Industrial and Financial Economics Master Thesis 2000:40

Investors protection in Emerging Stock markets.

Case study: South Africa.

Kwah Driscole Ganye & Benjamin Ayesu-Kwafo

I

Graduate Business School School of Economics and Commercial Law Göteborgs University ISSN 1403-851X Printed by Novum Grafiska

Π

ABSTRACT

More recently, African emerging financial markets and institutions, have began receiving attention for internal structural reasons. There is an actual growing recognition of the role of the financial sector, and the region has undergone extensive economic and financial reforms of similar proportions as those countries in Latin America and East Asia. These reform measures seem to have begun yielding positive results in terms of economic performance and increased attention by international investors. According to the ADB statistics, the real GDP growth rate in Africa reached 3.0% in 1995, markedly higher than the year before (1.9%) and the average for the 1990-93 (less than 1%). At the disaggregate level, there are countries which have posted exceptional performance i.e Uganda, Ghana, Benin, Botswana, Mauritius, Cote d'Ivoire, Kenya, etc. A compelling case can be made for the development of capital markets in Africa. Well-functioning financial markets, along with well-designed institutions and regulatory systems, foster economic development through private initiative. The linkage between finance and economic development is of great interest to Africa, since it suggests an indirect linkage between financial sector development and poverty alleviation, along with employment creation. There is empirical evidence strongly suggesting that well- functioning capital markets promote long-run economic growth. In particular, Levine and Zervos (1995) find that indicators of stock market development i.e market liquidity, capitalization, turnover, efficiency of pricing of risk, etc are correlated with current and future economic growth, capital accumulation, and productivity improvements.

III

Therefore, our interest in this paper is to look into how investors are protected to meet up this challenge in the emerging stock markets and particularly, the African emerging markets. A case is made on the South African stock market and technically compares it with other African markets view their performance in relation to investors' protection in South Africa, and assess if this has been successful. We will give a review of our result in the conclusion at the end of the paper.

IV

ACKNOWLEDGEMENTS

First we would like to thank our lecturers and teachers, especially professor Ted Lindblom, Dr. Gert Sandahl and professor Clas Wihlborg for their generous contribution and supervision. We also extend great thanks to Ann McKinnon for all her timeless efforts for the success of this work. Our classmates who showed lots of concern for us during this period are not left out.

v

CHAPTER 1 1

1.1	GENERAL INTRODUCTION	. 1
1.2	PROBLEM DISCUSSION	.3
1.3	PURPOSE	. 5
1.4	Methodology	6
1.5	HISTORICAL BACKGROUND OF STOCK EXCHANGE	8
1.6	FUNCTIONS OF STOCK EXCHANGE	15

CHAPTER 2 19

2.1	GLOBAL VIEW OF STOCK MARKETS	19
2.2	DEVELOPMENT AND EVOLUTION OF STOCK MARKETS	21
2.3	LEGAL ASPECTS OF FINANCIAL MARKET DEVELOPMENT	23
2.3.1	REGIONS OR COUNTRIES AND THEIR LEGAL BACKGROUND	26
2.3.2	LEGAL RULE : THEORIES AND HIERARCHIES OF SOURCE OF LAW	29
2.3.3	A BRIEF ASSESSMENT OF THE TWO MAJOR LAW FAMILY	30
2.3.4	ENFORCEMENT	31
2.3.5	EFFICIENT MARKET THEORY.	37

CHAPTER 3 40

3.1	EMERGING MARKETS40	
3.2	PARAMETERS USED TO CLASSIFY EMERGING MARKETS	
3.3	EMERGING MARKET DATABASE	
3.4	RECENT TRENDS AND PERFORMANCE OF EMERGING STOCK MARKETS	
3.5	RECENT SURVEY OF MARKET CAPITALIZATION OF EMERGING ECONOMIES 45	
3.6	INFLUENCES OR DEVELOPMENT AND GROWTH OF STOCK MARKET IN EMERGING	
ECON	IOMIES	
3.7	OVERVIEW OF INVESTMENT LAWS OF EMERGING ECONOMIES	
3.8	PROSPECTS OF MARKET INDICATION TO INVESTORS	
CHAP	TER 4 60	
4.1	CASE STUDY- SOUTH AFRICAN STOCK MARKET	

4.1	CASE STUDY - SOUTH AFRICAN STOCK MARKET	00
4.2	PRIMARY AND SECONDARY MARKETS	62
4.1.1	PRIMARY MARKET.	62
4.1.2	LEGAL REQUIREMENTS FOR THE ISSUING OF SHARES	65
4.1.3	PUBLIC SECTOR SECURITIES	70
3.2.1	SECONDARY MARKETS	71
4.3.1	DEFINITION OF EXCHANGES AND TREATMENT OF DIFFERENT TYPES OF MARKETS.	78
4.3.2	BUYING/OR SELLING SECURITIES AND REPORTING OF TRANSACTION	78
4.3.3	TRANSPARENCY IN THE MARKETS	78
4.3.4	MARKET TRADING ABUSES	79
4.3.5	STATUTORY RECOGNITION OF REPRESENTATIVES' BODIES.	79
4.4	LEGISLATIONS ON INSIDER TRADING	80
3.4.1	FINANCIAL INSTRUMENTS	80
4.4.2	Accused	80
4.5	ENFORCEMENT	82

VI

	4.5.1 CODE OF ETHICS AND STANDARDS OF PROFESSIONALISM	82
	4.5.2 INVESTORS AWARENESS PROGRAMMED	83
	4.5.3 ESTABLISHMENT AND MAINTENANCE OF INVESTORS PROTECTION FUND.	83
С	CHAPTER 5 87	
	5.1 Comparative Analysis	87
	5.2 EFFECTS OF WEAK INVESTMENT PROTECTION	89
	5.3 LESSON FROM SOUTH AFRICA'S EXPERIENCE	90
	5.4 CONCLUSION	91
	BIBLIOGRAPHY	94
	ARTICLES	
	TEXT BOOKS.	95
	WEB PAGES/DATA BASES	97
	IXX APPENDIX	98

1.1 General Introduction

The general essence of this work is to examine how investors are protected in emerging stock markets. We are influenced by the fact that, Emerging Economies as indicated by recent study, are of great concern and interest to researchers, business people, governments etc. as a possible ground for investment, many of these groups of person are rather skeptical about this possibility due to the laws that guide the rule of investment activities in these countries. Here we will try to show that this is possible. We start by accepting the contention that emerging economics are considered as a risky zone due to the uncertainty in their markets caused by a group of factors mentioned in the text below (problem). We, however, look at possibilities where by firms will find it easy to carry out their investment in the emerging markets, and what these are doing to encourage investment both at home and abroad. We apply theories, and some resent statistics, to back this development and show that there has been an improvement in the economic situations in these countries, which could be attributed to the presence of strong, and growing stock markets, which have favourable commercial codes and growing liberal policies, hence attracting a mass amount of capital both from within the countries and abroad. These markets are also efficient and project useful information and market signals on the ups and downs of the market, which could benefit the potential investor common in most

markets in advanced economies¹. Recent and modern methods of trading are being introduced, and the success is an attractive force to stock markets of the developed countries which do not only look at some of them as partners, but also as a source of their strategies in structuring their stock portfolios e.g. the Brazilian stock markets are linked to the New York Stock Exchange. Conditions in the Brazilian markets affect trading in the NYSE. These enable easy access to investors for Brazil in the U.S and ease the quick movement of capital and information from New York to Brazil. Comparatively, some markets like Canada with \$366 billion in market capitalization, Australia with \$245 billion etc. could be said to be large, opened, organized and, well-developed linking directly with exchanges of other countries. Shares of most of Canada's 20 largest corporations, and many smaller ones, are actively traded in the United States. These markets exhibit generally acceptable corporate laws, which market participants, find it easy to understand markets situations and investment opportunities. Another market of some significant size in Africa is that of South Africa, dominated by giants like Anglo American and DeBeers Consolidated. Markets of such magnitude are also growing in sub-Saharan Africa, led by the Zimbabwe Stock Exchange with about US \$4.87 billion² of market capitalization. Other markets to be identified in this region are; the Ghanaian Stock Exchange (GSE), the Kenyan Stock Exchange, Nigerian Stock Exchange, Zambian Exchange, etc. These and other markets in the emerging economies mentioned, have shown significant growth sustained in their

 ¹ Emerging Economies Fact book
 ² Richard J Tewells, Edward S.Bradley The Stock market 1998 seventh edition page242

economies especially Sub Sahara African Countries, excluding Nigeria and South Africa.

To concretize our work, we will make a case study of the South African stock Exchange to show how business is done, and how the market is regulated.

1.2 Problem Discussion

Little is known about how the law affects financial development, and since financial factors play a key role in economic development it therefore becomes a crucial key interest to policy makers, scholars and interested investors and prospective market players. Developed countries seem to have well-enforced laws system to protect investors which developing countries donnot have. This maybe because they have the basic means of enforcement, and due to higher incomes of the population which make them law abiding. However, we have to bare in mind that financial systems are organized differently in different countries but does the legal system ensure that stake holder's cash flows, and control rights in the firm vary in such a contingent way as to maximize output? This becomes one of the burning issues to be discussed latter in this study.

Normally, the driving force for an entrepreneur to sell equity or take debt will largely depend on the conditions backing him in obtaining external finance. For equity, these terms are reflected by valuation relative to underlying cash flow and debt reflected by the underlying cost of fund. If the terms are good the entrepreneur will sell more of his shares or raise more debt. This also pertains to the small investors who are most sensitive to the

risk of loosing their money invested. The more favorable the laws are to market participants, the more confident the entrepreneur, as well as the small investors, will be interested and able to invest or buy shares in a particular stock market. We will like then to look into how, laid down policies are able to affect or protect investors as well as small ones. This is because today, researches have shown that the development of a country's financial markets and institutions may contribute immensely to its economic growth.³ Therefore economies at the route of growth should look for the appropriate means of developing their markets.

Emerging economies have been in the forefront of economic debate in recent times concerning the effectiveness of the legal climate surrounding their stock markets. Despite their strong quest or will to achieve economic growth and prosperity, there are still clouds surrounding the legal system of their financial markets⁴. Either their laws may not only be difficult to understand but also they may very volatile. Some countries also have good laws but the intensity of their enforcement remains questionable. Consequently, firms may find it difficult to raise the necessary funds required from their stock markets as private sponsors become worried about the returns of their investments due to unclear rules guiding the system. However, the recent strong growth witnessed by some emerging economies, and the positive closing of their stock markets, are indicative that some of the emerging countries may have a good legal system that protects investor than was previously thought.

Here key areas of concern pertaining to our study to are:

³Luigi Zingales, University of Chicago, NBER, & CEPR Legal System and Financial Development ⁴ John Toye, Fiscal Crisis and Fiscal Reforms in Developing Countries. Institute of development studies at the University of Sussex and UNCTAD Geneva, Cambridge Journal of economics 2000.

- -Law governing the financial markets (stock markets)
- -How investors are protected; entrepreneurs and small investors.
 In looking at these points, we will be able to assess the extent to which prospective firms will be able to venture into emerging markets, and what these markets do to attract and protect them. We will also consider if they are protected.

1.3 Purpose

The purpose of this thesis is to examine how investors are protected in the emerging economies giving some specification to Africa. We want to find out why some countries have better investor protection laws than others and advantages derived from good investors protection.

We also want to analyze the causes of weak investor protection and their likely effects on investment in these countries. This is because good investor protection law will boost confidence of investors, which will lead to market expansion. Also, we want to find out the necessary policies being applied by these countries to improve the strength of investor protection. There is empirical evidence strongly suggesting that well-functioning capital markets promote long-run economic growth. In particular, Levine and Zervos (1995) find that indicators of stock market development-market liquidity, capitalization, turnover, efficiency of pricing of risk, etc are correlated with current and future economic growth, capital accumulation, and productivity improvements.

1.4 Methodology

In order to achieve an acceptable conclusion in our findings, we intend to structure our work in the following ways:

-*Literature review*: Here we try to apply an extensive search in various data bases in the internet especially the world bank page <u>www.worldbank.org</u>, and others such AltaVista, Libra, US State Department country page, Financial Times and other related.

We also go through references in key article and books on the topic especially the Emerging Market Database where we drew lots of inspiration, as well as other texts and articles obtainable from the Göteborg University Economic Library.

-Work construction: The core of this work is centered on how investors are protected in emerging stock markets. We give a global view of the stock market and its development attempting some definitions of the emerging stock markets and the parameters used in its classification. We also look at the Emerging Market Database and trends and performance of this market for some selected period in order to obtain eveidence as either positive or negative changes that have taken place, and the lesson we may draw from this. There after, we examine investment laws globally,- their sources and quality behind the stock markets. We also dedicate a study of laws in the emerging economies, and finally make a case study on this issue in South Africa, to be judgemental in our conclusion. We could like to compare the law guiding investors in South Afriaca to these countries of the emerging economies in Africa- South Africa and some other Africa countries so that through this we may be able to draw some conclusion on why some countries of the emerging economy have a larger and well-functioning stock markets than others, and why firms in some countries go public more than in

other. We will also be able to know the major problems affecting some emerging stock markets especially those of Africa. We use tables and some econometric variables to analyse some results.

- Case Study: In order to be judgmental in our findings we selected South Africa as our case study. The reason is because she has the biggest stock market, and has a well-functioning and a better-organized market in the region. We found that her market capitalization was on the increase as well as the volume of trade. We also want to use this market as a springboard in classifying and determine solutions to other poorly organized markets.

- Data collection: Much of the data in this work has been received in a secondary state. The emerging market database provided much of the information we have used here. In the Economic Library, international accounts materials, journals and magazines provided us with the basic inspiration needed so far. Through the Internet, specific data from the Nigerian, Ghanaian and South African websites also gave us the main values needed for our calculations.

-Limitation: Lots of difficulties were found in obtaining some vital statistics that would have eased our assessments. For example, it was difficult to get current GDP and total value exports of most countries. What we did was to use estimates calculated on projections.

Secondly, due to limited means, we had largely to rely on the secondary data we could obtain. Some markets notably Brazil and South Africa needed some fees before vital data could be taken from their site. This fees were not available we had to use the information that was more easily available. Also we could not make a field trip to the se market for an on-the-spot assessment.

1.5 Historical Background of Stock Exchange

By looking at the historic background of the stock markets, we want to know what the stock market is, how it developed, and also to understand how it lead to increased commercialisation of business sources of fund. Also, how these markets have been organised from its inception to provide a ground for both the firms listed and, the public to be part of the market place with them having a say in the firm. Otherwise, why has there been a stock market and what conditions are laid down for the public both at home and abroad to take part in it's activities and how do firms raise capital from it.

Definition of stock markets: According to the Oxford dictionary of the business world, the stock market also known as the stock exchange is defined as a place in which stock, shares and other securities are bought and sold, price being controlled by demand and supply. Stock markets have developed hand in hand with capitalism since the 17th century constantly growing in importance and complexity. The basic function of a stock exchange is to enable public companies, governments and local authorities to raise capital by selling securities to investors.

The secondary market function of stock exchange is to enable these investors to sell their securities to others, providing liquidity and reducing the risk attached to investment. The stock market has therefore been developed with time to open up opportunities to businesses and individuals, and this could be traced far back in history.

During the second half of the seventeenth century there existed a considerable volume of securities, both commercial and gilt-edged, and the

need to facilitate their transfer was becoming evident. At first, Government securities were predominantly short-term, such as Exchequer Tallies and discounting them with bankers effected liquidation. Similarly, many company stocks were still relatively short-term relating to a particular voyage or adventure. When an investor wished to realize his share before the completion of the voyage, this was normally achieved by private negotiation with potential buyers. During this period the discount market, which formed part of the banking system, became well-developed, but dealings in stock were still sporadic and unorganized. However during, the last decade of the century the continuing trend of companies towards permanent joint-stock capital, and the establishment of the National Debt with longer-term and perpetual issues of the loan stock, called for an organized market to enable investors in these long-term stocks to liquidate their holdings. Had such market not existed investors would have been much less willing to invest their capital. The establishment of a stock market was thus necessary to encourage the flow of funds to both Government and industry.

Towards the end of seventeenth century an organized market existed for the purchase and sale of stocks and shares. Brokers were licensed by the Lord Mayor of the City of London, and carried a silver medal as evidence thereof. These brokers were entitled to trade in any commodity or commodities within the city, so that it is impossible to tell how many of them were actually stockbrokers, and in addition, there were many unlicensed brokers.

After the financial crisis of 1696 the Government attempted to regulate the market and in 1697 passed an "Act" to restrain the number and ill practice and stock Jobbers". This provided that no person was to act as a broker in commodities or stock and shares unless licensed by the City of London, and that the total number of brokers so licensed to be limited to one hundred. In

its definition of a stockbroker the Act contains a list of stocks likely to be dealt in, which gives an interesting picture of the scope of the market at that time.

The Act also declared that brokers were not on their own account and that option dealings for more than three days ahead were to be void. Both this Act and Barnard Act of 1733, which made it illegal to buy stock without immediate payment or to sell it without immediate delivery were largely uninformed, and both the number of practicing Stockbrokers and the volume of speculative transactions increased. One interesting effect of these attempts to regulate the activities of stockbrokers is that they probably induce the separation of jobbers and brokers. As there were no provisions requiring persons dealing as principals to acquire a license and because brokers were not allowed to deal in their own account who performed the functions carried out today by jobbers.

Up to 1698 the stockbrokers had congregated in the Royal Exchange, which was the center for all commodity transactions in the city. As their business grew in size they needed a specialized centre purely for dealing in stock and shares and from 1698 they began to meet in the coffee houses in Change Alley, particularly Garroways and Jonathans. In 1762 a group of 150 stockbrokers formed a club and attempted to obtain exclusive rights to the use of Jonathans. This attempt failed and in 1773 a group of stockbrokers raised a subscription and obtained control of a coffee house in Treadneedle Street⁵, which they called the stock exchange. Outsiders were allowed to enter the exchange on payment of sixpence per day.

The history of this first Stock Exchange building is rather obscure, but the premises do not appear to have been sufficiently large and there seems to

⁵ R.J Britson , stock exchange and investment 1973 page 26

have been dissension between the members. In 1801 a further subscription of some 20,000 British pound was raised and a new building was constructed in Capel Court and opened for dealing in 1802. Although the majority of stockbrokers had always congregated together, there were still some outside centers for dealing in particular types of stock. Much of the business in foreign stocks, for example, had remained at the Royal Exchange and continued to be transacted there until 1823, when a Foreign Loan Exchange was set up in a building next to the Stock Exchange, by which it was eventually absorbed. Similarly, when the Rotunda of the Bank of England was constructed in 1764,much of the business in Government stock was transacted there, until 1838, when brokers were expelled from the Rotunda.⁶

With the disappearance of these outside markets, the stock exchange had a monopoly of legal business in stock and shares in London, though there were still dealings of doubtful legality in the share of unincorporated associations, which were transacted outside the exchange. Unsuccessful attempts had been made in 1801, first to have access to the Fund Exchange, and then to allow the public to have access to the Exchange. Since the failure of these attempts the only real competition to the stock exchange has come from the provincial stock exchanges, which are now in the process being federated with the London Exchange, and to a much lesser extent, from other exchanges abroad, especially Wall Street, which with the growth of international communications and the activities of brokers in London, are much more accessible to the British investor.

⁶ ibid

The first rules of the new Stock Exchange were published in 1812, and in many ways the operations of the Exchange under these rules very much resembled those of today. The dealing techniques were very similar, stockbrokers were specialists, and very few of them did any dealing other than stock broking, the distinction between brokers and jobbers was accepted, though some members still performed both activities and the official list of prices was already in existence. During the first half of the nineteenth century the London Stock Exchange thus became an organized market, broadly similar in structure to that of today. Due to the effects of the Bubble Act there were relatively few companies in existence, and the bulk of the dealings on the Exchange were transacted in the stock which constituted the National Debt while the emphasis of its dealing has been changing there have been relatively few alterations in the structure and mechanism of the market. Due to the rapid expansion of business in the first half of the nineteenth century the stock exchange building soon became overcrowded and it became necessary to rebuild it. The old premises were demolished in 1853 and a new building was erected and opened in 1854. This building, which is now known as the Old House, still forms part of the current Stock Exchange premises. By 1884 still more space was necessary and a further building, known as the New House was erected. There were also plans are in hand for the construction of a totally new Stock Exchange building in 1972. The mechanism and functions of stock exchange were considered in great detail by the Royal Commission on the Stock Exchange who was appointed in 1877 and reported in 1878. In general the report of the commission was very favourable. It found out that the stock exchange provided an efficient market for transfer of stocks and shares without encouraging an excessive amount of speculation, and neither its monopolistic positions nor its unique

distinction between brokers and jobbers did anything to detract from its efficiency.

Nevertheless the commission did make several proposals for reforms, the most important of which are listed below:

(i) It was proposed that pre-allotment bargains should be prohibited. Although such bargains were illegal and not recognized by the committee of the stock exchange they still took place though they seemed to have died out almost completely by the end of the nineteenth century

(ii) Under the then management structure of the exchange, dual control was held by the trustees and managers, who represented the proprietors of the stock exchange, and the committee for the General Purposes, representing the members of the stock exchange. This system was proving cumbersome and it was recommended that a system of unitary control should be established. This was eventually achieved in 1945 when the council was constituted and assumed the functions of the previous two bodies.

(iii) In order to prevent any public suspicion regarding the privacy of the Exchange it was suggested that members of the public should be admitted and allowed to watch the members at work. Problems of space made it very difficult but in November 1953, a public gallery was at last opened enabling the general public for the first time to watch the Exchange in action.

(iv) It was felt that the stock exchange should be more severe in its requirements for the admission of new members and particularly for the readmission of defaulting members. This was ultimately achieved by the formation of a sub committee for the election of new members. The entrance requirements have been reinforced since August 1,1971 by the provision that all members must have passed the examination of the Federation of Stock Exchange.

(v) It was argued that the fact that a company had a stock exchange quotation encouraged the public to accept it too readily as sound and some public body should carry out stable and that investigation into companies applying for a quotation. This recommendation is still relevant, for despite protestations to the contrary from the Stock Exchange Council many investors regard the grant of a Stock Exchange quotation as a guarantee of the probity and efficiency of the company concerned.

(vi) It was proposed that the Stock Exchange should become an incorporated or chartered body.

(vii) It was recommended that all deals transacted on the Stock Exchange should be recorded in the *official list*.

(viii) Although the commission approved in general of the distinction between brokers and the jobbers it felt that some stocks were dealt in infrequently that the jobbers ceased to perform their functions of providing a competitive market

Given these above descriptions, we can conclude that from its development the stock market has been seen as a place where both firms, public and the state meet to do the business of raising fund and selling securities of all sort. These markets also had guiding principles, which were being modified with time to make trading and buying easier. On the global sphere, stock markets will always seek relaxed principles to guide market dealers at the weak of the need for source of state corporate funds. Being a business, small investors too become interested. Their interest also has to be protected.

1.6 Functions of Stock Exchange

By looking at the functions of the stock market we try to examine the basic role it plays as an organised market to meet its objectives. If the stock market has to perform the functions bestowed on it effectively, there must be well-organised structures put in place to encourage market participants to be sure of their business dealings. We therefore describe the theoretical functions of the stock exchange showing how it is practically organized and the amount of confidence it put on potential investors.

It is clear that the Stock Exchange developed in order to meet two demands. First, the increased issue of securities of a long-term or permanent nature required a market for the purchase and sale of these securities, so that their holders could liquidate their investments in the short-term. Also the expansion of industry during the nineteenth century necessitated the discovery of new sources of finance. One of the sources of such was the Stock Exchange, which has continued ever since to be an important source of capital for industry. The two functions are of course, very much connected, for it is would be impossible for a company to raise capital from private investors if their securities are not easily marketable.

The two major functions of the Stock Exchange are thus the provision of a market for the purchase and sale of securities and the provision of capital for the purposes of industry and government, both central and local. In its performance as a securities market the Stock Exchange is often spoken of as perfect, or at least highly competitive. The normal description of the dealing process envisages an almost infinite number of buyers and sellers of securities who make their deals, through the agency of brokers, with a large number of jobbers who are in competition with each order. It is this competition between the jobbers, which reputedly gives the Stock Exchange

its perfect nature. Each jobber specializes in a particular group of securities and the theoretical view of the market envisages a relatively large number jobbers specializing in each group, and acting independently of each floor. The floor of the Exchange is divided into different sectors in each of which may be found the jobbers who specialize in that particular group. A broker who wishes to deal a particular security will thus go to the appropriate section of the market and will bargain with each jobber until he obtains the best price for his client. Each sector may be regarded as an individual market, and the normal market forces of demand and supply will determine the prices of securities within that sector. Thus, if there is an increase in the demand for a security, jobbers will find that their stock of securities are falling and that in order to maintain their stock they have to raise the price they are prepared pay for that security. At the same time the price at which they will sell the security will also rise. Conversely a fall in the demand for a particular security will induce a fall in both the buying and selling price thus discouraging sellers, and encouraging buyers, until the equilibrium position is regained.

In this way, it is suggested, a degree of perfection is attained, for the prices of securities are fixed through the interaction of the supply and demand schedules for those securities, schedules which reflect the views of a huge number of investors and which are translated into prices on the Stock Exchange by the competing jobbers.

The Stock Exchange, therefore, in theory satisfies the main prerequisite of a perfect market in that it has a large number of independent buyers and sellers. Other characteristics of a perfect market reflected in stock market function are free entry and free knowledge. With regards to free entry it is true that members of the public do not have physical access to the market

and can only deal through the agency of a stockbroker. However, their decisions will be passed on to the market by their brokers and will thereby influence the overall levels of supply and demand. Moreover, although investors do not have access to the market the Exchange in their dealings protects them with stockbrokers. If the market is thus organized then market participants will confidently deal with it conscious of the fact that their deal will be well protected.

It will be appropriate here to make a short distinction between a primary and a secondary stock market for the purpose of clarity. *The primary market* is where new issues of stocks and bonds are introduced. Investment funds, corporations, and individual investors can all purchase securities offered in the primary markets. The initial sale of securities from the issuing corporations or other body, to the investor is called primary distribution. The issuer uses the fund raised by the sales to expand production, further research and the like. Because few investors could be persuaded to tie up their funds indefinitely, most securities are negotiable, and original buyers may reoffer them to interested parties at whatever price is mutually satisfactory, provided the appropriate legal considerations are met.

While the *secondary market* is where individuals meet at the floor of the stock exchange to by and sell shares. The largest purchasers of capital market securities are households. Frequently, individuals and households deposit funds in financial institutions such as mutual funds and pension funds, which use the funds to purchase capital market instruments such as bonds or stocks⁷. Their interest in continuing business should be guaranteed by favouarble protective rules should they want to diversify their investment portfolios into other markets or increase it's volume at home. Thus all trades

⁷ Standley G. Eakings Financial markets and institutions.

made on a stock exchange are secondary in nature. When an investor buys 100 shares of a company on the Johannesburg Stock Exchange, the proceeds of the sales do not go the company but rather the investor who sold the shares.

Chapter 2

2.1 Global view of stock markets

Despite the fact that some countries have smaller stock markets than others, countries, which want to open their economies to outside capital flow, have done so by making it favourable for firms to go out (outsource) and investors to come in. The ways in which this operates will still depend on the guidance of the regulations of the markets and the ease with which these conditions are available. The worlds financial markets provide meeting places for the needs of borrowers and lenders of many nationalities. Huge volumes of money, capital and securities pass daily through the markets which allow operation of the basic economic law that no-one enters into a transaction unless they expect to gain from it. The three main types of participants required for the successful working of the markets are lenders, financial intermediaries and borrowers. These may be subdivided into private individuals, and other businesses, governments, and other public bodies. They interact with each other as provided by provision.

On a global scale, the main international lenders are the industrially advanced countries such as the US and those in Western Europe. In these countries, highly developed marketplaces have grown up, which provide links to overseas productive opportunities and channels for foreign-destined business and portfolio capital. The worlds main borrowers include rapidly expanding countries with fast developing industries and natural resources, such as Canada, Australia and New Zealand, and low-income countries such as south America and Asia, that have plentiful natural resources but require

overseas capital for industrial development.⁸ Had conditions not been favourable, borrowing would not be seen as a possibility

The final category of borrower includes India and Africa, where the economies benefit from few natural resources and where overpopulation and poverty is rife. These less developed countries (LDCs), historically, have not proved attractive places for overseas private capital. They require their development funds through official channels and through international organizations such as the World Bank, which provide a link with the international capital markets.

Traditionally, investors and borrowers have tended to look first, at domestic financial opportunities and second, at overseas possibilities. Nowadays, however, there are increasingly strong motives that lead lenders and borrowers to consider overseas opportunities more seriously. These motives may be divided into four main categories.

With the trend towards conglomeration and multinational enterprises, large international corporations often engage international financial transactions to support their direct foreign investments. Their operations may be inspired by political considerations or simply because they find dealing in foreign markets either cheaper or less risky- favorable conditions and confidence.

Investors in portfolios of securities, large and small, have a natural desire to reduce risk and increase portfolio returns and liquidity. The key to balanced portfolio performance is diversification. By diversifying internationally a new dimension is added to domestic portfolio construction because it allows the setting off of characteristics of securities from one country against characteristics of securities of another. The domestic market may be

⁸ Internationalization of Stock Markets D.E.Ayling 1986, page 1

inadequate to supply the needs and speculative motives of the domestic financial community. Borrowers and investors may be forced, or simply prefer, to use foreign markets where the range of new issues, secondary markets, financial assets and instruments is much wider than the home country.

Governmental sectors of economies can act as either lenders or borrowers in the worlds financial markets depending on the size of the budgetary positions⁹. The aim of governments in their transactions is to increase or protect the economic welfare of their respective countries. Owing to the large amounts of funds involved, government borrowing and lending can exert significant pressure on supply, demand and hence prices in the financial markets worldwide.

2.2 Development and evolution of stock markets

Stock markets have undergone major changes since their inception in the seventeenth centuries. These changes can be explained in terms of share volumes, computerization and institutional restructuring. The number of the listed companies and share volume has changed tremendously. Professor Evictor Morgan and W.A.Thomas in their authoritative history of the Stock Exchange compiled some tables of statistics indicating the growth of joint stock companies and stock exchange activities during the years 1824 and 1825. During these periods there were 156 listed companies on the London Stock Exchange with total market capitalization of \$33,065,935¹⁰. The table further showed that by 1842 there were a total of 755 companies with a total

⁹ The stock Exchange, its History and functions (London:Elek Books) 1962 page 278-279 ¹⁰ Wall Street Journal, September 1, 1994

paid-up capital of \$150,121,690 quoted on the London Stock Exchange. According to the economists, the volume of trading on the New York Stock Exchange ranged from \$400billion to \$550 billion per day11. The introduction of telephone dialing in 1967 revolutionized international securities trading. Back in the 50s and early 60s, securities prices had been passed between the world's capital by cable or telex. Huge computers used for back accounting began to be developed in the mid-1960s. The New York Stock Exchange introduced an automated system for trading large blocks of stocks in the late 1960s. In 1971 the NASDAQ over-the-counter exchange allowed dealers to trade based on price quoted on the computer.

The development of options contracts in the 1970s was the "mother of invention" of more computational tools for the use in the markets. The late 1970s saw the development of software, such as VisiCalc, which made complicated calculations much easier to handle. IBM introduced its first PC only as far back as 1981.12 As PCs become more sophisticated so they have become more empowering to the market trader. In 1986, Big Bang changed the face of the City of London forever. Big Bang marked the end of open outcry on the floor of the London Stock Exchange with its old blackboard lists of prices. Traders moved to remote dealing desks, spread out across the city. They saw what was going on in the market through an electronic billboard system known as SEAQ. The various prices bid and offer by market makers for shares are all quoted on a computer screen and on Stock Exchange Electronic Trading Service (SET) SETS is an "order-driven" system. A seller inserts the number and price of the share they are wiling to

The Economist, 13th August, 1993
 K. Keasey, K. Hudson and K. Littler, The intelligent guide to stock market investment 1998 page177-178.

sell, buyers insert the price and volume they are willing to buy. When orders match up, the trade is executed automatically and anonymously inside the computer system. At the moment market makers quote an average spread of something like 0.6% in London, whereas in continental Europe markets where similar order book systems are used, spread can be as low as 0.15% The use of computerized order matching has even led to the establishment of a competitor for the London Stock Exchange. Trade point is an example of a new kind of exchange altogether, one which is completely automated. Buy-Side institutional investors an reduce their dealing cost by using these automated system. With these developments, markets have become more connected with market participants able to understand what conditions are favourable to them and how they can exploit these opportunities through their commercial codes

2.3 Legal Aspects of Financial Market Development

As indicated earlier, a favourably operating capital market requires good rules and laws guiding prospective market players. Most countries have treated this as a priority because research conducted recently shows that the development of a country's financial market and institution may contribute substantially to its subsequent economic growth. There is this growing consensus among economist that the law, which dictates permissible contract, their interpretation and the ease with which they can be enforced matter in finance since contracts lie at the heart of every financial arrangement¹³. Other author like La Porta, Lopez de Silanes, Shleifer, and Vishny (1997) and (1998), look at this aspect as legal systems should be clearly exogenous; the legal family from which it originates, may describe

¹³ Luigi Zingales, Legal system and financial Development University of New York, NBER, and CEPR.

the law quality of a country. This is because most financial/ commercial laws today stem from one of the following family, namely French, British and German laws in which the Scandinavian is having a mixture of all. Historic factors such as colonization or war must have played a very important role in the birth of a country's legal system, which were later modified by the countries themselves. Financial laws are organised differently in different countries providing different results hence becoming a focal point of study on how the legal environment protects interested stakeholders and how firms can operate in the market. That is, to ensure that stakeholders cash flow and control rights in the firm could vary in such a contingent way to maximise total output. By making property rights for firms more secured, some legal systems may lead to high investment which will in turn lead to an increased demand for fund. If investors in the country are well diversified, measures of investor's protection will not affect the rate of return required since that is to adjust a compensation for systemic risk. Greater investor protection should, however, imply that investors are/ will be willing to pay more for cash flows a firm is willing to generate after adjusting for risk. This is to say greater investor protection should not affect the risk adjusted abnormal return across a number of countries, but should reduce the dividend yield and earnings to price ratio. Hence a dollar of dividend or earning today is projected at higher rates into the future when legal statutes make investors feel safe against future expropriation.

Debt has a fixed promised stream of interest payment, whereas equity entitles its owner to receive dividends. Recently it has been found that the defining future of various securities is the right that they bring to their

owners¹⁴. Shares therefore give the right to their owners to vote for directors of companies, while debts entitle creditors to the power, to possess collateral when a company fails to make promised payment.

The right attached to security becomes critical when managers of companies act in their own interest. These rights give investors the power to extract from managers the return on their investment. Shareholders receive dividends because they can vote out the directors who do not pay them, and creditors are paid because they have the power to repossess collateral. Without these rights investors will not be able to get paid and firms will find it harder to raise external finance. Despite the intrinsic nature of the securities, the laws governing rights are applicable differently in different jurisdictions.

The differences in legal protection of investors seem to provide an explanation for the reasons why firms are financed and owned differently in different parts of the world such as, why some countries have smaller stock market e.g. Germany but larger banks, than others or, why in some countries e.g. the US most firms go public than in other countries like Italy. Others reasons could be why voting premium (price of shares with high voting rights relative to that of shares with low voting rights) is smaller in Sweden and the US but much larger in Italy and Israel.15 Etc. According to the hypothesis of policy arbitrage, differences in the quality of countries' economic policy management are an important determinant of the scale, terms, and direction of capital flows. Thus, capital will tend to move from countries with relatively weak policies towards investors to countries with sound policy records and good prospects that is, capital markets respond to

 ¹⁴ Hart 1995
 ¹⁵ Levy 1983, Reydquist 1987, Zingales 1994, 1995

economic fundamentals. In this context, any conflicts that may arise between national and international interests are related not to the direction of capital flows but to their scale relative to the size of the recipient economies. If an economy is receiving a greater volume of inflows than it has the capacity to absorb, the inflows will pose problems for the management of economic policy-in particular, monetary and exchange rate policies.¹⁶

Basically it could be concluded here that most markets are regulated based on the three main law family mentioned above and slightly modified to meet local norms. The strength of a capital market will therefore reflect how investors and debts are considered and protected. To make our understanding of these law families easy it would be favourable if we examine some regions or countries and their legal background so as to consider their exogenous nature as mentioned by La Porta et al.

2.3.1 Regions or countries and their legal background

Since we are tying to examine the role of law in capital market development or better still, how investors are protected, it may be necessary to examine the background of the corporate laws found in different parts of the world to be able to know how to attribute a particular legal system to a particular country. Some types of laws offer better investor protection than others in their interpretation and enforcement.

Great economies such as the US, Japan, Germany, Britain etc acts as a global model to corporate laws in their content and enforcement. Despite the popularity of the corporate legal systems of these economies it would be favourable for the purpose of understanding, to look into the role of legal

¹⁶ Manuel Guitian, The challenge of managing global capital flows, *Finance & Development*; Washington; Jun 1998, Manuel Guitian is Director of the IMF's Monetary and Exchange Affairs Department.

protection from a larger sample of countries. We have selected a cross section of countries randomly conforming to either of the various law origins. These countries are found in North and South America, Europe, Africa, Asia, and Australia. Despite the notion that no two countries laws can be alike, it has been found that the corporate laws of many countries are similar which can enable us to classify them into a certain legal family. While the basic origin of law may be known, laws have been amended over time to incorporate influences from other legal families e.g. there is a mixture of the French civil law in Italy but with some German influence. Such a situation is also common with the laws of many other countries. For simplification purposes we use the following criteria to classify these laws of countries.

- · Historical background and the development of the legal system,
- Theories and hierarchies of source of law,
- The working methodology of jurist within the legal system,
- The characteristics of legal concepts employed by the system,
- The legal institution of the system and
- The division of law employed within the system¹⁷

Based on these criteria, scholars have placed two broad legal tradition popularly used, and used here in this study. They are the common and civil.

1.5.2 Types of Laws;

a) The Civil Law Family.

Historical background and the development of the legal system

¹⁷ Glendon, Gorden and Osakwe 1994, pg. 4-5

1.) *The Civil or Romano Germanic Law:* This is one of the oldest and influential corporate laws. It has its origin from the Roman law. It uses statutes and codes as a primary means to ordering materials and heavily relies on legal scholars to ascertain and formulate rules.¹⁸ Legal scholars identify typically three families of laws in this tradition namely: the French, German and the Scandinavians.

2.) The French Commercial code: It was written during the period of Napoleon the Great in 1705 and spread during the Napoleonic wars to Belgium, Holland, and parts of Poland, Italy and Western Regions of Germany. During the colonial era, France extended it to northern parts of Africa, Near East, Sub-Saharan West Africa, Indo China, Oceania and French Caribbean Islands. French legal system greatly influenced the corporate laws of Luxemburg, Portuguese, Spanish, and some Swiss Cantons.¹⁹ The Spanish and Portuguese empires in South America, embraced the French Civil law system when these countries started restructuring their corporate legal system, after their dissolution in the 19th Century.

3.) *The German commercial code* was written in 1897 after Bismarck's unification of Germany. Due to its low popularity thereafter, the French code overshadowed it. This may be due to the fact that it was produced decades ago. However, it has a legal influence on Austria, Czechoslovakia, Greece, Hungary, Italy, Yugoslavia, Japan, and Korea. The Taiwanese law is a loan from China whose law itself is of the German family.

4.) The Scandinavians have a type of law seen more as part of the civil law family, although its law is less derivative of the Roman than the French and

 ¹⁸ Merriman, 1969
 ¹⁹ Glendon et al 1996

German family.²⁰ Although the Nordic countries have a civil code, which could be traced as far back as the 18th century, this code is hardly used today. Their law is unique as it is different from the rest but has much of the French and German characteristics.

b) The Common Law Family

1.) Common Law: This law is based on those laws modelled in the English fashion. This law is formed by judges who have to resolve specific disputes president from judicial decision, as opposed to contribution by scholars. The British colonies including the US and many other countries have this law as their main commercial code.

2.3.2 Legal Rule : Theories and hierarchies of source of law.

Given the fact that there are divergences in law, corporate laws will be applicable differently in the different countries where these laws are practiced. Since we are more concerned with investment laws, and how it protects investors, we can say that market participants are very sensitive to those laws that are easy for them to understand, and which will give them favourable returns on their investments. Based on this what provision does each class of law provide to investors?

Civil law has a uniqueness, which expresses all contingencies, to be
perfectly specified in the original contract and all parties potentially
involved could write contracts at no cost. The role of the judicial
system would be to gradually enforcing the contractual clauses. Here
the law pretends to be fully comprehensive taxonomy of future
contingencies and the judge simply insert the case under judgement in
one of the pre-specified rules.

²⁰ Zweigert and Kotz 1987

 Conversely in the common-law tradition, statutes are highly incomplete and the judge is required to use his discretion in applying the law. The case law precedent thereby guides him. For unspecified contingencies, the civil code tradition asks the judge to extend existing laws to the unspecified contingencies. Here he is achieving an efficient or equitable distribution of resources but to extrapolate the existing norms in least contrived way.

2.3.3 A Brief assessment of the two major law family.

The working methodology of jurist within the legal system.

Common law countries offer creditors stronger legal protection against managers. They have the highest incidence on no automatic say on asset with two exception; they guarantee that secured creditors are paid first, they frequently prelude managers from unilaterally seeking court protection from creditors, and they have far and away the highest incidence of removing managers in reorganisation preceding. In the US for example, it permits an automatic say in assets, allows unimpeded petition for reorganisation and let managers keep their jobs in reorganisation.

The French civil law countries offer creditors the weakest protection. Few of them, in the Scandinavian, have no automatic say on asset, relatively few assure that secured creditors are paid first place restriction on managers seeking court protection from creditors and very few remove managers in reorganisation proceedings.

Some countries in the German civil law family are strongly pro creditors e.g. many of them have no automatic say and secured creditors are paid first. Conversely, many of these countries prevent managers from getting

protection from creditors unilaterally, and most allow managers to stay in reorganisation proceedings.

The Scandinavian system is a sort of mix of the above two main families i.e. civil and common but is seen as one of the best law group for corporate development.

2.3.4 Enforcement

Principally, a strong system of legal enforcement could substitute for weak rule since an active and well functioning court can step in and rescue investors abuse by management. To be sure of this we will want to look at the level of the enforcement of these said laws. This situation may not reflect on the quality of the law but the will to enforce it i.e. how they are effectively enforced. The country's accounting standard also plays a crucial rule in corporate governance. For investors to know anything about the company they are investing in, they need to know the basic accounting readable disclosures of the company. Accounting standard might therefore be very necessary for financial contracting especially when investor's rights are weak²¹. Balance sheets to be made public should be made simple in the most convenient accounting statement to be understood by all and sundry.

We use examine proxies for the quality of enforcement of these rights, namely estimates of "law and order" in different countries compiled by private credit risk agencies for the use of foreign investors interested in doing business in the respective country. Five of these measures are-efficiency of the judicial system, rule of law, corruption, risk of expropriation²².

²¹ Hay et al 1996

²² meaning outright confiscation or forced nationalization by the government.

Next we use an estimate of the quality of the country's accounting standard. Here we use a privately contracted index based on examination of company report from deferent countries. More important contracts between managers and investors typically rely on the verification in courts of some measures of firm's income or assets. If a bond covenant stipulates immediate repayment when income falls below a certain level, this level of income must be verified for bond contracts to be enforceable in courts even in principle. Accounting standards are therefore of great importance to corporate contracting and should be backed by good laws.

Research has shown that the quality of law enforcement differs across the legal family. The following summary gives a picture of the types of laws with the most efficient enforcement i.e. efficiency of the judicial system, the role of law, corruption, risk of expropriation, and risk of contract repudiation by the Government. The Scandinavian countries are on the top with the best enforcement, followed by the German law family. Common law countries are behind the leaders but ahead of the French on the measure of the role of law. With the quality of accounting standards, Scandinavia comes first followed by the Common law countries, followed by the German system but the French have the weakest accounting standards.

To conclude here, we should however bear in mind that, richer countries enforce the laws better than poorer countries as the level of per capita once income is controlled. We use the table below to summarise the above concepts.

	(Enforc	ement va	riables)			Т	able 1
Country	Efficiency of the Judicial system	Rule of law	CORRUP TION	Risk of Expro- priation	Risk of contract repudiation	Rating on accounting Standard (%)	GNP per Capita (US\$)
Australia	10,00	10,00	8,52	9,72	8,71	75	17,500
Canada	9,5	10,00	10,00	9,67	8,96	74	19,970
India	8,00	4,17	4,58	7,75	6,11	57	300
Ireland	8,56	7,80	8,52	9,67	8,96	na	13,000
Israel	10,00	4,82	8,33	48,25	7,54	64	13,920
Kenya	5,75	5,42	4,82	5,98	5,66	na	270
Malaysia	9,00	6,75	7,38	7,95	7,43	76	3,140
New Zealand	10,00	10,00	10,00	9,69	9,29	70	12,600
Nigeria	7,25	2,73	3,03	5,33	4,36	59	300
Pakistan	5,00	3,03	2,29	5,62	4,87	NA	430
Singapor e	10,00	8,57	8,22	9,30	8,86	78	19,850
South Africa	6,00	4,42	8,92	6,88	7,27	70	2,980
Sri Lanka	7,00	1,90	5,00	6,05	5,25	NA	600
Thailand	3,25	6,25	5,18	7,42	7,57	64	2,110
U.K	10	8,57	9,10	9,71	9,00	71	24,740
Zimbabw e	7,50	3,68	5,42	5,61	5,04	NA	520
Average, English- Speaking	9 1E	6,46	7,06	7,91	7,41	69,62	9,353
						69,62 45	
Argentina	6,00	5,35	6,02	5,91	4,91	45	7,220

Belgium	9,50	10,00	8,82	9,63	9,48	61	21,650
Brazil	5,75	6,32	6,32	7,62	6,30	54	2,930
Chile	7,25	7,02	5,30	7,50	6,80	52	3,170
Colombia	7,25	2,08	5,00	6,95	7,02	50	1,400
Ecuador	6,25	6,67	5,18	6,57	5,18	NA	1,200
Egypt	6,50	4,17	3,87	6,30	6,05	24	660
France	800	9,98	9,05	9,65	9,19	69	22,490
Greece	7,00	6,18	7,27	7,12	6,62	55	7,390
Indonesia	2,50	3,98	2,15	7,16	6,09	NA	740
Italy	6,75	8,33	6,13	9,35	9,17	62	19,840
Jordan	8,66	4,35	5,48	6,07	4,86	NA	1,190
Mexico	6,00	5,35	4,77	7,29	6,55	60	3,610
Netherlan							
ds	10,00	10,00	10,00	9,98	9,35	64	20,950
Peru	6,75	2,50	4,70	5,54	4,68	38	1,490
Philippine							
s	4,75	2,73	2,92	5,22	4,80	65	850
Portugal	5,50	8,68	7,38	8,90	8,57	63	9,130
Spain	6,25	7,80	7,38	9,52	8,40	64	13,590
Turkey	4,00	5,18	5,18	7,00	5,95	51	2,970
Uruguay	6,50	5,00	5,00	6,58	7,29	31	3,830
Venezuel							
а	6,50	6,37	4,70	6,89	6,30	40	2,840
Average							
French							
Origin	6,56	6,05	5,84	7,46	6,84	51,17	7,102
Austria	9,50	10,00	8,57	9,69	9,60	54	23,510
Germany	9,00	9,23	8,93	9,90	9,00	62	23,560
Gernally	9,00	3,23	0,95	5,50	5,11	02	20,000

Japan	10	8,98	8,52	9,67	9,69	65	31,490
South							
Korea	6,00	5,35	5,30	8,31	8,59	62	7,660
Switzerlar	ı						
d	10,00	10,00	10,00	9,98	9,98	68	35,760
Taiwan	6,75	8,52	6,85	9,12	9,16	65	10,425
Average							
German							
Origin	8,54	8,68	8,03	9,45	9,47	62,67	22,067
Demark	10,00	10,00	10,00	9,67	9,31	62	26,730
Finland	10,00	10,00	10,00	9,67	9,15	77	19,300
Norway	10,00	10,00	10,00	9,88	9,17	74	25,970
Sweden	10,00	10,00	10,00	9,40	9,58	83	24,740
Average							
Scandina							
via	10,00	10,00	10,00	9,66	9,44	74,00	24,185

Source:Rafael La Porta et al, Law and Finance, Harvard & university of Chicago

Here we use simple measure here based on the assessment made by La Porta et al to qualify how the laws are classified based on origin, and the intensity of enforcement. Simple base point of 10 is used as an optimum depicting the best results. Rating of accounting standard in done in percentage we have tried to avoid the complex mathematics that accompany these results. This means that a country with a score of 10 point in any of the enforcement variables and 100% for accounting standards has the best variable so far. For example, the Australian judicial system, which is of English origin, is one of the best with a 10 point score in efficiency of judicial system, 10 points in rule of law, 8,52 in corruption etc and a 75% in the accounting standard. The Scandinavian judicial system is also one of the best with a high point score in most of the variables with a favourable accounting standard with a higher

average in all the enforcement variabes. Sweden is singled out as the best country to be favoured by investors if we were to go by these results, as she has a general high score in accounting standard (85%) and an absolutely high score in the rest of the enforcement variables. Conversely, Nigeria is one of the most poorly performed in most of the variables in the English origin law group. On the whole, in our classification, the Scandinavian, has the best law enforcement system on the all round basis, followed by the German, English and the French. However, we see that most of the poor countries, despite good laws as backed by their origin, may not enforce it appropriately. Rich countries, as opposed to these with poor laws, have the favourable mechanisms and means to enforce their laws appropriately. Judging from the point of the GNP per capita, we observed that countries with a high GNP per capita tend to have a higher enforcement rate than those with low per capita incomes. This may be due to the fact that high incomes make the population satisfied and become law abiding. The law enforcement agents and other top brass officials tend to be more duty conscious than seeking for wealth through the black market. Poor countries may also lack the basic machineries of enforcement such as the financial means and equipments. Conversely this is not the same in the high-income countries like France where the poor French laws are well enforced in France and higher subsidiary rich countries, than the French laws adopted by many French former colonies of Africa.

2.3.5 Efficient Market Theory.

Here, it is our wish here to mention the efficient market theory since it is seen to be most applicable to the stock market. If the law guiding investors are to be efficient and effective, then we should acknowledge the practicality of the application of the theory since in all efficient markets, the same conditions hold. The stock market can be said to be an example of an efficient market since no body has the mandate to influence the prices of stocks and shares. The law of demand and supply only governs these prices and it is assumed that financial innovations drive the market system towards efficiency in the sense that market provides correct signals about underlying fundamentals²³.

One of the basic conditions is that information that is readily available to all market participants at no cost i.e. there is equal cost everywhere in the market to obtain information. Hence capital market is efficient when it does not neglect any information relevant to the determination of security prices and it has rational expectations²⁴. Market participants in turn can see changes in market prices or general market volatility, as a normal phenomenon affecting firms present in the market, or outright speculation since the assumption of rational mean that investors use their information to make those interferences about future events which are justified by the objective correlation between the information variable and future events and only those interferences.²⁵ With the presence of information at no cost, every market participant freely decides on what stock to buy at a given time and price for example of new information about the fundamental value will be reflected in prices through competitive trading. Thus, the search for mispriced stocks by investment analysts and their subsequent trading makes

 ²³Mathias Binswanger, Stock markets Speculative bubble and Economics growth
 ²⁴ Giovanni Marseguerra, Corporate finance decision and market value 1998.
 ²⁵ Ibid

the market efficient and make price reflect fundamental values. Due to technological innovations and organized markets, such as the New York Stock Exchange, information is relatively cheap to obtain and process. This explains why resent securities markets are more efficient than the year 1700²⁶. Perhaps it would be appropriate to briefly distinguish the three forms of market efficiency based on available information, as proposed by Financial Economist. They are; the weak, semi-strong and strong.

The weak form: This exists if security prices fully reflect all information contained in the history of past prices and returns. (The return is the profit on the security calculated as a percentage of an initial price). If capital markets are of weak-form efficient, then investors cannot earn excess profits form trading rules based on the past price or return. Therefore stock returns are not predictable and so-called technical analysis (analyzing pattern in past price movement) are useless.

Semi strong form: Here security price fully reflects all public information. Thus only traders with access to non-public information such as corporate insiders can earn excess profits. Here some public information about fundamentals may not yet be reflected in prices. Thus a superior analyst can profit from trading on the discovery of, or better interpretation of, of public information.

Strong form: Here all information, even company apparent secrets are incorporated in security prices. Thus no investor can earn excess profits trading on public or nonpublic information. This henceforth qualifies efficiency.

The stock market is also supposed to shows the true value of the firms listed in that changes in prices of stocks both in the primary and secondary market

²⁶ Steven L. Joanes & Jeffry M. Netter. Efficient Capital markets.

are true reflection of the firm's performance and objectives. Governments also don't have the mandate to distort the functioning of the market or influence information filtering out of the market. Based on these facts and efficient market hypothesis that investors would easily and ready be sure of their investment intension since the market channel funds from savers to firms which use the funds to finance projects. To be perfect means free to perform. Does this relate to emerging markets? Through stock market perfection the real value of the market can be known and reflected on the wishes of potential market participants who will now decide on the best step to take in their investment decision and firms will also know how to use it to raise fund.

Summarily, this efficiency of the stock market can be achieved through activities such as; adequate technology to minimize and equalize transaction cost so as to provide efficient information (operational), to make sure that price reach an equilibrium level so as to curb arbitrage opportunity (allocational) and to encourage the participation of the public (promotional). This give value to the market, as firm's activities are more transparent and understandable. A supervisory authority is needed.

3.1 Emerging Markets

Definition.

The term "emerging stock market" refers to stock markets that are in transition, increasing in size, activity, or level of sophistication. Most often the term is defined by a number of parameters that attempt to define a stock market's relative level of development or an economy's level of development.

Stock markets that retain or introduces investment restrictions such as foreign limits, capital controls, extensive government involvement with listed companies, and other legislated restrains on market activity particularly on foreign investors are generally considered as emerging markets. Pervasive investment restriction on foreign portfolio investment should not exist in developed stock markets, and their presence is a sign that market is not yet developed.²⁷

3.2 Parameters used to classify emerging markets.

It has been really difficult to classify what is known as an Emerging Market. We try here to draw your attention to what emerging markets are. Generally such stock markets are those of developing or underdeveloped countries but how are they classified?

.27 I.F.C.

The International Finance Corporation (I.F.C)²⁸ classifies a stock market as *emerging* if it meets at least one of the following two criteria:

It is located in a low or middle income economy defined by the World Bank, and, its inevitable market capitalization is low relative to its most recent GDP figures. Until 1995, IFC's definition of an emerging stock market was based mainly on the World Bank's classification of low and middle-income economies. If a country's GNP per capita did not achieve the World Bank's threshold for a high-income economy the stock market of that country was said to be emerging. More recently, this definition was proved unsatisfactory due to wide variations in the dollar- based GNP per capita figures.

Dollar-based GNP figures have been significantly impacted by severe swings in exchange rates, especially in Asia. Moreover, reported GNP figures, which take significant time to prepare, are often out-of-date by the time they are released.

Therefore the IFC has adopted new criteria for market to graduate from index coverage. To graduate from index coverage, GNP per capita for an economy should exceed the World Bank's upper income threshold for at least three conservative years. The three years minimum limits the possibility that the GNP per capita level is biased by an overvalued currency. For a new market to be included in the IFC index coverage, the market must be located in an economy whose GNP pre capita places it in the World Bank's lower and middle-income classifications in at least one of the last three years. Based on 1997 data, economies with a GNP per capita of \$9,656 and above were classified as high-income countries.

²⁸ LFC is the world's largest multinational source of Financing for private Enterprises in Emerging Economies. Its mandate is to promote the growth of productive and profitable private Enterprises in it's developing member country.

Another typical characteristic of an emerging stock market is its relatively small investable market capitalization relative to gross domestic product. Investable market capitalization is a market's capitalization after removing holding not "in the market" for foreign portfolio investment limits. For a market to graduate from index coverage –to-GDP ratio near the average of market commonly accepted as developed for three conservative years.

To sum up, a market graduates to IFC index coverage after meeting these two criteria:

-GNP per capita must be in the high income economy range for three years consecutively and

-The investable market capitalization to the GNP ratio must be near the average of the developed market for three consecutive years, and

-New markets being added to IFC Index coverage must have a GNP per capita level below the upper income economy threshold defined by the World Bank in at least one of the three years.

3.3 Emerging market database

The Emerging Market Data Base (EMDB) serves as a vital statistical source for IFC and the international financial community in its investment and advisory work. Now in its second decade, the database has gained recognition as the world's premier source for reliable comprehensive information and statistics on stock markets in the developing countries. With information collected since 1975, the database covers 51 markets providing regular updates on almost 2300 stock comprising its IFC series and almost 1200 stock in its IFC Investable Index series.

Using a sample of stocks in each market, IFC calculates indexes of stock market performance designed to serve as benchmarks that are consistent across national boundaries. This eliminates the inconsistencies that make it difficult to compare locally produced indexes with differing methodologies. Monthly indexes are available from the end of 1975, weekly from the end of 1988 and daily indexes from October 1995. To add, according to the African Development Bank (ADB) statistics, the real GDP growth rate in Africa reached 3.0% in 1995, markedly higher than the year before (1.9%) and the average for the 1990-93 (less than 1%). At the disaggregate level, there are countries which have posted exceptional performance ie Uganda, Ghana, Benin, Bostwana, Mauritius, Cote d'Ivoire, Kenya. Another encouraging new development is that international investors have begun looking at Sub-Sahara Africa, with the establishment of over a dozen investment funds since 1993. These Africa investment funds are now trading in New York and Europe. Thus, a careful examination of constraints and prospects for the development of capital markets in Emerging Economies (Africa) is timely and imperative. A compelling case can be made for the development of capital markets in Africa. Well-functioning financial markets, along with well-designed institutions and regulatory systems, foster economic development through private initiative.

EMDB and ADB products are available in the computerized form and as publications. Their database provides three levels of computerized data: comprehensive data on individual stock covered in all markets; data series for each index computed together with and data series for each market covered.

3.4 Recent trends and performance of emerging stock markets.

We us this period 1997-1998 because we could get ready information to enable us demonstration of our aim. Also, since most stock markets in the Emerging Economies are in the process of reforms, in the wake of the South East Asian crisis, we feel that this period will provide an insight of the trends and performances of the emerging stock markets in the period of crisis and how measures with these countries have been able to relax the crisis and boost the markets.

The IFCI and IFCG composite Index returns indicate that 1998 was the worst year ever for emerging markets. It appeared that everything that could go wrong in emerging markets did go wrong during the year. The term "contagion" was used liberally financial press to describe the ripple effect of one country's economic problems and related misfortunes in other markets.

The contagion had it's beginning in July 1997, when a sharp decline in the value of the Thai balt (Thailand Currency) initiated major risk reassessment throughout the Asian region. Eventually risk reassessment spread through Europe, Africa, and Latin America, underpinning sharp decline both current equities in those regions. Stock markets in countries with the weakest macro economic fundamental generally suffered the sharpest losses, but countries with strong economic policies and more robust financial sectors were not able to escape effects of the contagion completely.

Emerging market performance on a country–by–country basis was overwhelmingly negative in 1998, with 24 of 31 markets tracked by the IFCI Composite registering losses. Of the seven IFCI markets posting gains, only five markets, Greece, Korea, Morocco, Portugal, and Thailand registered double-digit gains. On a regional level, losses were generally steepest in Europe and Latin America, but no region was completely exempt from the

contagion than effectively swept through all emerging markets. The IFCI Composite Index fell 24.1% in 1998 the steepest one-year decline in the index's 11-year history. The IFCI Latin America and IFCI EMEA indexes, fell 38,0% and 22,6% respectively, during the year, while the IFCI ASSIA index after falling more than modest 57% in 1997, registered a much more modest 0,7% decline. Performance of the broader IFCG Composite Index falling 22,9% and Asian index fell 38,2%, 27,3% and 6,8%, respectively.

The smaller, less active frontier markets tracked by IFC followed the downward trend of the most heavily capitalized emerging markets. The IFC Frontier Composite, a new index introduced in 1998, registered a 17,2% decline for the year. On a country-by-country basis performance in the frontier markets was more mixed with 7 out of 18 markets posting gains. The African and Caribbean regions were generally the strongest with the IFCG indexes for Trinidad and Tobago, Ghana, and Kenya postings returns of 17,5%. 17,3% and 13,8% in dollars term, respectively.

3.5 Recent Survey of Market capitalization of Emerging Economies.

Here, due to the fact that the emerging markets are part of the global market machinery, we intend here to show the level of their market capitalization as a framework of what they have as the level of money circulating within them in their part as a market. This can be defined as the total volume of shares multiplied by their prices.

Emerging Economy countries, where domestic resources tend to be in short supply, stand to benefit particularly from capital account liberalization, which can lead to increased investment, faster economic growth, and improved standards of living, as well as contribute to the deepening and

broadening of domestic financial markets. The IFC's 1999 global survey of Stock Exchanges in the emerging markets shows an overall market capitalization of these markets to represent 7% of world's total markets capitalization in 1998. Emerging market capitalization reached almost 13% of the world total in 1994, but has decreased steadily since then to just fewer than 7%. The dollar size of emerging markets has also dropped significantly down from its peak of \$2,27trillion in 1996. Over the same period the market capitalization of the developed markets surged 40,9% to \$25,55 trillion.

Country	GDP br US\$	Export GDP	as % of	% Change in Export.	Market Capitalization bn US\$	No. Stocks
		1998	1999			
Brazil	768	7.6	7.4	0.2	75	99
China	158.6	127.5	132	5.5	84	214
Ghana	10.6	34.3	32.2	-2.1	1.3	22
Indonesia	141	26.2	53.9	27.7	22	58
Kenya	10.6	24.6	24.7	0.1	1.0	13
Egypt	92	16.8	14.8	-3	54	66
Nigeria	43.3	23.5	16.9	-6.6	2.94	28
India	120	48	50	2	66.3	141
Israel	93	46	42.4	-4.4	23	49
Thailand	123.9	58.6	57.2	-1.4	28	64
Taiwan					194	106
South Korea	210	30.1	32.6	2.5	125	175
South Africa	131.1	25.7	25.4	-0.3	19.5	64
Zambia	3.3	29.4	28.9	0.5		
Zimbabwe	5.7	4.6	NA		1.5	24

Table 2

Source: IFC Fact book, and World Bank Web page, www.worldbank.org.

The table above shows changes, which may not be considered effects of the market performance statistics and country characteristics. However, if we are to take the influence of market capitalization to represent the changes in the volume of exports, then we can identify only South Korea, India, China, Indonesia and Kenya amongst those who have had a positive trend in their

markets. This however may not be considered a good way of evaluating these market performance. We adopt the theory below which is

a model based on law and finance as proposed by La Porta as used on the table 1 above. This table below shows the regression analysis of the effects of these varaibles namely; efficiency of the judicail system, rule of law, curruption and the accounting standards on the investments in emerging stock markets.

	Coefficients	Standard	t Stat	P-value	Lower	Upper	Lower	Upper
		Error			95%	95%	95,0%	95,0%
Intercept	0,684908	0,572094	1,197194	0,270196	-0,66788	2,037694	-0,66788	2,03769
X Variable 1	0,016018	0,050562	0,316797	0,760637	-0,10354	0,135579	-0,10354	0,13557
X Variable 2	0,012333	0,096502	0,1278	0,901901	-0,21586	0,240524	-0,21586	0,24052
X Variable 3	0,022906	0,055958	0,409348	0,69452	-0,10941	0,155226	-0,10941	0,15522
X Variable 4	-1,20203	0,719063	-1,67166	0,138514	-2,90234	0,498286	-2,90234	0,49828

 $Y \equiv B_1 + B_2 X_1 + B_3 X_2 + B_4 X_3 + B_5 X_{4+} e$

Y is market Capitalization/GDP

 $X_{1=}$ Efficiency of judicial system

 $X_{2=}$ Rule of law

 $X_{3=}Corruption$

 $X_{4=}$ Accounting standards

 $Y \equiv 0.684908 + 0.016X_1 + 0.0123X_2 + 0.023X_3 + -1.202X_4^{-29}$

This model above shows market capitalization of emerging markets has influenced the efficiency of the judicial system, rule of law, corruption and

²⁹ Details on these reults in the Appendix ii.

the accounting standards. It is of particular interest to investors to know how market capitalization changes as efficiency of judicial system, rule of law, accounting standards increases with a decrease in corruption.

From the analysis, it is seen that market capitalization will increase by 0.16 units when the efficiency of the judicial system improves by 1 unit . The reponsiveness of market capitalization to changes in the rule of law is 0.012. This means that 1 unit improvement in the rule of law will lead to 0.12 unit increase in the market capitalization. Corruption here is seen as disincentive for investment, hence it has negetive correlation with the market capitalization. What this model means is that market capitalization will fall by 0.023 if corruption increases by 1 unit. On the other hand, a reduction of corruption by 1 unit will increase market capitalization by 0.023. Accounting standards have little or no impact on the market capitalization in this model. This is because only few countries were included in the observation.

It is seen that among all the variables used in this model, corruption has the greatest impact on investment, followed by the efficiency of the judicial system and the rule of law, and therefore, for emerging economies to achieve the needed growth in financial markets, they should put in place some mechanisms to reduce corruption, increase efficiency of the markets and rule of law. However, this result could not be generalised to the whole emerging markets as the data for the regression covered only a few countries.

3.6 Influences or Development and Growth of Stock market in Emerging Economies.

The history of stock markets of many countries considered "emerging" could be traced back when some of these countries were granted independence by formal colonial masters³⁰. However some of these markets are still recent since it was observed that a large proportion of the long term financing of companies is obtained through the stock market while the other role played by commercial banks is to provide short-term funds. This model was initially adopted by the UK and then extended to the United States and other countries such as Australia, Canada and New Zealand.³¹

Some of these emerging countries started at post independence by adopting a socialist and mixed economic systems, whereby the governments had an influence in the management of recourses so as to provide, basic goods and services to its citizens and, to generally allocate scarce resources. The governments and a few big business families had the control of capital and therefore the influence on investment related decisions. In some areas like China, and some south East Asian countries together with Africa, bank dominated finance was very important. Bank lending was large in relation to GDP while capital markets were relatively less developed. Corporate bonds in particular were a relatively unimportant source of financing. Equity markets were more unsubstantial, but remain relatively thin and very volatile. Many of their currencies remain strong and static as opposed to foreign currency volatility in the international markets e.g. China. There was

³⁰ Thomason and Adolf , The emerging states of French Equatorial Africa, ³¹ OECD, 1995

⁴⁹

this consensus that, there was no need to change the status of the financial market mechanism.

Then, states started having the need to stimulate needed increase in investments, which the banks could not support with huge required funds, which could not also be raised elsewhere. Banks also began to become inefficient, as some were bugged with bottlenecks and corrupt practices, and had problems such as lack of incentives, risk management, soft budget constrains, no specialised problem loan work out unit, low qualified staffing etc. Financial stability of these countries started being threatened³². Small investors could not have access to capital as they where always discouraged by almost impossible collateral requirements. The governments, in a bid to raise needed loans for large projects ,started thinking the other way-the public. States started dropping their pegged currency status and the floating characteristics of these currencies made them become more volatile.

There was therefore, the need to create a strong economic force, to remedy these problems as the governments viewed that efficient managements could be achieved through the open capital markets, stock markets then started in emerging market countries. After all, economic growth and development require institutional change. New organisations such as banks, stocks and bond exchanges have to gain new impetus. The role of central governments must change so as to facilitate and not thwart private initiatives. Enforcing the role of law and definition and defence of property rights are the fundamental task of the state, which itself typically must be greatly modified and streamlined.³³ State owned corporations had to be restructured and small-scale businesses had to be encouraged. The states also needed to cut

 ³² Baizhu Chen et al, Financial Market Reform in China, Progress problem and prospects.
 ³³ James M. Cypher & James L. Diet, The process of economic development

⁵⁰

down their budget deficits form accrued issues of bad loans and default payments in state owned banks. These states started modelling their corporate laws from formal colonial masters and slightly modified them to meet nation's need. Since then there has been an impressive attraction to many markets in the form of increasing investments.

3.7 Overview of Investment laws of Emerging Economies.

Summarily, laws of some selected emerging economies have been shown on the table below. The reason for this is because we are more interested in the understanding of how the emerging economies have adopted or developed laws that protect investors and ultimately stimulate economic growth. Drawing from our previous study in 1.5.4 we compile another table to show the origin of emerging countries corporate laws.

		Table 3
English Origin	French Origin	German origin
India	Argentina	South Korea
Israel	Brazil	Taiwan
Kenya	Chile	
Malaysia	Colombia	
Nigeria	Ecuador	
Pakistan	Egypt	
South Africa	Indonesia	
Sri Lanka	Mexico	
Thailand	Peru	
Zimbabwe	Philippines	

	Ghana	Uruguay	
		Venezuela	
Source: Rafael La	Porta et al, Law and Finance		

Looking at that table above we see the great spread of the emerging country's law origin. Given our previous knowledge of the different characteristics of the various laws, we can now assess the benefits to investors to each situation. Many African countries indicated above took their legal inspiration from their formal colonial masters. Most Latin American countries adopted the French civil law system brought in by formal colonial masters (Portugal and Spain), but have revised the law to fit in to national realities. The greatest test to these countries is at the level of enforcement. The theory of credibility we have adopted below will throw some light on this aspect.

3.8 Prospects of market Indication to investors.

Market indication refers to the information generated by the market to reflect its future performances of the market. Otherwise known as stock market index, it is used to monitor the behaviour of the groups of stocks. By reviewing the average behaviour of a group of stock, investors are able to gain some insight as to how a broad group of stocks may have performed. Various stock markets indexes are reported to give investors an indication of the performance of different group of stocks³⁴. In most emerging economies the state has been playing an influential role in influencing these market indexes so as to calm foreign and domestic investors since they wanted to

³⁴ Standley G. Eakings, Financial Markets and Institutions.

keep a firm grip on the markets and the same time raise capital. Therefore, basic information may be concealed so as to project only positive aspects about the market performances of the said country's market. This has however not been seen as a favourable approach since when firms and investors come in, their aspirations are not met as they thought or, as was projected by the market indexes. Through the policy of credibility or transparency and neo-liberalisation, there has been a sweeping revolution, which saw diverse economies in the North, South and East undergoing a radical transformation towards a neoliberal35 form of capitalism36. Following the concept of policy credibility, the stock market is seen as a place where business is done without the involvement of the state. There is no political interference as in the neoliberal agenda comprises, privatisation of state owned enterprises, reduction in the state provision of services, eliminate the state's involvement in price setting, and severe restriction on state manipulation of fiscal and especially monetary policy in pursuits of good economic out come confirming the perfect market theory.

Based on this concept, most emerging economies are gradually implementing this policy as a means to attract both domestic and foreign investors notably the smaller investors since it gives a true picture of the market. If the last past years have been prosperous for many emerging economies then, it is due to the gradual improvement in their policies to reflect market realities since economic policies are deemed attractive if only they are credible to private agents; but policies are deemed credible if only

³⁵ The word neo-liberal is used here to refer to the free market economic policy that is derived from newclassical microeconomics theory which emerged in the 1970 &80sas an extension of the neoclassical economic theory.

classical microeconomics theory which emerged in the 1970 & 800as an extension of the neoclassical economic theory.
³⁶ Iiene Grabel, The political Economy of " policy Credibility": the new-classical macroeconomics and remaking of emerging economies. Cambridge Journal of Economics.

⁵³

they are seen effective as well.³⁷ Such neoliberal reforms programmes throughout emerging economies have therefore included the privatisation of state-owned or state controlled industries, the sales of bloated or ailing firms to private sector as a signals the states commitment to abide by market outcome. Economic actors' energies are therefore re-directed away from rent seeking towards productive activities that enhance social welfare. In emerging economies, investor's response is taken to reveal or demonstrate the credibility of the reform efforts. The infusion of domestic and foreign capital, (or the reverse of capital outflow) that usually follows the adoption of neoliberal economic reform is taken as independent evidence of credibility of those affords.

During the Asian financial crisis of 1997-1998 the leaders of Brazil, Argentina, Hong Kong, and Singapore attempted (successfully) to signal to nervous investors that their own commitment to a liberal market policy was highly credible. In Brazil as a case in point, president Cardoso embarked on an effort to intensify a stringent programme of market liberalization. He was able to convince the lower chambers of Brazil's congress to approve 51 new pieces of individual legislation that drastically reduce government spending, raise taxes and interest rates, ended job protection for civil service workers, and increase the pace of the governments 3 year privatisation plan.³⁸ Despite the severe recession that ensured from the Asian crisis which affected Brazil the president's action assured foreign investors, who at this time where leaving saw that they were hasty as the country quickly weathered the crisis. The theory of policy credibility has been extremely influential in forming the design and operation of the institutions that governs monetary and exchange

 ³⁷ Blackburn & Christensen, 1989 pg. 1
 ³⁸ New York times, 21st Nov. 1997.

rate policies, and market indicators, namely the central banks, currency boards and stock markets. The logic of extending credibility theory to financial policy makers is pretty straightforward: to be credible, financial policies should be insulated from the vagaries of the political process where shortsighted political goal often predominate. In the absence of this insulation governments' can manipulate financial policies instrumentally seeking to garner political support. Aware of this possibility, the public will know that announced financial policies might lack credibility because they are economically inconsistent or politically unsustainable.39

The out come of the markets based on the efficient application of these policies will therefore provide a credible market outcome which will reflect the realities of the market and encourage investors who are always willing to diversify their portfolio to reliable markets since diversification of portfolio in to other markets reduces risk. Emerging economies through the Structural Adjustment Plan (SAP) are now embracing the credible market plan in a bid to provide favourable market structure to investors. Laws are being modified every day to suit investments not only in their textual structure but also their enforcements. Many African, Asian Eastern European and South American countries have been called on a day-to-day basis to stamp out corruption in their system. This is aimed at making their systems credible for truthful market information to be delivered. States like Nigeria have good laws (based on the British Common Law family) but there, enforcement may remain questionable, as there has always been high rate of corruption in it⁴⁰. But in the current priority reform program of the new democratic regime,

³⁹ Schmieding, 1992, pg.45-6 ⁴⁰ Transparency International 1998 assessment of world's most corrupt countries. Transparency International is a German based non-Governmental organization, which usually assesses countries around the world transparency or corruptibility.

stamping out corruption is seen as the states utmost priority. Purging corrupt officials and privatising basic state-owned corporations like the oil and gas sector amongst others, is important so as to open the country once more to the business world and, give credibility to the Nigerian business friends and partners that the country is now a safe home for business.⁴¹ This still ties down to the policy of credibility just mentioned above, whose ultimate effect will boil down to the production of a favourable market that attracts capital by providing protection to potential investors.

To conclude this section we now try to ask ourselves: how can corporations raise funds from emerging stock markets? Like any other stock market in the developed world, corporations are open to varieties of means such as

a) *Bonds*: They may issue bonds. These are special kind of promissory notes nicely printed on guilt paper issued in various denominations to be ready marketable or for resale. A bond is a security promising to pay a certain amount (£, \$ etc) of interest within say 6 months fore a number of years until it matures. At that time the borrowing company promises to pay off the principal of the bond at it face value. Often the borrowing company has the right to call in the bond a few years before it's maturity date by paying the bondholders some previously agreed upon price. Ordinarily payments for interest and principal must be made on time regardless of whether the company has made earnings or not. Otherwise the company is in default of its obligations and can be taken to court like any other debtor. Income bonds, whose interest is payable only if there are large earnings are rather rare. Mortgage bonds, secured by property, are sometimes issued. Convertible

⁴¹ The West African Guardian Sept. 1999

bonds, which can be exchanged for a stated number of common shares, are a popular hybrid. $^{\rm 42}$

B) *Common Stocks*: Issuing common stock provides the required equity capital. The common stock holder share in profits and in control of the business decision, but he must also share in loses. He is a more risky venture because he can never receive dividend until the fixed charges owed bondholders are paid off.

C) *Preferred stock*: Between bonds and common stocks are so called Preferred Stock. These pay at most stated dividends say, a stipulated 5% of the face value per share no matter how profitable the business becomes. The preferred stock holder is more likely to get his dividends even when profits are low than is the common stockholder.

To conclude on this section we ask ourselves; are investors fully protected in Emerging Economies?

Despite prospects of investor's protection in Emerging Economies, there are situations where they may not be fully protected especially taking the case of Africa. In general, accounting standards are often weak and disclosure poor. Capital standards for banks and other financial institutions are rarely enforced and the power to close banks prior to explicit failures is often diffused and rarely used. This has often resulted in implicit forbearance being granted towards the weakest banks and large bailout and resolution costs having eventually to be paid by the government or the bank's depositors. The absence of credibility and rationality in the financial sector is a deterrent to savings in the formal sector and economic development stemming from channeling savings to the most productive firms and sectors. Adequate disclosure and sound accounting standards are essential

⁴² Paul A. Samuel , Economics Ninth Edition foot not on pg 109.

ingredients for stock market development. Financial information disclosure and accounting rules in many African countries are mandated by law. Compliance, in many cases, require publication of an annual report, often containing only summary figures and usually due with a lag of about a year. Some stock exchanges publish investment information, such as the annual Handbook of the Ghana Stock exchange and the Fact book of the Nigerian Stock Exchange, which also suffer from lack of detail and timeliness. In the developed world, financial information is also provided through brokers' forecast ad credit rating agencies. Only in Zimbabwe and Botswana do brokers provide financial forecast on listed firms. In most African countries, the brokerage industry has not developed the institutional capacity to provide this service due to lack of qualified manpower and investment in informational technology.

High macro-economic and political instabilities lead to high volatility in the financial markets. Research has shown that country risk, by implication, macro-economic risk, is the predominant source of variation in stock returns across countries (as opposed to industry-specific shocks). Further, international investors are concerned about political risk associated with the odds of adverse changes in government policies. They manifest in the form of expropriation, restrictions on repatriating capital and returns, differential treatment of domestic versus foreign-owned capital, taxation, etc. It is often said that the best policy is no change in policy! In addition, policies are as effective as they are credible. Thus, stability is valuable, both domestically and internationally.

Lastly, hard currencies are readily hedged. High currency exchange volatility is endemic to African economies, creating an impediment to foreign investments. In view of the dearth of hedging mechanisms through

derivative markets (forward, futures, and options), an indirect approach would be to increase the number of export-oriented companies on the stock exchanges. In particular, those with exposure to hard currency exports should be targeted, so as to provide substantial hedging against local currency devaluation. Within these contexts, it may be very hard to completely conclude that investors are fully protected in the African Emerging Economies as a case in point despite showing favourable policies on paper

Chapter 4

4.1 Case study- South African Stock Market

In this chapter we try to focus on how the stock markets protect investors in a specific situation. We therefore make a case study of this magnitude in the South African Stock Market, Johannesburg. We have selected South Africa as our case study on investor's protection in Africa because of its size and it's strength in the region. We also intend to use our findings here to stand as a standards to measure other stock markets in Africa.

We begin this chapter by looking at the relationship between the Gross Domestic Products and the market capitalization. This is because good investor protection will boost investor's confidence increase market capitalization, thereby promoting economic growth. The table below shows this relationship between GDP and Market capitalization

Table 4	
---------	--

YEAR	GDP(in million us\$)	MARKETCAPITALISATION
		(in million us\$)
1988	88.168	126.609
1989	91.753	131.060
1990	106.682	113.754
1991	112.309	168.497
1992	119.569	103.537
1993	117.456	171.942
1994	121.619	225.718
1995	133.923	280.526
1996	165.626	241.571
1997	195.762	232.069

Given the above, the following regression was done to get the correlation between market capitalization and GDP. Our aim is to test whether change in GDP can be influenced by change in market capitalization.

$$\begin{split} Yt \equiv & B_1 + B_2 X + e \\ Yt \equiv 60738.55 + 0.36 Mkt. Capitalization \end{split}$$

Interpretation coefficients

 B_1 is the intercept, which is the GDP with zero market capitalization

 B_2 is coefficient market capitalization

Y represents GDP and X Market capitalization respectively. The results from the regression show the responsiveness of GDP to changes in market capitalization. It shows that a 0.36% increase in the market capitalization will lead to a 1% increase in GDP, or 36% increase in market capitalization will lead to 100% increase in GDP. R^2 which tells you how much of the change in the target variable (GDP) that is explained by market capitalization is 0.45. This means that market capitalization constitutes 45% of any change in the GDP.

Next is to test the hypothesis that GDP does not depend on market capitalization;

Null hypothesis $(H_0) B_{2*}0$ GDP does not depend on market capitalization. Alternative hypothesis $(H_1)B_2 \neq 0$ GDP depends on market capitalization.

Based on the foregoing, the results obtained will be accepted or rejected based on the following. We accept the hypothesis that GDP does not depend on market capitalization if B_2 is zero or reject the hypothesis if B_2 is not zero.

To be able to test the hypothesis, we need the t-value and the critical value

The test statistic $t \equiv \frac{b_2}{seb_2}$

se b_2 is the standard error of b_2 or the coefficient of market capitalization $t = \frac{0.359543054}{0.139475}$ 2.55

The critical value t_{cm} 2.306 for t –distribution of 8 degrees of freedom of .05

Conclusion: since $t \equiv 2.55 \ge t_{c_{\pi}} 2.306$, we reject the null hypothesis that GDP does not depend on market capitalization and accept the alternative, that there is relationship between GDP and market capitalization. (See appendix i).

4.2 Primary and Secondary markets

Since we are dealing with the South African Stock Exchange, we are considering the securities traded on her secondary market. Before we move on, there is the need to give some of the securities traded on these markets.

4.21 Primary market.

In South Africa small municipalities and educational institutions such as universities generally issue annuities. Annuities are usually issued in denominations of R100 or multiples thereof. The investors in annuities are mainly insurance companies and pension funds.

When capital funds are made available to borrowers by lenders, the borrowers deliver a contract, or an instrument, representing their relationship with the investors.

Debentures

A debenture is a fixed-interest-bearing security normally issued by

companies. It is a loan contract for a specified period of time and represents a charge on the revenues and assets of the issuing company. Each debenture contract consists of two parts, namely the debenture itself and the indenture or trust deed. The debenture is a primary contract between the issuing company and the investor and represents a promise by the company to pay interest at regular intervals and to repay the capital amount at a specific future date or dates. The trust deed is a supplementary contract between the issuing company and the trustees (who are representatives of the debenture holders) and sets out in detail the rights of the individual debenture holders. It is the function of the trustees to protect the interests of the debenture holders and to see to it that the terms of the contract are adhered to. Although a debenture normally has a fixed interest rate, it can also be issued at variable rate. It should be noted, however, that virtually no secondary market exists for variable-interest-rate debentures.

Different kinds of debentures are issued, which can be classified into three main categories according to (i) security, (ii) term, and (iii) yield.

- Security: Secured debentures are loans that are secured by either the immovable property of a company by means of a mortgage bond or the movable property of a company by means of a notarial bond.
- Guaranteed debentures are securities of a subsidiary or associated company that are guaranteed by the holding or controlling company.
- *Term: the company can redeem redeemable debentures* before the date of maturity or at specific intervals as stipulated in the debenture trust deed.

- Convertible debentures are securities bearing a fixed-interest payment and carrying the right to exchange all or part thereof for other securities, usually shares, on previously specified terms.
- *Callable debentures* are securities of which the principal amount is repayable on a periodic basis at the discretion of the issuer.
- Yield: Fixed-yield debentures are the ordinary debentures with a fixed-interest payment.
- Participating or profit-sharing debentures are similar to participating
 preference shares in that their holder receives a fixed-interest payment
 as well as a stipulated share of the profits of the company.
- *Variable-yield debentures*. The rates on these debentures are tied to the rates on other money and capital market instruments such as the bankers' acceptance rate, the prime rate or semi-gilts rates.
- Income debentures. In the case of income debentures the payment of interest is contingent on the earnings of the company, and they are therefore similar to preference shares in this regard.

Combinations of the above are also possible, for instance convertible redeemable debentures where the option is with the investor and/or issuer to convert or redeem at specific times.

Debentures are usually issued in denominations of 100Rands(R) or multiples of these amounts. Debentures are issued in the names of the investors, and the issuing companies keep registers for the purposes of registration and transfer. In South Africa the main investors in debentures are insurance companies and pension funds who invest their discretionary funds in debentures, because company debentures do not qualify as prescribed investments.

It is normal practice in South Africa that a loan contract with a variable interest rate-be it from a bank (term loan), a trust company (mortgage participation bond), or a pension fund (property leaseback or venture capital) - remains an affair solely between lender and borrower. In all these cases no secondary market exists for the securities. Even debentures with a variable interest rate are extremely difficult to trade on the secondary market, because their future earnings cannot easily be discounted to a present value owing to the uncertainty of their variable pattern of income. However, an exception is the mortgage participation bond for which a secondary market exists in the sense that mortgage participation bond managers are prepared to repurchase these bonds five years after issue.

4.1.2 Legal Requirements for the issuing of shares.

The legal requirements pertaining to the issuing of shares are set out in the Companies Act. Public companies must have a minimum of seven shareholders, and there must be seven subscribers to the Memorandum and Articles of Association, each of whom must subscribe for at least one share. In terms of the listings requirements of the JSE a company that seeks a listing of its shares is obliged to appoint a member firm to act as sponsoring broker. The functions and duties of the sponsoring broker can perhaps best be illustrated by taking a specific case. Suppose that the proprietors of an old, established family business, XYZ Limited, have decided that their company has grown to such an extent that its stature and future prospects warrant a public flotation. The first step is normally to consult the company's attorneys, who - if they are not themselves well versed in public flotation procedure - may suggest the appointment of a firm of corporate attorneys.

The sponsoring broker, reporting accountants, auditors, a merchant bank, and transfer secretaries will also be decided upon. In a large flotation there may be more than one sponsoring broker and merchant bank, but in such cases there is usually only one "lead" broker, together with one "lead" merchant bank, doing the actual work. The various specialists approached will be given sufficient background and financial information to enable them to decide whether or not they wish to be associated with the flotation.

At the outset the sponsoring broker and the merchant bank will advise everybody concerned as to whether or not the company's assets and its profit record comply with the minimum requirements of the JSE. They will give their opinions, based on the company's financial standing, record and the general market climate, as to whether the time is right to proceed with a public flotation.

If it is decided to proceed, the next decision will be the method whereby the shares are to be issued to the general public. This could be by way of:

- Public issue. The shares are sold directly to the public at a fixed price. Normally a merchant bank and/or stockbroker acts as issuing house and underwriter. An essential feature of this flotation is the publication of a prospectus, as prescribed by the Companies Act, outlining the company's record and prospects.
- *Private placing*. In this case the issuing house (normally a merchant bank) or stockbroker places the shares directly with its own clients often pension funds and other institutional investors.
- Offer for sale. The shares are sold indirectly to the public. The company first sells its shares to the issuing house or stockbroker at a

fixed price. These shares are then sold on to the public, usually at a small premium.

- Public tender. In this case the shares are not offered at a fixed price, but the prospectus quotes only a minimum price. Investors are required to name their own price and the number of shares they are prepared to take up. Allocations are made at the highest price that will ensure the issue being fully taken up.
- *Preferential offer*. The shares are only offered to one or more segments of the public, i.e. customers, clients, subscribers, etc.
- A combination of two or more of the above methods.

Many factors are taken into account in order to arrive at the best method, such as the size of the flotation and the nature of the company's business and clientele. The advice of the merchant banker and sponsoring broker to the client is of great value here.

Among the other matters on which the merchant banker and sponsoring broker will advise is the capital structure and gearing of the company. The broker will also assist the merchant bank in preparing and drafting the prelisting statement and/or prospectus, the timetable, and the many ancillary, but nevertheless important, documents that will form part of the application for a listing.

The broker and merchant banker will give their advice on the provisional issue price, which will be used as a basis for drawing up the documents, and again when the final price has to be fixed. This is usually immediately before formal approval of the pre-listing statements or prospectus by the Listings Division of the JSE. The final decision will be made in the light of market conditions and the standing and prospects of the company. The first

set of draft documents then goes to the Listings Division of the JSE for informal comment.

From this point the broker's function is to liaise between the company and its advisers e.g. merchant banks, attorneys and auditors and the Listings Division of the JSE, and entails numerous discussions with the Listings Personnel, the attorneys and/or the merchant bank, until the draft documents are in an acceptable form. The most important document is the prospectus or pre-listing statement, which, with the documents pertaining to the formal application for a listing, are known as the Part I Documents. The sponsoring broker will be called upon, if necessary, to appear before the Listings Committee of the JSE in order to answer any queries they may have regarding these documents

As soon as the Listings Sub-Committee has formally approved the prospectus, it is lodged for registration with the Registrar of Companies in Pretoria. On obtaining the Registrar's approval, it is published, and the public is invited to subscribe in accordance with the method of issue decided upon. In the case of a private placing the sponsoring broker will place an agreed proportion of the shares (at least 30% of the actual number being issued to the public) with his or her clients and other members of the JSE. In the case of a public issue or public tender he or she will assist in the distribution of the prospectuses to other members of the JSE, to his or her clients, and to the general public, as well as in answering any queries relating to the issue.

When all the shares have been issued, the final documents, which are known as the Part II Documents and include an audited list of shareholders, are lodged with the Listings Division of the JSE through the sponsoring broker.

The sponsoring broker may again be called upon to appear before the Listings Committee on behalf of the company.

Shares can be issued in any denomination, ranging from one share upwards. In terms of the Companies Act each limited liability company with shares, private as well as public, must maintain a share register. In smaller companies the secretary, who sees to the issue of the share certificates, payment of dividends, and all matters affecting shareholders, usually attends to the share records. But in large companies there may be enough work to justify a separate department. In still larger companies, or in cases of groups of companies, the modern tendency is to have a specialist company, the transfer office, to handle the share registration work.

The JSE Listings requirements ensure that all companies appoint a transfer secretary to maintain a register of members and to record transfers of ownership upon disposal of shares to new owners.

Option money = (number of shares x striking price x option charge/100) =(500xR6.00x15/100) = R450.00 Brokerage = 1.20 x R450.00 = R5.40

Incidental accruals e.g. dividends during the option period belong to the buyer, provided he or she exercises the option. When the option is exercised, brokerage, marketable securities tax, and the basic charge on shares are payable

- · The capital market contract include
- Fixed-interest securities e.g. gilts;
- Variable-interest securities e.g. mortgages;

- · Shares e.g. ordinary company shares; and
- · Negotiable documents (e.g. options such as a letter of allocation).

4.1.3 Public sector securities

As mentioned above, the character of gilt-edged, semi-gilt, or any other fixed-interest securities such as debentures and annuities of the public sector apart from their status as liquid assets is not influenced by their terms to maturity. Securities with a term of less than three years have already been discussed in the chapter dealing with money market instruments, and hence no repetition is required for public sector securities with a term of more than three years.

However, a typical capital market instrument not yet discussed under the money market is the annuity.

Annuities

An annuity is a fixed-interest-bearing security that pays interest at regular intervals normally six months and repays the capital amount over the life of the annuity. It is therefore similar to government stock as far as interest payments are concerned, but different with regard to the repayment of capital.

Annuities are transferable by a duly completed transfer document and may be split into amounts of R1 or multiples thereof. The secondary market for annuities compared with that of government stock is minimal. Annuities have virtually fallen into disuse mainly because of the administrative problems they involve and their low marketability.

An annuity debt is discharged by equal period payments. After each payment interest is calculated on the balance outstanding since the last payment and subtracted from the payment amount, the remainder being applied to reduce the principal amount. The principal amount outstanding reduces with each payment, as does the interest. Because a smaller portion of each payment is deducted for interest, the principal amount being redeemed increases. An amortisation schedule is used to break each payment down into an interest portion and a capital repayment portion. This calculation is identical to that used by banks to calculate mortgage bond repayments. An amortisation schedule is usually attached to the annuity certificate as an annexure.

3.2.1 Secondary markets

The following securities are traded on the secondary market of Johannesburg Stock Exchange

1. Debentures. These are transferable by means of a duly completed transfer deed, which must be lodged, together with the certificate, at the transfer office of the relevant company. Most transfer offices are closed for 14 days to one month prior to the interest payment date of the debentures. The issue and transfer of listed debentures are free of stamp duty and marketable securities tax. Up to March 1983 the secondary market for debentures was severely inhibited by the payment of a 1% marketable securities tax by the purchaser on the consideration involved. This tax was abolished in the 1983 budget, and contrary to expectations has not really revived this market. At maturity, repayment of the nominal amount plus the final interest payment is

effected upon presentation of the debenture certificate to the issuing company.

Issue and dealing mathematics: The issue and dealing mathematics for fixed-interest debentures are the same as for government bonds. In other words, prices for fixed-interest debentures with a maturity of more than six months are calculated in the same way as those for government bonds for a maturity of less than six months as those for NCDs.

2. Variable-interest securities. It is normal practice in South Africa that a loan contract with a variable interest rate - be it from a bank (term loan), a trust company (mortgage participation bond), or a pension fund (property leaseback or venture capital) - remains an affair solely between lender and borrower. In all these cases no secondary market exists for the securities. Even debentures with a variable interest rate are extremely difficult to trade on the secondary market, because their future earnings cannot easily be discounted to a present value owing to the uncertainty of their variable pattern of income. However, an exception is the mortgage participation bond for which a secondary market exists in the sense that mortgage participation bond managers are prepared to repurchase these bonds five years after issue.

3. Shares

A company share is normally defined as any of a number of equal indivisible rights or interests in the management, profits, and ultimate assets of a company constituting the property of those who own it and being evidenced by a certificate.

Shares are sometimes referred to as equities - hence the equity market as opposed to the fixed-interest market. However, strictly speaking the term

equity is broader than share, as it usually embraces, besides the issued ordinary share capital, also the reserves of a company, and irredeemable preference capital in issue, and minority interest minority interest less goodwill.

Shares are issued in various classes, each offering particular advantages for either the company or the holder. Because the issue procedure, denomination, splitting, and transferability for each class of share are the same, separate discussions are not warranted in this respect. The following main classes of shares are distinguished on the JSE:

- Ordinary shares. Holders of ordinary shares have voting power and thus ultimate control over the company. For this advantage there is a penalty in the sense that the ordinary shares have no right to the profits of a company until the Board of Directors declares dividends. On the winding up of a company, holders of ordinary shares have only a residual claim against the assets of the company after the settlement of all prior claims. Even their claim against earnings is residual in the sense that all prior charges ie interest, debenture payments, and arrear dividends on preference shares must be settled first. Ordinary shares have no specific maturity date, no fixed income, are subject to price volatility, and the holders thereof assume greater risks than holders of preference shares or debentures.
- Preference shares. Holders of preference shares a security normally bearing a fixed annual rate of dividend, but it may also be a variable rate, or a combination of fixed and variable rate have a prior right over all holders of ordinary shares in the distribution of dividends from profits earned in a year, and a prior claim to repayment of capital on a

winding up. Unless such securities are specifically defined as noncumulative, the company is liable for any arrears in respect of preference dividends. Because the dividend rate on preference shares is usually fixed, the dividend is more regular and stable than that on ordinary shares. The price of preference shares normally fluctuates less than that of ordinary shares, but more than that of debentures because of their higher risk. Preference shareholders have the disadvantage that they normally do not have any voting power. Sometimes preference shares are protected by a clause stating that no further issue of such shares will be allowed in order to improve marketability.

- Participating preference shares are preference shares that, over and above their fixed dividend rate, also share in profits according to a predetermined formula. The holders of participating preference shares therefore have the additional advantage that, apart from their fixed income, they also receive a dividend in a way similar to ordinary shareholders. Participating preference shares are normally more expensive for the purchaser than normal preference shares.
- Convertible preference shares are securities bearing a fixed annual rate of dividend and carrying a right to exchange all, or part, of them for other securities, usually shares, on previously specified terms. These shares will normally be converted into other securities if the holder is convinced that the potential future earnings of the convertible preference shares are lower than that of the alternative securities. The main advantage of convertible preference shares is the flexibility they offer holders, although after conversion holders will

enjoy all the advantages and disadvantages attached to the security to which they converted.

- Redeemable preference shares are securities bearing a fixed annual rate of dividend that are usually redeemable at the option of the company at a specified price on a specified date or over a specified period. Holders of redeemable preference shares have the same benefits as the preference shareholders, but suffer the disadvantage that their shares could be redeemed at a cyclical low in interest rates, with the result that they would find it almost impossible to reinvest at a rate similar to what they had enjoyed previously. To the company the redemption clause lends additional flexibility to the structuring of its capital requirements.
- Bearer shares are referred to frequently in company law and articles
 of association. Up to the Second World War many South African
 companies, including several of the older gold mining companies and
 especially those with London offices, had a large proportion of their
 capital some more than half in bearer shares. These were
 particularly popular in Europe and, although mostly handled through
 the London offices, some were handled through Johannesburg.

Bearer share certificates on warrants were usually elaborately printed or engraved - in English and French Languages - and had sheets of about 20, 30 or 40 dividend coupons attached, together with a talon that could be exchanged for a fresh sheet of coupons and a further talon when the first sheet was exhausted. These coupons were numbered consecutively on each sheet and also bore, as did the talon, the serial number of the warrant. When a dividend was declared, it was necessary for the company to state the

consecutive number of the coupon to be presented to obtain payment of the dividend.

At the outbreak of the Second World War, Britain, South Africa and other countries so severely restricted dealings in bearer shares and payable coupons that they virtually disappeared from view, except in banks and the few other places where they could be traded. The numbers of old-type South African bearer shares have dwindled to almost nothing in most companies, and any that do turn up have to be converted back into registered shares. Vast quantities of bearer shares have been destroyed in one way or another - mostly through war action - and this accounts for the comparatively large sums held as unclaimed dividends by many of these old companies.

Some years later after World War II the South African Treasury gave permission for the introduction of new bearer shares, provided they complied with strict regulations and were clearly marked "South Africa" on the warrants and coupons. However, transfer offices of companies with bearer shares still outstanding have to be in a position to deal appropriately with any of the warrants or coupons that come to light.

A combination of one or more of the above classes. So it is possible to
have non-cumulative convertible participating preference shares,
implying that such shares are fixed-interest-bearing securities that also
share in profits, but in a non-cumulative way, and are convertible into
ordinary shares on previously specified terms on a specific future date.

4.3 REGULATIONS

This part deals with the legal framework of the South African Stock Exchange. The main objectives here are to analyze the regulations that protect investors and how they are enforced.

The fist legislation for the regulation and supervision of the stock markets was promulgated in 1947. It is based on the British common law family but has been amended several times to keep abreast with developments within the needs industries and investors. To enable the local industry to become globally competitive and upgrade regulation and supervision, it has become necessary to review the current legislation

The relaxation of exchange control and the globalization of international financial market have resulted in an increase in the available investment option to local investors in foreign jurisdictions

In order to bring the regulation and supervision of all aspects of the South African financial markets in line with international development, Financial Services Board (FSB) has since 1998 facilitated the drafting of a new Investment Bill. The objectives of the Bill were as follows

i) To create confidence amongst the providers of investment services and investor by ensuring that such services are provided in a fair, efficient and transparent manner

ii) To create investor protection mechanism

iii) To reduce systemic risk

4.3.1 Definition of exchanges and treatment of different types of markets.

Clause 1 deals with the definition of an exchange whilst clauses 10(2) and (3) provide for a discretion the Registrar to determine the extent of meeting the criteria laid down for the applicant for an exchange licence. The main reason for adopting this approach was that, after thorough considerations, it was not deemed advisable to make provision for different tiers of markets. The alternative approach that has been adopted is that all secondary markets will be regarded as exchanges and therefore subject to the same basic criteria. The content of clause 10(3) reinforces this approach whilst clause 11(1) of the Bill sets out issues that the Registrar must consider before a license for an exchange is granted.

4.3.2 Buying/or selling securities and reporting of transaction

Clause 23 deals with restrictions on any person engaged in carrying on the business of the buying and selling of securities, whether listed or unlisted, whilst clause 99 requires regulated financial institutions, which are not engaged in the business of the buying and selling of listed securities, to report transaction to the Registrar if such transaction took place off-market. As far as reporting requirement is concerned, the proposal contained in the Bill is in line with international standard.

4.3.3 Transparency in the markets

Transparency in the market is dealt with in Article 21 which provides that in order to enable investors to assess at any time the terms of a transaction that they are considering and to verify afterwards the conditions in which it has

been carried out, each component authority shall, for each of its regulated markets, take measures to provide investors with certain information Such information is specified in Article 21.2 and it relates to transaction on the relevant exchange i.e. such matters as publication at the start at each days trading on the market of the weighted average price, highest and the lowest prices and the volume dealt in on the regulated market in question for the whole of the preceding days trading, weighted average prices for certain periods must be published, the competent authorities must determine the form in which and the precise time within which the information to be provided, as well as the means by which it is to be made available ,having regard to the nature,size and needs of the market concerned and of the investor operating on the market.

4.3.4 Market trading abuses.

All market-trading abuses are dealt with in Chapter 9 of the Bill as "improper conduct" (Clause77 to 98). As a result hereof, other market trading abuses will henceforth be regulated as the current approach to Insider trading and all such abuses will fall under the responsibility of the Directorate of Insider Trading.

4.3.5 Statutory recognition of representatives' bodies.

A new approach adopted in the Bill, similar to that which has been proposed in the Collective Investment Schemes Control Bill, is that of the recognition of representative bodies (Chapter VII, clause72-74). The intention with these provisions is to enable providers of services to any regulated person interms of the Bill, enabling the latter to perform functions as required by the Bill, to receive statutory recognition under such criteria that may be determined.

4.4 Legislations on insider trading

Insider trading is seen as the use of unpublished price-sensitive information to secure financial benefit.

3.4.1 financial instruments

Where penalties for insider trading generally refer to company-specific items. The proposed legislation includes all financial instruments in which 19 were listed on a regulated market in South Africa or abroad. This means that the legislation covers all security equities, gilt options and futures-regardless of whether they are issued by a company. Even those issued by public sector bodies form part and parcel of the legislation.

The unpublished inside information must be specific and precise. Such information need not relate to the internal affairs of the company, only to the securities or financial instruments in which dealing took place. This legislation includes over -the-counter transaction in listed companies.

4.4.2 Accused

Any individual who knows he has inside information and who deals in financial or securities can be guilty of insider trading. The accused can be the person who deals as principal, agent or intermediary, as well as the one who encourages, discourages or tips another on the basis of inside

information A fine of two million rands, a jail sentence of ten years, or even both for the person who contravenes the law. 1

Persons who have suffered a loss due to inside trading will be able to file claims with the regulator of insider trading. In turn, the regulator will claim special damages from the insider, or circumstances, from his or her employer. The victims' claims should be paid out of the damages recovered from the insider after the regulator has recovered its cost.

4.4.3 Regulator

At the moment, sections of the companies Act 61 of 1973, contains the prohibition on the insider trading, administered by Securities Regulation Panel. The legislation recommends that insider trading should be regulated outside this Act under a separate statute. The legislation proposes a regulator with investigative powers, including right of attachment, or removal of documents interrogation, interdict and power to institute derivatives actions².

Except for one member who favours the Securities Regulation Panel as regulator, the Task Group proposes that FSB should regulate insider trading. The majority report argues that the FSB already has a powerful inspectorate to police its existing functions. The inspectorate should be established as a division of FSB to investigate allegations of insider trading. This inspectorate will decide whether to take civil action or whether to refer matters to the Attorney -General for prosecution. Such a division will also administer the proof of claimant's money.³

 ¹ Final Report by The King Task Group into Insider Trading Legislation, 21 October 1997
 ² Insider traders beware, Mwackernagel, Mail & Guardian, 7-13 November1997
 ³ South Africa-Insider trading regulation and enforcement, Dr FH van Zyl, The company Lawyer, Vol.15 No3, 1994

⁸¹

4.5 ENFORCEMENT

South African Institute of Financial Markets (SAIFM) has been set up with objectives of implementing and monitoring the Code of Conduct, maintain and develop high standards of business ethics and practice, and to promote and encourage the professionalism, credibility and reputation of their members, so as to give a good trading shape both at home and abroad. The main objective here is to protect investors both home based (small & bid) and foreign. Therefore, the rate at which here corporate laws have been enforced in the past years has eared her more popularity amongst most African stock markets. This is done through the following means.

4.5.1 Code of ethics and standards of professionalism

The Institute expects of its members to behave with integrity and dignity and act in an ethical way when dealing with people. Members must act with proper skills, care and diligence when they deal with people. This means that members must be competent and that they should provide full and accurate information to clients at all times.

A major contribution that the Institute has made to the South African financial markets is the setting up of series of exams these exams enable market participants to obtain a relevant qualification and are set at junior, ordinary and senior levels. The South African Futures Exchange (SAFEX) was the first body to make it compulsory for their members to pass these exams before they are allowed to trade on SAFEX.

4.5.2 Investors awareness programme

Regulators such as the FSB, the Registrar of Banks, the Securities Regulation Panel and Business Practices Committee actively embarked on an investor Awareness Programme to advise investors on topics that were chosen on the basics of the types of complaints received by the regulators. For example, many investors were not aware of the charges involved when making an investment A publication telling people what they were expected to receive when they made an investment were given to investors both local and abroad.

Some attempts have been made in this regards by the FSB. A small pamphlet with a checklist to make sure that the individuals choice of investment scheme measured up to accepted standards was published as part of Personal Finance Show at the Gallagher Estates show during 1995.

4.5.3 Establishment and maintenance of investors protection fund.

The JSE established investors protection fund to compensate the investors who would loose their investment as a result of the activities of the brokers. The registrar requires that an exchange maintains a fund for the protection of investors, the exchange imposes a levy for the benefit of the fund on any person involved in a transaction-listed securities by an authorized user. The contributions to the fund referred to in subsection (1) are made in accordance with the exchange rules.

Investors who were prejudiced by the trading activities between 1 and 10 June 1999 of those who had inside information into Kalahari Goldbridge Mining Company Limited and between 3 and 17 May of those who had inside information into Idion Technology Holding Company were compensated. This was in terms of provision of the Insider Trading Act, 1998 and follows the fourth Insider Trading Directorate (ITD) meeting at the Financial Services Board (FSB) in October 1999.Kahahari Goldbridge Mining Company Limited and Idion Technology Holding Limited paid R33616 and R209076 respectively in out of court case.

The individuals, whose transactions were investigated, purchased shares in the companies ahead of favourable news being released to the public. In both cases the settled amount included a punitive element as well as disgorgement of the profit made.

In 1999 alone, the FSB handled 46 cases of investors abuse, the breakdowns are as follows, 30 of the cases were ongoing, 10 were concluded during the year, 2 were sent to court for legal action and 4 were settled. The table below Shows some of the cases handled.

Table 5		
Security	Period of Trading	Case Status
Absec	30/04/99-19/05/99	Ongoing
Afribrand Holding Limited	01/05799-24/05/99	Ongoing
Amalgamated Appliance Ltd	30/08/99	Ongoing
Fraser Alexander Limited	26/05/99-09/06/99	Ongoing
Adoc Ingram	05/10799-06/10/99	Ongoing
Aspen Healthcare Holding	08/03799-19/03/99	Ongoing
Beige Holdings Limited	30/08/99-03/09/99	Concluded
Berzak-Illman Investment	14/01/99-19/01/99	Legal Action
Billcad	04/01/99-18/01/99	Ongoing

Barprop Ltd.Linked Units	18/02/99-13/03/99	Concluded
Brandcorp Holdings	22/02/99-03/03/99	Legal Action
Brainware	01/09/99-08/09/99	Ongoing
Computer Configuration 2	17/08/99-18/08/99	Ongoing
Computer Configuration 1	15/01/99-26/01/99	Ongoing
Core Holdings	09/04/99-30/04/99	Concluded
Crux Technologies	02/09/99-01/10/99	Concluded
Kalahari Goldbridge	01/06/99-10/06/99	Settled
Idion Technologies	03/05/99-17/05/99	Settled
Molope Group 1	29/09/99-04/10/99	Ongoing
Molope Group2	13/10/99-14/10/99	Ongoing
Nimbus Holding	11/06/99-24/06/99	Concluded
Sentry Group	08/06/99-21/06/99	Legal Action

Another variable used to assess the effectiveness of the regulation is the market capitalization. The table below shows an increasing trend of market of the market capitalization. This is attributed to the confidence the investors have in the Market. The market capitalization also has positive correlation with the Gross Domestic Product of 0.7648, thus third after money supply and bank loans of 0.9259 and 08748 respectively

Table 6

Year	GDP	Market	Money supply	Bank Loans
	(million\$)	capitalization	(million\$)	(Million\$)
		(million\$)		
1988	88.168	126.609	59.359	86.742
1989	91.753	131.060	76.079	110.584
1990	106.682	113.754	96.625	132.320
1991	112.309	168.497	105.579	151.879
1992	119.569	103.537	117.031	211.881
1993	117.456	171.942	121.442	235.544
1994	121.619	225.718	141.757	278.079
1995	133.923	280.526	162.301	324.111
1996	165.626	241.571	165.626	380.493
1997	195.762	232.069	195.162	434.884

Correlation Money supply and GDP -0.9259 Market Cap. And GDP -0.7648 Bank loans and GDP - 0.8748

Conclusion

Protection of investors on the Johannesburg Stock Exchange has been very effective. Some of the old dormant legislations have amended and replaced by more effective ones. Supervision and monitoring have improved over the last three years. Since 1998 the Financial Services Board has passed Bills to regulate the carrying on of business as an adviser to clients regarding investment to protect the interest of users of financial services have promoted a healthy development of the financial services industry. Everyone is now aware that they doing business within a properly regulated system where fraudulent and dishonest conduct is prohibited and high standards of conduct are expected and obtained.

The previous regulation system was often criticized, as it did not effectively regulate the activities of intermediaries who offer their professional services as financial advisers. The lack of effective regulation occurred because of the gap in statutory controls. The result was that there was very little protection available to the investors. The previous protection was mostly in terms of common law, which proved to be ineffective.

Chapter 5

5.1 Comparative Analysis

In this chapter we are analyzing the variables of investors protection in African emerging stock markets to be more specific. From our study of protection of investors in emerging markets, we have come out with some variables to measure the strength of protection in Africa.

These variables could be summarized thus;

- 1 The number of times the investment laws have been amended to protect investors since 1995, and
- 2 The number of abuse cases that have been handled by securities regulation commissions. This table below will help us understand how the above cases have been carried out.

Table 7		

COUNTRY	NO OF AMENDMENTS	NO OF CASES
	TO THE CORPORATE	REGISTERED IN EACH
	LAW IN EACH	COUNTRY
	COUNTRY.	
GHANA	1	1
NIGERIA	1	-
SOUTH AFRICA	4	40
KENYA	-	-
COTE DIVOIRE	-	-
BOSTWANA	-	-
ZIMBABWE	1	-
MOROCCO	-	-
EGYPT	1	-

The above table shows the passage and enforcement of legislations on investment laws in some African countries. As shown above South Africa has the strongest investor protection in Africa. Between 1995 and 1999, she has amended and repealed laws four (4) times and handled forty (40) abuse

cases with the rest of the countries, either one (1) or nothing. Investor protection therefore seems to be very slow in most of Africa. The following reasons could be attributed to this phenomenon.

Firstly, most regulations focus on how to invest such as, buying of shares, tax exemptions, transfer of capital, profit and dividends but it is not specified how the investor are protected. In other words, these countries give conditions of investment and do not clearly show how investors will be protected. Although some of them have good investment laws, enforcement is not effective. Most of them have not been able to handle a single case on investors abuse by giving a picture that abuse does not exist. This is just the inability of the exchanges to prosecute the offenders.

Secondly, most African capital markets are still tiny and fledgling especially in comparison with their counterparts in other regions like South East Asia. In sub-Saharan Africa, the Johannesburg Stock Exchange accounts for nearly 90 percent of the total value of the region's market capitalization (listed shares). Even the Nigerian exchange, ranked second among sub-Saharan exchanges in 1999, had a market capitalization of just \$2.94 bn (equivalent to 6.9 per cent of gross domestic product). In the case of West Africa's other exchanges, the eight-country regional exchange in Côte d'Ivoire and the Ghana Stock Exchange showed an amounts which were just \$1.5 bn (5.5 per cent) and \$916 mm (12.1 per cent), respectively.

Thirdly, except for the Johannesburg exchange, most African exchanges share other impediments to their growth and development to be mentioned here are; too few indigenous companies, small average company size, and low liquidity levels (the value of shares traded in relation to total market capitalization). The number of companies listing shares generally is low, and trading in one or just a few stocks often dominates total trading activity.

Investors do not only consider the efficiency of the law protecting them but also political risk. This is not a problem in West Africa at the moment however, foreign portfolio investors over the past year have shied away from the sub-region, which they perceive as politically and economically unstable. The main market indices of the Bourse Régionale des Valeurs Mobilières (BRVM) in Abidjan, Côte d'Ivoire, and the Ghana Stock Exchange fell 15.8 per cent and 32.9 per cent, respectively, in US dollar terms in the first half of 2000. Only the Nigerian Stock Exchange escaped negative investor perceptions. Its index rose nearly 16 per cent in US dollar terms in the first half of 2000, largely due to renewed confidence in the Nigerian economy following the return to civilian rule and signs of increased privatization activity.

5.2 Effects of weak investment protection.

The lack of strong investor protection in most African countries has led to influx of investors to other money markets where there is high investors protection, and lower risk. For example, in Ghana Government Treasury Bills are popular because they are risk-free and attract high interest rates. The bank lending and deposit rates are quite high, the interest income on these bills was around 44 per cent at mid-year, compared with shares which generally paid dividends of only around 5-10 per cent.

Offshore trading is very low in most African countries as compared to South Africa where protection of investors on the Johannesburg Stock Exchange has been very effective. Some of the old dormant legislations have amended and replaced by more effective ones. Supervision and monitoring have improved over the last three years. Since 1998 the Financial Services Board

has passed Bills to regulate the carrying on of business as an adviser to clients regarding investment to protect the interest of users of financial services have promoted a healthy development of the financial services industry. Everyone is now aware that they do business within a properly regulated system where fraudulent and dishonest conduct is prohibited and high standards of conduct are expected and obtained.

The coming into effect of the new legislation, which focuses on the investor's protection, exchange control and globalization of international financial markets have resulted in an increase in the available investment options to local investors in foreign jurisdiction. This has furthermore been expanded by the numerous foreign institutions, which are now soliciting investment from local investors. There is now cross border market penetration into Johannesburg Stock Exchange because of high-level investors protection.

5.3 Lesson from South Africa's experience

Most African countries have a lot to learn from South Africa's experience.

1.*Size of the market*. Since most African capital markets are small and fledgling especially in comparison with, the Johannesburg Stock Exchange accounts for nearly 90 percent of the total value of the region's market capitalization (listed shares). There is the need to integrate them on regional basis to be more efficient and competitive. It is in this light that the present proposal for the establishment regional stock markets, to harmonize the regulations and operations of the stock markets in Africa, with the guidance of the South African Example is an attempt to solve this problem.

2. The establishment of independent body responsible for the legislation and supervision of stock markets. This will create confidence amongst the providers of investment services and investors by ensuring that such services are provided in a fair, efficient and transparent manner. This will also lead to investor protection and reduce systemic risk, since there will be all assurance that laws will be fully enforced.

3. From our hypothesis, we mentioned that a good investor protection would hitherto lead to market expansion thereby increasing Gross Domestic Product. South Africa is one of the few countries in Africa that has high GDP. Since there is positive correlation between market capitalization and GDP, improvement in investors' protection law in other African emerging markets will increase market capitalization, which in the nutshell will increase the GDP of the African economies.

In South Africa the coming into effect of the new legislation, which focuses on the investor's protection, exchange control and globalization of international financial markets have resulted in an increase in the available investment options to local investors in foreign jurisdiction. This has furthermore been expanded by the numerous foreign institutions, which are now soliciting investment from local investors. There is now cross border market penetration into Johannesburg Stock Exchange because of high-level investors protection.

5.4 Conclusion

Studies on the investors protection in Africa shows that apart from South Africa that has a well defined and efficient laws on investment, the rest of Africa are lagging behind as far as investor protection is concerned. This

could partly be explained by the fact that most of the stock markets are young and have not found their feet in international financial markets to attract offshore investment to enable them streamlines the regulation on foreign investment. Those who have some laws on protection of investment have failed to amend some portions to be in line with international standard. Although they are some laws, most of them focus on the benefit like tax exemptions transfer of capital and dividends. They are more of requirements for investment rather than protection.

Finally, we conclude that for African emerging stock markets to perform efficiently, there is a need to assess the quality of the regulatory environment affecting the stock market, and data requirements include efficiency of banking regulation and surveillance to a sound banking system, subject to internationally recognized regulatory and capital adequacy standards, efficiency of securities regulation, central bank independence, and nonstatutory laws and self-regulatory mechanisms. Thus, a genuine development of capital markets in Africa needs a research and information arm. Again, this is an area of synergy and team effort. Fortunately, there are already some important institutions in place that can anchor the collaborative effort in quality information generation and developing an ongoing research agenda that helps keep African capital market operators and policy-makers abreast of the state-of-art developments in capital market knowledge and its application. Existing institutions that can perform such research and information functions include the African Economic Research Consortium (AERC), United Nation as Economic Commission for Africa (UN ECA), African Development Bank (ADB), International Development Research Center (IDRC), International Center for Economic Growth (ICEG), among other institutions and networks. In addition, a recent launching of the

African Capital Market Forum (ACMF) is welcome news. A research arm of the ACMF should directly play in proving quality research and co-ordinating the disparate research and information efforts of the other institutions⁴³

43 Ibid

BIBLIOGRAPHY

Articles

Baizhu. Chen, Kimball, J.Dietrich and Yi. Fang, "Financial Market Reform in China, Progress, problem and prospects" 1999.

Blackburn, K and Christensen, M 1989 "Monetary policy and policy credibility: theory and evidence" pg. 1

Clas Wihlborg, "The role of Enabling and Mandatory Law for Financial System Efficiency", Goteborg Unversity, 1999

Jensen, Michael C., and Mecking, William H. "Theory of the Firm: Managerial Behaviour, agency cost and ownership structure." Journal of Financial Economics 3^{rd} Oct.1973: pg 305 to 60.

Iiene. Grabel, The political Economy of "policy Credibility": the newclassical macroeconomics and remaking of emerging economies. Cambridge Journal of Economics 2000, 24, 1-19.

I.F.C, International Financial Corporation Emerging Market Reports 1995 to 1999.

Luigi Zingales, "Legal system and financial Development" University of New York, NBER, and CEPR 1998

John Toye, "Fiscal Crisis and Fiscal Reforms in Developing Countries". Institute of development studies at the University of Sussex and UNCTAD Geneva, Cambridge Journal of economics 2000.

Manuel Guitian, "The challenge of managing global capital flows", Finance & Development; Washington; Jun 1998.

Modigliani, Franco and Merton Miller," The cost of Capital, corporation Finance and the theory of investment" American Economic review 48

The Stock Exchange, its History and functions (London: Elek Books) 1962 page $278\mathcharce279$

The West African Guardian Sept. 1999 page 12-15.

The Economist, 13th August 1995, pg 10 and 11

Transparency International, 1998 press release.

Wall Street Journal, September 1, 1994,

Text books.

Andrews, G.S., edited by A Hamersma and N Czypionka, Standard Bank of South Africa,.

"The stock exchange", Essays on the South African Financial Structure, Johannesburg, 1975.

D.E.Ayling, "Internationalization of Stock Markets" 1986, page 1

Giovanni. Marseguerra, "Corporate Finance Decision and Market Value" 1998.

Glendon, Mary Ann, Micheal Gorden and Christopher Osakwe "Comparative Legal Tradition in a Nut Shell", St Paul. West Publishing Company 1994, pg. 4-5.

Emerging Economy Fact book with reports from 1996-1999

Falkena, H.B. et al., "The Mechanics of the South African Financial System", London: Macmillan, 1988.

Hart. Oliver. "Firms, contract and financial structure". London: Oxford University press 1995

Hay, Jonathan R, Sheleifer, Andrei and Vishney, Robert W: "Towards a theory of legal reforms" European Economic Review 40, April 1996.

James M. Cypher and James L. Diet, "The process of economic development" 1997, Routedge, London.

J.S.E Manual, Johannesburg Stock Exchange, Johannesburg, 1979.

K. Keasey, R. Hudson and K. Littler, "The intelligent guide to stock market investment" 1998 Page 177-178.

Levine Rose. "The legal environment, Bank and long run Economic Growth". AER 88 June 1998.

Luigi Zingales, "Legal System and Financial Development", University of Chicago, NBER, & CEPR.

R.J Britson, "Stock Exchange and Investment" 1973 page 26

Richard J Tewells, Edward S.Bradley "The Stock market" 1998 seventh edition page 242.

R. Carter Hill, William, E. Griffith and Georg, G. Judge, "Undergraduate Econometrics". 1997 John Wiley and Sons, Inc.

Oxford dictionary of the Business world.

Paul A. Samuel, Economics Ninth Edition foot not on pg 109

Standley G. Eakings Financial markets and institutions 3rd edition

Steven L. Joanes & Jeffry M. Netter. Efficient Capital markets pgs 569-570

Mathias Binswanger, Stock markets Speculative bubble and Economics growth.

Merryman, John H. The civil tradition: An introduction to legal system of Western Europe and Latin America Stanford California, Stanford University press 1969

Standley G. Eakings, Financial Markets and Institutions. 4th Edition

Thomason and Adolf, "The Emerging states of French Equatorial Africa." $2^{\rm nd}\, \rm Edition,\, \rm London.$

Zweigert, Korad, and Kotz, Hein. "An introduction to Comparative law". 2^{nd} revised edition: Clarendon, 1987

Zingales, Luigi "The Value of the Voting Right": A study of Milan stock exchange experience. Revised Financial Studies 7 spring 1994.

Web Pages/data bases

www.worldbank.org

www.adb.org (Asian Development Bank)

Emerging market database Web page

www.Google.se with links to country databases.

www.altaVista.com With Links to Country data bases

www.afdb.org (African Development Bank)

The U.S State department country pages

www.ft.com (Financial Times).

Göteborg University Economic Library search engine.

www.africaonline.com

www.africannews.com

The South African Stock Market Web pages.

www.gse.com.gh (Ghana Stock Exchange)

ixx Appendix

(i)

SUMMARY OUTPUT

Regression Sta	atistics
	0,673607
Multiple R	961
	0,453747
R Square	684
Adjusted F	R0,385466
Square	145
	25858,78
Standard Error	888
Observations	10

ANOVA	df	SS	MS	F	Significance F	-		
Deeresien	4					-		
Regression	1	,	4,44E+09	6,645247	0,032726			
Residual	8	5,35E+09	6,69E+08					
Total	9	9,79E+09				_		
	Coefficients	Standard	4 Ctat	P-value	1	11	1	11
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95,0%	Upper 95,0%
Intercept	60738,54671	26341,07	2,30585	0,050012	-4,10124	121481,2	-4,10124	121481,2
X Variable 1	0,359543054	0,139475	2,577838	0,032726	0,037914	0,681172	0,037914	0,681172

(ii)

SUMMARY OUTPUT

Regression Statis	tics
Multiple R	0,543156
R Square	0,295018
Adjusted R Squar	e-0,10783
Standard Error	0,244364
Observations	12

ANOVA		
	df	
Regression	4	
Residual	7	
Total	11	

RESIDUAL OUTPUT

PROBABILITY OUTPUT

Observation	Predicted Y	Residuals	Standard Residuals	Percentile	Y
1	0,350629	-0,26393	-1,35393	4,166667	0,0867
2	0,254293	-0,13099	-0,67198	12,5	0,095
3	0,221082	0,061418	0,315067	20,83333	0,1233
4	0,342476	-0,12138	-0,62265	29,16667	0,1406
5	0,353251	-0,21265	-1,09088	37,5	0,1985
6	0,640614	0,220786	1,132611	45,83333	0,2211
7	0,194918	-0,09992	-0,51257	54,16667	0,2247
8	0,284236	-0,05954	-0,30541	62,5	0,2825
9	0,314032	0,010768	0,05524	70,83333	0,3248
10	0,163405	0,208795	1,071097	79,16667	0,3722
11	0,223144	0,401556	2,059943	87,5	0,6247
12	0,21342	-0,01492	-0,07654	95,83333	0,8614