CHAPTER I
INTRODUCTION

1.1 General Background

The main objective of government of any developing country is to improve living standard of people through the development process. In order to achieve this objective every government launches different economic, social, cultural and other development activities. For this, government needs huge amount of financial resources.

Nepal is a land locked country lying between two Asian giants China and India. Both of them are able to enjoy high economic growth in the world. However, Nepal has not been able to reap the benefit of synergic development impact of encouraging growth of its neighbor. Nepal has been adopting the system of mixed economy to achieve its development goals. In spite of its planned efforts for development, overwhelming majority of its people enjoy income below the poverty line.

In order to uplift the living standard of people, Nepal has given first priority to economic development through planned efforts and the government has continued the implementation of several reform programs initiated in the past. Resource mobilization is the foundation for economic development of the nation. Since Nepal started its planned development efforts in 1956, the need for mobilization of additional financial resources has been growing in multiple folds. The government can mobilize both internal and external financial resources to bridge its expenditure. However, the internal resources are more preferable to external one for sustainable economic development.

The development of an economy's financial markets is closely related to its overall development. Well functioning financial system provides good and easily accessible information that lowers transaction costs, which in turn improves resource allocation and boosts economic growth. Both banking system and stock market enhance growth, the main factor in poverty reduction. At low levels of economic development, commercial banks tend to dominate the financial system, while at higher levels domestic stock markets tend to become more active and efficient relative to domestic banks.

In developing countries, generally comes across a situation where entrepreneurs do not find resource or productive investment while savers invest their money in real asset or relatively low social productivity. The financial institutions remedy such a situation by soliciting the resources from savers by offering them a variety of financial securities differentiated in maturity, yield provide them to the most efficient users and more efficient allocation of inventible fund. Thus, the need of securities market is still greater in developing countries like Nepal where a host of traditional social and psychological consideration conspire against the direct transaction between surplus units and deficit units.

1.2 Financial Liberalization in Nepal

At the international level, financial liberalization process was set in motion in the mid 1970^{s}. The southern cone countries of Latin America are being the leading ones to embark upon this process, followed by its initiation. Almost all the South Asian countries initiated economic liberalization during 1980s. In South Asia, financial liberalization initially started by Srilanka, Pakistan, Bangladesh in 1975-77 and India during early 1990^{s}. In the context of Nepal, the government initiated liberal economic policy since mid 1980s. The process of financial liberalization gained momentum in 1987/88 when Nepal entered into a three year (1987/88- 1988/89) structural adjustment program with the International Monetary Fund. The general thrust of this program was to increase the role of market force in financial system.

Financial liberalization is one of the components of economic liberalization whereas economic liberalization is a process of shifting government control and transferring the economy into an open market economy. Thus, the economic liberalization is the complete package of economic policies and programs to be pursued by government for free play of market mechanism. Financial liberalization policies aim to improve the effectiveness of monetary polices through greater reliance on market forces. The main financial liberalization policies are aimed at liberalizing interest rate, reducing control on credit, enhancing competition and efficiency in the financial system, strengthening the supervisory framework or prudential supervisory and promoting the growth and deepening of financial market to create and encourse the development of secondary market for government securities.

1.3 Development of Stock Market in Nepal

The history of securities market began with the floatation of shares by Biratnagar Jute Mills Ltd. and Nepal Bank Ltd. in 1937. The next significant development after this was the introduction of the Company Act in 1964 and the first issue of Government Bond in the same year. The establishment of Securities Exchange Center Ltd (SEC) in 1976 was the first and most important attempts made by the government with the objective of facilitating and promoting the growth of capital market in Nepal (World Bank, 2002). Stock market is very important economic institution that plays a crucial role in the economy by channeling investment where it is needed and can be put to best use (Libermen and Fergusson, 1998). So, the stock market works as the channel through which the public savings are channelized to industrial and business enterprises. Mobilization of such resource for investment is certainly necessary condition for economic take off.

The first improvement in Securities Exchange Act, 1983 was made in 1992 to initiate reforms in the Exchange market. Consequently the Securities Board of Nepal (SEBON) was established on 26 May, 1993 to carry on supervisory function and then Securities Marketing Centre was converted into Nepal Stock Exchange (NEPSE) Limited to manage trading of the securities (Paneru, 2003). It was established with primary objective of promoting and protecting the interest of investors by regulating the securities market. Besides, it is also responsible for the development of securities market. The basic objectives of NEPSE is to impart free marketability and liquidity to the government and corporate securities by facilitating transactions in its trading floor through member, market intermediaries, such as broker, market makers etc. SEBON, upon review of the application and the submitted documents permits corporate bodies to raise funds through public issue of securities.

The incorporation of the Securities Board of Nepal (SEBON) under the Securities Exchange Act, 1983 and conversion of the Securities Exchange Center (SEC) in to the Nepal Stock Exchange (NEPSE) under the government policy on capital market reform has greatly contributed to the development of primary as well as secondary market for the corporate securities. Newly formed (issued) securities are bought or sold in primary market. Secondary market allow investors to sell securities that they hold or buy existing securities.The rise in stock price and the market liquidity for corporate securities were observed immediately after the incorporation of the SEBON and the NEPSE for one year only. This has positive and immediate impact on the primary market (Sharma, 1996). But after a year, again downward trend in the primary as well as secondary market is observed and this phenomenon has been continuing till now.

In the view of many economists capital is not regarding only central position to the process of economic development but also as strategic. We know that capital formation is playing a key role for economic development but the capital formation capacity of Nepalese economy is very poor. In this condition, the security market helps to chanalize the unproductive resources to the productive one.

One of the tasks of monetary authorities is to support the gradual extension and proliferations of the machinery commercial banks, saving banks, investment banks, insurance companies, government bond market, private bond and share market etc. which links surplus-deficit spending units.

1.4 Statement of the Problem

Economic Liberalization is a tool used by every economy either developed or developing to achieve the goal of economic development. It became a useful technique to solve the problems like unemployment, poverty and economic growth in some countries but not in all. It has shown duel result in the sphere of the history of economic thought.

Protagonists of liberalization policy in Nepal argue that liberalization allows easy access to improved different sectors of economy. This boosts industrial efficiency which finally causes reduction in cost stimulate domestic demand and enable Nepal's industrial goods to compete abroad, there by relaxing demand side constrains on industrial growth. It ultimately promotes economic growth and brings efficient allocation of resources, help to reduce poverty and stock market development.

In contrast, anti-liberal economists and politicians have alleged that liberalization policy followed by Nepal government is dictated by donors and this policy has in fact distorted Nepalese economy. They argued that poverty has increased, the gap between rich and poor has further been widened, and there has been foreign dominance in decision making after the initiation of liberalization of the economy. Further, they claim that other performance such as export-GDP ratio; GDP growth rate and adverse effect on stock market development are also not corrected. So, liberalization has not been successful in Nepal.

After the adaptation of liberalized economic policy, Nepalese economy could not reap significant benefit as expected. Even though, it creates some of the reforms in each and every sector of the Nepalese economy but it has a mixed performance. Very little statistical analysis has been done to isolate the impact of liberalization in securities market. So, present study attempts to investigate answers of different questions:

i) Is there significant impact of financial liberation in stock market growth?

ii) Are the major reforms related to stock market sufficient to generate growth?
iii) What is the structure of stock market?
iv) What is the role of stock market on economic growth?

1.5 Objectives of the Study

The general objective of the study is to provide a systematic investigation of financial liberalization policies and stock market growth. More over the specific objectives of the study are:

i) To analyse the impact of financial liberalization on stock market growth in Nepal.
ii) To analyse the overall structure of stock market.
iii) To explore the major reforms on stock market.
iv) To examine the role of the stock market on economic growth.

1.6 Significance of the Study

It has already been nearly two decades since Nepal started the process of economic liberalization in 1980^{s} at first. Nepal government has been implementing more open and liberal policies one after another through out the whole period. By now, very little is known about the real impact of these packages. Therefore, we have to analyse whether these efforts have any positive or negative on performance of Nepalese economy. This study analyses the various aspects of liberalization on stock market growth.

More technically the study addresses these questions which are vital for policy makers as well as any one who is interested in this field. This helps to examine the economic logic and political wisdom of the liberalization polices. This also helps in formulating and implementing suitable policy regimes. Therefore, the rationale of the study is apparent. In short, the significance of the present study arises from interest from the viewpoint of the general public as well as from the national perspective.

So, this study is timely and important which has addressed many important research questions that have been raised by different institution and policy makers.

1.7 Limitations of the Study

Financial liberalization is a broad phenomenon. It has been initiated since mid 1990s in Nepalese context. Due to the source and time constraint and scope of the study, it has attempted to evaluate only the impact of liberalization on the development of stock market in Nepal for a period of 15 years i.e. FY1993/94 to FY 2007/08. Thus, there are some limitations for this study. They are;

i) This study has been mainly concentrate on the impact of financial liberalization on stock market growth and its related area.

ii) This study has based on secondary data and no attempts have been made to check the validity and reliability of data.

iii) This study has covered the period of 15 years i.e. FY 1993/94 to FY2007/08.

iv) Five stock market indicators and one growth indicator has used to analyse the stock market growth and impact on GDP.

1.8 Organization of the Study

To present this study in a systematic way, this study has been organized into seven chapters. Each chapter tries to deal on some aspects of stock market and stock market growth.

Chapter-I

This chapter deals with the introductory part. It has already presented with the general background, statement of the problem, objectives of the study, hypothesis of the study, limitations of the study and organization of the study.

Chapter-II

This chapter deals with the reviews of books, journals and major empirical works in the related areas. It has been separated in two parts International context and Nepalese context.

Chapter-III

This chapter describes the research methodology employed in the present study. This chapter presents research design, nature and source of data, methods of analysis and tools for analysis.

Chapter-IV

This chapter deals with conceptual framework of financial market and stock market, its importance, intermediaries, different instruments, concept and objectives of financial liberalization, problems of stock market, and major reforms related to stock market.

Chapter-V

This chapter is the major part of this study. It deals with the presentation of data and empirical analysis of the study with various indicators of stock market growth.

Chapter-VI

This chapter consists of the summery and conclusion. Finally, it ends with the recommendations.

CHAPTER II

LITERATURE REVIEW

2.1 Introduction

In this chapter, an attempt is made to review some of the existing books, journals, articles and thesis concerning the stock market and economic growth which help to analyse the present study.

2.2 Review of International Context

Asli Demirguc – Kunt has presented a policy research working paper entitled *Developing Country Capital Structures and Emerging Stock Markets* (1992). This paper examines whether debt and equity financing are complements or substitutes in developing countries. To answer this question the correlation between capital structure and the extent of stock market development is analysed using secondary data for a cross-section of countries. Other factors that has also taken into consideration in this analysis are identified based on the theoretical literature on determinants of capital structure and concluded that with an increase number of emerging stock markets the possible impact of increased market activity on the capital structure of developing country corporations gains importance. If debt and equity finance are substituted, then with the emergence of an active securities market cost of equity would decline and banks would face additional competition for their corporate customers. However, if they are complements, borrowing capacity of firms increase with the availability of equity financing and given the improved quality of information provided by stock markets, banks may be able to access credit worthiness more accurately, increasing their lending. And this paper tests which one of these scenario is more likely by analyzing capital structures of corporations for a sample of countries with stock markets at different stages of development. Although limited data and the result are preliminary, a positive and very significant correlation exists between firm coverage and extent of stock market development. This result supports the view that equity and debt finance are complementary. Thus, equity markets and financial intermediaries are also complementary, with existence of active stock markets resulting in an increased volume of business for the financial intermediaries.

Ross Levine and Sara Zervos have presented an article entitled “Stock Market Development and Long Run Growth”, in *Economic Review*, World Bank (1996). To analyse whether there is a strong empirical association between stock market development and long run economic growth using secondary data, cross- country regression analysis and partial correlation coefficient have concluded that the stock market development is positively associated with economic growth.

Ash Demirguc-Kunt and Ross Levine have presented an article entitled “Stock Market, Corporate Finance, and Economic Growth: An Over view”, in *Economic Review*, World Bank (1996). The research presented in this symposium seeks to substantively boost knowledge of the relationship between stock market and economic development there by improve policy advice using secondary data have concluded that policy makers should remove impediments to stock market, such as tax, legal and regulatory barriers. But, no strong evidence supports interventist polices such as tax incentives that artificially boost stock market size.

Ross Levine has presented an article entitled “Financial Development and Economic Growth: Views and Agenda" in *Journal of Economic Literature* (1997). To reach at conclusions and to highlight areas he has organized the remainder of this paper in three sections. In 1^{st} section, he explained what the financial system does and how it affects. In 2^{nd} section, he advocated the functional approach to understanding the role of financial systems in economic growth and in 3^{rd} section broad cross-country comparisons, individual country studies, industry- level analyses, and firm-level investigations point in the same direction and concluded that although conclusions must be stated hesitantly and with sample qualifications, the preponderance of theoretical reasoning and empirical evidence suggests a positive, first order relationship between financial development and economic growth. A growing body of work would push even most skeptics towards the belief that the development of financial markets and institutions is a critical and inextricable part of the growth process and away from the view that the financial system is an inconsequential side show responding passively to economic growth and industrialization. There is even evidence that the level of financial development is a good predicator of future rates of economic growth, capital accumulation, and technological change. Moreover, cross country case study, industry and firm-level analyses document extensive periods affects the speed and pattern of economic development financial development or the lack of crucially affects the speed and pattern of economic development.

Ross Levine and Sara Zervos have presented an article entitled "Stock Markets, Banks and Economic Growth" in *The American Economic Review* (1998). In this article they seek to analyse, do well-functioning stock markets and banks promote long-run economic growth? This paper studied the empirical relationship between various measures of stock market development, banking development and long-run economic growth. And concluded that, even after controlling for many factors associated with growth, stock market liquidity and banking development are both positively and robustly correlated with contemporaneous and futures rates of economic growth, capital accumulation, and productivity growth. This result is consistent with the view that a greater ability to trade ownership of an economy's productive technologies facilitates efficient resource allocation, physical capital formation and faster economic growth. Further more, since measure of stock market liquidity and banking development both enter the growth regressions significantly; the findings suggest that banks provided different financial services from those provided by stock markets. Thus, to understand the relationship between the financial system and long-run growth more comprehensively, we need theories in which both stock markets and banks arise and develop simultaneously while providing different bundles of financial services to the economy. We find no support for the contentions that stock market liquidity, international capital market integration or stock return volatility reduces private saving rates or hinder long-run growth. This paper finds a store, positive link between financial development and economic growth and the results suggest that financial factors are an integral part of the growth process.

Randall K Filer, Jan Hanousek and Nauro F Canmpos have presented a working paper entitled, *Do Stock Markets Promote Economic Growth?*(1999) had explained the three stock market development indicators-MC, TV and NOLC to seek the role of stock market in the economic growth of any country. And concluded that there is positive relationship between market capitalization and future economic growth because the efficient market anticipated future growth market anticipated future growth into current period process. Higher the turnover of the stock market, higher will be economic growth. The active stock market is crucial in reallocating capital in productive, profitable economic sectors. If the number of the listed companies is in increasing order, then the economic growth rate will be higher and vice versa. On the basis of these indictors, the study attempted to describe the stock market as an important engine of economic growth in developing countries like Nepal

Augusto De La Trrne, Juan Carlos Gozzi and Sergio L. Schmukler have presented a policy research working paper entitled, *Stock Market Development under Globalization,* World Bank (2007). To analyse the impact of capital market specific and related reforms on stock market development and internationalization using secondary data and regression analysis. They have reached in the conclusion that reforms are positively related to domestic stock market development. They have also concluded that internationalization increases after reforms, relative to both GDP of domestic market activity

Swati Ghosh and Ernesto Revilla have presented a policy research working paper entitled *Enhancing the Efficiency of Securities Market in East Asia* World Bank (2007) to analyse the efficiency of the East Asian Stock Markets, drawing on an analysis of stock markets around the world using secondary data and stock market turn over ratios during FY 2000 to FY 2004 of 109 countries across the world. They found the certain indicators of the physical and market infrastructure, along with certain institutional characteristics of stock market which is associated with lower transactions costs. They also found that certain institutional and legal underpinnings are more conductive to a better informational environment in stock market.

2.3 Review of Nepalese Context

Chandra Kumari Shrestha has conducted a thesis on *Nepalese Stock Market: A Study of Banking Sector Stocks and Market Efficiency* (2000) with the objectives of estimating market and total risk for all quoted banks in Nepal, constructing a banking sector index for Nepal and identifying qualitative factors that affect the NEPSE. She has analysed the development in capital market theories, various aspects of NEPSE and construction of a banking sector index collecting primary as well as secondary data and conducted that the Nepal stock exchange is still operating in its nascent stage. This is also revealed from the low stock turnover, low participating companies, lower level of transactions, lower level of market capitalization and volatile stock price situation.

Bibek Pandey has conducted a thesis on *Financial Sector Reform in Nepal: Assessment of Impact Financial Sector* (2003) with the objectives to access the impact of FSR in commercial banks, finance companies and capital market. He has analysed the various aspects of financial sector reform and its impact on commercial banks, finance companies and capital market collecting secondary data and concluded that the result of financial reforms initiated had remarkably increased the number of financial institutions. Impact on deposit growth on commercial banks and finance companies were positive as deposit of both institutions remarkably increased during the review period and at faster rate than at the time before initiations remarkably increased during the review period and at faster rate than at the time before initiations of reforms and overtook the rate of growth of GDP. Capital market could not also remain unaffected by the financial reforms initiated by government of Nepal.

Jyoti Joshi has conducted thesis on *Role of the Nepal Stock Exchange (NEPSE) in The Securities Marke*t (2003) using secondary data and simple statistical tools. She has concluded that the Nepalese stock market is making progress through steady, as compared to the performance of previous years. They think that the main reason for the public response to be high is due to lack of opportunities for investment in other sectors. The liquidity position of our country is also high; this could have also led to high public response to share application. We do not have proper analysis to make and people invest in shares looking at the market situation and by making some while guesses public are attracted towards share markets than other companies, basically to increase their values of investment.

Lok Raj Paneru has presented thesis on *Stock Market and Economic Growth (2003)* with the objective to examine the role of stock market in the economic growth of the nation using secondary data, correlation, multiple regression and econometric model has described that stock market works as the medium of chanalise the saving resources towards the productive uses in the form of investment. Where as secondary market does it by influencing the perception of investment and firms about the economic activities and prospect. The primary market plays the vital role directly in increasing the investment level and thus, capital stock of firms through mobilizing the saving of individual investors as well as institutional bodies. From different findings, he has concluded that the size of the primary as well as secondary market has the positive influences on the overall size of the economy. Saving behaviors of the firm as well as individual are affected by the way prices are moved in the secondary stock market. Increasing issue of equity by the firms indicate that the investors are willing to take part in the investment process and thus derive the economic forces. Strongly performing stock market helps to prevail the optimism in the overall economy. And also booming market helps the government to collect revenue from capital gain taxes.

Jinesh Sindurakar has conducted thesis on *Relationship between Stock Market and Economic Growth* (2004) with the objective to analyse the accusation, which describes the stock market as the casino and present the different theoretical aspects and statistical tools in an attempts to prove the relationship between the stock market and economic growth. Using secondary data from FY 1993/94 to 2001/02 the comparative study of COC between GDP (all economic sectors) of Nepal with NEPSE and GDP of USA with NYSE was also done in the study in order to meet the objective. It was found that the relationship in our country is insignificant. The study described the reasons as a result of the lack of knowledge in Nepalese investors about the stock market opaque rules and regulations, pricing of the stock on the basis of demand and supply rule of stock instead of economic condition of the concerned companies etc.

Murari Bhusal has conducted thesis on *Privatization and Capital Market Growth in Nepal (2004)* with the objective to provide a systematic investigation on the development of capital market after the privatization policy is applied to Nepal, using the secondary data and multiple regression analysis has concluded that from the point of view of capital market growth, privatization has significantly positive impact during the privatization period. The listing and trading of privatized enterprises has increased. But after the following years of privatization, the market capitalization, trading volume, market liquidity has decreased continually during the study period; most of the privatized enterprises had not audited their financial statement and also not conducted the annual general meeting. This type of poor performance of privatized enterprises has also played inverse effect in capital market. Due to the lack of market liquidity of privatization enterprises, the public investors could not make portfolio investment. An important cause for this failure was the lack of any preparation for strong regulatory oversight and corporate governance rules.

Bhisma Raj Dhungana has presented an article entitled “Financial Sector Reform’’ in a special publication of NRB *Nepal Rastra Bank in 50 Years*

(2005). In this article, he has described the efforts of reform in financial sector, problems and prospects; and concluded that capital market is not regulated by NRB. The stock exchange, being the important player of the capital market has a significant role in the Nepalese financial market. On the top of that Nepal Government has initiated various programs in reforming the securities market in Nepal. Despite various economic and non-economic problems facing by the country, the progress made on comprehensive financial sector reform seems to be satisfactory. Since the financial sector reform program is being considered as a vital element of Nepal government's comprehensive economic reform program in realizing the goals of economic growth and poverty reduction, it must be strengthened in the coming days in order to reinforce the private sector- lead growth. In this way Globalization, Liberalization, Privatization, Modernization and Fair Competition are the five pillars for strengthening the financial sector, these concepts should be adhered to all the time in developing the strategy for the financial system. The financial assistance provided by the development partners has a significant impact in the development process of the economy.

Deepak Paudel has conducted a thesis on *Sock Market Participation in Nepal* (2005) with the objective to study and analyse the stock market participation in Nepal. Beside this, about the awareness of Nepalese people regarding securities investment, size and liquidity position of Nepalese stock market, stock market participation and trend in Nepal; and some major investment influencing factors of securities investment using primary as well as secondary data, he has concluded that stock market facilitates the exchange of financial assets by bringing together buyers and sellers of securities. Buying and selling securities on stock market are extremely important for the allocation of capital within economies. It has vital role of stock market for overall economic development in both developing and developed countries, strong development of stock market is essential. Since it has vital role, the size of stock market is very small and its contribution to national economy is very low in comparison to the stock market of developed countries and many developing countries. It also reveals that more urban people have invested in securities than rural people. Most of the existing investors are not satisfied from the present returns of securities. Majority of the respondents have lack of knowledge to invest in securities. Nepalese people give the first priority to higher return and second priority to lower risk. The securities investment is not dependent on income level of people. The people with academic background of management and economics are aware but their habit to invest in securities is not significantly different than others and the perception of NEPSE and SEBON staffs, company staffs and investors towards the government efforts to develop stock market is same.

Gayatri, Chauhan has conducted a thesis on F*inancial Sector Reform in Nepal: An Assessment and Impact (2005)* saying gradual liberalization of financial market and its players and opening of all types of depositary and non depository to the private sector which expand economy activity and accelerate economic growth." She had set objective mainly showing the impact of financial sector reform in commercial banks, financial companies and as a whole system. She emphasised that after the financial sector liberalization NRB changed its monetary instruments and used indirect instrument to control money and capital market. Another major reform has taken place in area of capital market, established security market; NEPSE was created that lead to established security exchange broad. She concluded that the impact of financial sector reform, 17 commercial banks were operated up to 2004, expand the trading flower of different companies, expended the different NGO, related banks, micro credits operated to urban as well as rural area of country that ultimately positive impact to access of credit to poor people after financial sector reform.

2.4 Conclusion

The reviews of aforementioned works make it clear that an efficient stock market is the medium through which only productive firms that have better performance can easily raise capital through primary markets. This type of behavior of efficient markets enhances the economic growth process by the productivity growth. Stock market works as a vehicle for raising capital for firms. It also helps investors to diversify their wealth across variety of assets. And the companies enjoy permanent access to capital fund raised through equity issue. If society invests and maintains a sufficient amount of capital in firms that augment human capital and technologies. The more resources allocated to the firms, the more rapid will be economic growth. Efficient stock markets performs positive role by reducing the liquidity risk to the investors.

There is positive impact of financial liberalization on stock market growth. The development of the stock market is a necessary factor for modern economy. It is obvious that stock market should be well-functioning for sustainable economic development. But, Nepalese stock market development is in primary stage. Though, there have been a lot of studies explaining on the financial reforms, relationship between stock market and economic growth, none of the studies covers the area of present study. This study has been helpful to analyse the impact of financial liberalization on stock market growth in Nepal. This study tries to fulfill the gap by measuring the contribution of Nepalese stock market to the overall economic growth of the economy.

CHAPTER III
RESEACH METHODOLOGY

The sole objective of this study is to analyze the impact of financial liberalization on stock market growth in Nepal. For this purpose the study has been presented and reflected the methods and techniques which have been carried and followed while conducting this research.

3.1 Research Design

This study has been tried to examine the impact of financial liberalization on stock market growth and role of stock market in economic growth of Nepal. This research has been an analytical and descriptive in design using historical data to access the current status of stock market. This research has tried to analyze and describe the stock market growth. Historical data of FY1993/94 to FY 2007/08 has been fully taken into consideration. The main variables used in analysis are economic growth indicator and stock market development indicators.

3.2 Nature and Sources of Data

To fulfill the defined objectives, this study is mainly based on the secondary data. The source of data consists of books, journals, newspapers, reports and theses. The major sources of secondary data are the following.

- Different publications of Securities Board of Nepal (SEBON) and Nepal Stock Exchange (NEPSE)
- Different Publications of Ministry of Finance (MOF) and Nepal Planning Commission (NPC).
- Different Published Documents of Nepal Rastra Bank (NRB).
- Different Publications of Central Bureau of Statistics (CBS).
- Different Publications of World Bank (WB) and IMF.
- Different Publication of other institutions.
- Articles Published on different journals and news magazines.

- Previous research studies, dissertation and relevant articles on the subject matter.
- Internet, e-mail.

Formal and informal talks and questions with the concerned authorities of the related institutions have helped to obtain the additional information for this study.

3.3 Tools of Analysis

It is fact that collected data should be properly analyzed to overcome the solution of research problems. For this purpose, both financial and statistical tools have been used in this study. These tools are briefly described below.

3.3.1 Financial Tools

i) Market Capitalization (MC) Ratio

Market capitalization ratio is an important measure of stock market size. This ratio indicates the relative importance of stock market to national economy and assumes that stock market size is positively correlated with ability to mobilize capital and diversify risk. It can be found by using following formula.

$$\text{Mc Ratio} = \frac{\text{Market Capitalization}}{\text{GDP}}$$

ii) Stock Market Turnover Ratio

It measures the liquidity position of stock market. A high stock market turnover ratio indicates the low transaction cost and relative case in buying selling of shares. It can be calculated as follows.

$$\text{Turnover Ratio} = \frac{\text{Annual Turnover}}{\text{Market Capitalization}}$$

3.3.2 Statistical Tools

Both quantitative as well as qualitative methods have been employed for the purpose of data analysis. However, the quantitative tools have been employed widely it has been seen as a best method for the data analysis and also to reach at the conclusion. Different statistical tools have been employed as demanded by the objective. With regard to the model used following measure are carried out to check the reliability of the analysis.

i) Regression Analysis

This part of analysis mainly deals whether the indicators of stock market development is strongly linked to economic growth of the country. To conduct the analysis, regression equations are employed. The variables that will be used in the models are; Gross Domestic Product (GDP), Market Capitalization (MC), Annual Turnover (AT), Number of Listed Companies (NOLC), NEPSE Index (NI), Volatility (V).

To see whether stock market variables are related to gross domestic product (GDP) or not, the regression equation can be written as:

$lnGDP = lna + b_1 lnMC + b_2 lnAT + b_3 lnNOLC + b_4 lnNI + b_5 lnV$ ………… (i)

iii) Trend Analysis

The movement of the data over a long period of time is called the secular trend. The general tendency of the values to increase or decrease during the long period of time is termed as secular trend.

MC Ratio = a + bx ……………………………… (i)

AT Ratio = a + bx ………………………………. (ii)

NOLC = a + bx …………………………………. (iii)

NI = a + bx ……………………………………… (iv)

V = a + bx ……………………………………….. (v)

MC = a + bx ……………………………………... (vi)

iv) Coefficient of Determination (R^2)

Coefficient of determination is used for judging the explanatory power of the regression plane. The R-squared (R^2) statistic measure the success of regression is predicting the values of dependent variable within data. Estimate of coefficient of determination (R^2) show the percentage of total variation in dependent variables explained by independent variables. R^2 lies between 0 and 1. The higher the R^2 the greater will be the percentage of the variation of dependent variable explained by the independent variables i.e. the better the goodness of fit of the regression plane to the data and closer the R^2 to zero the worse the fit of regression plane.

v) Adjustment Coefficient of Determination ($\overline{R^2}$)

This measure is also employed to get additional information about the goodness of fit. One problem with using R^2 as a measure of goodness of fit is that the R^2 will never decrease as more regressors are added. In the extreme case, we can always obtain R^2 of one if we include as many independent regressors as there are sample observations. The adjusted, commonly detonated as $\overline{R^2}$ penalizes the R^2 for the addition of regressors, which does not contribute to the explanatory power of the model.

vi) t-test

The t-test is one of parametric based on student distribution. It is used to test the hypothesis about any individual partial regression coefficient. To compute the t-statistic the standard errors for each input are computed separately. The t-ratio is the significant test of the regression of hypothesis. The decision to accept or reject null hypothesis is made on the basis of value of the test statistic obtained from the data at hand. The t-statistic which is computed as the ratio of estimated coefficient to its standard error is used to test hypothesis that a coefficient is equal to zero, to interpret the t-statistic given that the coefficient is equal to zero.

vii) F-test

F-test is used to measure the overall significance of estimated regression, which is also a test of significance of R^2 because these two vary directly. When $R^2 = 0$, F is zero and $R^2 = 1$, F is infinite. That is to say the larger the R^2 the greater the F value. Thus, large value of F-test implies that the overall significance of estimated regression is good.

viii) D-W test

D-W test is the test that justifies weather there is serial autocorrelation or not in the residual terms. Moreover it measures the linear association between adjacent residuals from a regression model. If there is no serial correlation, the D-W statistic will be around two. The D-W statistic will fall below two if there is positive serial correlation. If there is negative correlation the statistic will lie somewhere between two and four. Positive serial correlation is the most commonly observed from of dependence. As a rule of thumb with 50 or more observations and only a few independent variables, a D-W statistic below about 1.5 is a strong indication of positive first order serial correlation.

CHAPTER IV

CONCEPTUAL FRAMEWORK

4.1 Financial Liberalization

Financial liberalization is one of the components of economic liberalization whereas economic liberalization is a process of shifting government control and transferring the economy into an open market economy. Thus, economic liberalization is the complete package of economic policies and programs to be pursued by government for free play of market mechanism. Financial liberalization policies aim to improve the effectiveness of monetary polices through greater reliance on market forces. The main financial liberalization policies are aimed at liberalizing interest rate, reducing control on credit, enhancing competition and efficiency in the financial system, strengthening the supervisory framework or prudential supervisory and promoting the growth and deepening of financial market to create and encourse the development of secondary market for government securities.

4.1.1 Objectives of Financial Liberalization

Financial sector is the backbone of the economy. Financial sector of any economy works as a facilitator of achieving sustained economic growth through which providing efficient financial intermediation. The proximate objective of financial sector reforms is to extend, widen and deepen financial markets. Financial sector entails the gradual liberalization of financial market and its players and opening of all types of depository institutions and other non-depository financial institutions to the private sector. The introduction and establishment of financial instrument and financial institutions are not important in absolute term. What is important here is that, there exists a positive relation between the growth of financial and non-financial sectors, i.e. the development of financial market has a direct bearing on the growth of the real sector. Hence, the objective of financial liberalization relates to transmit the impulses of financial sector to the real sector through certain channels.

Financial sector reforms attempt to strengthen these channels. In essence, financial sector reforms envisage attaining higher economic growth through (1) Allocative efficiency, (2) Operational efficiency and (3) Dynamic efficiency (Khatiwada, 1999).

i) Allocative Efficiency

The removal of financial constraints with the deregulation of interest rates helps financial resources to move to high yielding sectors. Interest rate liberalization helps ration out low yielding investment this leads to an efficient use of scarce resources. Thus, financial reform helps to achieve higher economic growth through improved allocative efficiency of the available resources. The allocative efficiency increases the return on investment and promotes an accelerated growth of the real sector of the economy.

ii) Operational Efficiency

Financial sector reforms with the removal of entry and exit barriers help faster and enhance competition in the financial market. Improved competition helps lower financial intermediation cost. This also has a direct bearing on economic growth through induced saving and investment.

iii) Dynamic efficiency

Financial sector reform helps the financial institutions. Generate a host of financial instruments to cater to the changing needs of the consumers. It also helps to improve the quality of financial services. In the process, the financial market would deepen. Both depositors and borrowers in particular and the economic general benefit from the diversified financial services. Thus, financial liberalization is expected to support economic growth through increased saving in the financial sector and high quality economic investment.

4.2 Financial System

Financial system refers to a set of institutional arrangement through which financial surplus in the economy are mobilized from surplus units and transferred to the deficit units. Financial system is to be distinguished from payments system which refers to the set of institutional arrangements through which purchasing power is transferred from one transactor to another. The financial system is a broader system; this system covers both cash and credit transactions, where as the payment system covers only cash payments (Paul, 2004). There are three main constituents of the financial system.

4.2.1 Financial Assets

The financial assets or near money assets are the claims to money and perform some functions of money. They have high degree of liquidity but are not as liquid as money is.

4.2.2 Financial Institutions

Financial institutions or financial intermediaries act as half-way house between the primary lenders and the final borrowers. They borrow funds from those who are willing to give up their current purchasing power and lend to those who require the funds for meeting the current expenditures.

4.2.3 Financial Markets

The financial system of a country works through the financial markets and the financial institutions. The financial markets deal with different financial assets; currency deposits, cheques, bills, bonds etc. Which perform different functions; they create and allocate credit, serve as intermediaries in the process of mobilization of saving, provide convenience and benefits to the lender and borrowers, promote economic development through a balanced regional and sector allocation of investigable funds. Financial markets are credit markets which cater the credit need for individuals, firms and institutions. Since credit is required and supplied for short period and long period, the financial markets are broadly divided into two types: Money market and capital market. Money market deals with the short-period borrowing and lending of funds while capital market deals with the long period borrowing and lending of funds.

4.2.3.1 Money Market

Money market refers to institutional arrangements dealing with the short-term borrowing and lending of funds to meet the short term credit needs of business. The money market is not a single homogeneous market but consists of several heterogeneous sub-markets like call money market; trade bill market etc. Like other markets, money market also has buyers and sellers in the form of borrowers and lenders. Money market does not deal with money. It deals with commodity in the form of short term financial instruments or near money assets. These assets are relatively liquid and readily marketable like short-term government securities, treasury bills of exchange, commercial bills, banker's acceptances, etc. Money market has a price in the form of rate of interest, which is an item of cost to the borrower and return to the lender. The borrowers in the money markets are traders, manufactures, speculators, and even government institutions. The lenders in the money market are commercial banks, central bank, non-bank financial institutions, acceptance houses and bill brokers etc. Money market is closely and directly linked with central bank of the country. So, the institutions are closely regulated by central bank. The basic role of money market is that of liquidity adjustment. So the degree of risk is small in the money market.

4.2.3.2 Capital Market

Capital market refers to institutional arrangements dealing with medium-term and long-term loans. Business firms need two types of finance; short-term finance for purchasing raw materials, for payment of wage etc, and long- term finance for purchasing capital equipments and fixed assets; such as machinery, tools and implements, power plant, construction of factory building etc. Thus capital market facilitates the lending and borrowing of long-term funds to meets the long term requirements. In which, securities with a maturity of one year or more are exchanged.

Capital market plays an important role in mobilising resources and diverting them in productive channels. It facilitates and promotes the process of economic growth in the country and other various functions viz. create link between savers and investors, encouragement to investment, promotes economic growth, and tends to stabilize the values of stocks and securities, benefited to investors. For this, capital market deals with different credit instruments: stocks, shares, debentures, bonds and securities of the government.

On the demand side; corporations, government and local bodies, uncorporated business, farmers are leading borrowers of funds in the capital market. They raise funds by supplying capital market instruments like; common and preferred stock, bonds, mortgages etc. to meet their need and other expenditures. Even individuals also demand medium-term or long-term funds in the form of consumer credit. On the supply side, individuals, financial institutions including commercial banks are the major suppliers of capital market funds. They supply medium and long-term funds. The individuals invest directly or through financial intermediaries. If the rate of interest is low or moderate, individuals tend to keep their surplus fund in saving institutions and if the rate of interest is high, they turn to direct investment in the capital market to reap higher rate of return. The important institutions of the capital market are stock exchange, commercial banks, development banks, non-bank institutions; insurance companies, manufacturing companies, hotel, trading etc. The capital market feels central banks influence mainly indirectly and through the money market. So in the capital market, the institutions are not much regulated by central bank. The basic role of capital market is that of putting capital to work, preferably to long-term, secure and productive employment. So, the risk is much greater in capital market. Risk varies both in degree and nature through out the capital market due to more time for a default to occur.

Capital market can be divided into two parts: Non-Securities market and Securities market.

i) Non- Securities Market

Non- securities market is the market where financial transactions are carried out between the lender and borrower for a longer period without issuing any securities in the form of share, bond and debenture. Financial transactions between the lending institutions such as development banks and the business houses or individuals and those contractual saving institutions like individuals or business houses etc come under non-securities market

ii) Securities Market

The securities market refers to the markets for securities where securities like government bonds, corporate bonds, ordinary shares, preference shares, mutual funds and unit certificates are bought and sold. The uniqueness of securities market is that market consists of institutions and mechanism apart from buyers, sellers and securities in the market. The securities market can be divided into two parts: Primary market and Secondary Market.

a) Primary Market

The term 'Primary Market' is used to denote the market for the original sale of securities by an issuer to the public (Cheney and Moses, 1995). It is also known IPO market because initial public offering is done though this market. In this market, securities can be sold either at per, or premium, or discount. But in case of Nepal, company Act, 1997 has restricted to sell securities at discount. A Primary is the offering of stocks or bonds that have never been previously issued. The offering may be made in two ways (Hampton, 1998).

Direct Placement

A bond or stock issue may be placed directly with the individuals or company who will own the securities.

Underwritten Placement

An offering may be made by corporation through an investment banker, a principal who acts as the middleman between the issue and the public. In this role, the investment banker is an underwriter of the offering, who brings together a group of other investment banker to underwrite or purchase the entire offering. Once the underwriting syndicate has made the purchase, it will resell the securities to a variety of individuals and institutions through the mechanism of OTC Market.

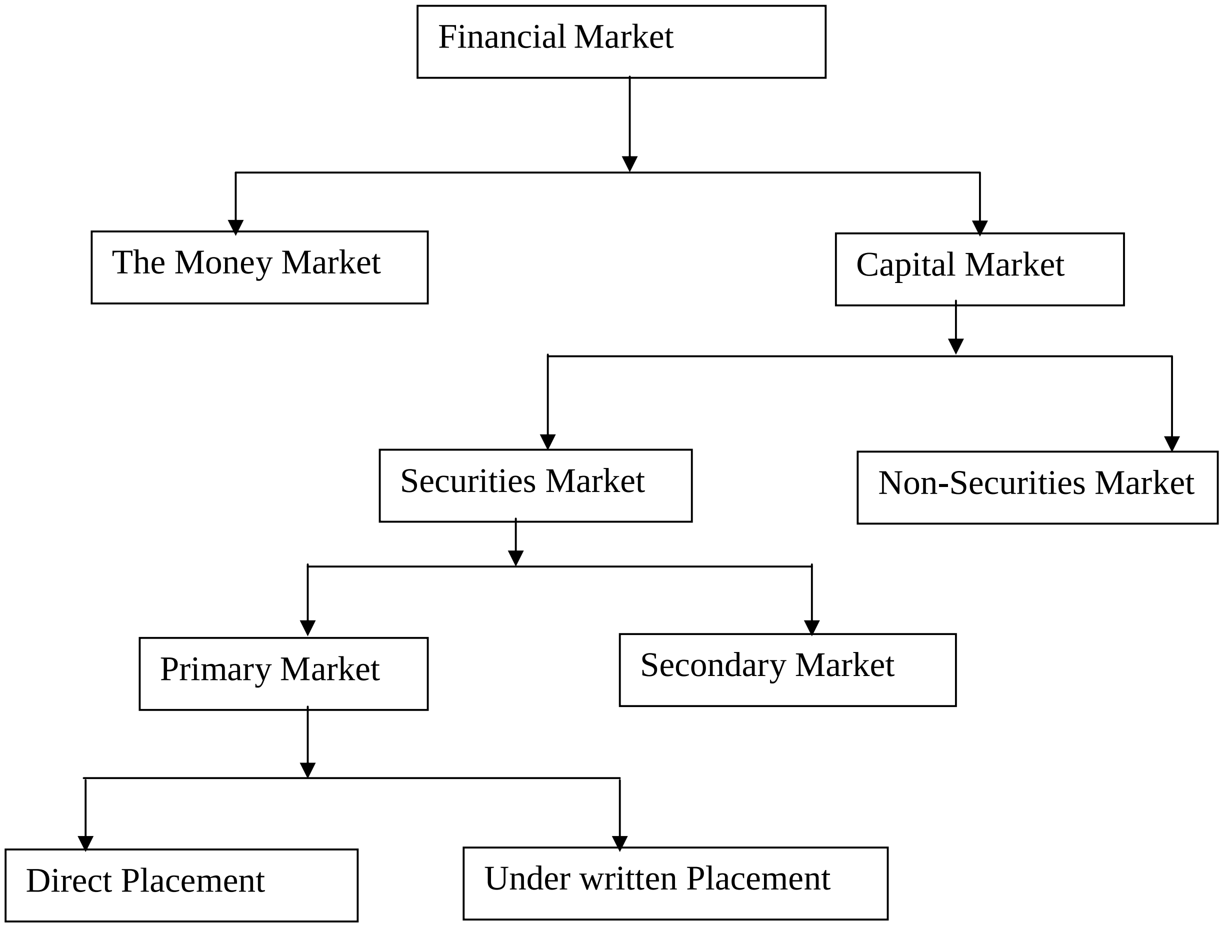
b) Secondary Market

Secondary market is the market place where second hand securities are traded. It means securities once purchased through primary market are traded in secondary market. Both primary and secondary markets are complementary to each other. In the absence of one market other market remains incomplete. Secondary market comprises organized stock exchange and over- the counter market.

Unlisted securities are not traded in stock exchange. Exchanges generally do have their own listing rules. So, unlisted securities are traded in OTC. The phrase "Over-the-counter" originated in the days when securities were traded over the counters of various dealers (Francis, 1986). Today, OTC market is more a way to do business than a place. The OTC market is negotiated market because prices are established by individual bargaining between buyers and sellers. Normally, a customer works through a broker to locate a dealer who is always either to buy or sell certain stock or bond. These dealers make a market for the specific securities (Hamppton, 1998).

The OCT market competes with investment bankers and the organized stock exchange because OTC dealers can operate in both the primary and the secondary markets. The broker dealers who trade OTC securities are linked by international network of telephone lines and computer system through which they deal directly with one another and with their clients. But, Nepal has just started OTC market and NEPSE is another organized secondary market in country.

Chart 4.1 Constitutes of Financial Market



Source: Paul, 2004

4.3 Brief Introduction of Indicators

The indicators are those variables that are used to judge the development of the stock market and financial market development which are available from Nepal Stock Exchange, SEBON, Nepal Rastra Bank. Similarly, economic growth indicators are those variables which help to indicate the development and economic growth of a country.

4.3.1 Indicator of Economic Growth

a) GDP Growth

Economic growth can be simply defined as the increase in economy's output over time. The best measure of the economy's output is real GDP or GDP at constant prices. The reason for specifying real GDP is because it changes only when the output changes over the time. Therefore, if growth is defined as the expansion of the economy's output then price change must be removed from GDP as in the constant price.

4.3.2 Indicators of Stock Market Development

a) Market Capitalization

Market capitalization measures the size of the stock market and equals the values of listed domestic shares on domestic exchanges. Although large market does not necessary function efficiently and tax may distort incentives to list on the exchange, many observers use capitalization as on indicator of market development.

b) Annual Turnover

Turnover equals the values of the trades of domestic shares on domestic exchange divided by the values of listed domestic shares. Turnover measures the volume of domestic equalities traded on domestic exchange relative to the size of the market. High relative to the size of the market; high turnover is often used as an indicator of low transaction costs. Importantly, a large stock market is not necessarily a liquid market; a large but inactive market will have large capitalization but smaller turnover.

c) Volatility

It measures the movement of the stock market index during the certain period around the mean value. Specially, this indicator is a twelve month, rolling, standard deviation estimated based on market returns. Higher standard deviation means higher volatility and more risk. Greater volatility is not necessarily a sign of more or less stock market development. Indeed, high volatility may be in a well functioning market.

d) **Concentration**

In some countries a few companies dominate the market. High concentration is not desirable because it may adversely affect the liquidly of the market. To measure the degree of market concentration share of market capitalization accounted for by ten largest stocks is computed and called concentration. In more developed market the concentration is low where as in less-developed market concentration may be quite large.

4.4 Importance of Stock Market

The considerable debates exist on the importance of the relationship between the financial system and economic development. The following four points try to shade light on the historical debate on the role of the financial system by examining the empirical link between stocks market and economic development. The importance of stock market in the economic growth can be explained as follows.

a) Liquidity

Due to the salable nature at time of need creating a source of finance which reduce the risk can be therefore regarded as liquid assets.

b) Risk Diversification

As high expected return project are comparatively riskier than the low return projects, stock market behaves as a vehicle; which diversifies the risk of shifting the investment into high return projects.

c) Acquisition of Information

When the investor get information that the firm in which he has invested is performing well and its growth rate is satisfactory, and then he will be not hesitated to invest in that firm through the stock market in the form or right share. Therefore, it can be said that better information about the firms will improve resource allocation and boost economic growth.

d) Saving Mobilization

Stock markets can mobilize the saving by connecting them for the investment in large projects which are in need of large capital. Through the investment in large projects or saving mobilization can boost economic efficiency and accelerate long run growth.

4.5 Intermediaries of Security Market

The intermediaries of security market are as follows (Paudel, 2005)

a) Stock Broker

Stock broker is a security business person who deals on behalf of investors in buying and selling of securities of listed company they also provide information and advice relation to investment alternative for their service they change commission which is up to the range between 0-1 percentages. The total numbers of authorized stock broker are twenty three in Nepal.

b) Issue Manager

Issue manager is a security businessperson who carries out function relating to public issue of securities on behalf of the issuing company in the primary market. The number of issue and sales manager are ten.

c) Security Dealer

Security dealer is security business person who buys securities in his name at the primary market and sells them from secondary market (stock market) either in his own name, or on behalf of customers' name through stockbroker. These are only five securities dealer in Nepal. Among them, three are government securities dealer and two are corporate security dealers.

d) Market Maker

Market maker is a security business person who deals with bonds issued by the government. Market makers also known as specialists, facilitate the trading of securities by maintains on inventory on particular securities. It carries out functions relating to public issue of the mutual fund and buying and selling of equity shares in their own name of at least three organized institutions with the objectives of providing liquidity for them. There are five market makers in Nepal. Among them, three are Government and two are corporate.

4.6 New Issue Market Securities

The new issue market is a primary market because it is concerned with the creation of new financial claims. It provides an organization, which may be used by deficit units to raise funds from surplus units. A number of securities are issued by companies in the new issue markets. Out of them, some of the major securities are as follows:

i) **Equity Share**

Equity Share represents the ownership position in a company. The holders of equity share are owners of the company and they provide permanent capital. They have voting rights and receive dividends at the discretion of the board of directors and receive dividends at the discretion of the board of directors.

ii) **Preference Share**

Stock issued giving first priority to receive dividend as well as claim on assets at the time of bankruptcy of the corporation over equity share is called preference share. The preference dividend rate is fixed but do not represent obligation of the issuer. Some preference shares are perpetual some are redeemable, some are called and some are convertible into equity shares.

iii) **Debenture**

Debenture represents long-term loan given by the holders of debenture to the company. The rate of interest is specified and interest charges are treated deductible expenses in the hands of the company. Debentures are issued by pirate firm business enterprises whether owned by private investors or by government.

iv) Convertible Securities

A debenture or a preference share may be issued with features of being convertible into equity share after a specified period of time at given price. Thus a convertible debenture will have features of a debenture as well as equity.

v) Warrants

Warrants are long-term option that given the holders the rights to purchase as stated number of shares of the company's stock at a specified price within stipulated period of time. Generally, warrants are distributed with debt and preferred stock, and they are used to induce investors to buy long-term debt or preferred stock with a lower cooperates than would other wise be required.

4.7 Major Reforms on Security Market

There is some legislation regarding primary market of securities, which should be followed by companies, which are going to issue securities. Bureaucratic procedure of securities issue directed and control by legislation of securities. Important legislative provision of securities has been made in Security Exchange Act 1983, Securities Exchange Regulation 1993, Membership of Stock Exchange and Translation Bye Laws 1998, Securities Listing Bye-Laws 1997, Issue Management Guidelines 1997, Securities Allotment Guidelines 1994, Securities Registration and Issue Approval Guideline 2000. Like this way, special act such as Nepal Rastra Bank Act 2001, Company Act 1997, Insurance Act, Respective sectors intuitions or companies should also follow Commercial Bank Act, Finance Company Act etc.

Securities Exchange Act 1983

Securities exchange act can be taken as the key legislation of the capital market. This act has been and enforced to systematized and regularize the securities exchange in order to maintain the economic interest of the people and to contribute to the economic development of the country to protect the interest of the investors and increase the peoples participation in industrial enterprise. For this purpose this act provides legal framework for the securities regulatory system

By establishing the securities board as the supreme regulatory body, the securities board provides for the licensing of stock exchange, the regulation of publicly issued securities, the listing of securities and registration, supervision and monitoring of securities intermediaries such as broker, dealers and market makers. This act also enables securities boards and Nepal Stock Exchange Ltd. Similarly, some provisions have been made for insider trading and other prohibited activities, however they are not covered precisely.

Securities Exchange Regulations 1993

The securities regulations 1993 have been made by HMG by exercising the power enabled under section 34 of the securities exchange act. Under chapter II of the regulation different provisions regarding powers, functions and duties of the securities board, allowances and benefits as well as duties, power and functions of the chairman and other employees and prescribed. Similarly other provisions regarding funding, accounting and audition are also specified by the regulations. Under rules 12-36 of this regulation provision in connection with licensing of stock exchanges, its operations and procedures and conditions for suspension or cancellation of the license have been provided. This regulation has specified the requirements for registration of securities to the security board and their listing in the stock exchange and the detailed provisions in connection with the registration and operations of securities business intermediaries such as broker, market maker, dealers and issues managers.

NEPSE, **Membership of Stock Exchange and Transaction Byelaws 1998**

As per provision made under the section 35 of securities exchange act the NEPSE has made this byelaw with approval of the securities board. This byelaw has specified certain terms and conditions to get the membership of the

NEPSE under rules 3-9. Similarly under the rules 10 to 24, this byelaw has specified different provisions and regarding the trading and other transactions of the securities in the Stock Exchange.

Securities Investment Trust Act 1997

Although enactment of the securities investment, Trust act is still due because of unavailability of supporting regulations it has been provided with some provisions which gave directly influenced over the capital market of Nepal. The objective of this act is to increase mobilization of the capital market by developing efficient and capable management for operation of securities investment trust.

Trust can be suppose as fund, which is the contribution of various amounts by participants of the trust schemes with objective of providing efficient investments services. "Trust Scheme" is defined as a unit scheme, participatory scheme, and group saving scheme, investors' account scheme or such other scheme, which is operated by the management company with an objective of providing efficient investment services to the participants for the amount received from company. Management Company implies an organized body, i.e. public limited company, which receives license under this act-sec.2.E. As per sec 2.H, trust implies a financial institution, which involves in agreement with the management company to operate the trust. All the trust schemes must be registered in the securities board and the board must provide license to the management companies. As per sec.-7 board can provide license to any foreign management company to operate any scheme programs under this act with approval of government of Nepal.

NEPSE, Securities Listing Byelaws 1997

NEPSE has also made securities listing bye-laws1997 in order to systematize the listing procedures with approval of the securities board. As per rule 3, before transition of securities issued and allotted, it must be listed with NEPSE. A rule 5 has prescribed the documents and particular to be submitted with an applicant to the NEPSE. According to rule 7 of the byelaws, the form of the listing agreement as prescribed by the schedule 1 to be classified into different classes as per terms and conditions prescribed by the bye-laws. Rule 15 has prescribed details of disclosure requirements of the listed companies to be submitted regularly to the NEPSE. Similarly conditions to be complied by the listed companies are prescribed under the rule 16 of the byelaws.

SEBO\N, **Directives 1998**

In order to manage sales and promotion of securities purpose by the organized companies for public issuance, to company issuance and sales management with the autonomous body the securities board has enforced the securities issuance and sale management directive 1998. This directive has been made as per the provision provided under the sec.-35.A of the securities exchange act. It has further specified the various direction regarding the application for registration securities, arrangement between issue manager and issuing companies, execution procedure of sales management and code of conduct to be implied similarly SEBO\N has made a directive regarding the share allotment in order to make fair, transparent allotment of share with out any prejudice and conditions in case of application is received in excess over the issued number of shares.

Nepal Rastra Bank Act 2001

One of the major objectives of Nepal Rastra Bank is to develop economic condition of the country by mobilizing the passive capital to the active one with the good monitoring and supervision techniques in financial sector for the sustainable economic development of the nation the act empowered as a key regulators of the capital market. This act is taken as more flexible and liberal rather then the NRB Act 1955. The provision made under this act influence the capital market directly or indirectly with the standardization of the modern economic world.

Company Act 1997

The Company Act, 1997 is the relevant act to the capital market, which facilities the management of any types of company. It provides the over all procedure and requirements from the establishment of company (either public or private) to the winding up of the company. In other words, the act covers the birth, life and death of the companies. The provisions made under this act particularly relevant to the capital markets are provisions regarding the issuance and publication of the prospects, which is essential for public issue of securities such as shares and debenture. As per this provision, the details of the content of prospectus well as its approval by registrar of the companies are required. Under this act, different provisions have been made for issuance of memorandum and articles of association and shares and debentures, conducting annual general meeting, preparation of annual accounts and their audit and directors' report and their role. Similarly the act also provides procedures for liquidation of the companies. As per provisions made under the section-66 of the act is company has to submit details of AGM along with audited balance sheet, profit and loss account, auditors report and directors company registrar office as per section 24(B) of the company act, copy of all documents filled with registrar of companies is to be provided for anybody by taking prescribed charge. All of these provisions are directly or indirectly related with the capital market.

CHAPTER V

PRESENTATION AND ANALYSIS OF DATA

In this section the collected data are presented and analysed by the help of financial and statistical tools in order to meet the defined objectives of the study. Thus, this section is exclusively devoted for the analysis of size and liquidity position of stock market as well as to measure the impact of stock market on GDP.

5.1Growth of Stock Market with International Comparison

Nepal is one of the poorest countries with lowest GDP 8938$ millions in 2006 and market capitalization in percentage of GDP is 20.2% (World Development Indicator, 2008). The share of value treated in GDP is only 0.8% which is the lowest in SAARC countries. The table 5.1 shows that the highest GDP of USA is 13,163,870$ million. The highest share of MC in GDP is 318.70% while the share of value treated in GDP is also highest 338.30% in Switzerland at 2006. Similarly, the turnover ratio of Nepal is very low 4.4 while highest in USA 182.80 in 2007. But the number of listed companies is lowest in Ghana there are only 32. Nepal has not disappointing situation as compare to Ghana but there is huge gap with highest number of listed companies of USA 5,133 followed by UK.

Table 5.1 Stock Market Growth: International Comparison

Countries with Different Income Group	GNP in $ Billion in 2006	Market Capitalization % of GDP in 2006	Value Traded % of GDP in 2006	Turnover Ratio in 2007	Listed Companies in 2007	S&P Indexes % Change in 2007
Lower Income						
Nepal	8,938	20.2	0.8	4.4	135	-
India	911,813	89.8	70	95.9	1,887	78.6
Pakistan	126,836	35.9	99.8	167.3	654	41.7
Ghana	12,906	25	0.4	5.1	32	21.6
Lower Middle Income						
Sri Lanka	26,964	28.8	3.8	12.3	235	-10.6
Thailand	206,338	68.4	48.9	62	475	39.4
Peru	92,416	64.6	4.6	7.8	230	66.4
Upper Middle Income						
Argentina	214,241	37.2	2.1	9.8	107	0.7
Chile	145,843	119.7	19.7	21.8	238	22.6
Malaysia	150,672	156.2	44.4	51.6	1,036	44.6
South Africa	255,155	280.2	122.5	52.5	422	15.5
High Income						
Australia	780,531	140.4	105.9	87	1,751	-
Switzerland	380,412	318.7	338.3	119.6	256	-
USA	13,163,870	147.6	252.7	182.8	5,133	3.5
UK	2,376,984	159.6	178.5	123.8	2,913	5.6

Source: World Development Indicator, 2008

5.2 Number of Listed Companies

Number of listed companies is an important indicator of size of stock market. If there is an increase number of listed company, the size of the stock market also increases and vice versa. In Nepalese context, only listed companies are allowed to issue the financial securities and transect their share in NEPSE. So, generally large stock market size indicate a developed stock market

Table 5.2 Trend Analysis of Number of Listed Companies

(FY1993/94 to FY 2007/08)

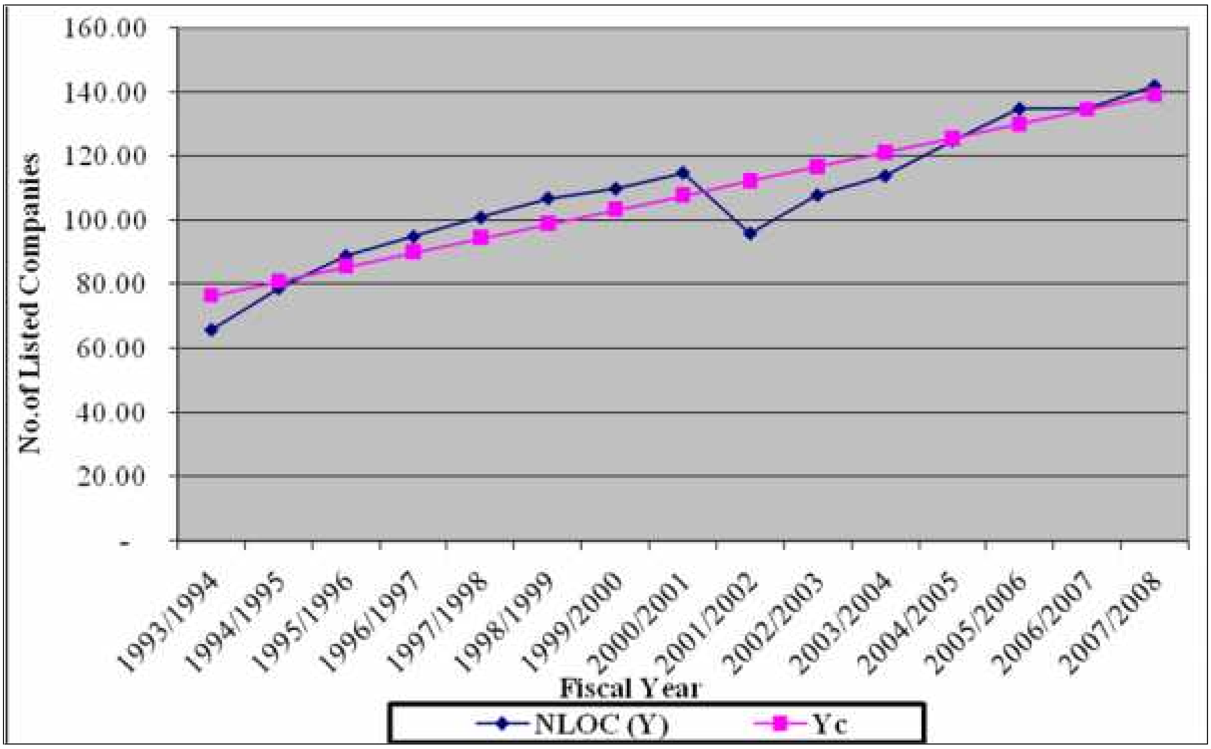
Fiscal Year	NLOC (Y)	X	a	b	Y_c	$Y-Y_c$
1993/1994	66.00	-7	107.80	4.45	76.68	-10.68
1994/1995	79.00	-6	107.80	4.45	81.12	-2.12
1995/1996	89.00	-5	107.80	4.45	85.57	3.43
1996/1997	95.00	-4	107.80	4.45	90.02	4.98
1997/1998	101.00	-3	107.80	4.45	94.46	6.54
1998/1999	107.00	-2	107.80	4.45	98.91	8.09
1999/2000	110.00	-1	107.80	4.45	103.35	6.65
2000/2001	115.00	0	107.80	4.45	107.80	7.20
2001/2002	96.00	1	107.80	4.45	112.25	-16.25
2002/2003	108.00	2	107.80	4.45	116.69	-8.69
2003/2004	114.00	3	107.80	4.45	121.14	-7.14
2004/2005	125.00	4	107.80	4.45	125.58	-0.58
2005/2006	135.00	5	107.80	4.45	130.03	4.97
2006/2007	135.00	6	107.80	4.45	134.48	0.52
2007/2008	142.00	7	107.80	4.45	138.92	3.08

Source: Appendix II

Table 5.2 shows the number of listed companies in NEPSE during the fifteen years study period. In FY 1993/94, NOLC were 66 then additional new companies were gradually listed and total number of listed companies increased to 115 in FY 2000/01. But due to the delisting of some companies the total NOLC decreased to 96 in FY 2001/02. After this new companies were listed and total number of listed companies reached to 142 in FY 2007/08.

It is clear that the trend of NOLC is not satisfactory. The trend of the NOLC should grow by the rate of 4.45 in each year. But in the study of the period of fifteen years is not found that the NOLC is growing according with the growth rate. There are significant numbers of variation in the NOLC. In the period of 2 years, FY1993/94 to FY1994/95, the NOLC is lower than its trend. Accordingly in the period of 6 years FY1995/96 to FY2000/2001, the actual NOLC grows more than that growth rate. From FY2001/02 to FY2004/05, the actual listed companies are lower than its trend. After that period to till now, actual NOLC is more than its trend and reached 142 in FY 2007/08.

Figure 5.1 Trend Line of NOLC (FY1993/94 to FY2007/08)



Source: Table 5.2

5.3 Market Capitalization Ratio

Market capitalization ratio measures the size of stock market. This ratio indicates the relative importance of stock market to the national economy and assumes that stock market size is positively correlated with ability to mobilize capital and diversity risk.

In countries with developed stock market, this ratio is greater than 100% and it is between the ranges of 20% to 40% in many developing countries (SEBON Journal, 2004).

Table 5.3 Trend Analysis of Market Capitalization Ratio

(FY1993/94 to FY2007/08)

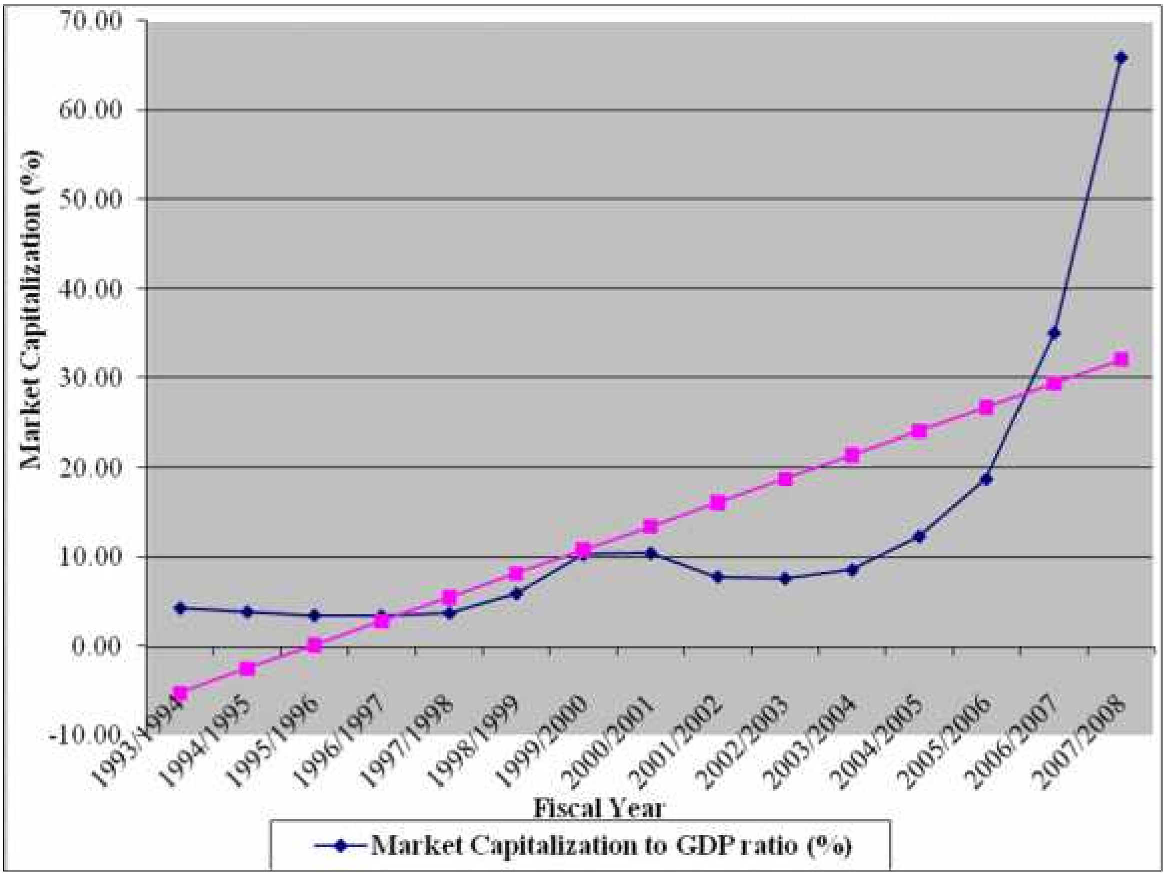
Fiscal Year	GDP	MC	Market Capitalization Ratio	X	a	b	Trend Line (Y_c)	$Y-Y_c$
1993/1994	319,219.40	13,872.00	4.35	-7	13.48	2.66	-5.16	9.50
1994/1995	330,291.30	12,963.00	3.92	-6	13.48	2.66	-2.50	6.42
1995/1996	347,921.00	12,295.00	3.53	-5	13.48	2.66	0.17	3.37
1996/1997	366,225.00	12,698.00	3.47	-4	13.48	2.66	2.83	0.64
1997/1998	376,999.70	14,289.00	3.79	-3	13.48	2.66	5.49	-1.70
1998/1999	393,903.30	23,508.00	5.97	-2	13.48	2.66	8.15	-2.19
1999/2000	417,841.90	43,123.30	10.32	-1	13.48	2.66	10.82	-0.49
2000/2001	441,519.00	46,349.40	10.50	0	13.48	2.66	13.48	-2.98
2001/2002	442,048.30	34,703.90	7.85	1	13.48	2.66	16.14	-8.29
2002/2003	459,488.40	35,240.40	7.67	2	13.48	2.66	18.80	-11.13
2003/2004	481,003.30	41,424.80	8.61	3	13.48	2.66	21.46	-12.85
2004/2005	496,026.00	61,365.90	12.37	4	13.48	2.66	24.13	-11.75
2005/2006	514,459.80	96,813.70	18.82	5	13.48	2.66	26.79	-7.97
2006/2007	530,890.10	186,301.30	35.09	6	13.48	2.66	29.45	5.64
2007/2008	555,850.20	366,247.60	65.89	7	13.48	2.66	32.11	33.78

Source: Appendix II

From table 5.3, MC ratio was 4.35 in FY 1993/94 but it started to decrease gradually and dropped to 3.47 in FY 1996/97 which was the lowest MC ratio during the study period. After this, it was increased and again fluctuated for two years. It slightly increased from FY 2002/2003 to FY 2007/2008 and reached 65.89. The last two years ratio is better than other fiscal years. The average value of MC ratio in Nepalese stock market is very lowest compared to the many other developing countries. Thus it can conclude that the size of stock market in Nepal is very small relatively to its economy.

It is clear that the trend of market capitalization ratio is seen negative in the FY 1993/94 to FY1994/95. It may have due to less year's data. The trend of MC ratio should grow by the rate of 2.66% in each year. But in the study period, it is found that this ratio is not growing according with the growth rate. There are significant numbers of variations in the period of four years FY 1993/94 to FY1996/97 and ratio is greater than its trend. Accordingly, in the period of nine years FY 1997/97 to FY 2005/2006, the actual ratio is less than its trend. Only in the last two years of study period, this ratio is above the trend and reached to 65.9% which is greater by 33.8% than its trend.

Figure 5.2 Trend Line of MC Ratio (FY1993/94 to FY2007/08)



Source: Table 5.3

5.4 Stock Market Turnover Ratio

One measure of liquidity of stock market is stock market turnover ratio. It indicates the trading relative to size of stock market; a high stock market turnover ratio may indicate low transition cost and relative case in buying and selling of securities.

In developed countries this ratio is greater then or very close to 100% where as in many developing countries this ratio stands in the range of 15% to 30% (SEBON journal, 2004)

Table 5.4 Trend Analysis of Stock Market turnover Ratio

(FY1993/94 to 2007/08)

Fiscal Year	MC	AT	Stock Market Turnover Ratio	X	a	b	Trend Line (Y_c)	$Y-Y_c$
1993/1994	13,872.00	441.60	3.18	-7	4.32	0.10	3.61	-0.43
1994/1995	12,963.00	1,054.30	8.13	-6	4.32	0.10	3.71	4.42
1995/1996	12,295.00	215.60	1.75	-5	4.32	0.10	3.81	-2.06
1996/1997	12,698.00	416.20	3.28	-4	4.32	0.10	3.91	-0.64
1997/1998	14,289.00	202.60	1.42	-3	4.32	0.10	4.01	-2.60
1998/1999	23,508.00	1,500.00	6.38	-2	4.32	0.10	4.12	2.26
1999/2000	43,123.30	1,157.00	2.68	-1	4.32	0.10	4.22	-1.53
2000/2001	46,349.40	2,344.20	5.06	0	4.32	0.10	4.32	0.74
2001/2002	34,703.90	1,540.60	4.44	1	4.32	0.10	4.42	0.02
2002/2003	35,240.40	575.80	1.63	2	4.32	0.10	4.52	-2.89
2003/2004	41,424.80	2,144.30	5.18	3	4.32	0.10	4.62	0.56
2004/2005	61,365.90	4,507.70	7.35	4	4.32	0.10	4.72	2.62
2005/2006	96,813.70	3,451.40	3.56	5	4.32	0.10	4.82	-1.26
2006/2007	186,301.30	8,360.10	4.49	6	4.32	0.10	4.92	-0.44
2007/2008	366,247.60	22,820.76	6.23	7	4.32	0.10	5.03	1.21

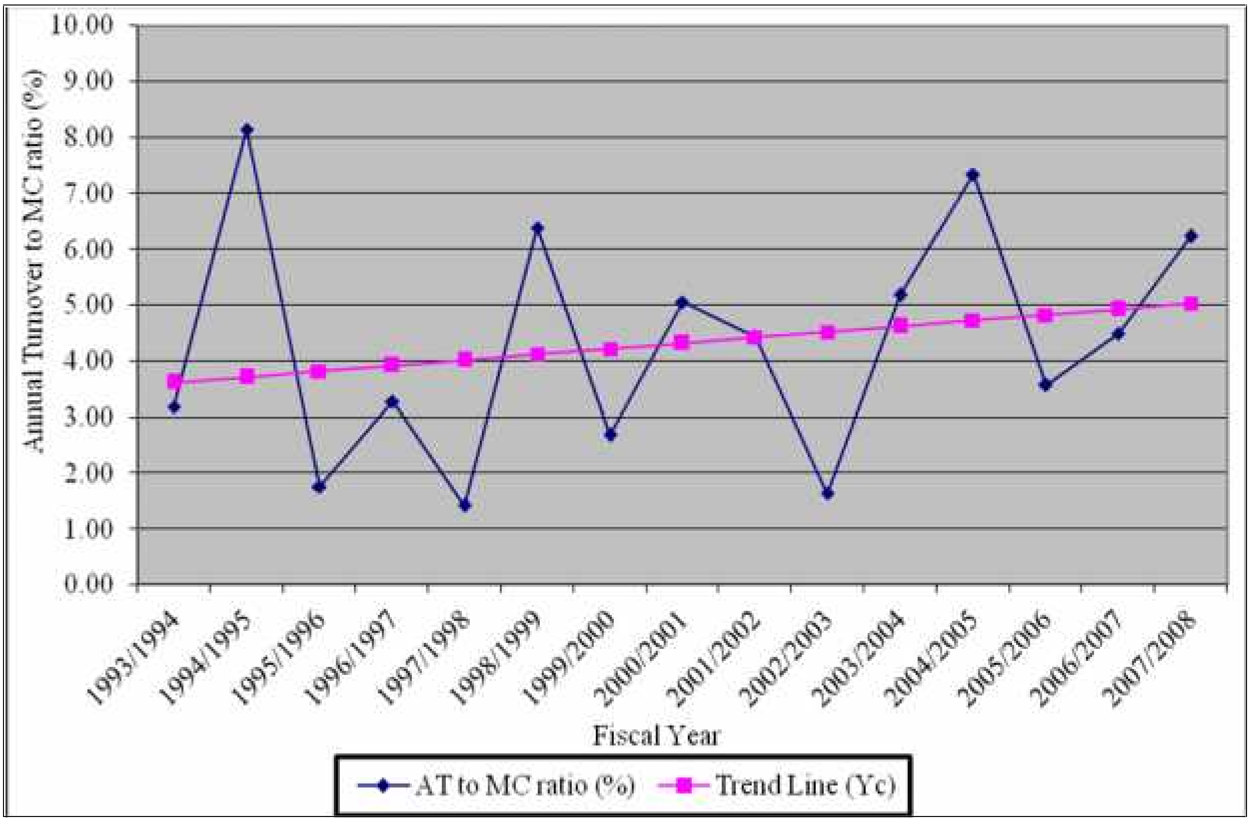
Source: Appendix II

In the beginning of the study period, the stock market turnover ratio was 3.18% in FY 1993/94. The process of increasing and decreasing was continued till FY 2004/05. Again, this ratio was dropped to 3.56 in FY 2005/06 and started to increase and reached to 6.23 in FY 2007/08.Although, the ups and downs situation of stock market turnover ratio was appeared continuously in Nepalese stock market under study period, and the average ratio is also very low in comparison to other developing countries.

The trend of turnover ratio is not satisfactory. There exits cyclical fluctuation as well as variation. As per the trend of turnover ratio, it should grow 0.10 per year which is very low. In the beginning of the study period, the trend was higher then actual ratio. But, in FY 1994/95 actual ratio was higher than its trend value by 4.42 percent In FY 1995/96 to FY1997/98; actual value of turnover ratio was lower than its trend. In this way the turnover ratio fluctuated than trend value till FY 2006/07. In FY 2007/08, the actual ratio is higher then its trend value by the percentage of 1.21.

Figure 5.3 Trend Line of Stock Market Turnover Ratio

(FY1993/94 to FY2007/08)



Source: Table 5.4

5.5 NEPSE Index and Its Trend Line

NEPSE index is a good indicator of the performance level of Nepal Stock Exchange. It is based on the market capitalization. High NEPSE index plays a vital role to win the confidence of investors and stakeholders. It may motivate them to participate in securities investment through primary and secondary markets.

Table 5.5 Trend Analysis of NEPSE Index (FY1993/94 to FY2007/08)

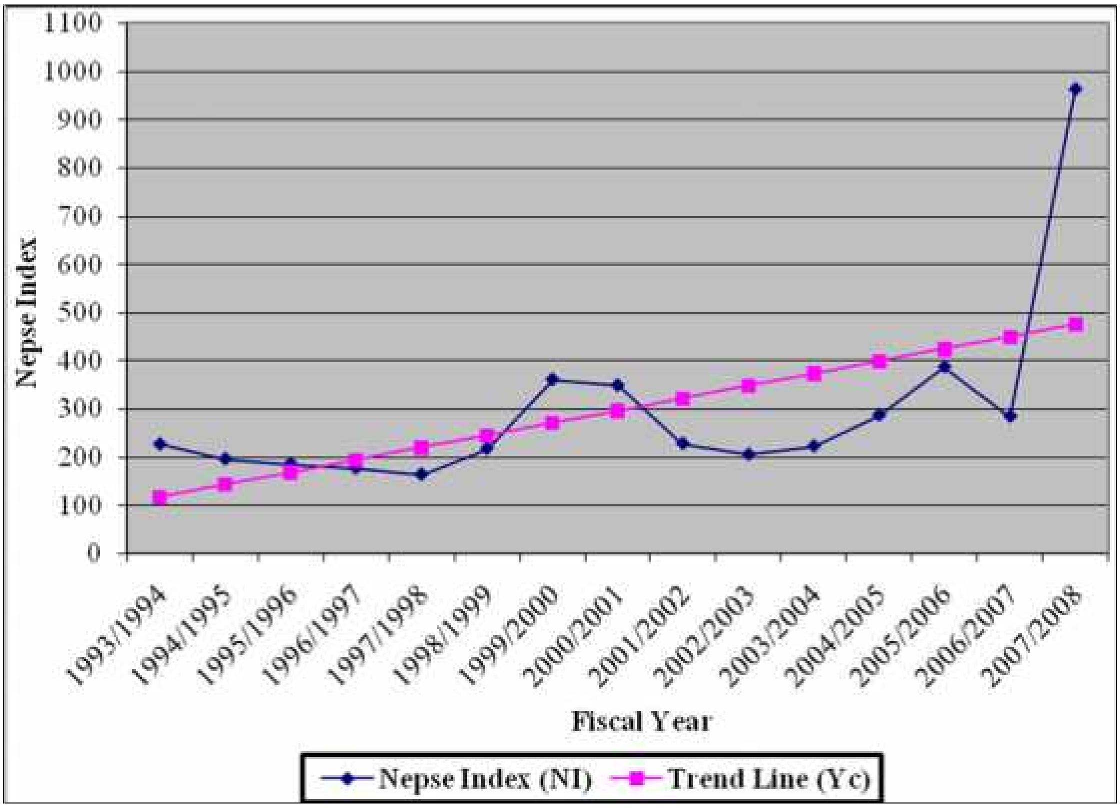
Fiscal Year	NEPSE Index (NI)	X	a	b	Trend Line (Y_c)	$Y-Y_c$
1993/1994	226.03	-7	296.54	25.57	117.58	108.45
1994/1995	195.48	-6	296.54	25.57	143.14	52.34
1995/1996	185.61	-5	296.54	25.57	168.71	16.90
1996/1997	176.31	-4	296.54	25.57	194.28	-17.97
1997/1998	163.35	-3	296.54	25.57	219.84	-56.49
1998/1999	216.92	-2	296.54	25.57	245.41	-28.49
1999/2000	360.70	-1	296.54	25.57	270.97	89.73
2000/2001	348.43	0	296.54	25.57	296.54	51.89
2001/2002	227.54	1	296.54	25.57	322.11	-94.57
2002/2003	204.86	2	296.54	25.57	347.67	-142.81
2003/2004	222.04	3	296.54	25.57	373.24	-151.20
2004/2005	286.67	4	296.54	25.57	398.80	-112.13
2005/2006	386.83	5	296.54	25.57	424.37	-37.54
2006/2007	283.95	6	296.54	25.57	449.94	-165.99
2007/2008	963.36	7	296.54	25.57	475.50	487.86

Source: Appendix II

In the FY 1993/94, the NEPSE index was 226.03. Then it continuously decreased up to FY 1997/98 because the securities market was bettered by the political change from 1995, which didn't appear to provide active support for capital market development. As a result, the stock market lost a heavier trading volume. NEPSE recorded lowest NEPSE index 163.35 in FY 1997/98 during the study period. Facing such bitter experience, SEBON, NRB and government initiated new reforms to accelerate the speed development of capital market. As a result NEPSE index grows up to 216.92 in FY 1998/99. Again, it was increased to 360.70 in FY 1999/2000. It was fluctuated in many years. Finally, it reaches 963.36 in FY 2007/08. It was 679.41 points more than former year.

The trend of NEPSE index is also exist cyclical variation. As per the trend of NEPSE index, it should grow by the rate of 25.57 per year. During the beginning period of study FY 1993/94 to FY 1995/96, it was found that the actual index was more than its trend. But in FY 1996/97 to FY 1998/99, the actual index was below its trend. Again for two FY 1999/2000 and FY 2000/2001, index was higher than trend line. There was lower NEPSE index than its trend in FY 2001/2002 to FY 2006/07. In FY 2007/08, the volume of NEPSE index reached 963.36 which were greater than its trend by 487.86.

Figure 5.4 Trend Line of NEPSE Index (FY1993/94 to FY2007/08)



Source: Table 5.5

5.6 Volatility

Volatility is one of the important indicators of development of a country's stock market. This indicator is a twelve-month rolling standard deviation estimate based on market returns. High standard deviation means higher volatility and more risk. Greater volatility is not necessarily a sign of more or less stock market growth. Although high volatility in the stock market denotes risk in equities investment, it doesn't necessarily imply undeveloped stock market.

Table 5.6 Trend Analysis of Volatility (FY 1993/94 to FY 2007/08)

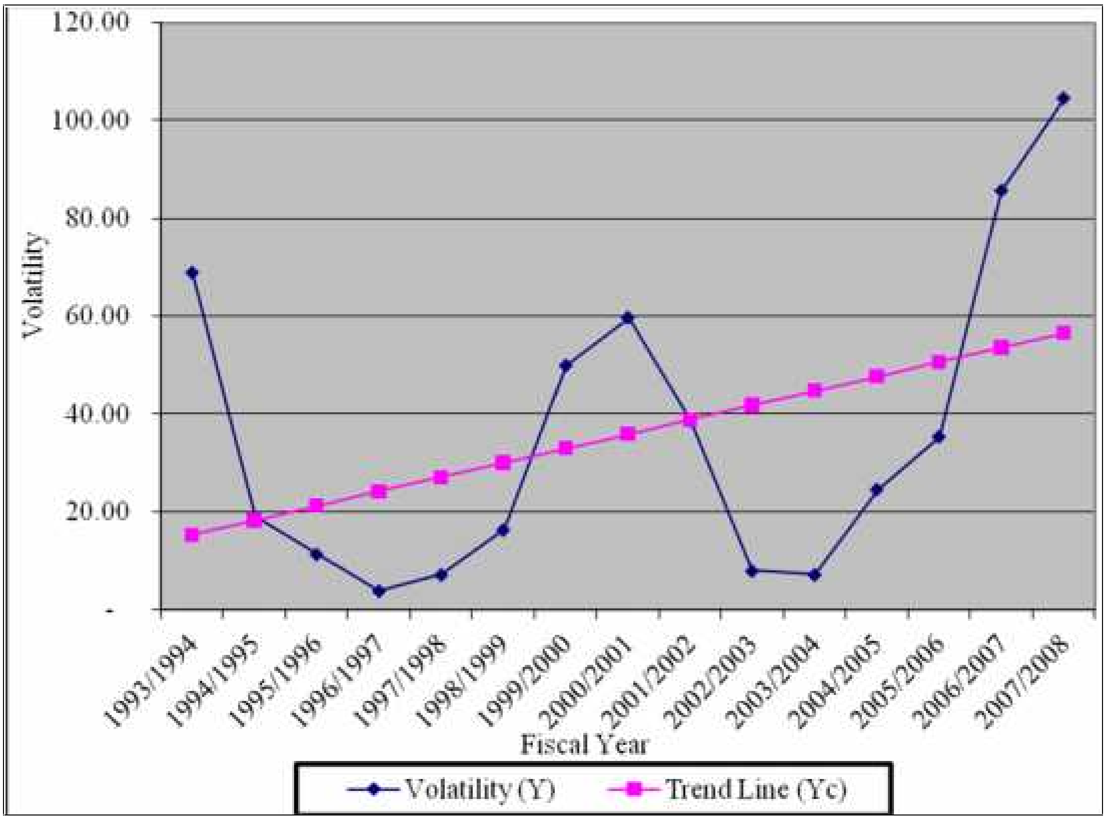
Fiscal Year	Volatility (Y)	X	a	b	Trend Line (Y_c)	$Y-Y_c$
1993/1994	68.90	-7	35.92	2.95	15.30	53.60
1994/1995	18.90	-6	35.92	2.95	18.24	0.66
1995/1996	11.20	-5	35.92	2.95	21.19	-9.99
1996/1997	3.70	-4	35.92	2.95	24.14	-20.44
1997/1998	7.00	-3	35.92	2.95	27.08	-20.08
1998/1999	16.20	-2	35.92	2.95	30.03	-13.83
1999/2000	49.90	-1	35.92	2.95	32.97	16.93
2000/2001	59.70	0	35.92	2.95	35.92	23.78
2001/2002	38.60	1	35.92	2.95	38.87	-0.27
2002/2003	7.80	2	35.92	2.95	41.81	-34.01
2003/2004	7.00	3	35.92	2.95	44.76	-37.76
2004/2005	24.50	4	35.92	2.95	47.70	-23.20
2005/2006	35.30	5	35.92	2.95	50.65	-15.35
2006/2007	85.60	6	35.92	2.95	53.60	32.00
2007/2008	104.50	7	35.92	2.95	56.54	47.96

Source: Appendix II

Table 5.6 shows the trend analysis of volatility during the study period. In FY 1993/94 volatility was 68.90 then it was continuously decreased up to the 3.70 in FY 1996/67 which was lowest volatility value during the study period. Due to the fluctuation in stock market the deviation also ups & downs and reached 104.50 in FY 2007/08. This is the highest value of volatility, which shows more risk in investment in case of the study period.

According to the trend of volatility it is growing by the rate of 2.95 per year. In FY 1993/94 to FY 1994/95 the volatility was greater then its trend. But in FY 1995/96 to FY 1998/33 it had below the trend line. Volatility has been fluctuated in study period and reached 104.50 in FY 2007/08 which is greater by 47.99 than its trend value.

Figure 5.5 Trend Line of Volatility (FY1993/94 to FY 2007/08)



Source: Table 5.6

5.7 Market Capitalization and Its Future Projection

Market Capitalization is the total market value of all share issued by the listed companies. It can be found by multiplying the total number of listed shares and their respective market price. Total market capitalization value is a tool for measuring size and liquidity position of stock market as well as stock market participation. Therefore, higher the amount of market capitalization indicates larger the size and liquidity position of stock market and higher participation in stock market.

Data about projection of market capitalization in coming year are not available. The availability of data till FY 2007/08 only has been majored hardly in making projection. Despite the serious gaps in availability of information for projections an attempt has been made in this study to forecast the market capitalization of Nepal till FY 2017/18. Such forecast should be taken as broad estimation only in view of series limitations. Additional efforts resulting from policy changes, administrative action and changes in the behavior of companies and investors have not been aggregated. The basic assumption is that other things remain same. The most important thing is that we are calculating the historical trend line of total market capitalization for period of past 15 years (FY 1993/94 to FY 2007/08) using secular trend

Table 5.7 Calculation of Trend Line of Market Capitalization (FY 1993/94 to FY 2007/8)

Fiscal Year	x	Market Capitalization (MC)	X= (x-7)
1993/1994	1	13,872.00	-7
1994/1995	2	12,963.00	-6
1995/1996	3	12,295.00	-5
1996/1997	4	12,698.00	-4
1997/1998	5	14,289.00	-3
1998/1999	6	23,508.00	-2
1999/2000	7	43,123.30	-1
2000/2001	8	46,349.40	0
2001/2002	9	34,703.90	1
2002/2003	10	35,240.40	2
2003/2004	11	41,424.80	3
2004/2005	12	61,365.90	4
2005/2006	13	96,813.70	5
2006/2007	14	186,301.30	6
2007/2008	15	366,247.60	7

Source: Appendix II

By using software SPSS we have,

$a = 66746.35$

$b = 15072.78$

Substituting these values of a and b in equation (i) we get, trend equation as;

$Y_c = 66746.35 + 15072.78X$ --------------- (ii)

The trend values can be obtained by substituting the respective values of X in the trend line. The computation of trend value and variance is shown in following table below:

Table 5.8 Trend Analysis of Market Capitalization

(FY1993/94 to FY 2007/08)

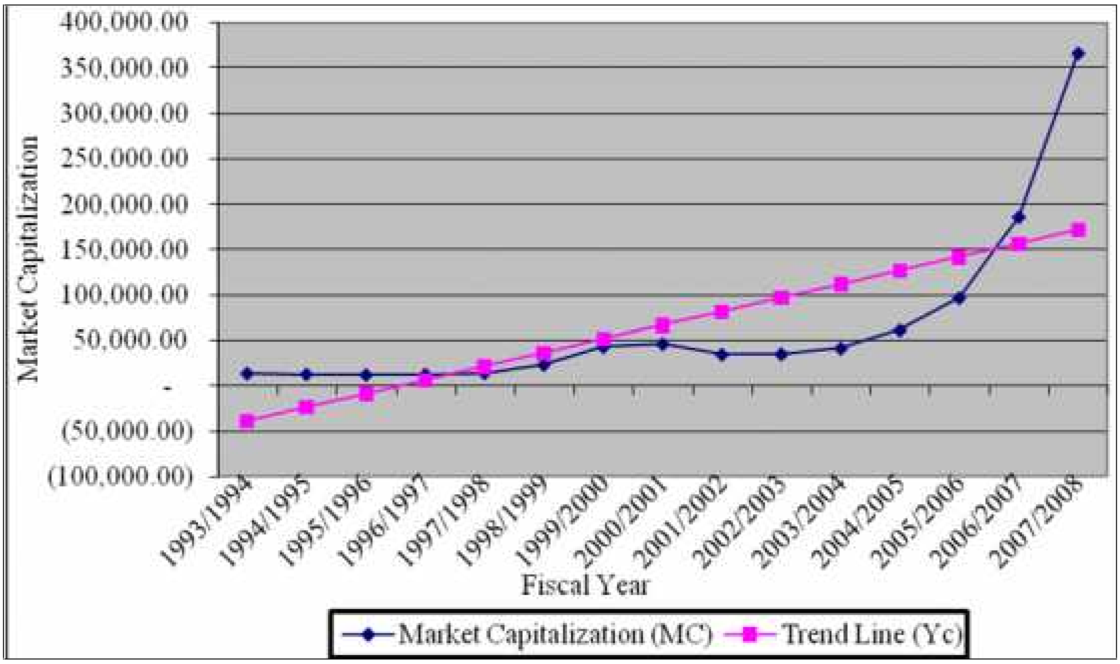
Fiscal Year	Market Capitalization (MC)	X	a	b	Trend Line (Y_c)	$Y-Y_c$
1993/1994	13,872.00	-7	66746.35	15072.78	-38763.07	52635.07
1994/1995	12,963.00	-6	66746.35	15072.78	-23690.30	36653.30
1995/1996	12,295.00	-5	66746.35	15072.78	-8617.52	20912.52
1996/1997	12,698.00	-4	66746.35	15072.78	6455.25	6242.75
1997/1998	14,289.00	-3	66746.35	15072.78	21528.03	-7239.03
1998/1999	23,508.00	-2	66746.35	15072.78	36600.80	-13092.80
1999/2000	43,123.30	-1	66746.35	15072.78	51673.58	-8550.28
2000/2001	46,349.40	0	66746.35	15072.78	66746.35	-20396.95
2001/2002	34,703.90	1	66746.35	15072.78	81819.13	-47115.23
2002/2003	35,240.40	2	66746.35	15072.78	96891.90	-61651.50
2003/2004	41,424.80	3	66746.35	15072.78	111964.68	-70539.88
2004/2005	61,365.90	4	66746.35	15072.78	127037.45	-65671.55
2005/2006	96,813.70	5	66746.35	15072.78	142110.23	-45296.53
2006/2007	186,301.30	6	66746.35	15072.78	157183.00	29118.30
2007/2008	366,247.60	7	66746.35	15072.78	172255.78	193991.82

Source: Appendix II

Table 5.7 shows that the total market capitalization was Rs 13872.0 millions at the beginning of the study period but it reduced to Rs 12295.0 in FY 1995/96.The value of market capitalization was low due to lower market price although the number of listed share were increasing than the previous year. After the FY 1995/96 the amount of market capitalization continuously increased each year up to FY 2000/01 and reached 46349.4 millions but the market capitalization drastically decreased to Rs 34703.9 millions in FY 2001/02 due to delisting of 19 companies in NEPSE. Then new additional companies were gradually listed in NEPSE in course of time as a result both the number of listed shares and market capitalization increased and reached Rs 366247.6 millions in FY 2007/08 which is highest value during study period.

It is clear that the trend of market capitalization also exists cyclical variations. As per the trend of MC, it should grow by the rate of 15072.76 million per year but is not satisfactory and sometime it is seen negative also. In the period of four years 1993/94 to 1996/97 the market capitalization is higher then its trend. But in FY 1997/98 to FY 2005/06 the MC grew less then that growth rate after 2006/07 to till now. It is more then its trend and reach in 366247.6 in FY 2007/08. This is excess amount by 193991.822 million

Figure 5.6 Trend Line of Market Capitalization (FY1993/94to FY2007/08)



Source: Table 5.8

The projection of market capitalization for coming ten years (FY 2008/09 to FY 2017/18) is shown below.

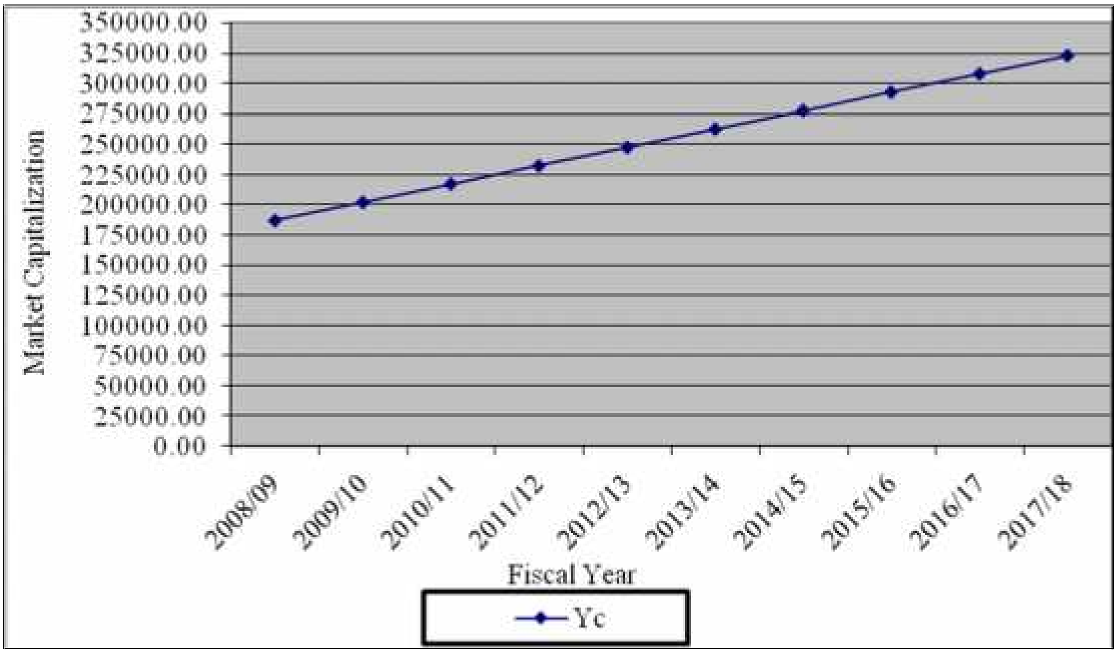
Table 5.9 future projection of MC (FY 2008/09 to FY 2017/18)

Fiscal Year	x	a	b	Yc
2008/09	8	66746.35	15072.78	187328.55
2009/10	9	66746.35	15072.78	202401.33
2010/11	10	66746.35	15072.78	217474.10
2011/12	11	66746.35	15072.78	232546.88
2012/13	12	66746.35	15072.78	247619.65
2013/14	13	66746.35	15072.78	262692.43
2014/15	14	66746.35	15072.78	277765.20
2015/16	15	66746.35	15072.78	292837.98
2016/17	16	66746.35	15072.78	307910.75
2017/18	17	66746.35	15072.78	322983.53

Source: Table 5.7

The table 5.8 has presented the future projection of market capitalization for future ten years. As per the calculated trend line, in the FY 2008/09 the total market capitalization will be amounting Rs. 187328.55 million which value is lower then that of FY 2007/08. Similarly, it can be projected that the capitalization in the FY 2017/18 is estimated to amount Rs. 322983.53 million.

Figure 5.7 Future Projection of MC (FY 2008/09 to FY 2017/18)



Source: Table 5.9

Figure 5.7 shows the line graph of future projection of market capitalization. By the analysis of the data from FY1993/94 to FY2007/08, it is observed that the market capitalization increases at 15072.78 per year.

Regression analysis

In order to know the combined effect of independent variables i.e. Market Capitalization, Annual Turnover, Number of Listed Companies, NEPSE Index and Volatility on Nepalese GDP we use multiple regression model. In this view, Market Capitalization, Annual Turnover, Number of Listed Companies, NEPSE Index and Volatility are treated as explanatory variables in the multiple regression models.

Table 5.10 Results of Multiple Regression Equation

Dependent Variable GDP Independent variables		
Ln MC	Coefficient	0.161
	Standard error	0.054
	T-statistics	2.977
	Significant	0.016
Ln AT	Coefficient	0.003
	Standard error	0.025
	T-statistics	0.128
	Significant	0.901
Ln NOLC	Coefficient	0.254
	Standard error	0.165
	T-statistics	1.538
	Significant	0.158
Ln NI	Coefficient	-0.091
	Standard error	0.060
	T-statistics	-1.519
	Significant	0.163
Ln V	Coefficient	-0.027
	Standard error	0.024
	T-statistics	-1.123
	Significant	0.291

R-square Adjusted R-square Standard error D-W statistics F-statistics Significance N=15		0.954 0.928 0.04735 0.854 36.950 0.000[a]

$$\ln GDP = a + b_1 \ln MC + b_2 \ln AT + b_3 \ln NOLC - b_4 \ln NI - b_5 \ln V.$$

$$\ln GDP = 10.646 + 0.161 \ln MC + 0.003 \ln AT + 0.254 \ln NOLC - 0.091 \ln NI - 0.027 \ln V.$$

The empirical result shows that the tabulated value of F- statistics at 5 percent level of significance for (5, 9) degree of freedom is 3.48. And calculated value of F is 36.950, which is more times greater then tabulated value. Therefore, the regression line is significant.

The estimated result of the multiple regression analysis shows that the coefficient of independent variable MC is positive. The value of coefficient is 0.161 which shows that there is positive association between MC and GDP. And its t value states that it is significant at 5 percent level of significance. It indicates that 1 percent increase in MC causes to increase in GDP by 0.161 percent.

The coefficient of the variables AT and NOLC are positive but they are insignificant at 10 percent level of significance as given by the corresponding t value. While the coefficient of the variables NI and V are negative and insignificant at 10 percent level of significance as given by the corresponding t value.

The coefficient of determination (R^2) measures the goodness of fit of regression. The R^2 for combined independent variables is 0.954 which is near to unity. It signifies that 95.4 percent variation of dependent variable is explained by the independent variables.

The tabulated lower limit and upper limit value of Durbin - Watson statistics for 5 percent level of significance with five explanatory variables and N = 15 are 0.56 and 2.21 respectively. Thus, the calculated D-W statistics shows that there is no clear cut view about the auto correlation between error terms i.e. the test statistics is inconclusive.

CHAPTER VI

PROBLEMS AND PROSPECTS OF STOCK MARKET IN NEPAL

The stock market of Nepal is operating in an immature stage even after the economic liberalization. It may not be regarded as a liquid and efficient market while comparing to the stock markets of developed and other developing countries. It is necessary that the government should create the appropriate policy environment to facilitate the stock market. It needs incentives for capital mobilization, remove impediments to private sector development, educate investors and provide basic legal and regulatory reforms. The poor performance of the stock exchange can be attributed to several factors. If the NEPSE is to develop as a reasonable market marker, there will need to be address such factor as a matter of urgency. But, it certainly contributes towards mobilization of the saving to the business investment. The number of institutions and total capital are in increasing trend. Various practices of the reform have been made in stock market after the financial liberalization but also it has not well developed. Most of the financial institutions are urban-bias and the rural people are far from its services. The problems of stock market in Nepal can be explained as follows:

i) Poor Liquidity

The market will have better liquidity if the securities are available to the price takers and the price reflects all relevant information. Nepalese securities market is performing poorly in both aspects. The consequences are very low market participation. There is close nature of ownership pattern of listed companies. Holding in the quality market are heavily concerned within family groups.

The liquidity in the market can be promoted by increasing public floatation of Shares. This could be done by amending the legal provisions governing financial institutions and insurance companies that require the increased percentage of public flotation.

ii) Legal Inadequately

The securities laws are inadequate and unclear from several aspects. Process and procedure for enforcement and investigation in securities legislations are not clear. So the unfair market practices have been increased.

The regulator also does not have the power to suspend market intermediaries. The regulator can not review and make further inquiry into the financial reports submitted by issuer and listed companies. There are such large gaps in securities laws. Laws such as insolvency laws, arbitration laws, trust laws etc. which are supplementary to the securities laws, are still absent.

The new securities act and companies act should be enacted and strictly implemented to remove the present legal problem. Similarly, insolvency laws, arbitration laws, trust laws etc should enacted to address the legislative gaps in securities market (Adhikari, 2005).

iii) Lack of Accounting and Auditing Standards

There is lack of accounting and auditing system. So it can not portrait the real picture of the corporate sector. This does not allow informed investment decision in the securities markets. Presently accounting standard board and auditing standards board have developed more then 40 accounting and auditing standards at per with international standards at per with international standards and some other standards are being drafted. Weak accounting and auditing standards mean that many companies' financial statements are not credible. In fact, some companies which are currently listed on the NEPSE have not produced accounts for several years. Even when accounts are prepared, they are frequently of such poor quality is to be an ineffective guide as to the true financial health of the company. In some cases company accounts are purposefully misleading and have portrayed the company as being insignificantly better financial health than is a actually the case. This has lead to a general disillusionment of investors with respect to investing in the NEPSE.

iv) Double Taxation

Despite the important aspect of dividend to encourage investment in the securities market, it is taxed twice. First it is taxed at corporate level and when it comes to the hands of investors then also it is taxed. This discourages the investment in ordinary share. Capital gain tax can divert securities market investment to the commodity and bullion markets. In the provision of present capital gain tax, tax is imposed on capital gain from the trading of securities but no clarity view of, capital losses incurred. There is also a problem of establishing net gains in the trading of present initial stage of securities market development.

v) High Transaction Cost

As per the present legal provision relating to brokerage, the range of brokerage to be taken based on trading value is 1.0 percent to 1.50 percent. Such a brokerage is 0.5 percent of purchasing or selling price in Thailand and 0.0002 percent on treated value in India (Adhikari, 2004). This presents the fact that brokerage is comparatively high in the securities market of Nepal than Indian and Thai securities market.

To reduce the cost, the present open out-cries trading system should be replaced with automated trading system. To make competitive transaction cost should to reduce the prevailing range of brokerage by reforming the relevant legal provision.

vi) Poor Disclosure Practices

Inadequate disclosure practices and poor transparency discourage potential investors from investing in the securities market. Present securities laws do not provide sufficient power to the regulators to enforce better disclosure practice of the listed companies. Poor disclosure practice has increased uncertainty in the securities market investment and diverts investment to other unproductive areas such as gold, saving deposits, lands and buildings and discretionary items.

Timely disclosure of market information such as ask and bid prices, trading amount and price, traded comprises, actual demand and supply of securities, types of transaction etc. helps investors to make rational decision and to determine the time to enter the market and exit from it.

vii) Slow Privatization Process

During the past decades, one of the major economic reforms that have taken place in the global economy has been the decisive shift towards the privatization of state owned enterprises in most countries. In general, government’s privatization policies in both the industrial and the developing countries have resulted in the role of stock owned enterprises to private investors. In Nepal, the government launched a privatization program in 1992. A World Bank Report shows that the privatization program has been delayed for diverse reasons, "frequent government changes, philosophical difference with regard to the objectives and modes of privatization are lack of technical capacity with in the government." (Adhikari, 2005).

Privatization should aim at developing stock markets but in Nepal, stock market has been used to a limited extended to achieve privatization. A long-term strategy needs to be developed that more closely links the privatization program to the further development of Nepalese stock market. In order to improve stock market infrastructure and regulatory framework one clearly needed to enhance investor's confidence and prepare the stock market for Privatization. But, it is necessary to provide a favorable investment experience to investors through privatization.

viii) Restriction of Foreign Portfolio Investment

In Nepal, there are many restrictions on foreign portfolio investment in the local stock market. In many developed and emerging securities market, foreign institutional investors are important sources of professional portfolio management for financial markets infrastructure. Institutional investment and external capital flows in the form of internationally portfolio investment can contribute to stock market volatile and the long-term benefits to the economy. Due to this, there is little opportunity for the transfer of technical skills which are often available in developing countries.

ix) Political Instability

The establishment of parliamentary democracy in 1990 opened the way for economic reform and a program of great scope was carried out between 1991 and 1994. This embraced policies on finance, foreign and domestic trade and investment, industry and foreign exchange, and for privatization process. But, the long political instability and Maoist insurgency hindered in privatization process as well as to set back macro economic stabilization. Thus, political instability changes the investor's expectations about the prospects for the economy in a certain environment.

x) Unfavorable Macro-Economic Condition

Nepal is developing country. It is in early stage of economic development. Every sectors of an economy are fragmented. “A poor country like Nepal is a poor because it is poor" Due to the existence of vicious circle of poverty. All the macro-economic indicators are very low that is lower income, lower saving, lower investment, lower production and lower employment. It causes the problem in development of stock market.

xi) Prevails of Risky Securities Instruments

The securities instruments issued in the market are dominated by risky instruments which have covered nearly 90 percent of the total amount of the securities and the rest being debenture and preference shares (SEBON Report, 2005/06). Recently government securities were listed in the stock exchange. However, these securities are mostly held by institutions and free float securities are not in the hands of individuals resulting in limited or no trades. The corporate bonds issues practice has still not been popular. So, the stock market has not attracted to risk averter and risk neutral investors.

xiii) Poor Business Environment

The business environment in Nepal is not conductive to private sector investment either domestic or foreign. Different survey complained about poor government policies and their implementation, weak demand for Nepali produced goods, lack of access to finance and a weak infrastructure which have, in combination, adversely impacted the ability of the private sector to operate competitively and effectively. Unless the business environment is significantly improved it will be difficult for the capital market to develop much beyond its current incipient state.

CHAPTER VII

FINDINGS, CONCLUSION AND RECOMMENDATIONS

7.1 Findings

Nepal is one of the developing countries lying in between two emerging economy India and China. But also it has not been able to get benefit of synergic development of its neighbor. The government has continues several reform programs. Despite almost two decades of financial liberalization, Nepalese financial sector is particularly weak, extremely fragile and urban bias. Restoring the financial sector to a healthy state should be the prime goal of policy makers. There after, ensuring that those sectors plays a more constructive supporting role for broad based economic development. The financial liberalization can promote economic development by increasing saving, investment and the productivity of capital.

The theoretical model mainly predicts that there is a vital role of stock market for over all economic development in both developing as well as developed countries. Stock market works as a vehicle for raising capital for firms. It helps investors to diversify their wealth across variety of assets and the companies enjoy permanent access to capital and rose through equity issue. The growth in the economy only occurs if society invests sufficient amount of capital in firms. Rational investors are influenced by size and liquidity position of stock market while size and liquidity position of stock market depends on overall development of securities market.

The main objective of the present study is to examine the impact of financial liberalization on stock market. Besides this, other objectives are to explore the major reforms on stock market, to analyse the overall structure of stock market and to examine the role of the stock market on economic growth.

This study is totally based on the secondary data collected from various sources. The data on aggregate economic variables such as gross domestic product and various stock market variables such as market capitalization, annual turnover and number of listed companies, NEPSE index and volatility were used since FY 1993/94 to FY 2007/08. The collected data has tabulated and analysed with the help of both financial and statistical tools to meet the defined objectives.

Both descriptive and analytical research design has followed. The collected data has analysed by using ratio analysis, trend line, and regression analysis to meet the defined objectives. The major findings of this study can be summarised as follows:

I) The size of stock market measured by NOLC is very small because only 142 companies are listed in NEPSE yet. The trend is increasing at low rate 4.45 per year

II) Size of the secondary stock market as measured by market capitalization is also in increasing trend. Though the increase in the size of market is not quick and fast. So, this ratio is very lower as compared to many developed and developing countries. It indicates the size of Nepalese stock market is very small.

III) The stock market turnover ratio is very low. It indicates that liquidity position of stock market is in very weak condition. The size of annual stock market turnover amount reveals that there is very high variation in each year tranjection.

IV) The NEPSE index is not able to win the confidence of investors even reached higher in FY 2007/08. It has also exit cyclical variation then its trend.

V) Typically, research shows that lower volatility is associated with higher GDP. Lower volatility means more stable income for firms and households. But there is increasing trend of volatility indicates more risk in investment in securities which is not good sign for developed stock market.

VI) The regression coefficient of the independent variables states that one percent change in MC, AT and NOLC cause to increase in GDP by 0.161, 0.003 and 0.254 percent respectively. Out of them only MC has significant impact on GDP.

VII) The regression coefficient of the other independent variables states that one percent change in NI and V cause to decrease in GDP by 0.091 and 0.027 percent respectively.

7.2 Conclusion

Although stock market liberalization is often blamed as causing crises it is concluded that the effects of liberalization on stock market growth is positive. However, there is no professional consensus on the net benefits of financial liberalization. Various measures of stock market development and various statistical analysis indicate that Nepalese stock market is in developing stage. Low market capitalization and lower number of listed companies shows the smaller size of stock market while higher deviation on NEPSE index shows more risk in investment. Apart from this, regression analysis state that only market capitalization has significant impact on growth of domestic product (GDP).

7.3 Recommendations

A strong legal framework is the most important foundation for development of a healthy stock market but its main strength lies in its enforcement. Nepal needs to clearly establish business that can be conducted by the various financial institution, demarcate clearly the authority of regulators, and the jurisdiction of the laws to avoid duplication and vacuum in the financial sector regulatory frame work. Regulators most be given sufficient legal and operational autonomy so that they can perform their roles better. Policy certainly and enforcement of transparent rules are essential to the stability and development of the stock market. Since the Nepalese stock market is still in nascent stage, the following points are recommended to increase the stock market growth through the overall development of stock market.

i) The various acts under formulation need to be enacted as soon as possible addressing the issues raised above. They need to be followed up with proper enforcement. SEBON needs to develop well regulation system in line with international best practices.

ii) The new securities act and companies act should be enacted and strictly implemented to remove the present legal problem. Similarly, insolvency laws, arbitration laws, trust laws etc should enacted to address the legislative gaps in securities market.

iii) The main aim of the economic liberalization policies is to enable more tradable scripts to be issued and listed. However, there was no variety in the types of instruments available for trading. Only, treasury bills were market oriented. The government most introduces more variety of market instruments

iv) Policy makers should also increase the supply of tradable companies on the exchange this can be done only through implementation of fiscal policy by the government. Corporate tax structure should set up in favor of public companies.

v) The NEPSE should enforce much more various listing standers so that only good name institutions, with financial information audited to international standers, are listed on the stock exchange. Any company found to be in contravention of new, more stringent, listing requirements, should be warned and ultimately delisted from the exchange if they do not comply.

vi) Timely disclosure of market information such as ask & bid prices, trading amount and price, traded comprises, actual demand and supply of securities, types of transaction etc. helps investors to make rational decision and to determine the time to enter the market and exit from it.

vii) Proper media about the information is one of the important measures to promote the stock market. If proper information on the importance of industry can be highlighted, this will attract people to invest in the industry.

viii) The government need to address seriously issues related to the poor business environment in Nepal in an effort to encourage rapid increases in both domestic and foreign direct investment to develop the foreign portfolio investment by making adjustment necessary steps should be taken.

ix) The constraints on international investment by contractual saving institutions should be reconsidered in light of the absence of risk diversification and domestic investment opportunities. The government needs to review its practice of selling bonds and certificates to targeted institutions. Such practices can be distortionary and are undesirable in the long run.

x) Thousand of investors from out side the valley are suffering due to not having an easy excess to secondary market. All the investor from outside the valley who wants to invest in securities transaction must come to the capital physically. There in no another way for them to participate in the secondary market. It is costly as well as risky also. Therefore, secondary market should be expanded at least one in each development region to expand its service.

xi) In order to improve stock market infrastructure and regulatory framework, one clearly needed to enhance investor's confidence and prepare the stock market for privatization. But there is also a need to provide investors with a favourable investment experience through privatization.

xii) The liquidity in the market can be promoted by increasing public floatation of Shares. This could be done by amending the legal provisions governing financial institutions and insurance companies that require the increased percentage of public flotation.

xiii) The fixed rate yielding securities is very essential to construct the sound portfolio. Investors are generally risk-averse. But NEPSE have minimum fixed rate-yielding securities. So, tradable investment alternatives are quite essential.

xiv) There is urgent need to effect reform in the commercial banking sectors so that any fall out from the sector will not have a negative impact upon capital market development in the future.

xv) Market makers and investment dealers should be encouraged to participate in the stock market.

xvi) High volatility of market share price should be checked.

xvii) The peace of economic development should be accelerated in order to have its positive impact on the stock market development

xviii) Nepal has initiated the automation system but in the absence of Central Depository System, it has not been fully modernized. So, CDS system should be introduced without any further delay for the modernization of stock market trading system

xix) The laws related to mutual fund should be established so that the small investors can be participated in stock market investment, the scatters savings will be collected and stock market will become strong.

xx) To make efficient trading system by enhancing the fair competition the number of brokers should be increased.

xxi) The online trade system should be enlarged allover the country.

xxii) There should be strict enforcement of laws and legislation related to stock market.

xxiii) There has been increased capital gain tax in Nepal 10% to 15%, which has played, a negative impact on stock market participant. It should be reduced 15% to lower than 5% so that investors will be increased in securities market. There should be efficient management in purchasing and selling of instrument as well.

If the necessary measurement are taken to make development and efficient stock market, not only investors and participation firms but also the whole economy of the country is likely to benefit. Since the growth of the economy is the cause of the efficient and developed stock market, authorities of the nation should concern more seriously and vigorously about the effective stock market. If Nepalese government is able to overcome the problem of the Nepalese stock market in order to make it active and supportive, the stock market has a good prospect for resource mobilization to finance to the productive sector in the Nepalese economy.

Finally, there are many scopes for research in the field of stock market development and economic growth. Finding the contribution of stock market to the overall economy are new phenomena for Nepal. Therefore, comprehensive study in this field is necessary. The present study contains limited variables therefore; this particular study can be extended by including more and more specific variables to get more effective result. Apart from studying the relationship between stock market and growth variables, the future research can focus on different subjects of stock market which definitely can influence the growth process positively.

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Appendix-1

Monthly NEPSE Index from the Fiscal Year 1993/94 to 2003/04

Base year:-1994, Feb=100

Year	Month	Index
1993/94	Jan/Feb	100.00
1993/94	Feb/Mar	98.25
1993/94	Mar/Apr	135.62
1993/94	Apr/May	188.34
1993/94	May/Jun	264.97
1993/94	Jun/July	226.03
Standard deviation		68.87
1994/95	July/Aug	254.29
1994/95	Aug/Sep	220.54
1994/95	Sep/Oct	230.54
1994/95	Oct/Nov	220.61
1994/95	Nov/Dec	210.02
1994/95	Dec/Jan	195.25
1994/95	Jan/Feb	205.17
1994/95	Feb/Mar	191.67
1994/95	Mar/Apr	204.67
1994/95	Apr/May	194.63
1994/95	May/Jun	194.05
1994/95	Jun/July	195.48
Standard deviation		18.86
1995/96	July/Aug	189.66
1995/96	Aug/Sep	192.03
1995/96	Sep/Oct	205.15
1995/96	Oct/Nov	208.35
1995/96	Nov/Dec	207.03
1995/96	Dec/Jan	206.53
1995/96	Jan/Feb	195.42
1995/96	Feb/Mar	193.64
1995/96	Mar/Apr	193.99
1995/96	Apr/May	172.78
1995/96	May/Jun	180.34
1995/96	Jun/July	185.61
Standard deviation		11.24

Year	Month	Index
1996/97	July/Aug	185.02
1996/97	Aug/Sep	180.89
1996/97	Sep/Oct	181.64
1996/97	Oct/Nov	180.29
1996/97	Nov/Dec	179.07
1996/97	Dec/Jan	179.44
1996/97	Jan/Feb	180.07
1996/97	Feb/Mar	188.36
1996/97	Mar/Apr	180.83
1996/97	Apr/May	184.66
1996/97	May/Jun	176.99
1996/97	Jun/July	174.31
Standard deviation		3.72
1997/98	July/Aug	169.52
1997/98	Aug/Sep	170.45
1997/98	Sep/Oct	169.43
1997/98	Oct/Nov	172.02
1997/98	Nov/Dec	170.16
1997/98	Dec/Jan	171.15
1997/98	Jan/Feb	176.63
1997/98	Feb/Mar	180.36
1997/98	Mar/Apr	158.80
1997/98	Apr/May	157.97
1997/98	May/Jun	159.95
1997/98	Jun/July	163.35
Standard deviation		7.00
1998/99	July/Aug	166.02
1998/99	Aug/Sep	168.42
1998/99	Sep/Oct	168.75
1998/99	Oct/Nov	184.17
1998/99	Nov/Dec	187.16
1998/99	Dec/Jan	181.67
1998/99	Jan/Feb	178.48

Year	Month	Index
1998/99	Feb/Mar	180.17
1998/99	Mar/Apr	188.38
1998/99	Apr/May	196.98
1998/99	May/Jun	212.39
1998/99	Jun/July	216.92
Standard deviation		16.23
1999/00	July/Aug	227.79
1999/00	Aug/Sep	239.35
1999/00	Sep/Oct	245.41
1999/00	Oct/Nov	254.58
1999/00	Nov/Dec	255.30
1999/00	Dec/Jan	269.88
1999/00	Jan/Feb	285.30
1999/00	Feb/Mar	329.20
1999/00	Mar/Apr	331.76
1999/00	Apr/May	364.22
1999/00	May/Jun	338.76
1999/00	Jun/July	360.70
Standard deviation		49.94
2000/01	July/Aug	364.24
2000/01	Aug/Sep	421.18
2000/01	Sep/Oct	433.92
2000/01	Oct/Nov	519.33
2000/01	Nov/Dec	480.05
2000/01	Dec/Jan	464.76
2000/01	Jan/Feb	455.35
2000/01	Feb/Mar	395.85
2000/01	Mar/Apr	369.05
2000/01	Apr/May	355.60
2000/01	May/Jun	333.18
2000/01	Jun/July	348.43
Standard deviation		59.70
2001/02	July/Aug	332.13
2001/02	Aug/Sep	265.22

Year	Month	Index
2001/02	Dec/Jan	255.92
2001/02	Jan/Feb	236.01
2001/02	Feb/Mar	199.88
2001/02	Mar/Apr	216.21
2001/02	Apr/May	239.09
2001/02	May/Jun	226.04
2001/02	Jun/July	227.54
Standard deviation		38.61
2002/03	July/Aug	226.60
2002/03	Aug/Sep	223.00
2002/03	Sep/Oct	219.30
2002/03	Oct/Nov	220.70
2002/03	Nov/Dec	214.60
2002/03	Dec/Jan	200.80
2002/03	Jan/Feb	213.30
2002/03	Feb/Mar	209.70
2002/03	Mar/Apr	214.10
2002/03	Apr/May	207.50
2002/03	May/Jun	207.70
2002/03	Jun/July	204.90
Standard deviation		7.79
2003/04	July/Aug	207.90
2003/04	Aug/Sep	208.50
2003/04	Sep/Oct	207.50
2003/04	Oct/Nov	206.20
2003/04	Nov/Dec	201.90
2003/04	Dec/Jan	201.90
2003/04	Jan/Feb	223.30
2003/04	Feb/Mar	207.80
2003/04	Mar/Apr	201.20
2003/04	Apr/May	204.30
2003/04	May/Jun	213.10
2003/04	Jun/July	220.00
Standard deviation		6.99

Year	Month	Index
2004/05	July/Aug	241.50
2004/05	Aug/Sep	234.60
2004/05	Sep/Oct	231.30
2004/05	Oct/Nov	235.10
2004/05	Nov/Dec	236.40
2004/05	Dec/Jan	239.60
2004/05	Jan/Feb	257.30
2004/05	Feb/Mar	280.70
2004/05	Mar/Apr	293.30
2004/05	Apr/May	285.40
2004/05	May/Jun	277.80
2004/05	Jun/July	286.70
Standard deviation		24.48
2005/06	July/Aug	300.05
2005/06	Aug/Sep	293.35
2005/06	Sep/Oct	297.34
2005/06	Oct/Nov	302.39
2005/06	Nov/Dec	303.12
2005/06	Dec/Jan	305.50
2005/06	Jan/Feb	317.67
2005/06	Feb/Mar	339.79
2005/06	Mar/Apr	334.77
2005/06	Apr/May	385.89
2005/06	May/Jun	372.01
2005/06	Jun/July	386.83
Standard deviation		35.35
2006/07	July/Aug	389.23
2006/07	Aug/Sep	382.56
2006/07	Sep/Oct	398.44
2006/07	Oct/Nov	447.43
2006/07	Nov/Dec	508.58
2006/07	Dec/Jan	537.09
2006/07	Jan/Feb	523.94
2006/07	Feb/Mar	494.06
2006/07	Mar/Apr	494.59
2006/07	Apr/May	513.45
2006/07	May/Jun	575.04
2006/07	Jun/July	683.95
Standard deviation		85.63
2007/08	July/Aug	705.96
2007/08	Aug/Sep	817.08
2007/08	Sep/Oct	861.37
2007/08	Oct/Nov	915.38
2007/08	Nov/Dec	1025.91
2007/08	Dec/Jan	958.90
2007/08	Jan/Feb	814.43
2007/08	Feb/Mar	714.76
2007/08	Mar/Apr	746.69
2007/08	Apr/May	806.26
2007/08	May/Jun	930.65
2007/08	Jun/July	963.36
Standard deviation		104.55

Source: Various annual report of SEBON

Appendix II

Data Relating to the Various Indicators of Economic Growth and Stock Market Development: GDP, MC, AT, NOLC, NI, V

YEAR	GDP	MC	AT	NLOC	NI	V
1993/1994	319,219.40	13,872.00	441.60	66.00	226.03	68.90
1994/1995	330,291.30	12,963.00	1,054.30	79.00	195.48	18.90
1995/1996	347,921.00	12,295.00	215.60	89.00	185.61	11.20
1996/1997	366,225.00	12,698.00	416.20	95.00	176.31	3.70
1997/1998	376,999.70	14,289.00	202.60	101.00	163.35	7.00
1998/1999	393,903.30	23,508.00	1,500.00	107.00	216.92	16.20
1999/2000	417,841.90	43,123.30	1,157.00	110.00	360.70	49.90
2000/2001	441,519.00	46,349.40	2,344.20	115.00	348.43	59.70
2001/2002	442,048.30	34,703.90	1,540.60	96.00	227.54	38.60
2002/2003	459,488.40	35,240.40	575.80	108.00	204.86	7.80
2003/2004	481,003.30	41,424.80	2,144.30	114.00	222.04	7.00
2004/2005	496,026.00	61,365.90	4,507.70	125.00	286.67	24.50
2005/2006	514,459.80	96,813.70	3,451.40	135.00	386.83	35.30
2006/2007	530,890.10	186,301.30	8,360.10	135.00	283.95	85.60
2007/2008	555,850.20	366,247.60	22,820.76	142.00	963.36	104.50

Source: World Development Indicator 2007.
World Development Indicator 2008.
Different Annual Report of SEBON.

Appendix III

Logarithms values of the variables GDP, MC, AT, NOLC, NI, V

YEAR	LN(GDP)	LN(MC)	LN(AT)	LN(NOLC)	LN(NI)	LN(V)
1993/1994	12.67363	9.53763	6.09040	4.18965	5.42067	4.23266
1994/1995	12.70773	9.46985	6.96063	4.36945	5.27546	2.93916
1995/1996	12.75973	9.41695	5.37342	4.48864	5.22365	2.41591
1996/1997	12.81100	9.44920	6.03117	4.55388	5.17224	1.30833
1997/1998	12.84000	9.56725	5.31123	4.61512	5.09590	1.94591
1998/1999	12.88386	10.06510	7.31322	4.67283	5.37953	2.78501
1999/2000	12.94286	10.67182	7.05359	4.70048	5.88805	3.91002
2000/2001	12.99798	10.74396	7.75970	4.74493	5.85344	4.08933
2001/2002	12.99917	10.45461	7.33993	4.56435	5.42733	3.65325
2002/2003	13.03787	10.46995	6.35576	4.68213	5.32233	2.05412
2003/2004	13.08363	10.63164	7.67057	4.73620	5.40286	1.94591
2004/2005	13.11438	11.02461	8.41354	4.82831	5.65833	3.19867
2005/2006	13.15087	11.48054	8.14654	4.90527	5.95799	3.56388
2006/2007	13.18231	12.13512	9.03123	4.90527	5.64880	4.44969
2007/2008	13.22825	12.81106	10.03543	4.95583	6.87043	4.64919

Source: Calculated from appendix II