 to December 1998 with proceeds of at least US$20 million but less than US$80 million and conclude that costs of IPOs cluster at exactly 7 % for more than 90% of the IPOs issued.

The costs of IPOs in the US appear higher than those of most countries of the world (Chen and Ritter 2000; Zervos 2004; Ahn *et al* 2007).

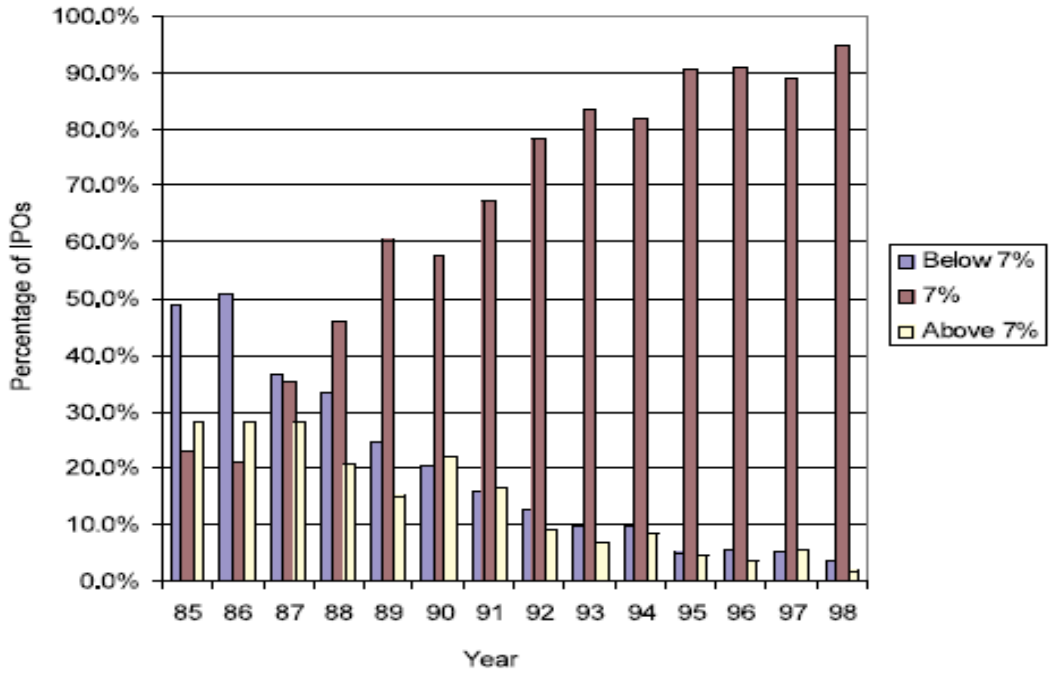


Figure 3 Chen and Ritter's summary of the gross spread distribution for moderate size IPOs (Chen and Ritter 2000)

Equally, (Zervos 2004) find evidences of clustering in costs of IPOs in the United States. "US firms pay more to issue within their country than do foreign firms" (Zervos 2004:18).

2.5.3. South Korean Equity Market

Ahn *et al* (2007) examined the pricing of underwriting services in the Korean IPO market and do not observe any clustering pattern in percentage underwriting fees for small IPOs. "Costs of large IPOs however cluster around 3% to 4%" (Ahn *et al* 2007:735). There are unique clustering patterns in underwriting fees in the Korean IPO market. "About 70% of the larger IPOs have underwriting fees between 3 and 4%, while 85% fall between 3% and 5%" (Ahn *et al* 2007:735).

Table 9 Distribution of offer size and underwriting fees by year (Ahn *et al* 2007)

Year	No. of IPOs	Offer size		Underwriting fee		Underwriting fee amount	
		Mean	Median	Mean	Median	Mean	Median
2000	21	52.022	48.100	4.37	4.24	2.183	2.000
2001	103	73.162	58.790	5.67	5.00	3.453	2.882
2002	73	56.745	46.899	7.02	6.40	3.220	2.806
2003	79	126.616	56.233	6.86	5.88	4.955	3.258
2004	51	156.041	53.705	6.16	5.20	4.657	3.487
2005	75	143.343	108.851	4.74	4.00	4.985	3.864
2006.7	31	272.711	58.696	5.36	4.96	5.363	4.960
Total	433	115.326	58.696	5.93	5.00	4.075	2.991

2.6. IPO Underpricing

2.6.1. Earlier Research and Theoretical Framework

Studies on the phenomenon of underpricing explain it as the first day returns of IPOs after being listed on the stock exchange (Purnanandam and Swaminathan 2002; Cai, Helwege and Warga 2005; Kalev *et al* 2006). These returns on average are large and positive (Leone *et al* 2007), and often fall within a range of between 10% and 15% (Purnanandam and Swaminathan 2002).

However, some research find evidences of IPO underpricing which contradict the conclusion of (Purnanandam and Swaminathan 2002). For example, Ström (2006:2) examined the effects of IPO disclosure on firm performance and found "the average first day returns of IPOs to be 3.9% for National Association of Securities Dealers Automated Quotations (NASDAQ) IPOs that went public in 1992".

For some other countries IPO underpricing costs could be significantly higher. Peng and Wang (2007) used a stochastic frontier approach to investigate IPO underpricing and flotation methods in Taiwan and report mean IPO underpricing to be 20.59% in Taiwan. Average IPO underpricing is as high as 129.16% in China (Chi and Padgett 2005).

There is a difference in the determination of the initial return on an IPO and the underpricing of the IPO. The return of stock '*i*' at the end of the first trading day is calculated as:

$$R_{i1} = \left(\frac{P_{i1}}{P_{i0}} \right) - 1$$

Where P_{i1} = closing price of the stock '*i*' on the first trading day, P_{i0} = offering price and R_{i1} = total first day return on the stock (Chi and Padgett 2005).

However, IPO underpricing is measured as the difference between the closing price of the stock '*i*' on the first trading day (P_{i1}) and the final offer offering price (P_{i0}) divided by the offer price (P_{i0}). A positive number represents the level of underpricing (Ström 2006).

$$UP = \frac{(P_{i1} - P_{i0})}{P_{i0}}$$

Where UP = IPO Underpricing, P_{i1} = closing price of the stock '*i*' on the first trading day, and P_{i0} = offering price (Ström 2006).

IPO underpricing are indirect costs and show what the seller misses out. It is synonymous with the amount of money left on the table on the day a firm goes public (Loughran and Ritter 2003, Ström 2006; Leone *et al* 2007). Underpricing are indirect costs, not only to the issuing firm, but also to existing shareholders since IPOs are commonly underpriced to attract potential new investors. Existing shareholders will face an opportunity loss when they sell their shares for less than they are worth (Firer *et al* 2004).

Loughran and Ritter (2003) investigated the reasons behind IPO underpricing variations over time by obtaining the plotted IPO data and the average first-day returns data from Thomson Financial Securities Data Company for 6,169 firms in the United States and attribute the changes in underpricing to time period changes. Figure 4 summarises their findings. Uncertainty related to IPO size is a determinant of IPO underpricing (Loughran and Ritter 2003).

Recent studies develop models to explain determinants of IPO underpricing and include; *ex-ante* uncertainty related to the use of IPO proceeds, changing IPO risk composition, realignment of management objectives, changing user objective function, high degree of information asymmetry, signalling, and IPO market conditions (Loughran and Ritter 2003; Ström 2006).

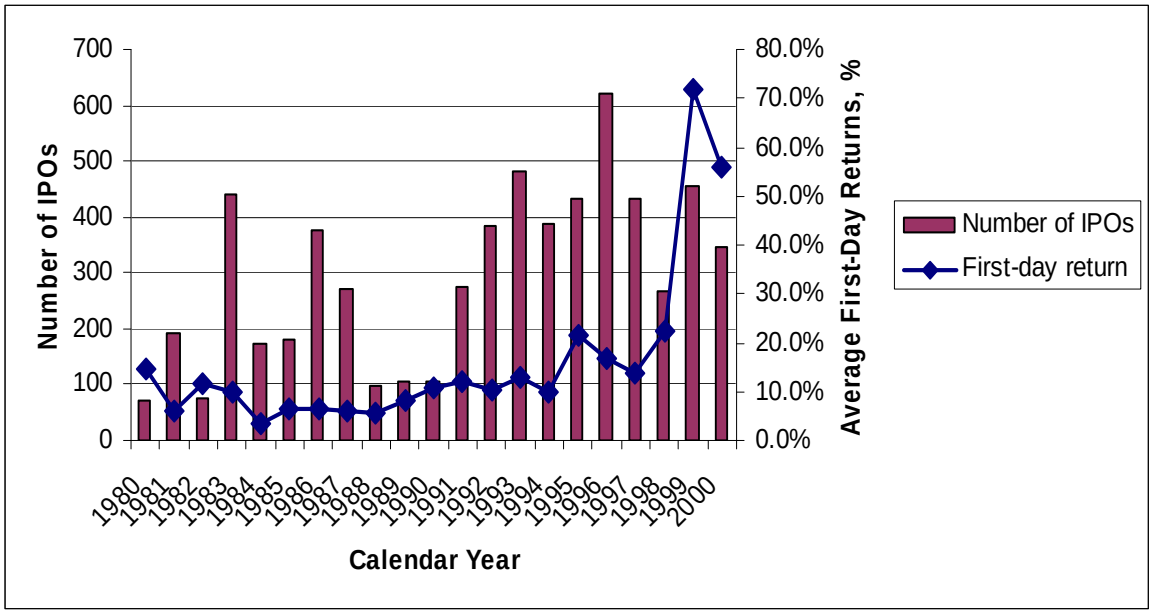


Figure 4 Number of IPOs (bars) and mean first-day returns (line) by year[2] (Loughran and Ritter 2003)

According to Loughran and Ritter (2003), underwriters advise the IPO issuing firm on the valuation of the IPO offer, both at the time of issuing a preliminary prospectus and at the pricing meeting where the final offer is set. If the underwriters receive compensation from the issuing firm (gross spread) and the investors (commission), the underwriter has an incentive to recommend a lower offer price than if the compensation was merely the gross spread.

Explanations for the underpricing phenomenon, other than the reasons mentioned above exist. For instance, Peng and Wang (2007) studied the impact of flotation methods on IPO underpricing in Taiwan using a stochastic frontier approach and found that flotation methods have a potential impact on IPO underpricing. “The variables included to explain underpricing are mostly significant, especially the proxy variable for flotation methods” (Peng and Wang 2007:2794).

[2] According to (Loughran and Ritter 2003), first-day return is explained as the percentage change from the offer price to the closing price. Also, best efforts offers, American Depository Receipts, Real Estate Investment Firms (REITs), banks and savings loans (S&Ls), partnerships and firms not covered by the University of Chicago’s centre for Research in Securities Prices (CRSP) have been excluded. IPOs with an offer price below US$5.00 are also excluded (Loughran and Ritter 2003).

2.7. The JSE Securities Exchange South Africa ("JSE")

The JSE Securities Exchange South Africa ("JSE") was formally established on November 8, 1887 to serve the purpose of a rapidly developing gold mining industry and has emerged as an active player in meeting both the economic and political challenges of post apartheid South Africa (JSE Securities Exchange South Africa 2007).

The JSE is the official IPO market in South Africa having been licensed as an exchange under the Securities and Services Act, 2004 (JSE Securities Exchange South Africa 2007), which is a modernisation and combination of the Stock Exchanges Control Act (1985) and the Financial Markets Control Act (1989), undertaken by the government of South Africa during 2004 (Firer *et al* 2004). The Financial Markets Control Act (1989) regulated the derivatives side of the JSE (Firer *et al* 2004).

The South African IPO market is the most sophisticated and financially developed market in sub-Sahara Africa and contributes enormously to South Africa's economic growth rate (Irving 2005). As the only full service securities exchange, it connects buyers and sellers in different markets; stocks, equity derivatives, agricultural derivatives and interest rate instruments (JSE Securities Exchange South Africa 2007). The JSE holds a strategic position in sub-Sahara Africa as one of the top 20 exchanges in the world in terms of market capitalisation (Irving 2005; JSE Securities Exchange South Africa 2007).

In the mid 1990s, the JSE underwent a major reform when the market opened up to foreign investors and fully automated trading platform replaced the open outcry trading platform (Irving 2005). The JSE is uniquely positioned as the market choice for local and international investors seeking to gain access to the South African capital market and the entire African continent (JSE Securities Exchange South Africa 2007).

The JSE has recently undergone further restructuring and changes, including a move to a world class clearing and settlement system (Irving 2005; JSE Securities Exchange South Africa 2007). Since the commencement in 1999, of

the new clearing and settlement system, the JSE has a zero failed trade record in terms of settlement on the cash equity market (JSE Securities Exchange South Africa 2007). The JSE has been officially renamed the JSE Securities Exchange SA (Firer *et al* 2004; Irving 2005).

The abolition of apartheid and removal of sanctions in the 1990s buoyed foreign investment inflows to the JSE increased substantially (Irving 2005). In Table 12, the acquisition of assets on the JSE has been on the increase from R5.1 billion in 2003 to R48.3 billion as at October 2007 (JSE Securities Exchange South Africa 2007).

While the exchange has benefited from these inflows, it also has become more vulnerable to volatility in international financial markets. For example, during the financial crises in Russia and Brazil in 1998, the JSE overall share index fell by 30 percent in the month of August 1998 alone (Irving 2005).

The recent sub-prime losses in the United States led to a 2.79% fall in the all-share index on the JSE in August 2007 with resources shedding 3.25%, and the gold and platinum mining indices tumbling 3.75% and 4.63% respectively (Rego 2007).

Table 10 Equity capital raised on the JSE (R million) (JSE Securities Exchange South Africa 2007)

Equity Capital Raised on the JSE (R Million)

	Month Ended Oct 07	Year to Date 2007	Year to Date 2006	%Change Year on Year	2006	2005	2004	2003
Acquisition of Assets	1,779	48,312	45,749	5.60	49,141	50,733	21,227	5,068
Rights Issue	500	1,232	814	51.35	955	2,085	10,548	2,507
Scrip Dividend	-	-	-	0.00	-	-	-	90
Share Incentive	394	8,476	13,816	-38.65	15,437	11,369	4,179	4,432
Via Prospectus	-	-	122	-100.00	122	-	-	3,907
Waiver of Pre-emptive rights	536	43,238	12,455	247.15	21,807	13,338	5,074	6,581
Other	-	62	-	100.00	-	4,630	796	76
TOTAL	**3,209**	**101,320**	**72,956**	**38.88**	**87,462**	**82,155**	**41,824**	**22,661**

Note: The totals may vary monthly

The JSE proposed that other SADC exchanges consider adopting a "JSE model," whereby the "JSE" provides all or subsets of services—listings, trading, clearing, settlement, surveillance, and information technology—to SADC member exchanges, depending on their level of development (Irvine 2005).

Most recently, the JSE has been in discussions with some other SADC exchanges and one African exchange outside the sub-region (Ghana Stock Exchange) on a proposal to set up a so-called pan-African board for trading large companies on a virtual exchange (Irving 2005). JSE is a member of Africa Stock Exchanges Association (ASEA) and Committee of SADC Stock Exchanges (CoSSE) (JSE Securities Exchange South Africa 2007).

As of October 2007, 403 companies were listed on the JSE, up from 387 in 2006 (JSE Securities Exchange South Africa 2007). Total market capitalization was R6.2 trillion as at October 2007, up from R4.7 trillion in 2006 attributable to more companies listing on the JSE (Irving 2005; JSE Securities Exchange South Africa 2007).

2.7.1. Listing on the JSE: Minimum Requirements

There is a minimum standard for a listing on the JSE whether it is for an IPO, a private placing or an introduction (Firer *et al* 2004; JSE Securities Exchange South Africa 2007). The listing requirements for the Main Board are different from the standards required for ALT^X listing (JSE Securities Exchange South Africa 2007). Table 11 is a brief summary of the Main Board requirements.

Table 11 Listings criteria for the JSE

Minimum capital	R25 million
Minimum number of shares	25 million
Profit history	Satisfactory
	3 year history
Minimum audited profit before tax	R8 million
Public shareholders:	
% of each class of shares	20%
number of shareholders	500
Minimum initial issue price of shares	100 cents

2.7.2. Listing on the JSE: Time Frame Summary

The JSE listing time frame are summarised in the Appendix 1 and consists of a 13 week time frame within which the IPO issuing firm is expected to list the IPO.

2.7.3. Fundamental costs of issuing new equity on the JSE

Listing Fees - The costs of listing will depend on the listing method and the complexity of the listing process (JSE Securities Exchange South Africa 2007). The listing fees of the JSE are extremely low by international standards (JSE Securities Exchange South Africa 2007) and are summarised in Appendix 2. Appendix 3 highlights the documentation fee schedule.

2.8. Equity Market Development in Africa

The development of equity markets is measured by the level of its liquidity, efficiency and competitiveness (Irving 2005). Many evidences in empirical research into the level of stock markets suggest that stock market development has been hampered by small number of listings, low liquidity levels, inadequate market infrastructure, high poverty levels; weak economic fundamentals, reluctance among local investors to become less reliant on bank finance and lack of public awareness of the benefits of investing in shares (Zervos 2004; Irving 2005).

Since the level of sophistication of financial markets is inextricably linked to economic viability of a nation, it is important to develop the financial market in order to ensure positive effects on economic growth (Irving 2005).

Table 12 Indicators of IPO Market Development in Africa, 2004 (Yartey and Adjasi 2007)

	Number of Listed Companies	Market Capitalization (percent of GDP)	Value Traded (percent of GDP)	Turnover (percent)
Botswana	18	29.4	0.6	2.1
Egypt	792	51.3	7.5	17.1
Cote d'Ivoire (BRVM)	39	13.6	0.3	2.5
Ghana	29	30.7	0.8	3.2
Kenya	47	24.9	2.1	8.0
Malawi	8	9	1.0	11.1
Mauritius	41	39.3	1.6	4.4
Namibia	13	8.1	0.3	4.7
Nigeria	207	20.1	2.3	13.9
South Africa	403	214.1	76.5	45.0
Swaziland	6	9.3	0.0	0.0
Tanzania	6	6.2	0.2	2.5
Uganda	5	1.4	0.0	0.2
Zambia	11	8.0	0.1	1.1
Zimbabwe	79	87.9	14.0	3.9
Average Africa	*113.6*	*36.9*	*7.2*	*8.0*
*Average SSA**	*39.2*	*22.1*	*1.8*	*4.4*
Malaysia	962	161.3	50.8	33.4
Mexico	152	25.4	6.3	29.1
Thailand	465	70.6	66.7	93.8

In Table 15, Egypt has the highest number of firms quoted on its IPO market with 792 firms. But South Africa enjoys the IPO market with the highest market capitalisation in the continent. There is a strong correlation between market capitalisation of an IPO market and the level of development of that market (Yartey and Adjasi 2007).

Stock market liquidity, efficiency and competitiveness of an IPO market can be achieved through (Irving 2005),

- introduction of new financial instruments,
- participation of government through the issuance of bonds, reliance on exchanges as vehicles for privatisation,
- movement from manual to automated trading, attraction of more investors through public education and promotional programs;
- liberation of exchange controls on inward portfolio investments,
- and integration of regional stock markets to facilitate cross-border listings.

Few listings and low level of liquidity still pervade stock markets in Africa. 90% of the market capitalisation for the entire continent is represented in the Johannesburg Stock Exchange (Yartey and Adjasi 2007).

2.9. Conclusion of Literature Review

The review of existing IPO literature reveal that IPO underpricing changes due to changes in uncertainties faced by the IPO issuing firm (Loughran and Ritter 2003; Kalev *et al* 2006; Ström 2006). Empirical support for the link between changing risks and underpricing shows that higher underpricing is associated with riskier IPOs (Loughran and Ritter 2003; Ström 2006).

Information asymmetry creates risks which increases the difficulty in the valuation of IPOs. The IPO issuing firm would however compensate investors for valuation uncertainty by issuing the IPO at a higher discount (Ström 2006). The link between costs of issuing IPOs and risk equally has immense empirical support. Zervos (2004) studied the transaction costs of primary market issuance and concluded that the level of risk associated with the IPO process has a positive impact on the costs of the IPO.

2.9.1. Proposition 1

The changing risk composition is based on the paradigm that "more risky IPOs are likely to be underpriced by more than less risky IPOs" (Loughran and Ritter 2003:2). The higher the element of risk and uncertainty associated with the issue of an IPO, the more likely it is that the estimated costs and expenses to issue and list such IPOs would be high. The above discussion leads to the following proposition:

H_0: There is no relationship between the costs of IPOs and IPO underpricing within the South African equity market.

$H_{A:}$ There will be a positive relationship between the costs of IPOs and IPO underpricing within the South African equity market.

CHAPTER 3: RESEARCH METHODOLOGY

The research design that will be used in this study is a quantitative research approach and is based on descriptive statistics and a linear regression model. According to Lorenzetti (2007), research designs may be quantitative, qualitative, or mixed methods techniques which utilise both quantitative and qualitative methods. Quantitative and qualitative methodologies are associated, respectively with two principal research ideas which are generally labelled "positivism and phenomenology" (Mangan *et al* 2004: 565).

Mixed methods are used to enrich understanding of an experience or issue through confirmation of conclusions, extension of knowledge or by initiating new ways of thinking about the subject of the research (Bazeley 2002). "Mixed methods are inherently neither more nor less valid than specific approaches to research" (Bazeley 2002:2)

Qualitative research focuses on exploring the views of individuals, observing events from the perspectives of those involved, as a means to develop theories to explain events or behaviour. Because a qualitative research approach is explanatory, Lorenzetti (2007) argues that it is often used when a topic is new or little understood, or where existing theories do not apply.

Quantitative research, on the other hand, is used to measure how many people feel, think or act in a particular way (Dickman 2007). It is primarily concerned with testing theories and measuring the relationship between variables of the impact these variables have on outcomes of interest. Although qualitative researchers use events and individual experiences as a way of developing theories, quantitative researchers begin with a hypothesis or theory and then try to prove or disprove it (Lorenzetti 2007).

Generally speaking, as Lorenzetti (2007) affirms, a quantitative research approach might be recommended if a research project involves the identification of factors that influence an outcome, the utility of an intervention or understanding the best predictions of outcomes. Within this broad category, are

a variety of research designs, including surveys, bibliometrics and experimental designs.

The distinctions between qualitative and quantitative research methodologies are numerous and can be based on the type of data used (textual or numeric), the logic employed (inductive or deductive), the type of investigation (exploratory or confirmatory), the method of analysis (interpretive or statistical), and on the approach to explanation (variance theory or process theory) (Bazeley 2002; Mangan *et al* 2004; Lorenzetti 2007).

3.1 Research methodology

This study incorporates the use of descriptive statistics and linear regression model into its research paradigm. Descriptive statistics are the numerical descriptors of a variable and may be grouped into location, spread, shape indicators, percentiles, and interval estimates (Hintze 2004).

“Linear Regression refers to a group of techniques for fitting and studying the straight-line relationship between two variables” (Hintze 2004:1) and the estimated linear regression equation is a mathematical model describing the relationship between the dependent variable and the independent variable. In most cases, the linear regression model does not attempt to define the exact relationship the two variables. Rather, the model is used as an approximation to the exact relationship. Part of the analysis in this study will be to determine how close the approximation is (Hintze 2004).

Once the regression equation has been estimated, the correlation coefficient is thereafter examined to determine the reliability of these estimates. The correlation coefficient is an index that ranges from -1 to +1. A correlation coefficient index of near zero indicates no linear relationship. As the correlation coefficient gets closer to +1 or -1, the relationship between the two variables is deemed stronger (Hintze 2004).

Hintze (2004) makes a unique distinction between the regression model and correlation analysis. In the linear regression, the dependent variable is assumed

to be a random variable and the independent variable is assumed to be the fixed variable. However, in correlation analysis, both the dependent and the independent variables are assumed to be random variables.

Furthermore, the regression model as opposed to correlation analysis is directional - x and y variables are specified - and this is an advantage of the procedure. The purpose of regression is to determine the amount of variance explained in the dependent variable by virtue of the independent variable.

3.2 Research Design

This study measures the costs of issuing IPOs for a firm ($CIPO_i$) as - the addition of all expenses related to the offer as a percentage of the offer size. The multiplication of the total number of the IPO issued shares and the IPO offer price represents the IPO offer size (Ahn *et al* 2007).

$$CIPO_i = \frac{\text{Costs of IPO}}{\textit{Offer size}}$$

Where $CIPO_i$ = Costs of issuing IPOs for firm $_I$, Costs of IPO = Total estimated costs related to the public offering, and Offer size = Number of ordinary shares issued in the public offer multiplied by the offer price (Ahn *et al* 2007).

IPO underpricing is measured as the difference in closing price (P_1) at the issue date to final offer price ($P_{offering}$) divided with offer price. A positive number represents the level of underpricing. Following Ström (2006)

$$UP = \frac{(P_1 - P_{offering})}{P_{offering}}$$

Where UP = Underpricing, P_1 = Closing price of at issue date and $P_{offering}$ = Offering Price (Ström 2006:13).

The selected IPO samples are divided into eight JSE market categories with descriptive statistics to understand the unique features of the JSE. The

relationship between IPO underpricing and the costs of IPO issue is examined with linear regression i.e. Proposition 1

3.3 Population and sample

3.3.1 Population

The population of this research are the expenses incurred for all IPOs issued from 1994 to 2007. See Appendix 6 for the complete list.

3.3.2 Sample and sampling method

The sample is based on 59 selected IPOs at the JSE between 1994 and 2007. Prospectus information of the IPO issuing firms is the primary source of data. Closing prices are gathered from the *I-Net Bridge* database. The JSE supplied a list of all IPOs from 1994 to 2007 together with the offer price and capital raised. Complementary data, such as date of issue and costs associated the IPO were hand collected from the prospectuses.

Leedy and Ormrod (2005) suggest that triangulation can be used as one of the ways to support the validity of research findings.

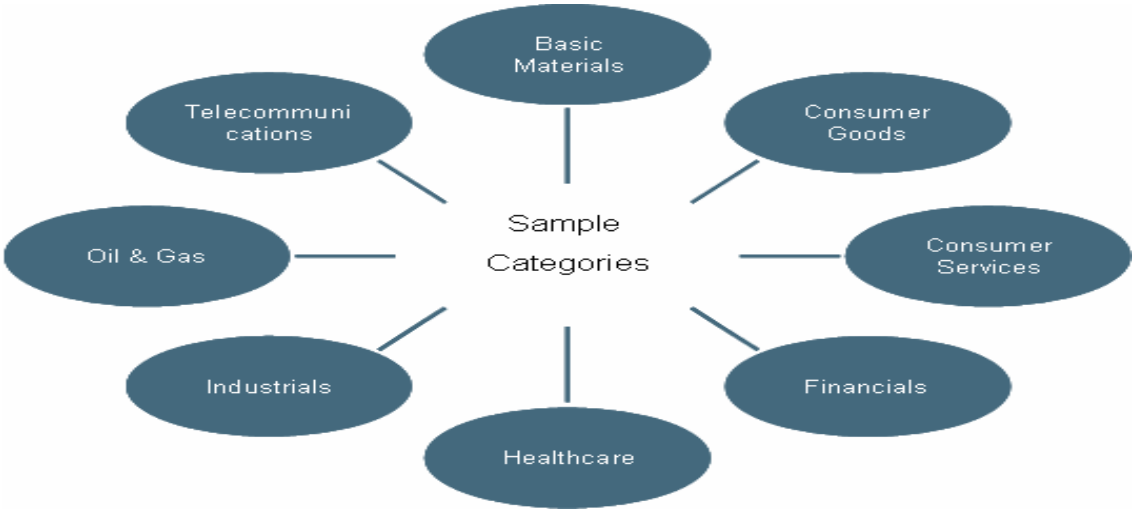


Figure 5 Sample Design and JSE Categories

For this reason, the sample size was, at first, designed to include all the various categories of companies listed on the JSE; Basic Materials, Consumer Goods, Consumer Services, Financials, Healthcare, Industrials, Oil & Gas, and Telecommunications.

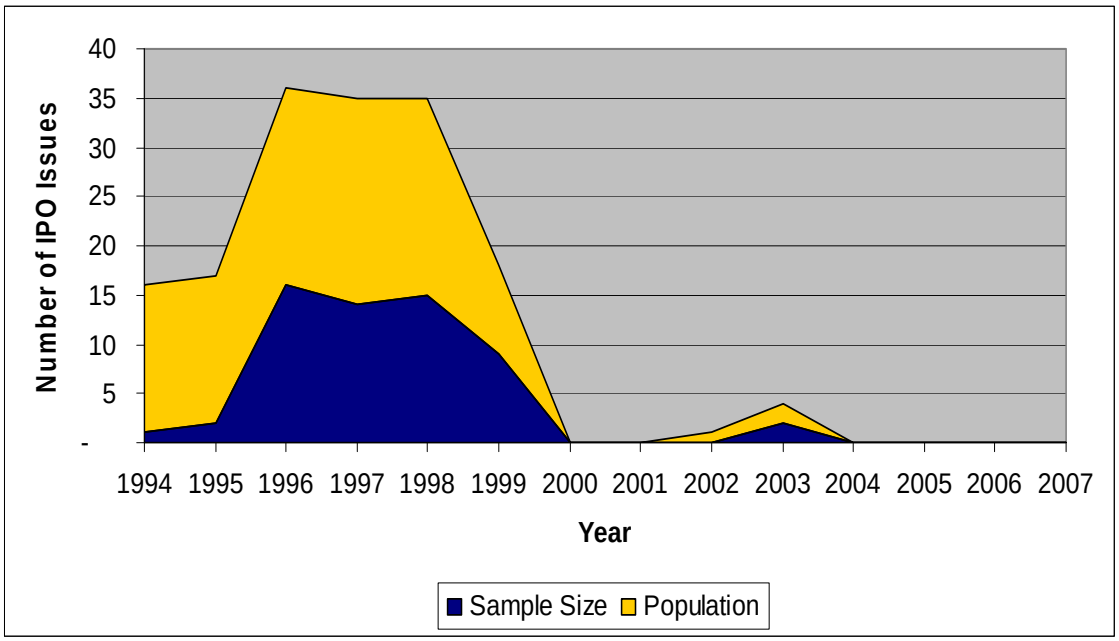


Figure 6 Sample Size and Population

3.4 Procedure for data collection

Prospectus information was obtained from *McGregor BFA*, *Computershare*, JSE Sponsors, and public relations department of the IPO firms. The IPO prospectus is used as the main document in providing estimated costs associated with each IPO.

There was difficulty obtaining similar information from the JSE, simply because the JSE does not retain past copies of prospectuses in its library. However, the JSE supplied the list of IPOs issued and the capital raised via public offers from 1994 to 2007.

E-mail correspondences with JSE Sponsors yielded some copies of prospectuses, but the majority of the prospectus information was sourced from

McGregor BFA. A few of the prospectus copies were sourced from the public relations department of the IPO firms.

3.5 Data analysis and interpretation

Expenses related to the public offers sourced from each prospectus would be collated and tabulated in a Microsoft Excel spreadsheet for further analysis using descriptive statistics. Furthermore, the descriptive statistics are used to analyse each public offer expense by industry and by calendar years.

A univariate regression using linear regression analysis is used to study the relationship between IPO underpricing and the issue costs of the IPOs. Results of the tests are interpreted and conclusions drawn.

3.6 Validity and reliability

Meaningful and defensible conclusions are desired to be drawn from this study. To achieve this, factors affecting the validity of the research are considered. The validity of the research refers to the "rhetorical organisation of scientific arguments" in the study's entirety (Aguinaldo 2004:127).

3.6.1 External validity

External validity refers to the extent to which the conclusions to be drawn in this study can be applied to other contexts. The use of a representative sample of IPOs in South Africa from 1994 to 2007 reflects this.

The sample size of 59 IPOs over a period of 14 years were thus analysed to draw a logical conclusion from the study. The expenses incurred on issuing each IPO have been specifically validated with the copies of prospectuses of the respective IPO issuing firm.

Post-IPO expenses incurred by issuing firms subsequent to the IPO process are not contained in the copies of the prospectus. They are usually not material and they are not expected to negatively influence the results of this study.

3.6.2 Internal validity

The extent to which the researcher can draw accurate conclusions from the study is referred to the internal validity of the research (Leedy and Ormrod 2005). This study employs the use of descriptive statistics and linear regression model statistical methods. For example, Ström (2006) used descriptive statistics to elucidate the Swedish IPO market and a univariate regression to study the relationship between underpricing and disclosure.

3.6.3 Reliability

Reliability refers to the extent to which the conclusions are consistent with the study (Leedy and Ormrod 2005). Several checks have been conducted to ensure that the data collection and analysis are free from errors and omissions.

One, the sample size is representative of the whole population. The South African IPO market has witnessed significant investment inflows since independence in 1994 (Møller 1998). Where applicable, the data employed in this research is traced to the original source where the amounts, figures and information were transacted. Discrepancies are investigated and errors rectified.

Two, the sources of the financial data to be used in this study are corroborated with one another to ensure consistency and data integrity of the sources. All discrepancies will be investigated and errors eliminated.

CHAPTER 4: PRESENTATION OF RESULTS

4.1 Introduction

In this section, this study presents the result of the statistical tools used to analyse the sample data.

4.2 Descriptive Statistics of Sample Variable: Costs of IPOs

The sample size consists of 59 selected IPOs issued via the JSE from 1994 to 2007. There has not been much capital raised through public offers since the year 2000 (Tables 13-16). IPO activities peaked between 1996 and 1998 (Table 13) which seemed to be hot market periods. One reason for this could be the implementation of the Black Economic Empowerment (BEE) and the emergence of a growing Black middle class in post independent South Africa. From year 2000 however, there has been a lull in the IPO market (Table 13). The reason behind this could be attributable to the persistent concentration of wealth in few hands which makes IPO issuing firms to prefer private placements from institutional investors rather than public offers.

Table 13 IPO offer size and cost by calendar year

Year	No. of IPOs	IPO Size	IPO Costs
1994	1	2,250,000	75,000
1995	2	71,915,690	1,073,000
1996	16	1,092,057,854	34,913,574
1997	14	138,450,000	10,707,614
1998	15	5,443,349,166	560,327,434
1999	9	3,432,429,949	746,303,937
2003	2	3,906,722,712	220,831,101
Total	59	14,087,175,371	1,574,756,660

From the JSE category analysis, the Consumer Services sub-sector had the highest public offering during the period covered with 16 IPOs or 27% of the sample size (Table 14), closely followed by the Financials category with 14

IPOs or 24% of the sample size. Telecommunications and the Oil and Gas categories are the least represented in the sample with only 1 IPO each respectively (Table 14).

Table 14 IPO offer size and cost by JSE industry categories

JSE Category	No. of IPOs	IPO Size	IPO Costs
Basic Materials	3	308,750,000	18,824,633
Consumer Goods	10	136,500,000	7,912,822
Consumer Services	16	1,072,660,354	18,548,015
Financials	14	8,419,852,305	1,298,777,759
Healthcare	3	141,000,000	3,397,140
Industrials	11	101,690,000	5,940,190
Oil & Gas	1	7,500,000	358,566
Telecommunications	1	3,899,222,712	220,472,535
Total	59	14,087,175,371	1,574,231,660

4.3 Distribution of offer size, offer cost and $CIPO_i$ by industry

The Consumer Services and Financial sectors on the JSE together account for more than 50% of the sample size. The mean costs of issuing IPOs for these two sectors are 5.7% and 6.2% respectively, which is close to the total sample mean of 6.3% (Table 15). The Consumer Goods category has the highest mean cost of IPO at 7.4%, while the Oil and Gas category recorded the lowest mean cost of IPO – 4.8% (Table 15). Both the Basic Materials and the Consumer Services categories have a mean cost of IPO at 5.7% respectively.

4.4 Distribution of offer size, offer cost and $CIPO_i$ by calendar year.

The mean cost of issuing public offers is highest in 1997 (8.5%) and lowest in 1995(2%) – Table16. There is no indication that IPOs cost less in hot market periods than in cold market periods. Only the mean costs of IPOs for 1997 (8.5%) and 1999 (7.4%) are higher than the overall mean cost of IPOs (6.3%). The mean costs of IPOs for all other years are below the overall mean of 6.3% (Table 16). There is no indication that the costs of IPOs have increase over time.

Table 15 Distribution of IPO size, IPO cost and CIPO$_i$ by industry[3]

Industry Category	No of IPOs	IPO Size					IPO Cost					CIPO*i*				
		Mean	Mean Std Error	Median	Std Deviation	Unbiased Std Deviation	Mean	Mean Std Error	Median	Std Deviation	Unbiased Std Deviation	Mean	Mean Std Error	Median	Std Deviation	Unbiased Std Deviation
Basic Materials	3	102.9	93.4	10.0	161.8	182.6	6.3	5.8	0.6	10.1	11.4	5.2	0.9	6.0	1.6	1.8
Consumer Goods	10	13.7	2.7	10.0	8.6	8.8	0.8	0.1	0.8	0.4	0.4	7.4	1.7	6.1	5.4	5.5
Consumer Services	16	67.0	31.0	15.0	124.2	126.2	1.2	0.3	0.9	1.1	1.2	5.2	1.4	3.6	5.4	5.5

[3] This Table presents the distribution of IPO size, IPO cost and IPO cost as a percentage of the IPO size (CIPO*i*) using 59 IPO samples for the major industry categories of companies listed on the JSE. The IPO offer size and IPO costs are expressed in units of 1 million Rands. Inflation has not been factored into consideration. There has been no IPO since 2003, with investors preferring to raise new equity capital via private placements by institutional investors and high net worth individuals. The CIPO*i* is expressed in percentage. The IPO size is defined as the product of the IPO offer price and the number of ordinary shares issued to raise capital via public subscription. The IPO size and costs have been obtained from the respective prospectuses of the offer firms.

Industry Category	No of IPOs	IPO Size					IPO Cost					CIPO*i*				
		Mean	Mean Std Error	Median	Std Deviation	Unbiased Std Deviation	Mean	Mean Std Error	Median	Std Deviation	Unbiased Std Deviation	Mean	Mean Std Error	Median	Std Deviation	Unbiased Std Deviation
Financials	14	601.4	404.6	15.4	1,514.0	1,543.4	92.8	63.3	0.4	236.9	241.5	6.2	1.8	2.8	6.6	6.7
Healthcare	3	47.0	39.0	10.0	67.6	76.3	1.1	0.6	1.0	1.0	1.2	6.7	5.0	1.8	8.7	9.8
Industrials	11	9.2	1.2	8.3	4.0	4.1	0.5	0.1	0.4	0.3	0.3	6.2	1.8	2.8	6.6	6.7
Oil & Gas	1	7.5		7.5			0.4		0.4			4.8		4.8		
Telecoms	1	3,899.2		3,899.2			220		220			5.7		5.7		
Total	**59**	**238.8**	**117.3**	**10.0**	**901.2**	**905.1**	**26.7**	**15.8**	**0.6**	**121.6**	**122.1**	**6.3**	**0.7**	**4.5**	**5.1**	**5.1**

Table 16 Distribution of IPO size, IPO cost and CIPO$_i$ by calendar year[4]

Year	No of IPOs	IPO Size					IPO Cost					CIPO*i*				
		Mean	Mean Std Error	Median	Std Deviation	Unbiased Std Deviation	Mean	Mean Std Error	Median	Std Deviation	Unbiased Std Deviation	Mean	Mean Std Error	Median	Std Deviation	Unbiased Std Deviation
1994	1	2.3		2.3	-		0.6		0.6			3.3	0.0	3.3	0.0	0.0
1995	2	36.0	16.0	36.0	22.6	28.3	0.5	0.0	0.5	0.1	0.1	2.0	1.0	2.0	1.3	1.7
1996	16	68.3	29.5	19.0	117.9	119.8	2.2	4.3	1.1	0.9	4.4	4.0	0.6	3.6	2.3	2.3

[4] Table 16 presents the distribution of IPO size, IPO cost and IPO cost as a percentage of the IPO size (CIPO*i*) using 59 IPO samples listed on the JSE from January of 1994 to December of 2007. The IPO offer size and IPO costs are expressed in units of 1 million Rands. Inflation has not been factored into consideration. There has been no IPO since 2003, with investors preferring to raise new equity capital via private placements by institutional investors and high net worth individuals. The CIPO*i* is expressed in percentage. The IPO size is defined as the product of the IPO offer price and the number of ordinary shares issued to raise capital via public subscription. The IPO size and costs have been obtained from the respective prospectuses of the offer firms.

Year	No of IPOs	IPO Size					IPO Cost					CIPO*i*				
		Mean	Mean Std Error	Median	Std Deviation	Unbiased Std Deviation	Mean	Mean Std Error	Median	Std Deviation	Unbiased Std Deviation	Mean	Mean Std Error	Median	Std Deviation	Unbiased Std Deviation
1997	14	9.9	1.0	10.0	3.8	3.9	0.8	0.5	0.1	0.8	0.5	8.5	1.6	7.8	6.0	6.1
1998	15	362.9	322.4	10.1	1,248.8	1,271.3	37.4	36.6	0.8	141.8	144.4	5.9	1.3	4.6	5.0	5.1
1999	9	381.4	370.2	10.0	1,100.5	1,145.7	82.9	82.1	0.3	246.4	254.2	7.4	7.2	2.4	4.0	7.4
2003	2	1,953.4	1,945.9	1,953.4	2,751.9	3,449.0	110.4	110.1	110.4	155.6	195.1	5.3	0.5	5.3	0.6	0.8
Total	**59**	**238.8**	**117.3**	**10.0**	**901.2**	**905.1**	**26.7**	**15.8**	**0.6**	**121.6**	**122.1**	**6.3**	**0.7**	**4.5**	**5.1**	**5.1**

4.5 Descriptive Statistics of Sample Variable: Underpricing

Results show that the average initial return for the sample period 1994 – 2007 is 44.3% (Table 17). IPO underpricing has varied substantially over the 14 year period, reaching a top value of 86% in 1995 and an underpricing of -9.64% (overpricing) in 2003 (Table 17). Descriptive statistics indicate that 64% of the firms are underpriced, 12% have no change in offer to closing price and 24% of the issues have negative initial returns, i.e. overpricing.

Table 17 Number of IPOs, calendar year and average initial return

Year	*Number of IPOs*	*Underpricing (%)*	*% of firms with negative returns*
1994	1	20.00	0
1995	2	86.00	0
1996	16	21.33	18.75
1997	14	50.36	14.29
1998	15	72.61	40.00
1999	9	34.04	22.22
2000	0		
2001	0		
2002	0		
2003	2	-9.64	50.00
2004	0		
2005	0		
2006	0		
2007	0		
1996-2007	59	44.32	20.75

Underpricing in the Industrials equity category is the highest for the sample (93.6%) and lowest for Basic materials category (-2.9%) – Table 18.

Both the Basic Materials (-2.87%) and Oil & Gas (-20.70%) equity market categories had overpricing. This may be due to the fact that these industries are recession proof and there is usually no incentive to issue their IPOs at a discount.

Table 18 Number of IPOs, JSE category and average initial return

JSE Category	*Number of IPOs*	*Underpricing (%)*	*% of firms with negative returns*
Basic Materials	3	-2.87	33.33
Consumer Goods	10	54.90	10.00
Consumer Services	16	23.03	18.75
Financials	14	45.19	28.57
Healthcare	3	20.67	33.33
Industrials	11	93.66	27.27
Oil & Gas	1	-20.70	100.00
Telecommunications	1	0.70	0.00

4.6 Relationship between Costs of IPOs and IPO underpricing

Table 19 Results of Linear Regression

The Regression Model					
Model: Linear Regression Model					
Dependent Variable: IPO Underpricing					
Number of Observations Read					76
Number of Observations Used					59
Number of Observation with Missing Values					17
Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.03460	0.03460	0.02	0.8758
Error	57	79.99483	1.40342		
Corrected Total	58	80.02942			
Root MSE		1.18466			
Dependent Mean		0.44316			
Coefficient Variance		267.32154			
R-Square		0.0004			
Adjusted R-Sq		-0.0171			

Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	Intercept	**1**	0.47191	0.23942	1.97	0.0536
CIPOi	CIPOi	**1**	-0.47688	3.03727	-0.16	0.8758

Table 20 Results of the Correlation Analysis

Correlation Analysis The Correlation Procedure 2 Variables: IPO Underpricing; Cost of IPOs (CIPOi)							
Simple Statistics							
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
IPO Underpricing	59	0.44316	1.17466	26.14638	-0.63000	8.00000	IPO Underpricing
CIPOi	59	0.06029	0.05121	3.55730	0.00278	0.22138	CIPOi
Pearson Correlation Coefficients, N = 59 Prob > |r| under H0: Rho=0							
					IPO Underpricing		CIPOi
IPO Underpricing IPO Underpricing					1.00000		-0.02079 0.8758
CIPOi CIPOi					-0.02079 0.8758		1.00000

4.7 Summary of the results

The section above presents the results of the statistical tools applied to the selected sample size of the 59 IPOs listed on the JSE from 1994 to 2007. Descriptive statistics for the South African IPO market are presented in Tables 13 and 14; the descriptive statistics highlighting the costs of IPOs variable are presented in Tables 15 and 16; and finally the essential features of IPO underpricing variable are presented in Tables 17 and 18.

A regression and correlation analysis is used to test the relationship between the costs of IPOs and IPO underpricing. The preliminary results show that there is no significant statistical relationship between the two variables (Tables 19 and 20).

CHAPTER 5: DISCUSSION OF THE RESULTS

5.1 Introduction

This chapter of the study is divided into two broad sections. The first section discusses broadly the profile of the IPO sample size. Thereafter, the results of the analysis chapter are explained with reference to previous findings within existing IPO literature.

5.2 IPO sample size

59 IPO sample size, selected from January 1994 to December 2007, have been used in this study. IPOs issued and listed before 1994 are not considered in this study due to the nature of the regime that reigned in South Africa at that time. It is largely perceived that the major elements of a free market economy were not in full implementation (Møller 1998). According to calendar years, the highest number of IPOs for the sample size was between 1996 and 1999. During these hot market periods, a total number of 53 out of the 59 IPOs were issued and listed (Tables 13 and 16).

Several reasons could be used to explain this high number of IPOs in the late 1990s. First, most previously state-owned enterprises were being either privatised or commercialised. The participation of an emerging Black middle class through the implementation of the Black Economic Empowerment (BEE) enabled many Black people to become shareholders in blue chip companies for the first time - the demutualisation of Sanlam and Old Mutual are examples.

This finding is consistent with IPO literature which support evidences of increase in IPO activities in countries immediately after the introduction of a free- market economy. For example, Chi and Padgett (2005) studied short-run underpricing and its characteristics in the Chinese IPO market and found evidence of high demand for IPOs with high underpricing after the Chinese economic reforms of the 1990s.

Second, the issue of capital flight from the South African economy as a result of risks associated with the new government of post independent South Africa. IPOs are usually employed as exit strategies by venture capitalists from start-up firms during times of uncertainties (Neus and Walz 2005). Since the 2000s, IPO related activities have been cold on the JSE. Only 2 IPOs, which occurred in 2003, are included in the sample size.

A look at the IPO sample by business sector category indicates that the Consumer Services (16), Financials (14), Consumer Goods (10) and Industrials (11) business segments recorded the largest number of IPOs respectively – 51 in total (Table 15). The Consumer Services sector was the highest with 27% of the sample size. The lowest IPO issue was recorded in the Oil & Gas and the Telecommunications sub sectors – only 1 each respectively. International studies on IPO related literature reveal similar patterns. The liquidity of firms in recession proof industries are usually in good condition thereby making IPOs less attractive. Since firm liquidity is one of the reasons why firms go public (Brau et al 2006), firms in less liquid industries are more likely to find IPOs attractive to raise capital.

5.3 Costs of IPOs

Figure 8 presents the mean and median of the costs of issuing and listing IPOs for the sample size of 59 IPOs by calendar years. The mean cost of issuing IPOs was highest in 1997 at 8.5% and lowest in 1995 at 2% (Figure 8, Table 16). The overall mean of costs of IPOs for the 59 IPOs is 6.3%. This is consistent with the findings of Ahn et al (2007) where the mean costs of IPOs - underwriting fees - in the Korean IPO market was 5.93%. The Canadian IPO market equally reported similar results. 18.3% of the sample costs of IPOs averaged at 6.3% (Ahn *et al* 2007:732)

There is no evidence to support Ahn *et al* (2007)'s findings that costs of issuing IPOs are lower in hot market periods than in the cold market periods. 1997 was a hot market period on the JSE, yet the mean costs of IPOs were the highest

(8.5%) for the period under study. A reason for this anomaly is that underwriters and other IPO professionals were unwilling to give discounts during this period.

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Figure 7 IPO costs as a percentage of IPO size by calendar years

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Figure 8 IPO costs as a percentage of IPO size by industry sector

5.4 IPO Underpricing

The results of Tables 17 and 18 reveal that IPO underpricing was highest at the 1995 calendar year at 86% and lowest at the 2003 calendar year at -9.64% (overpricing). This finding is consistent with the conclusions of Ström (2006) in which similar high underpricing and overpricing was reported. However, there was never a case of overpricing in the IPO sample reported by Loughran and Ritter (2003). “Overpricing refers to a closing price on the first day that is lower than the offering price” (Ström 2006:18). IPO underpricing is highest in the Industrials sector of the South African equity market at 93.66% and lowest in the Oil & Gas category at -20.7% (Table 18). This finding is consistent with the conclusions of Ström (2006) which revealed that underpricing correlates significantly with industry. Firms in recession proof industries are less encouraged to give discounts on IPOs than firms in non-recession proof industries.

5.5 Regression and Correlation Analysis

The relationship between the costs of issuing IPOs, a predicted explanatory variable, and IPO underpricing according to the results of the regression and correlation analyses were not significant. A positive relationship between the two variables is not statistically significant and therefore provides no support for

the predicted proposition. Nevertheless, the prediction is in the right direction, indicating that underpricing is influenced by costs of issuing IPOs. The summary results provide evidence that there is a relationship between the two variables (Tables 19 and 20).

Although earlier findings provide no evidence of a direct link between the costs of issuing IPOs and IPO underpricing, Loughran and Ritter (2003) support the view that level of IPO risk is a determinant of IPO underpricing. Risk and uncertainties in turn increase the chances of increases in the costs associated with IPOs (Zervos 2004).

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The aim of this study is to examine the relationship between the costs of IPOs and IPO underpricing within the South African equity market. The scope of this study is on one important question: is there a relationship between the costs of issuing and listing IPOs and the initial return of the IPO? This study elucidates the features of the South African IPO market and the two variables under investigation - costs of issuing IPOs and underpricing. The relationship between the two variables is thereafter examined. The peculiar past of South Africa, makes it difficult to apply findings of previous research from other countries, has been taken into consideration.

6.2 Conclusions of the study

The association between costs of issuing IPOs and IPO underpricing is investigated by using a sample of 59 IPOs from the JSE between 1994 and 2007. The focus of this study is on the relationship between IPO underpricing and the estimated expenses related to public offers. Following Ström (2006)

and Loughran and Ritter (2003) it is predicted that the costs of IPOs will have a positive relationship with IPO underpricing.

The specific question investigated is if high costs of issuing IPOs indicated in the prospectus reduces IPO underpricing. The present results reveal that the South African equity market is underpriced by 39%. This finding is consistent with the underpricing found in such foreign markets as the Swedish IPO market (Ström 2006), but differs from earlier findings on the US equity market (Loughran and Ritter 2003). For example, Loughran and Ritter (2003) reported no overpricing in the US equity market.

Several studies indicate that the riskier IPOs are likely to increase the costs of issuing such IPOs. It is generally in the best interest of IPO issuing firms to reduce the levels of risk which in turn would lower the estimated expenses related to the offer. The level of underpricing is likely to increase with higher risks since the IPO issuing firm would be interested in compensating the investing public as a result of the high uncertainties.

The present study provides no statistically significant relationship between the costs of issuing IPOs and IPO underpricing. The failure to find a statistically backed positive relationship is a surprise, in the sense that it shows that costs of IPOs do not affect underpricing given by IPO issuing firms. It further indicates that there are other factors being used in the valuation process of IPO issues than the costs of the IPOs as indicated in prospectuses.

The reason for this could be that information used to determine the issue price of IPOs are more in the long-run and is usually not disclosed to any larger extent in the prospectus. The perceived long-run performance information of a share is usually not conveyed by the costs of the offer. Other reasons are those attributable to the limitations inherent in the study, which include small sample size and the short sample period.

6.3 Recommendations

This study has investigated the relationship between the costs of issuing public offers and the level of IPO underpricing and found that within the South African equity market, the costs of IPOs are not a significant determinant of IPO underpricing.

IPO activities have relatively subsided in South Africa since the turn of the millennium. Most companies listing on the JSE prefer to raise capital via private placements from high net worth individuals and institutional investors rather than from the public. This practice may not be unconnected with the huge costs of listing public offers as well as the concentration of wealth in few hands.

However, the following are recommended to JSE sponsors, financial managers and the investing public based on the findings of this study;

- Prospectus information reveals little about the perceived long-run performance of IPOs and therefore should not be relied entirely upon to determine the valuation of IPOs.

- The relationship between other types of disclosure apart from the expenses related to public offers should be investigated to fully understand the determinants of IPO underpricing.

- An objective measure of the impact of the realignment of management incentives to determine its impact on IPO underpricing within the South African equity market would other factors besides prospectus information influencing IPO underpricing.

- The JSE should present a central database of all prospectuses being issued for all IPOs to raise capital via the JSE Main Board.

6.4 Suggestions for further research

In this study, the relationship between the costs of issuing public offers and the initial return on the South African equity market have been examined from 1994 to 2007.

Important questions for future research on this topic are to investigate;

- What kinds of information that financial analysts find relevant when analysing an IPO and that the investing public use when valuing an IPO within the South African equity market.
- What is the impact of ownership structure inclusive of BEE deals on IPO underpricing within the South African equity market
- The association between other types of disclosure from prospectus information and IPO underpricing. For example, we need to know whether forecast financial information in the prospectus is value relevant.

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APPENDIX 1

Listing time frame summary

WEEK	ACTION	REPONSIBILITY
0	Appoint advisors	Company
	Meet to consider:	
	Legal, financial and tax implications	Accountant, Legal advisor, Corporate advisor and Company
	Method of listing	Accountant, Legal advisor, Corporate advisor and Company
	Prepare timetable for listing	Corporate advisor
	Commence preparation of accountant's report	Accountant and Company
	Commence drafting of documentation	Corporate advisor
1-3	Drafting meetings to finalise draft documentation (prospectus/pre-listing statement)	Accountant, Legal advisor, Corporate advisor and Company
	Finalise accountant's report	Accountant and Company
4	Draft documentation submitted to the JSE for informal comment and Registrar (if a public offer)	Sponsor and Corporate advisor

WEEK	ACTION	REPONSIBILITY
5-8	JSE formal approval, and Registrar's approval (if a public offer) obtained	Sponsor and Corporate advisor
9	Listing commences if a placing or public offer closes	---
11	Placing closes	---
12	Listing commences if a placing or public offer closes	---
13	Listing commences if a public offer closes	---

APPENDIX 2

JSE listing fee schedule

MONETARY VALUE OF SECURITIES LISTED		LISTING FEE INCLUDING VAT
	RANDS	RANDS
Not exceeding	500,000.00	827.64
" "	2,500,000.00	4,378.74
" "	5,000,000.00	8,521.50
" "	25,000,000.00	26,393.28
" "	50,000,000.00	35,978.40
" "	125,000,000.00	54,086.16
" "	250,000,000.00	79,177.56
" "	375,000,000.00	98,351.22
" "	500,000,000.00	122,849.82
" "	750,000,000.00	152,201.40
" "	1,000,000,000.00	184,392.72
" "	1,250,000,000.00	220,608.24
" "	2,500,000,000.00	264,636.18
" "	3,750,000,000.00	312,687.18
" "	5,000,000,000.00	360,855.60
" "	7,500,000,000.00	384,526.56
" "	10,000,000,000.00	457,195.86
" "	20,000,000,000.00	828,018.48
" "	30,000,000,000.00	1,128,785.82
" "	40,000,000,000.00	1,372,732.14
" "	50,000,000,000.00	1,570,592.82
Exceeding	50,000,000,000.00	1,710,000.00

APPENDIX 3

JSE documentation fee schedule

Prescribed inspection fees	Rand (excluding VAT)	Rand (including VAT)
Articles of association		
per new company listed	**4,650**	**5,301**
per subsidiary of a listed company	**4,650**	**5,301**
re-examination fee per company	**4,650**	**5,301**
per amendment	**900**	**1,026**
Capitalization issue	**1,500**	**1,710**
Category 1 and 2 transactions	**15,550**	**17,727**
Change of name	**2,600**	**2,964**
Competent persons report – admin fee	**550**	**627**
Competent persons report	**605 per hour, per reader**	**605 per hour, per reader**
Conditional trading	**8,300**	**9,642**
Consolidation and sub-division	**2,500**	**2,850**
Debenture trust deed		
Per trust deed	**4,650**	**5,301**
re-examination fee per deed	**4,650**	**5,301**
per amendment	**900**	**1,026**
General issue for cash, general share buy back	**1,100**	**1,254**
Increase in authorized share capital	**900**	**1,026**
New listings	**39,950**	**45,543**
Odd lot offer	**4,600**	**5,244**
Price stabilization	**4,600**	**5,244**

Prescribed inspection fees	Rand (excluding VAT)	Rand (including VAT)
Redemption of securities	**4,350**	**4,959**
Related party transaction	**9,750**	**11,115**
Revised listing particulars	**14,900**	**16,986**
Rights offers, claw-back offers etc	**15,750**	**17,955**
Scheme of arrangement	**8,400**	**9,576**
Rulings	**3,000**	**3,420**
Scrip dividend	**1,900**	**2,166**
Share incentive and share option scheme		
Salient features circular	**4,650**	**5,301**
re-examination fee per scheme	**4,650**	**5,301**
per amendment	**900**	**1,026**
Small related party transactions	**1,800**	**2,052**
Specific issue of shares for cash	**8,650**	**9,861**
Specific payments	**7,200**	**8,208**
Specific share repurchase	**12,700**	**14,478**
Termination of listing	**13,200**	**15,048**
Transfer of sector or board	**2,350**	**2,679**
Unbundling	**13,200**	**15,048**
Voluntary liquidations	**8,200**	**9,348**

APPENDIX 4

Sample size of 59 IPOs issued on the JSE from 1994 to 2007

YEAR	S/NO	COMPANY NAME	CODE	BUSINESS SECTOR	ISSUE PRICE	LISTING DATE	PUBLIC OFFER	PUBLIC OFFER (RANDS)	PUBLIC OFFER COST OF ISSUE	CIPOi
1994	**1**	Datatec Ltd.	DTC	CONSUMER SERVICES	200	December 12, 1994	1,125,000	2,250,000	75,000	**3.3%**
1995	**2**	Furnco Investments Limited	FNC	CONSUMER GOODS	1250	November 29, 1995	1,600,000	20,000,000	573,000	**2.9%**
1995	**3**	Fusion Capital Limited	FUS	FINANCIALS	1000	December 15, 1995	5,191,569	51,915,690	500,000	**1.0%**
1996	**4**	Energy Africa Ltd	ENR	BASIC MATERIALS	950	March 1, 1996	30,500,000	289,750,000	17,924,000	**6.2%**
1996	**5**	New Clicks Holdings Ltd	NCL	CONSUMER SERVICES	356	March 20, 1996	117,947,341	419,892,534	4,700,000	**1.1%**
1996	**6**	National Chick Ltd	NCX	CONSUMER GOODS	375	April 23, 1996	8,800,000	33,000,000	1,200,000	**3.6%**
1996	**7**	Masterfridge Ltd	FGM	INDUSTRIALS	275	April 29, 1996	3,000,000	8,250,000	193,333	**2.3%**
1996	**8**	Howden Africa Holdings Ltd	HWN	INDUSTRIALS	510	May 3, 1996	3,000,000	15,300,000	497,872	**3.3%**
1996	**9**	Enviroserv Holdings Ltd	ENV	INDUSTRIALS	225	May 20, 1996	5,000,000	11,250,000	525,357	**4.7%**
1996	**10**	Sweets from Heaven Hldgs Ltd	HVN	CONSUMER SERVICES	100	June 12, 1996	18,000,000	18,000,000	650,000	**3.6%**
1996	**11**	King Food Holdings Ltd	KNG	CONSUMER SERVICES	100	June 14, 1996	20,000,000	20,000,000	1,150,630	**5.8%**
1996	**12**	Chillers Group Ltd	CHL	CONSUMER GOODS	100	June 19, 1996	5,000,000	5,000,000	442,813	**8.9%**
1996	**13**	Buildmax Ltd	BDM	INDUSTRIALS	200	July 30, 1996	8,400,000	16,800,000	1,227,103	**7.3%**
1996	**14**	Homechoice Holdings Ltd	HCH	CONSUMER GOODS	200	September 20, 1996	5,000,000	10,000,000	276,596	**2.8%**
1996	**15**	Rebserve Holdings Limited	RBV	CONSUMER SERVICES	220	October 16, 1996	23,000,000	50,600,000	1,799,450	**3.6%**
1996	**16**	Alexander Forbes Limited	AFB	FINANCIALS	535	November 4, 1996	4,900,000	26,215,000	72,881	**0.3%**
1996	**17**	Abacus Technology Hldgs. Ltd	BC	CONSUMER SERVICES	120	November 12, 1996	10,000,000	12,000,000	460,000	**3.8%**

YEAR	S/NO	COMPANY NAME	CODE	BUSINESS SECTOR	ISSUE PRICE	LISTING DATE	PUBLIC OFFER	PUBLIC OFFER (RANDS)	PUBLIC OFFER COST OF ISSUE	CIPOi
1996	**18**	Terexko Ltd	TRX	CONSUMER SERVICES	480	November 22, 1996	6,458,400	31,000,320	1,559,539	**5.0%**
1996	**19**	Network Healthcare Hldgs. Ltd	NTC	HEALTHCARE	100	December 4, 1996	125,000,000	125,000,000	2,234,000	**1.8%**
1997	**20**	Nando's Group Holdings Ltd	NDS	CONSUMER GOODS	100	April 25, 1997	15,000,000	15,000,000	1,290,000	**8.6%**
1997	**21**	Amalgamated Appliance Holdings Ltd	AMA	CONSUMER GOODS	100	May 8, 1997	9,500,000	9,500,000	229,738	**2.4%**
1997	**22**	First Lifestyle Holdings Limited	LFS	CONSUMER GOODS	200	June 10, 1997	10,000,000	20,000,000	900,000	**4.5%**
1997	**23**	Afribrand Holdings Ltd	ABR	CONSUMER GOODS	100	August 5, 1997	10,000,000	10,000,000	769,231	**7.7%**
1997	**24**	Computer Configuration Holdings Ltd	CCH	INDUSTRIALS	200	September 25, 1997	5,000,000	10,000,000	1,071,429	**10.7%**
1997	**25**	Excel Medical Holdings Ltd	EXC	HEALTHCARE	100	October 27, 1997	10,000,000	10,000,000	158,140	**1.6%**
1997	**26**	Paragon Business Forms Ltd	PAG	BASIC MATERIALS	200	October 29, 1997	5,000,000	10,000,000	597,857	**6.0%**
1997	**27**	The House of Busby Ltd	BSB	CONSUMER GOODS	200	November 5, 1997	3,750,000	7,500,000	1,012,500	**13.5%**
1997	**28**	Set Point Tech Holdings Ltd	STO	CONSUMER SERVICES	100	November 5, 1997	10,000,000	10,000,000	1,666,667	**16.7%**
1997	**29**	Astrapak Ltd	APK	BASIC MATERIALS	400	November 19, 1997	2,250,000	9,000,000	302,775	**3.4%**
1997	**30**	Beige Holdings Ltd	BEG	HEALTHCARE	100	November 20, 1997	6,000,000	6,000,000	1,005,000	**16.8%**
1997	**31**	Awethu Breweries Ltd	AWT	CONSUMER GOODS	100	November 20, 1997	6,500,000	6,500,000	1,218,945	**18.8%**
1997	**32**	AMB Holdings Ltd	AMB	FINANCIALS	800	November 21, 1997	1,250,000	10,000,000	92,476	**0.9%**
1997	**33**	Aquila Growth Ltd	AQL	INDUSTRIALS	180	December 10, 1997	2,750,000	4,950,000	392,857	**7.9%**
1998	**34**	Accord Technologies Ltd	ACR	CONSUMER SERVICES	100	June 29, 1998	10,000,000	10,000,000	880,000	**8.8%**
1998	**35**	Advanced software Technologies Ltd	AST	CONSUMER SERVICES	100	September 9, 1998	337,480,000	337,480,000	975,000	**0.3%**
1998	**36**	Barnard Jacobs Mellet Holdings Ltd	BJM	CONSUMER SERVICES	400	February 17, 1998	16,250,000	65,000,000	800,656	**1.2%**
1998	**37**	Casey Investment Holdings Ltd	CSY	INDUSTRIALS	50	September 10, 1998	12,800,000	6,400,000	400,000	**6.3%**
1998	**38**	Comair Ltd	COM	CONSUMER SERVICES	240	July 22, 1998	4,200,000	10,080,000	189,474	**1.9%**
1998	**39**	Datacentrix Holdings Ltd	DCT	INDUSTRIALS	100	September 23, 1998	4,000,000	4,000,000	300,000	**7.5%**
1998	**40**	Glenrand M.I.B. Ltd	GMB	FINANCIALS	450	June 26, 1998	2,250,000	10,125,000	897,991	**8.9%**
1998	**41**	Global Village Holdings Ltd	GLL	CONSUMER SERVICES	100	July 24, 1998	5,000,000	5,000,000	965,000	**19.3%**
1998	**42**	IST Group Ltd	IST	INDUSTRIALS	220	September 2, 1998	4,200,000	9,240,000	423,684	**4.6%**

YEAR	S/NO	COMPANY NAME	CODE	BUSINESS SECTOR	ISSUE PRICE	LISTING DATE	PUBLIC OFFER	PUBLIC OFFER (RANDS)	PUBLIC OFFER COST OF ISSUE	CIPOi
1998	**43**	MB Technologies Ltd	MBT	CONSUMER SERVICES	200	September 17, 1998	5,000,000	10,000,000	285,714	**2.9%**
1998	**44**	Mercantile Lisbon Bank Holdings Ltd	MTL	FINANCIALS	300	August 12, 1998	6,000,000	18,000,000	1,519,030	**8.4%**
1998	**45**	Nimbus Holdings Ltd	NMB	CONSUMER SERVICES	100	July 21, 1998	10,000,000	10,000,000	190,885	**1.9%**
1998	**46**	Real Africa Durolink Holdings Ltd	RAD	FINANCIALS	400	June 25, 1998	5,000,000	20,000,000	300,000	**1.5%**
1998	**47**	Sanlam Ltd	SLM	FINANCIALS	600	November 30, 1998	811,111,111	4,866,666,666	550,000,000	**11.3%**
1998	**48**	UCS Group Ltd	UCS	CONSUMER SERVICES	225	September 9, 1998	27,270,000	61,357,500	2,200,000	**3.6%**
1999	**49**	Cadiz Holdings Ltd	CDZ	FINANCIALS	170	April 14, 1999	4,500,000	7,650,000	170,957	**2.2%**
1999	**50**	Consumer Credit Holdings Ltd	CDR	FINANCIALS	310	April 20, 1999	3,226,000	10,000,600	187,413	**1.9%**
1999	**51**	AMB Equity Partners Ltd	APP	FINANCIALS	1500	May 14, 1999	600,000	9,000,000	807,692	**9.0%**
1999	**52**	Pennystocks Investments Ltd	PNY	FINANCIALS	255	May 25, 1999	5,000,000	12,750,000	85,494	**0.7%**
1999	**53**	Acumen Holdings Ltd	AUM	INDUSTRIALS	100	June 30, 1999	7,500,000	7,500,000	590,909	**7.9%**
1999	**54**	Old Mutual plc	OML	FINANCIALS	1125	July 12, 1999	297,127,942	3,342,689,348	740,000,000	**22.1%**
1999	**55**	Investment Solutions Holdings Limited	SLU	FINANCIALS	220	September 30, 1999	4,545,455	10,000,001	342,857	**3.4%**
1999	**56**	Prism Holdings Limited	PIM	INDUSTRIALS	200	October 13, 1999	4,000,000	8,000,000	317,647	**4.0%**
1999	**57**	Discovery Holdings Limited	DSY	FINANCIALS	690	October 21, 1999	3,600,000	24,840,000	3,800,968	**15.3%**
2003	**58**	Telkom SA Limited	TKG	TELECOMMUNICATIONS	2800	March 4, 2003	139,257,954	3,899,222,712	220,472,535	**5.7%**
2003	**59**	Exxoteq Limited	EXO	OIL & GAS	500	November 28, 2003	1,500,000	7,500,000	358,566	**4.8%**

APPENDIX 5

Distribution of IPOs by $CIPO_i$ and calendar year

Year	$CIPO_i$						
	below 2%	2%~3%	3%~4%	4%~5%	5%~7%	7%~9%	above 9%
1994	0	0	1	0	0	0	0
1995	1	1	0	0	0	0	0
1996	3	2	5	2	2	2	0
1997	2	1	1	1	1	3	5
1998	5	1	1	1	1	4	2
1999	2	1	2	0	0	2	2
2003	0	0	0	1	1	0	0

APPENDIX 6

Letter to JSE sponsors requesting for copies of prospectuses

Gmail by Google BETA

oluwatobi oluwasona
<oluwatobi.oluwasona@gmail.com>

RE: COPIES OF PROSPECTUSES

oluwatobi oluwasona <oluwatobi.oluwasona@gmail.com> **Tue, May**
To: dvilk@arcay.co.za, krasm@arcay.co.za, dougg@arcaymoela.co.za, snymw@abi.arcay.co.za, natalied@bj
pveldtman@bridgecapital.co.za, errol.frankel@citigroup.com, cpretorius@deloitte.co.za, david.wilson@db.com
beverley.dalton@za.ey.com, adelaide.chinyanga@za.ey.com, stef.greeff@za.ey.com, marion.degener@za.ey
HenkE@grindrod.co.za, vanzyl@corpsol.co.za, esna@corpsol.co.za, wessel@corpsol.co.za, mariusme@neta
mareo@merchantsponsors.co.za, hugosteyn@investec.co.za, rsmith@investec.co.za, kkerr@investec.co.za,
kjoselowitz@javacapital.co.za, abrooking@javacapital.co.za, wlawlor@javacapital.co.za, cesterhuysen@javac
mgaylard@javacapital.co.za, grant.tidbury@jpmorgan.com, jako.j.vanderwalt@jpmorgan.com, ruben.x.govend
mickey.bove@kpmg.co.za, richard.carreira@kpmg.co.za, don@merchantsponsors.co.za, fred@merchantspor
brian@merchantsponsors.co.za, paris_aposporis@ml.com, gail_bruce@ml.com, pat_egan@ml.com, paul@m
sean.jagoe@morganstanley.com, amanda.markman@macquarie.com, done.hattingh@macquarie.com, mega
kerrysh@nedbank.co.za, phillipre@nedbank.co.za, charlf@nedbank.co.za, robw@nedbank.co.za,
stephen.gorven@rothschild.co.za, christoff.hamman@rothschild.co.za, tracy.botha@za.pwc.com, raymond.ma
simon.venables@za.pwc.com, peter.north@questco.co.za, justin.pitt@questco.co.za, morag.mcgarvie@quest
dvanhuyssteen@bdo.co.za, sandy.lunney@rmb.co.za, richard.north@rmb.co.za, leon.vonmoltke@rmb.co.za,
paul.roelofse@rmb.co.za, casper@rivergroup.co.za, estine@rivergroup.co.za, andrew@rivergroup.co.za, tmg
bchristie@sasfin.com, mburger@sasfin.com, mandy.ramsden@standardbank.co.za, angela.teelingsmith@sta
nick.larsen@standardbank.co.za, brad.webber@standardbank.co.za, panico@tcorporate.co.za, gary.hudson@
chris.niehaus@ubs.com, aaaron@werksmans.co.za
Cc: Douglas Taylor <douglas.taylor@pri.co.za>

Dear Sir/Madam,

Good morning. I am a Wits Business School MBA student and currently in the process of writing my thesis w
"Costs of Issuing IPOs in South Africa" from January 1994 to December 2007. Consequently, I need to get c
prospectuses of IPOs issued on the Main Board of the JSE for these periods to obtain the direct costs of issu

I have been to the JSE, but apparently copies of prospectuses are not retained. They have suggested that I
the sponsors.

Below is a list of IPOs of the required copies of prospectuses:

YEAR	S/NO	COMPANY NAME	CODE	ISSUE PRICE	NUMBER OF SHARES	OFFER PRICE (Cents)
1994	1	Leisurenet Limited	LST	100	15,000,000	10
	2	Regional Resources Ltd.	RGL	100	2,200,000	10
	3	Griffin Shipping Holdings Ltd.	GFN	400	25,000,000	40
	4	Housewares Group Ltd.	HSW	114	20,000,000	20
	5	Harvest Securities Ltd.	HRT	485	5,900,000	48
	6	Rare Earth Exploration Co. Ltd.	RCO	100	12,000,000	10
	7	Persetel Holdings Ltd.	PRL	250	154,646,044	25
	8	SA Mineral Resources Corp Limited	SAM	50	1,577,500	5
	9	Famous Brands Limited	FBR	100	4,000,000	10
	10	Scharrig Industrial Hldgs Ltd.	SHR	50	35,213,398	5
	11	Seartec Ltd.	SET	175	15,225,111	17
	12	Fortune Beverages Limited	FOR	250	3,500,000	25
	13	Bateman Industrial Corp. Ltd.	BTR	400	13,730,000	40
	14	Datatec Ltd.	DTC	200	4,500,000	20

	15 Kolossus Holdings Ltd.	KOS	600	36,000,000	60
1995	1 Real Africa Hold's Ltd.	RAH	200	97,500,000	200
	2 Amalia Gold Mining & Exploration Co Ltd.	AML	100	12,500,000	100
	3 Tigon Limited	TGN	100	500,000	100
	4 Prestasi Financial Services Ltd.	PTS	100	11,862,210	100
	5 Chromecorp Holdings Ltd.	COM	500	4,500,000	500
	6 Zenith Concessions Ltd.	ZNT	50	4,000,000	50
	7 Seeff Holdings Ltd.	SEF	170	10,514,800	170
	8 Martprop Property Fund	MTP	200	41,182,004	200
	9 Plessey Corporation Ltd.	PSY	480	8,081,267	480
	10 Automakers Ltd.	ATK	500	10,480,000	500
	11 Furnco Investments Limited	FNC	1250	1,600,000	1250
	12 Norwich Holdings Ltd.	NWH	515	72,089,500	515
	13 Fusion Capital Limited	FUS	1000	146,315	1000
	14 Umbono Investment Corp Ltd.- N -	UBN	1000	4,549,252	1000
	15 Umbono Investment Corp Ltd. Part Prefs	UMBP	1000	496,002	1000
1996	1 Admiral Leisure Wold Ltd	ADL	203	21,250,000	20
	2 Energy Africa Ltd	ENR	950	30,500,000	95
	3 New Clicks Holdings Ltd	NCL	356	117,947,341	35
	4 Mathomo Group Ltd	MTO	250	10,000,000	25
	5 National Chick Ltd	NCX	375	8,800,000	37
	6 Masterfridge Ltd	FGM	275	22,500,000	27
	7 Howden Africa Holdings Ltd	HWN	510	23,500,000	51
	8 Enviroserv Holdings Ltd	ENV	225	5,000,000	22
	9 Sweets from Heaven Hldgs Ltd	HVN	100	18,000,000	10
	10 King Food Holdings Ltd	KNG	100	20,000,000	10
	11 Alliance Pharmaceuticals Ltd	ALN	100	15,000,000	10
	12 Chillers Group Ltd	CHL	100	5,000,000	10
	13 Carson Holdings Ltd	CRS	200	4,500,000	20
	14 Buildmax Ltd	BDM	200	8,400,000	20
	15 Homechoice Holdings Ltd	HCH	200	23,500,000	20
	16 Rebserve Holdings Limited	RBV	220	23,000,000	22
	17 Alexander Forbes Limited	AFB	535	4,900,000	53
	18 Abacus Technology Hldgs. Ltd	BC	120	10,000,000	12
	19 Terexko Ltd	TRX	480	6,458,400	48
	20 Network Healthcare Hldgs. Ltd	NTC	100	125,000,000	10
1997	1 Nando's Group Holdings Ltd	NDS	100	15,000,000	10
	2 Amalgamated Appliance Holdings Ltd	AMA	100	9,500,000	10
	3 First Lifestyle Holdings Limited	LFS	200	5,000,000	20
	4 Afribrand Holdings Ltd	ABR	100	10,000,000	10
	5 Computer Configuration Holdings Ltd	CCH	200	5,000,000	20
	6 Software Connection Ltd	CCT	100	8,000,000	10
	7 African Harvest Ltd	AHV	500	10,000,000	50
	8 Paradigm Interactive Media Ltd	PDM	250	4,000,000	25
	9 Bridgestone Firestone Maxiprest Limited	BDS	200	5,000,000	20
	10 Excel Medical Holdings Ltd	EXC	100	10,000,000	10
	11 Paragon Business Forms Ltd	PAG	200	5,000,000	20

12	The House of busby Ltd	BSB	200	3,750,000	20
13	Setpoint Tech Holdings Ltd	STO	100	10,000,000	10
14	SA Empowerment Fund	EPW	101	5,000,000	10
15	Astrapak Ltd	APK	400	2,250,000	40
16	Beige Holdings Ltd	BEG	100	6,000,000	10
17	Awethu Breweries Ltd	AWT	100	6,500,000	10
18	AMB Holdings Ltd	AMB	800	56,939,537	80
19	Whetherleys Investment Holdings Ltd	WET	200	5,000,000	20
20	Integrated Consumer Products Ltd	ICO	100	10,000,000	10
21	Aquila Growth Ltd	AQL	180	2,750,000	18

1998	1 Accord Technologies Ltd	ACR	100	10,000,000	100
	2 Advanced software Technologies Ltd	AST	100	337,480,000	100
	3 Barnard Jacobs Mellet Holdings Ltd	BJM	400	16,250,000	400
	4 Casey Investment Holdings Ltd	CSY	50	71,751,000	50
	5 Comair Ltd	COM	240	4,200,000	240
	6 Datacentrix Holdings Ltd	DCT	100	154,000,000	100
	7 Fulcrum Science & Tech.	FUL	500	20,000,000	500
	8 Glenrand M.I.B. Ltd	GMB	450	2,250,000	450
	9 Global Capital Ltd	GLO	100	182,594,854	100
	10 Global Village Holdings Ltd	GLL	100	5,000,000	100
	11 IST Group Ltd	IST	220	130,193,722	220
	12 MB Technologies Ltd	MBT	200	375,662,450	200
	13 Mercantile Lisbon Bank Holdings Ltd	MTL	300	432,241,868	300
	14 Money Wise Holdings Ltd	MWS	100	20,000,000	100
	15 Nimbus Holdings Ltd	NMB	100	10,000,000	100
	16 Privest Group Ltd	PVT	100	10,000,000	100
	17 Real Africa Durolink Holdings Ltd	RAD	400	59,978,097	400
	18 Sanlam Ltd	SLM	600	2,612,604,617	600
	19 The Business Bank Ltd	TBB	200	25,000,000	200
	20 UCS Group Ltd	UCS	225	223,590,000	225

1999	1 Cadiz Holdings Ltd	CDZ	170	4,500,000	170
	2 Consumer Credit Holdings Ltd	CDR	310	3,226,000	310
	3 AMB Equity Partners Ltd	APP	1500	600,000	1500
	4 Pennystocks Investments Ltd	PNY	255	5,000,000	255
	5 Acumen Holdings Ltd	AUM	100	7,500,000	100
	6 Old Mutual plc	OML	1125	297,127,942	1125
	7 Investment Solutions Holdings Lmited	SLU	220	4,545,455	220
	8 Prism Holdings Limited	PIM	200	4,000,000	200
	9 Discovery Holdings Limited	DSY	690	3,600,000	690

2003	1 Telkom SA Limited	TKG	2800	139,257,954	280
	2 Exxoteq Limited	EXO	500	1,500,000	50

I am willing to pick up the prospectuses from your offices at your convenience.

Thank you for your time and consideration.

Sincerely,

Oluwatobi Oluwasona

--
MBA Candidate
Graduate School of Business
University of The Witwatersrand
Wits Business School
Johannesburg
South Africa
Mobile (+27) 0769341272

APPENDIX 7

Data Request E-Mail from McGregor BFA

2008/12/03 Gmail - Data

Gmail by Google BETA

oluwatobi oluwasona <oluwatobi.oluwasona@gmail.com>

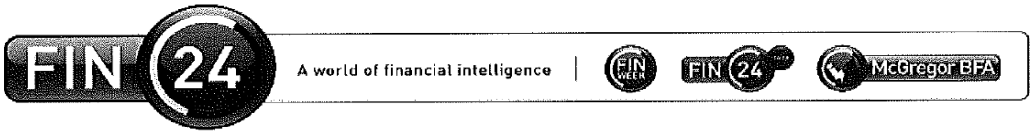
Data

Andries Strydom <andriess@fin24.com> **Thu, Sep 11, 2008 at 3:49 PM**
To: oluwatobi oluwasona <oluwatobi.oluwasona@gmail.com>

Hi Oluwatobi

I trust you are well. We have completed your CD and it is ready for collection at our reception. The address is listed below. Please let me know when you are coming around and I will make sure the CD is there

Kindest regards



Andries Strydom

Assistant Manager: Sales

McGregor BFA

(A division of Fin24)

T: +27 (0)11 322 0990
F: +27 (0)11 884 0439

C: +27 (0)83 302 4556
E: andries.strydom@fin24.com

W: www.mcgregorbfa.com

Support Centre: 0800 30 30 30

E: Helpdesk@McGregorBFA.com

3rd Floor, 6 Protea Place, Sandown

PO Box 786466, Sandton 2146

This email and its contents are subject to an email legal notice that can be viewed at: http://www.naspers.com/email/disclaimer.html. Should you be unable to access the link provided, please email us for a copy at Helpdesk@Media24.com
Hierdie e-pos en sy inhoud is onderhewig aan 'n regskennisgewing oor elektroniese pos wat gelees kan word by http://www.naspers.com/epos/vrywaring.html. 'n Afskrif kan aangevra word by Helpdesk@Media24.com

APPENDIX 8

Data Request E-Mail from I-Net Bridge

Gmail by Google BETA

oluwatobi oluwasona <oluwatobi.oluwasona@gmail.com>

PRICES OF LISTINGS - AT THE END OF THE FIRST DAY OF TRADING ON THE JSE

oluwatobi oluwasona <oluwatobi.oluwasona@gmail.com> **Mon, Dec 15, 2008 at 3:44 PM**
To: godfreym@inet.co.za
Cc: Tobi Oluwasona <tobi.oluwasona@students.wits.ac.za>

Hi Godgrey,

I trust that you are fine. I spoke with you earlier today and would like to thank you for your assistance.

Please find attached the file.

This is entirely for the purposes of an academic research for my MBA thesis.

Regards,

Tobi

--
Johannesburg
South Africa
Mobile (+27) 0769341272

OFFERS_PRICE AT THE END OF FIRST DAY OF TRADING.xls
23K

APPENDIX 9

Data Request E-Mail from the JSE

Gmail by Google BETA

oluwatobi oluwasona <oluwatobi.oluwasona@gmail.com>

RE: I need your help

oluwatobi oluwasona <oluwatobi.oluwasona@gmail.com> **Mon, Jan 7, 2008 at 4:53 PM**

To: Bonolo Moholi <BonoloM@jse.co.za>
Cc: Tapiwa M'Kombe <TAPIWAM@discovery.co.za>

Hi Bonolo,

Seasons greetings. I have been introduced by Tapiwa who is a fellow colleague at the Wits Business School. I am currently writing my MBA thesis titled "Costs of IPOs and IPO issue method in corporate South Africa". Until now, according to Firer et al (2004), there has not been any published research on the costs of IPOs in South Africa.

In this research, I intend to discover discernible patterns as well as identify the key determinants of costs of IPOs for firms that listed both on the Main Board and on the Alt X from 1999 to 2007. Furthermore, I'm equally looking at the influence of these costs (particularly underpricing or "money left on the table") on the IPO issue method (book-building and auction methods).

As already implied by the research interest, access to relevant data through the JSE will help.

Your assistance in anyway, and at your convenience, will be deeply appreciated.

Taps,

Thanks my guy!

Kind Regards,

Oluwatobi Oluwasona

[Quoted text hidden]

--
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Graduate School of Business
University of The Witwatersrand
Wits Business School
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