Chapter -I

Introduction

1.1 General Background

The major concern of many countries of the world has been to accelerate their development process and their-by increase the welfare of their people. This can be done only through sound investment. This would require gearing up of savings, creating conducive and enabling investment atmosphere and developing efficient capital market to facilitate mobilization of saving through appropriate instruments. With the worldwide move towards open and market oriented economic system in the world economy, it has to have growth and expansion of banking and financial system too. However, banks and stock market are two competing mechanism to channel savings to investment. The stock markets exceed banks in allocation efficiency. It allocates savings to investment which have potential to yield higher return. Therefore well functioning stock markets promote economic development by fueling engine of growth through faster capital accumulation and by tuning it through better resource allocation (Carporale, Howells and soliman, 2004)(33-50).

An organized and managed stock market stimulate opportunities by recognizing and financing productive projects that lead to economic activity, mobilize domestic savings, allocate capital proficiency, help to diversify risk and facilitate exchange of goods and services (Mishkin, 2001).Undoubtedly, stock markets are expected to increase economic growth by increasing the liquidity of financial assets, possibility of diversification of in global market for world –be international and domestic investors, promoting wiser investment decisions by saving surplus units based on available information, influencing corporate governance (i.e. saving agency problem by way of increasing share holder's interest value) and enhancing more saving to corporation (Victor, 2005; Ahmed, Ali and Shahbaz, 2008)(182-194). However, in many developing countries like Nepal, the underdeveloped capital market is still prevailing in the economy.

1.1.1 Historical Perspective of Nepalese Capital Market

The history of capital market in Nepal dates back to 1936 in which year shares of Biratnagar Jute Mills Ltd. were floated. In 1937, Tejarath was set up to facilitate the loans to the government employees and later converted in to Nepal bank Ltd (Gurung, 2004).The then HMG Nepal introduced the Company Acts in 1964 and first issue of government bonds made in the same year through Nepal Rastra Bank to collect the developmental expenditures. It carried 6 percent of rate of interest and has maturity period of five years (Shrestha 2038; Gurung, 2004). GON announced the Industrial Policy in 1974 and under this policy an institution named Securities Marketing center (SMC) was established to deal in government securities- development bonds and national saving bonds and corporate securities of a few companies. The government had virtual monopoly over the security market. Then Securities Exchange Center (SEC) was established in 1976 with the objectives of facilitating and promoting the growth of capital market. It was only capital the market institution in Nepal. Securities Exchange Acts came into force in 1984. Since then, SEC started to operate under this acts. The purpose of this act was to provide systematic and favorable market environment for ensuring securities and protecting the interest of individuals and institutional investors as well as to increase the public participation in various firms and companies (Gurung, 1999). SEC had provided facilities to trade the government securities and a few corporate securities like share and debentures. Only the shares of ten companies were listed in SEC and there was no involvement of the brokers and dealers in securities market. So, SEC itself was under taking the job of brokering, underwriting, managing public issue, making marketing for government bonds and other financial services. Apart from this there was the absence of effective secondary market to ensure liquidity to the securities. Then, the interim government of 1990/00, initiated financial reform program and two indirect investment vehicles-Citizen's Investment Fund and NIDC Capital Markets Ltd. – were established with the collective investment schemes in the corporate sector. Then due to world whim of privatization and economic liberalization, the operation of SEC was felt to be changed to make it compatible with the changing economic system, as a result, GON brought about change in the structure of SEC by dividing it into two distinct entities – Securities Board of

Nepal (SEBON) and Nepal Stock Exchange Ltd. (NEPSE) at the policy level in 1993. Since then they are operating as the main constituent of securities market in Nepal (Gurung, 2004).3SEBON was established on June 7, 1993 with its mission to facilitate the ordinary development of a dynamic and competitive capital market and maintaining its credibility, fairness, efficiency, transparency and responsiveness under the Securities Exchange Act 1983 (SEBON, 2001; Gurung, 2004). It is an apex regulator of securities market in Nepal. Since January 14, 2007, Securities Related Act, 2006 has been enacted replacing the Securities Ordinance, 2006 with the provision of making more securities market competitive, transparent and credible. Under the provision of Securities Related Act, 2006 section 116, SEBON drafted the following regulation, in the fiscal year 2006/07.

i. Securities Board of Nepal Regulation, 2007

ii. Stock Exchange Regulation, 2007

iii.Securities Business Persons (Broker, Dealer and Market Maker) Regulation, 2007.

iv. Securities Business Person (Merchant Banker) Regulation, 2007

v. Draft of Securities Registration and Issuance Regulation, 2007

Nepal Stock Exchange (NEPSE) is the only one exchange center for listed securities in Nepal. It was converted into stock exchange in 1993, with an objective to make it a full fledged organized market under the program initiated to reform the capital market. NEPSE is an organization operating under the securities ordinance 2005. The main objective of NEPSE is to impart free marketing ability and liquidity to government and corporate bodies by listing and facilitating transaction in its trading floor through licensed financial intermediaries. NEPSE started its trading floor on January 13, 1994 through licensed members. It has replaced "open out-cry" system by the automation system firm August 15, 2007. In Nepal, NEPSE is the only one stock market, which comprises listed 142 companies, 23 stock brokers, nine issue managers and two securities dealers (SEBON, 2007/08).

1.2 Statement of the Problem

Nepal is a landlocked country situated between two giant economies China and India. It has been going through a political and economic limbo in the recent times. Nepal's neighbours china and India grew respectively by 11.4 percent and 9.2 percent in 2007 and are projected to record respective growth rates of 9.3 percent and 7.9 percent in 2008. South Asia, which attained a growth rate of 8.6 percent in 2007, is expected to rise by 7.5 percent in 2008, but growth rate of Nepal was 5.56 percent during the FY 2007/08. This was the highest during the last seven years. Favorable monsoon and good policy impact contributed to raise the growth rates both in agriculture and non- agriculture, which expanded by 5.65 percent and 5.57 percent respectively, compared to previous year's growth estimates of 0.9 percent and 4.1 percent respectively. But in FY 2001/02, 2002/03, 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 the growth rate of Nepal was 0.2, 3.8, 4.4, 2.9, 4.1, 2.6, 4.7 percent respectively (Economic Survey, 2007/08).

NEPSE is only one stock market in Nepal. It opened its trading floor from 13th January, 1994 through licensed members. However, trading facilities is confined in Kathmandu valley which hindered wide public participation in stock market. A few companies are listed in the exchange market most of trading take place in share of financial institution and a few are multi national business entities such as Standard Chartered Bank(Nepal) Ltd., Bottlers Nepal, Uni Lever Nepal, Yak & Yeti Hotel, Soaltee Hotel, Bishal Bazar, Butwal Power Company, Chilime Hydropower etc.

However, there is a lack of institutional infrastructure and an absence of institutional investors. The market is dominated by individual investors. The potential institution that can invest as Citizen Investment Trust (CIT), Employees Provident Fund (EPF), NCM mutual fund and insurance companies and so on. However, except NCM mutual fund, the investment of other institutions is very nominal. Regarding the investment of CIT in securities market, out of the total investment only 4.58% investment was made in corporate securities in FY 2003/04, which was only 2.41% in FY 2002/03, and

4.20% in FY 2001/02. Similarly, regarding the EPF out of total investment only 1.19% was invested in corporate securities in FY 2002/03, 1.24% in FY 2001/02, 0.72% in FY 2000/01, and 0.41% in FY 1999/00. This shows that investment of EPF is very negligible portion of their huge fund. And investment of insurance companies in corporate securities was 1.30% in FY 2002/03, 2.13% in FY 1999/00 which is also a very small portion of their huge fund.

The diversity in securities market instruments attracts the investors of various risk performance providing choice in the investment alternatives. But in the case of Nepalese securities market, it is mostly dominated by risky instruments (equity share) which constitute more then 80% of the total paid up value of the securities listed in the exchange market and the rest comprises of consisting preference shares, debentures, bonds and mutual funds.

1.3 Objectives of the Study

The specific objectives of this study are:

i)   To analyze stock market development in Nepal specifically focusing on

      a)   Size of Nepalese stock market.

      b)   Liquidity of Nepalese stock market.

      c)   Volatility of Nepalese stock market.

      d)   Concentration of Nepalese stock market.

ii)   To analyze the performance of NEPSE.

iii)   To evaluate the relationship between stock market development and economic growth.

1.4. Organization of the Study.

The study has been organized into five chapters. Chapter one contains the introductory part, which is already presented with the general background, statement of the problem and objective of the study. Chapter two deals with the review of books and major empirical works in the area of stock market development, performance and economic growth. Chapter three describes the research methodology employed in the present study. This chapter comprises of definition of indicators of stock market development and economic growth, scope of the study, research design, nature and source of data, test statistics and limitations of the study. Chapter four is the major part of this study. It deals with the empirical analysis of the study. In which trend analysis, correlation analysis, regression analysis are used and major findings of this study. Finally, chapter five presents with the summary and conclusions. The present study ends with some recommendation.

Chapter – II

Review of Literature

In this chapter an attempt has been made to review the existing literature pertaining to stock market development and economic growth. The relevant literature and articles are reviewed from international as well as national publication available from different libraries, institutions and websites that have great significance to this study. A few books, articles and research working papers have been reviewed on this subject.

2.1 Theoretical Framework

Financial markets are basically similar to other kinds of markets. People buy and sell bargain and haggle, win and loss in this market as well. In financial markets people buy and sell securities, stock and bonds which are less tangible than hot bracelets or cold gold bar but not less valuable (Ritter and Silber, 2008). Functionally, financial markets are broadly subdivided under two heads: money markets and capital markets. The former are markets in short-term funds and the later in long-term fund (Gupta, 2006).

The stock market is one of the most important components of capital market. Capital market typically involves financial assets having a life span of greater than one year. The key instruments used in capital market are bonds, equities, and preference shares. Therefore, the stock market deals in long-term securities, both private and government. Furthermore, the stock market is mostly a secondary market where existing securities are traded. Capital market is crucial for long-term growth and prosperity of an economy since it provides long term fund of all kinds, mobilizing savings and chanalizing them into productive investment for the development of commerce and industry of the country.

Economists have neither common concept nor common measure of stock market development (Demirguc-Kunt and Levine, 1995)(Paper No. 1462). However, the various measures of stock market development are market size, liquidity, volatility, and concentration. Generally, large stock market size indicates developed stock market. One of the measures of stock market size is number of listed companies in stock exchange in each period. The size of stock market increases with an increase in the number of listed companies. Another measure of stock market size is market capitalization ratio, which aggregates market value of listed shares divided by Gross Domestic Product (GDP). The assumption behind this measure is that the overall stock market size is positively correlated with an ability to mobilize capital and diversify risk on an economy wide basis. It is important to remember that countries with developed stock market have market capitalization ratio greater than 1 and in many developing countries it is between 0.2 and 0.4 (K.C.,2004). Market liquidity allows investors to alter their investment portfolios conveniently at any time at a low cost. Liquidity makes the financial assets less risky and this improves efficient allocation of resources and promotes long term economic growth. Liquidity in stock market refers to the ability to easily buy and sell securities in the market. There are two ways to measure the liquidity of stock market. First, total value traded / GDP i.e. share traded on stock market divided by GDP: this measure complements the market capitalization ratio. Although this method does not measure directly the cost of trading shares, it does indicate the extent of ease in trading in stock market in a country. It is expected that the volume of organized trading of equities as share of national output increase when such trading is less costly and easy. It is important to note that countries with developed stock market have the total value traded to GDP as high as 0.4 but in developing countries it varies in the range of 0.001 to 0.01 (K.C., 2004). Second, liquidity of stock market i.e. the ratio of value of share traded to market capitalization: this measure is also known as turnover ratio. High turnover ratio indicates low transaction cost and relative ease in buying and selling of shares. In developed countries this ratio is greater than or very close to 1 whereas in many developing countries this ratio is in the range of 0.15 to 0.3 (K.C., 2004)(25-37).

Although greater volatility is not necessarily a sign of more or less stock market development but sometimes "less volatility" is referred as "greater stock market development" for simplicity (Demirguc-Kunt and Levine, 1995). High volatility in stock market denotes risk in equities investment; it does not necessarily imply underdeveloped stock market. It is generally expected that developed stock markets absorb risk in financial asset and offer higher return with less volatility. It means that as an indicator of 8 country's stock market development, less volatility is preferred to high. Volatility is also an important indicator of stock market development. This indicator is twelve month standard deviation estimated based on market returns. Higher standard deviation means higher volatility and more risk.

A high concentration is not desirable as it adversely affects liquidity in stock market. A country's stock market is considered highly concentrated if a few large companies dominate it. The countries with developed stock market have concentration ratio about 0.2 of the market where as in countries with underdeveloped stock market this ratio is as high as 0.9 (K.C., 2004).

The historical debate exists concerning the specific role of stock market in economic growth. However stock markets may affect economic activities through creation of liquidity, risk diversification, acquisition of information about firms, saving mobilization and corporate control.

Many profitable investments require a long-term commitment of capital, but investors are often reluctant to relinquish control of their savings for long periods. Liquid markets make investment less risky and more attractive because they allow savers to acquire and sell equity assets quickly and cheaply if they need access to their savings or want to alter their portfolios. At the same time companies enjoy permanent access to capital through public offering which they can use for longer-term and, more profitable investments. Liquid market improves the allocation of capital and enhances prospect for long-term economic growth. Further, by making investment less risky and more profitable stock market can also lead to more investment.

Risk diversification through internationally integrated stock markets is another vehicle by which stock market development may influence economic growth. Greater risk diversification can influence growth by shifting investment in to higher-return projects. Intuitively, because projects with higher expected returns also tend to be comparatively risky, better risk diversification through internationally integrated stock markets will foster investment in projects with high returns (Levine and Zervos, 1996)(323-339/48).

Stock market may also promote the acquisition of information about firms. If the investors are well informed then it will make easier for investors to research and monitor firms. When the investors get information that the firm in which they invested is performing well, then the people will not hesitate to invest in that firm through the stock market in the firm of right share. Therefore it can be said that better information about the firm will improve resource allocation and boost economic growth (Levine and Zervos, 1996)(323-339/48).

Large liquid and efficient stock markets can ease savings mobilization. By collecting savings, stock markets enlarge the set of feasible investment projects. Since some worthy projects require large capital injections and some enjoy economics of scale. Stock markets that ease resource mobilization can boost economic efficiency and accelerate long-run growth (Levine and Zervos, 1996).

Stock market development may also influence corporate control. Well-functioning stock markets that ease corporate takeover can mitigate the principal-agent problem and promote efficient resource allocation and growth (Levine and Zervos, 1996).

In developing countries, it is not quite clear, whether stock markets are merely burgeoning casinos where more and more players are coming to place bets, or

whether stock markets are importantly linked to economic growth. One line of research argues that it is not important; another line stresses importance of stock markets in mobilizing savings, allocating capital, exerting corporate control and easing risk management.

Traditional growth theorists believed that there is no correlation between stock market development and economic growth. Singh (1997) contended that stock markets are not necessary institutions for achieving high level of economic development. Many viewed stock market as an agent that harm economic development due to their susceptibility to market failure, which is often manifest in the volatile nature of stock market in many developing countries (Singh, 1997; Singh and Weis, 1999; Ahmed et. al., 2008)(771-782,182-194).

Contrary to the traditional view, Pardy (1992)(907) in his seminal paper has argued that in a less developed countries capital markets are able to mobilize domestic savings and allocate fund more efficiently. Similarly, Atje and Jovanic (1993)(632-64) concluded that stock markets have long run impact on economic growth and they have also argued that the stock markets manipulate economic growth through number of channels that are liquidity, risk diversification, acquisition of information about firms, corporate governance and saving mobilization. Levine and Zervos (1996) found that stock market development is positively and robustly associated with economic growth. Similarly, Carprorale et. al. (2004) have concluded that a well developed stock market can foster economic growth in the long run. It also provide support the view that a well functioning stock market can promote economic development by fuelling engine of growth through faster capital allocation, and by tuning it through better resource allocation. G.C. and Neupane (2008)(36-44) has concluded that the stock market fluctuations predict the future growth of an economy.

2.2 Review of Empirical Work

2.2.1 International Context

There are various research works that have been performed at international level regarding stock market development and economic growth. However the studies pertaining to this study are reviewed.

Demirguc-Kunt and Levine (1995)(47) in their working paper entitled "Stock Market Development and Financial Intermediaries Stylized Facts" collected and compared abroad array of indicators of stock market and financial intermediaries development. Their goal was to summarize the information about a variety of indicators for stock market development, in order to facilitate researchers to link between stock markets, economic development and corporate financing decision. The stock market development indicators that they have used are: (a) market size, (b) market liquidity, (c) market volatility (d) market concentration (e) asset pricing efficiency (f) regulatory and institutional development and (g) conglomerate indexes. They have used the: (a) size of financial system (b) size of efficiency of banking system (c) size of non-bank financial corporation and (d) size of private insurance and private pension funds to describe the financial intermediary's development. Using the data of 41 countries from 1986 to 1993 they have ranked the countries market as most developed, most underdeveloped, highly developed, and underdeveloped markets. They have found the three most developed stock markets are: Japan, the United Kingdom and the United States. The most under developed markets are: Colombia, Nigeria, Venezuela and Zimbabwe. Malaysia, Korea and Switzerland have highly developed stock market where as Argentina, Greece, Pakistan and Turky have underdeveloped stock markets. They have also found a strong relationship between stock market development and financial intermediary development. That is to say level of stock market development is highly correlated with development of banks, financial institutions, insurance companies and private pension funds. In the paper it was also mentioned that the big markets tend to be less volatile, more liquid and

less concentrated in a few stocks. According to them internationally integrated markets tend to be a less volatile, and institutionally developed markets tend to be large and liquid. They have also argued that the richer countries generally have more developed stock markets then the poor countries.

From this study one can easily know the indicators of stock market development. Demirguc-Kunt and Levine have prescribed market size, liquidity, volatility and concentration as stock market development indicators. These indicators are also used in this study to analyse stock market development in Nepal. They have also demonstrated the positive relationship between financial intermediary's development and stock market development. Although, the financial intermediaries can be used as an indicator in measuring economic development but present study has not used this technique. However, present study has focused on stock market development, and it's relation with economic growth.

Recently published studies have shown the causality and correlation between stock market development and economic growth.

Levine and Zervos (1996)(323-339.48) have estimated a regression equation to evaluate empirically the relationship between stock market development and long run growth by using pooled cross- country time- series data of forty-one (41) countries over the period from 1976 AD to 1993 AD. They have found a strong correlation between overall stock market development and long-run economic growth. Levine and Zervos have estimated the correlation between stock market development and long run economic growth by controlling the initial level of GDP Per-capita, initial investment in human capital, political instability and measures of monetary, fiscal and exchange rate policy. In the article they have mentioned that the theory does not provide unique concept or measure of stock market development but it only suggest that the size of stock market, liquidity and integration with world capital market may affect economic growth. Consequently, they used conglomerate index of overall stock market development constructed by Demirguc-Kunt and Levine (1995) to

measure stock market development. To analyze the impact of stock market development on economic growth they have used the following regression equation:

GROWTH = α X+ β (STOCK) + μ

Where, dependent variable GROWTH is the real per-capita growth rate averaged over the relevant period. X is a set of control variables that includes initial income, initial education, measure of political instability, ratio of government consumption expenditure to inflation rate, the black market exchange rate premium. α is a vector of coefficient of the variables in X. β is the estimated coefficient on STOCK, and μ is an error term. STOCK is stock market development index, the average of means removed values of market capitalization, total value traded, turnover ratios and Asset Pricing Theory (APT) mispricing indicator.

Carporale et. al. (2004) has examined the causal linkage between stock market development, financial development and economic growth. They have investigated seven selected countries (Argentina, Chile, Greece, Korea, Malaysia, Philippines and Portugal) from the period 1971:1 to 1998:4. They have suggested that a well-developed stock market can efficiently mobilize the fund that have not been fully absorbed by financial intermediaries into productive investment and hence spur economic growth. For stock market development they have used two standard indicators, (1) the market capitalization ratio, which equals the value of listed shares divided by GDP and (2) The value of traded shares ratio, which equals the total value of shares traded on stock exchange divided by GDP. Bank deposit liabilities to nominal GDP and ratio of bank claims on private sector to nominal GDP are used as proxy for bank development. And GDP level is used as a measure of economic development. They have found a robust relationship between stock market development and economic growth. Finally in the article they have mentioned that well-organized and active stock markets could modify the patterns of demand for money, and would create liquidity that eventually enhances

economic growth. The empirical part of study exploited the technique recently developed by Toda and Yamato (1995).

Ahmed et. al. (2008)(182-194) has endeavored to investigate whether there is a relationship between stock market development and economic growth in case of developing economies. They have selected Pakistan to perform their study. They have used annual time series data from 1971 to 2006 of Pakistan and found very strong relationship between stock market development and economic growth. The results are vigorous and robust indicating that the stock market is an important wheel for economic growth. In the article they have also mentioned that the financial liberalization improves the efficiency of banking and stock market development. According to them the financial liberalization has significant and positive impact on the economy. They have employed two new tests namely DF-GLS and Ng- Parron to find integrating order of said variables of the study. To test long run robustness, J-J Co-integration and ARDL bounds testing techniques were applied. From this study one can say that there exist positive relation between stock market and economic growth in developing economy too. And financial liberalization of Nepal is necessary for the efficient functioning of NEPSE.

Victor (2005) has investigated the impact of stock market on economic growth in Ghana. Victor has applied auto- regressive model, which was developed by Sims (1972) based on Granger's definitions of causality. The data used in this study is from 1991:1 to 2003:4. Victor has found that the stock market development granger cause economic growth in Ghana and causation is unidirectional from stock market to economic growth. That is to say that the stock market development predicts economic growth in Ghana. In this study, value of market capitalization is the only variable used as an indicator of stock market development. This was done mainly due to lack of data and other indicators of stock market development. This study has recommended that the efforts must be geared towards the improvement of the institutional capacity, regulatory framework and macro economic landscape.

Beck and Levine (2002)(908) have investigated impact of stock markets and Banks on economic growth using a panel data set for the period 1967-98 on 40 countries. They have employed Generalized- Method of Moments (GMM) techniques to asses the relationship between stock market development, bank development and economic growth to measure stock market development, they have used turnover ratio as measure of market liquidity, which equals value of traded shares or domestic exchange divided by total value of listed shares. They have also experimented with other measure of stock market development that which was developed and used by Levine and Zervos (1998) and Rousseau and Watched (2000)(24). They are, value traded and market capitalization ratio. Value traded equals the value of domestic shares exchange in domestic economy divided by GDP. In the paper it has mentioned that the value traded has two pitfalls. First, it does not measure the liquidity of the market. It measures trading relative to size of the economy. Second, since markets are forward looking, they will anticipate higher economic growth by higher share prices. Since, value traded is the product of quantity and price, this indicator can rise without an increase in number of transactions. Turnover does not suffer from this short coming since both numerator and denominator contain the price. In this paper, they have accepted the views of Levine and Zervos (1998) view that the market that the market capitalization is not a good predictor of economic growth. To measure bank development they have followed Levine and Zervos (1998) and use bank credit; which equals bank claims on the private sector by deposit money banks divided by GDP. In their study, stock market development and bank development jointly enter in regression equation and are significant. Finally, they have concluded that the stock market and banks are important for economic growth.

Even though banks are crucial for economic growth but present study has not considered in its analysis. However, present study is confined to stock market development and it's relation with economic growth.

Bencivena, Smith, and Starr (1996)(241-265) have emphasized the importance of stock market liquidity. According to them the ability to trade equity is very important for growth. They have mentioned that the cost of transaction in the

equity markets affect not just the level of investment, but the kinds of investment that are undertaken. A reduction in transaction cost will typically alter the composition of savings and investment. It potentially improves capital accumulation and steady state output. This study highlights the importance of liquidity in stock market. Therefore efforts must be geared towards reducing in transaction cost of financial assets that are traded in NEPSE.

The aforementioned empirical works do not provide unique concept and measure of stock market development but it is clear that market capitalization ratio, value traded ratio, volatility and concentration ratio are important indicators of stock market development. GDP growth and GDP per capita growth are indicators of economic growth. Most of the papers have demonstrated an existence of positive correlation between stock market development and economic growth.

Pardy (1992) in the working paper entitled "Institutional Reform in Emerging Securities Markets" have identified the basic building blocks for developing sound securities markets. He has described two sets of preconditions. They are:

a)   Macro- Economic and financial environment conducive to the supply of good quality securities and sufficient demand for them and

b)   A legal, regulatory and institutional infrastructure capable of supporting efficient operation of securities market.

Parday has discussed the second pre condition in detail. He has provided guideline for basic infrastructure requirements that directly enable the securities market to operate in an efficient, fair and stable manner. According to him essentially such infrastructures should have

i.   Certainty about property right and contracts,

ii.   Transparent trading and other procedures and public discloser by companies of all information relevant to the value of their securities,

iii.   Protection against the financial failure of intermediaries and market institutions such as clearing houses,

In this paper, Pardy has also mentioned that the government plays central role of faciliting the growth of sound securities markets. First, they must lay the legal institutional foundation for market to grow, and then they must supervise the market to ensure that it operates in an efficient, fair and stable manner. And in background they must create growth compatible macro economic conditions for market growth. Pardy has also emphasized on human resource development to develop sound securities market in the working paper.

2.2.2 National Context

In the Nepalese context, only a few research studies have been conducted regarding to stock market development and economic growth. However some books, and articles are available, they will be reviewed in the following section.

K.C. (2004)(25-37) in the article entitled "Development of Stock Market and Economic Growth in Nepal" has explained that the stock market in Nepal is underdeveloped as well as illiquid and risky and has failed to show impact on overall national economy. K.C has used stock market size, liquidity, concentration and volatility as indicators of stock market development, and data consist for the period 1993/94 to 2002/03. These indicators will be used in this study as well and hence K.C.'s result will be used to compare the results that will be derived in this study.

In this article K.C. has also mentioned that the development of stock markets in emerging nations passes through four main stages. Development of equity markets in any country requires political and economic stability. And growth-oriented policies as pre-conditions for capital market development. At the

second stage, equity price rise and investors gradually gain confidence in the equity market. People started accept equity as an alternative to additional bank deposits and government securities. At the second stage, equity markets gain more credibility and market liquidity increases. Investors long for rise in risk adjusted returns and demand a wide variety of securities to match their risk preferences. Rules and regulations are refined and equity markets starts functioning on the basis of self- discipline. Equity markets at this stage gradually get integrated to international markets and attract foreigners. At the third stage equity markets become an integral part of the overall financial system. Investors get higher, less volatile returns and easily absorb new issues of stock and bonds. The volume of trading increases as the equity markets become more liquid and firms go for initial public offering to replace their debts. At the final stage equity markets get highly integrated with the global markets and the equity risk premium match with the international competition levels. Equity –markets at this stage achieve stable growth and attain maturity. The above-mentioned criteria of four stages will help to know in which stage our stock market is in.

Mahat (1981) in book "Capital Market, Financial flows and Industrial Finance in Nepal" said that there is an absence of secondary market to ensure liquidity to the securities and demand. He has highlighted the problem of industrial finance in Nepal. According to him, the nature of the problem is both quantitative and qualitative, the problem of long run investment is due to political instability and inefficient economic polices.

Shrestha (1992) in book "Shareholders Democracy and AGM Feedback" had focused on various issues related to protection of shareholders' expectations. He had mentioned that the success of companies directly depends upon protection of their owners. Thus it is necessary to develop a possible guidance for enhancing efficiency of public companies to contribute directly in the growth of national economy on one hand and ensuring handsome return to share holders on the other hand to make their investment meaningful and growth oriented.

Shrestha (2007) in the article has argued that the monetary policy of central bank has profound influence on the stock market. He has mentioned that monetary policy plays a decisive controlling function to avoid artificial rise in stock price to save the investors from the hands of the gamblers. He has also mentioned that monetary policy creates over all linkage to guide the stock market to take right kind of direction and change proving vital to endure fair trading practice and compliance of the guide lines and regulatory provisions to protect the common interest of the investors.

G.C. and Neupane (2006)(36-44) examined the existence of causal relationship between stock market and economic growth based on time series data for the year 1988 to 2005 of Nepal. They have used Granger causality test to find the causality between stock market and economic growth. They have found that the stock market growth and economic growth have long run stable and causal relationship. They have concluded that the stock - market fluctuations can be used to predict future growth of an economy. In this paper, causality has been observed only in real terms but not in nominal terms.

Adhikari (2004)(75-79) has explained about regulatory mechanism, performance, issues and prospects of securities market in Nepal. Also, explained that the performance of Nepalese securities market is not stable though improving gradually. He has used some indicators that indicate the performance of securities market. They are number of issue approval, amount of issue approval, number of listed companies, annual turnover, and market capitalization, market capitalization on annual GDP at market price and NEPSE index. These indicators are also important for the analysis of this study.

In another study Adhikari (2005)(40-54) has explained securities market development in Nepal. In which he has mentioned that securities market in Nepal is in an underdeveloped stage characterized by legal inadequacy, lower resource availability to regulator, low liquidity, double taxation viz. tax on

dividend and capital gain tax, poor corporate governance practices, low involvement of intuitional investors, poor disclosure practices, high cost of public issue, high transaction cost, and lack of accounting and auditing standard. Adhikari has used the descriptive method and has highlighted the existing problems to explain securities market development in Nepal.

A study conducted by securities Board of Nepal, in the fiscal year 2005/06, has shown that there is a lack of institutional investment in securities market of Nepal. In Nepal, Citizen Investment Trust (CIT), Employees Provident Fund (EPF), NCM Mutual Fund and Insurance Companies exist and these are the potential institutional investors. However, they have invested very nominal part of their fund in corporate securities out of their total investment. The highest investment was made in corporate securities was 4.58% out of total investment, in the fiscal year 2003/04, by citizen investment Trust. The study has covered time period between 1993/94 to 2004/05. In this study it has mentioned that there is significant fluctuation in the market price of the securities. In the last 12 years, there is variation of about 448 points in price index. The highest price index was recorded 545.82 points in the fiscal year 2001/02 while the lowest 97.98 points was recorded in the fiscal year 1993/94. There was up to 223 points price index variation in single year and up to 18.3 points price index variation in one day transaction. Such variations in the price of the securities indicate the irrational behavior of the market. These irrational behaviors of market can be attributed to the absence of instructional investors and naïve nature of retail investors. The study has also shown that there is not only low supply of securities in the market but also lack of diversification of securities instruments. In the study period there were only four issues of debentures. There was no encouraging issue of securities from corporate sectors other then bank and financial institutions. The study has concluded that there are various programmes in the national plans to encourage investment of the existing institutions in the securities market for the productive mobilization of their funds. However, the programmes are not fully implemented, which could also be attributed to the absence of special regulator of these institutions. Thus, the legal and regulatory gaps in this aspect should be duly addressed. Further the government has strong commitment to implement the programmes as envisaged in national plans.

After review of this study it is clear that Pardy (1992) has rightly explained that the government plays central role in facilating the growth of sound securities markets. And, sustainable development of securities market is not possible with out active involvement of institutional investors.

Gurung (2004) has analyzed the growth trend and performance of Nepalese securities market by using data of ten years (i.e. FYs 1993/94 to 2002/03). Gurung has used several variables such as numbers of listed and traded companies and their securities, number of transactions, trading turnover, paid up value, market capitalization and NEPSE index. These variables will also be used in this study and hence Gurung's result will be used to compare the results that will be derived in this study. Gurung has used compound growth and Karl Pearson's correlation coefficient (r) as analytical tools. These statistical tools will be also used in this study. Finally, he has concluded that the Nepalese securities market is poor and unstable.

Paneru (2003) has examined the role of stock market in economic growth. The data set consists of the period between 1993/94 to 2001/02. Paneru has used trend analysis, correlation analysis and regression analysis to attain the objectives in his study. He has used regression equations to find out the causal relationship. He has used four sets of regression equations to analyze the problem. The four sets of regression equations used by paneru are presented in appendix no XI.

Dangol (2007) has analyzed the trend of stock market in Nepal. She has examined the role of stock market in economic growth, and has determined the relationship between stock market indicators and economic growth indicator. The study covers the time period form 1993/094 to 2004/05. She has used real GDP growth as an indicator of economic growth. She has used trend analysis, correlation analysis as well as regression analysis as the analytical tools in her study. In correlation analysis, she has found that the market capitalization (i.e.

stock market indicator) is highly correlated and significant with the growth indicators viz. saving, investment, capital formation, population growth rate and Gross domestic product (GDP). The correlation coefficient between MC and S is 0.71, between MC and I is 0.79, between MC and PGR is -0.89 and MC and GDP is 0.84. The correlation between monetary indicator i.e. the discount rate (DR) and MC was also important. The correlation between DR and MC is -0.81. Similarly, value of share traded was found positive and significant relationship with GDP, S and I and negative relationship with DR and PGR at 5 percent level of significance. However, the correlation of other stock market indicators such as value traded, turnover, and volatility with GDP and other growth indicators are found insignificant. She has used regression equations to find out the causal relationship between stock market development variable and economic growth variable. The regression equations that Dangol has used were:

Log GDP=a+b1 log S + b2 log I + b3 log PGR+ b4 log DR+ b5 Log MC

Log GDP= a+b1 log S + b2 log I + b3 log PGR+ b4 log DR + b5 log VT

Log GDP= a+b1 log S + b2 log I + b3 log PGR+ b4 log DR+ b5 log TO

Log GDP= a+b1 log S + b2 log I + b3 log PGR+ b4 log DR + B5 log V

Where,

GDP= Gross Domestic product, S= Gross Domestic Saving, I= Total Investment,

DR= Discount rate, PGR= Population growth rate, a= coefficient, b= estimated coefficient.

Dangol has found that the MC, VT and V have significant impact on gross domestic product. While the other stock market indicator TO have insignificant impact on GDP. The regression equations which Paneru and Dongal have used are relevant for this study to examine the relationship between stock market development and economic growth. The result derived by the above mentioned studies will be used to compare the result of this study. No significant part of

their study contributed to the market concentration and performance of Nepalese stock market. However this will be examined in this study.

Pant (2000) has emphasized the status, problems and prospects of Nepalese stock market. However, no significant part of the study has contributed to the performance of Nepalese stock market. Pant has found that the problem of Nepalese stock market are unfavorable macro economic condition, political instability, low investors confidence, weak tax system, weak legal affairs for stock market regulation and enforcements restriction on foreign portfolios investment etc. in Nepal.

Poudyal (1988)(12-18), Sharma (1996), and Wagle, (2000) have emphasized on trend of saving investment and capital formation in Nepal. But only a little have been done about Nepalese securities market.

2.3 Concluding Remark

The review of aforementioned literatures makes it clear that the development of stock market is necessary for modern day economy. Well functioning stock markets promote economic development by fueling the engine of growth through faster capital accumulation and by tuning it through better resource allocation. Hence, economic growth of any nation is highly influenced and characterized by the development of capital market. Development and expansion of capital market is essential for rapid economic growth of country. Thus, in the primary stage of economic development, and stabilization of Nepalese stock market can play a crucial role. The reviews of above literature also make clear that the stock market development can be analyzed in terms of market size, liquidity, volatility, and concentration. And stock market performance can be analyzed in terms of number of issue approval, amount of issue approval, number of listed companies, annual turnover, market capitalization, market capitalization to nominal GDP, and NEPSE index. And there exist positive relationship between stock market and economic growth

Chapter - III

Research Methodology

This chapter is dedicated to explain the methodology of this study. This chapter consists the definition of indicators, scope of the study, research design, nature and source of data, tools and techniques used to attain objectives of this study.

3.1 Indicators of Stock Market Development.

In this study the following stock market development indicators are used to analysis stock market development in Nepal, which are prescribed by Demiguc-Kunt and Levine (1995).

a) Market Size: Generally, large stock market size indicates developed stock-market. The size of stock market can be measured in terms of market capitalization ratio and number of listed companies. The former measure equals value of listed share divided by GDP. The later measure equals number of listed companies in stock exchange in each period (Demirguc-Kunt and Livene, 1995).

b) Liquidity: Liquidity in stock market refers to ability to exchange securities easily in the market. There are two methods to measure liquidity of stock market. First, total value traded/GDP i.e. shares traded on stock market divided by GDP. This measure complements the market capitalization ratio. Second, liquidly of stock market i.e. the ratio of value of share traded on market capitalization: this measure is also known as turnover ratio (Demiurgc- Kunt and Levine, 1995).

c) Volatility: Volatility is one of the important indicators of stock market development. This indicator is twelve month rolling standard deviation estimated based on market returns (Demirguc-Kunt and Levine, 1995).

d) Concentration: A Country's stock market is considered highly concentrated if few large companies dominate it. To measure the degree of market concentration, we compute the share of market capitalization accounted for by the ten largest stocks and called this measure concentration ratio (Demeirguc-Kunt and Levine, 1995).

3.1.2 Indicator of Economic Growth

a) Gross Domestic product (GDP) - An increase in monetary value of output in an economy is considered economic growth, simply. The best measure of growth is an increase in real GDP or GDP at constant prices. The reason for specifying real GDP is because it changes only when the output changes over time. Therefore, if growth is defined an expansion of monetary value of economy's output then price change must be removed from GDP as in constant price.

3.2 Scope of the Study

The present study covers the stock market of Nepal. The Nepal Stock Exchange Limited (Nepal Dhitopatra Binimaya Limited) popularly called NEPSE is only stock market of Nepal. It is located in Singha Durbar plaza, Kathmandu Nepal. In which listed companies are traded. Thus the study based on listed companies that obtain approval to issue their share to general public through the Securities Board of Nepal is scope of the this study.

3.3 Research Design

This study is carried out in the contest of Nepal, for the period 1993/ 94 to 2007/08. To carry out the study both qualitative as well as quantitative methods have been employed. For purpose of evaluating the causal relationship between the variables regression analysis has been employed. In the process of data analysis appropriate statical tools such as annual growth rate, compound growth rate, percentage, measure of central tendency, dispersion, correlation and regression analysis have been used. To test the significance of estimated model, student's t-statistics and F- statistics are used. In this study economic growth is measured by GDP in constant price i.e. real GDP, real saving, and real investment. Stock market development is measured by market size, liquidity, volatility and concentration.

3.4 Nature and Sources of Data

The study is based on secondary data only. The major sources of data are as follows:

i)   Securities board of Nepal (SEBO/N)

ii)   Website of NEPSE : http://www.nepalstock.com

iii)   Ministry of finance GON.

iv)   Central Bureau of statistics.

v)   Nepal Rastra Bank (NRB). http://www.mof.gov.np

Vi)   Central Library.

vii)   Previous research studies, dissertation and relevant article on the subject matter.

3.5 Method of Data analysis

Analysis is made by systematic and careful examination of available facts so that certain conclusion can be drawn and inference can be made.

3.5.1 Trend Analysis

Simple trend analysis has been used for the following purpose of the study.

(i)   To analysis the stock market development in Nepal

(ii)   To analyze the performance of NEPSE.

3.5.2 Correlation Analysis

Correlations between each of the following variables are computed to determine relationship. The variables are real GDP growth, gross domestic saving, gross domestic investment, market capitalization; value traded, turn over, and volatility of stock index.

3.5.3 Regression Analysis

To find causal relation between stock market variables and economic growth variables the regression analysis is employed. The variables that will be used in the models are: Gross Domestic Product (GDP), Gross Domestic Saving (S), Investment (I), Market Capitalization (MC), Value of Traded Share (VT), Turnover (TO) and Volatility of stock return (V).

Theoretical statement of model is that GDP may be regarded as subject to constraints of various macro economic and stock market related variables. To see whether the stock market variables along with macro economic variables are related or not the regression equations are used. The regressions equations used in this study as follows:

Log GDP = a + b1log S + b2log I + b3 log MC.

Log GDP = a + b1log S + b2log I + b3 log VT.

Log GDP = a + b1log S + b2log I + b3 log TO.

Log GDP = a + b1log S + b2log I + b3 log V.

Where, GDP= Gross Domestic Product, S= Gross Domestic Saving, I= Total Investment, MC= Market Capitalization, VT= Value of Share Traded, TO= Turnover, V= Volatility, a= coefficient, b= estimated coefficient.

3.6 Test Statistics

In the process of estimating above model various statistical tools have been used i.e. coefficient of multiple determination (R2), Standard error of estimate (SEE), t-Student's statistics, F-statistics.

The statistical tools which are employed in this study are explained below:

Coefficient of multiple Determination (R2): The coefficient of multiple determination is a measure of degree (extent or strength) of linear association or correlation between two variables one of which happens to be independent variable and the other being dependent variable. In other word, R2 measures percentage of total variation in independent variable explained by explanatory variables. The coefficient of determination can have value ranging from zero to one (i.e. $0 \leq R2 \leq 1$). If R2 is equal to 0.95, which indicates that the independent Variables used in regression model, explain 95 percent of total variation in dependent variable. A value of one can only occur only if the variation of dependent and independent variable are equal, which simply means that all the data points in the scatter diagram are fixed or exactly on regression line.

Standard Error of Estimate (SEE): With the help of regression equation perfect prediction is practically impossible. Standard error of an estimate is a measure of the reliability of the estimating equation, indicating the variability

of obverse points around the regression line, i.e. the extant to which observed values differ from their predicated values on regression line. The smaller value of SEE, the closer will be the dots to regression line and a better estimates based on the equation for the line. If SEE is zero, then there is no variation about line and correlation will be perfect. Thus, with the help of SEE, it is possible to ascertain how good and representative the regression line is, an description of the average relationship between two series.

Student's t- Statistics- It was developed by W.S. Grosset (Pen name Student) in 1908. Then this distribution is explained by R.A. Fisher. To test the validity of assumption of the study for small samples, t- test is used. It is very difficult to make a clear cut distinction between small samples and large samples. However from practical point of view, in most of the situations a sample is termed as small, if n≤30. For applying t distribution, the t- values are calculated first and compared with the critical values at a certain level of significance for given degree of freedom. If the computed value of 't' exceeds the table value (say t 0.05), it is known that the difference is significant at 5 percent level of significance but if t-values are less then the corresponding critical of the 't' distribution, the difference is not termed as significant.

F-test: The Fisher's F-distribution is defined as a distribution of the ratio of two independent chi-square variables each divided by the corresponding degrees of freedom. It is clear that F- distribution has a signal mode. Note that the shape of F-distribution depends on the value of degrees of freedom and value of Flies between o and ∞ (zero and infinity).

Probable Error (P.E)

Probable error measures the reliability of the calculated value of r. It is tested with the help of the following formula.

P.E = 0.6745 x $\dfrac{1\text{-}r2}{\sqrt{n}}$

The result derived with the help of the formula is interpreted using the following rules:

(i) If r < 6 P.E. r is not significant at all.

(ii) If r> 6 P.E. r is significant

3.7 Limitations of the Study

The study is based on data for a period of 15 years from 1993/94 to 2007/08. The main objective of the study is to find the relationship between stock market development and economic growth. For this purpose the period of 15 years is not sufficient to have accurate result. Data on the important aggregate variables are available only on yearly basis. Apart from this, there is also far and wide variation between the data source. The following are the main limitations of the study.

i.   Financial liberalization started in 90s, the study of the period 1993/94 to 2007/08. As a result, the study period may have been regarded as a shorter and inference should be made with caution.

ii.   The study is based on secondary data, authenticity of which may be questioned, as there are variations in the same data variable across the source.

iii.   The data on the some of the variables are not reality available.

iv.   The study covers past and present state of securities market in Nepal.

Hence, it does not make many projections about the future.

3.8 Definition of Key Terms

The following terms, used in analysis may have different meaning in different circumstance and under different conditions, in this study the meaning of the given terms as follows:

Savings: It means excess of income over expenditure.

Investment : It refers to the value of that part of the aggregate output for any given time period which takes the form of construction of new structures, installation of new capital equipment and positive change in business inventories in economies.

Market Capitalization: It refers market value of company's issued shares. This is the share price times the number of shares issued.

Value Traded: It equals values of share traded in the exchange.

Turnover: It refers the total value of Transaction.

Volatility: A measure the movement of the stock market index during the certain period around the mean value. Specifically, it is the variance of the market index during the certain period.

Chapter – IV

Presentation and Analysis of Data

This chapter is divided into four sections. The first section is related with analysis of various indicators of stock market. The second section deals with the performance of Nepalese stock market. The third section of this chapter attempts to find the association between the indicators of stock market development and economic growth with the help of correlation matrix. And last section examines the causal relationship between stock market development and economic growth.

4.1 Stock market Development

The level of stock market development depends upon market size, liquidity, volatility and concentration. Economic growth of a country is usually strongly correlated with the development of stock market. However, stock market development also depends upon intuitional investment and investors, legal infrastructure, government policy and human resource development. Table 4.1 shows the stock market development in Nepal. Market size can be measured in terms of number of listed companies and market capitalization ratio. Securities exchange Act, 1983 section 8, prohibits securities trading with out listing to Nepal Stock Exchange Ltd. The number of listed companies was 66 in 1993/94 and went up to 115 in 2000/01. It has sharply decreased to 96 in 2001/02 due to the delisting of securities of 25 companies for non-compliance of annual reports and listing fees. This increased to 135 in 2005/06 and 2006/07 and 142 in 2007/08. The number of listed companies on an average is 108, during the study period 1993/94 to 2007/08. The findings of research by Demiguc-Kunt and Levine (1995) shows that the countries with most developed stock market such as Japan, United Kingdom, and United States had listed companies 2027, 1932 and 7087 respectively, and in countries with most under developed stock market such as Colombia, Nigeria, Venezuela and Zimbabwe had listed companies 87, 127, 82 and 57 respectively from 1986 to 1993. Comparing the

result of this study, the number of listed companies in Nepal is very few and can not be compared with the developed stock market. However, the number of listed companies in Nepalese stock market is more or less similar to most of the underdeveloped stock markets. This shows that the Nepalese stock market is underdeveloped and it has long way to go to be a developed stock market.

Table No. 4.1

Trend of Stock Market Indicator

Fiscal Year	Nominal GDP (Million)	Size		Liquidity		Volatility	Concentration
		Listed Companies	MCR	Value Traded/GDP	TOR		
1993/94	191596	66	0.07	0.002	0.03	58.41	NA
1994/95	209976	79	0.06	0.005	0.08	6.85	NA
1995/96	239388	89	0.05	0.0009	0.02	8.71	0.72
1996/97	269570	95	0.05	0.001	0.03	6.34	0.68
1997/98	289798	101	0.05	0.006	0.01	9.92	0.66
1998/99	330018	107	0.07	0.004	0.06	28.68	0.65
1999/00	366251	110	0.12	0.003	0.02	76.02	0.69
2000/01	393566	115	0.12	0.006	0.05	64.70	0.66
2001/02	405632	96	0.08	0.003	0.04	16.22	0.68
2002/03	460325	108	0.08	0.001	0.02	3.90	0.61
2003/04	500699	114	0.08	0.004	0.05	15.08	NA
2004/05	548485	125	0.11	0.008	0.07	19.18	0.61
2005/06	611089	135	0.16	0.006	0.03	56.19	0.67
2006/07	675484[R]	135	0.27	0.012	0.45	66.24	0.66
2007/08	768832[P]	142	0.47	0.029	0.78	58.32	0.52
Average		107.8	0.123	0.006	0.12	32.984	0.52

R= Revised, P= Preliminery

Source: Appendix-I
         Appendix-II
         Appendix-III
         Appendix-IV

Another measure of stock market size is market capitalization ratio. This is the ratio of aggregate market value of the listed shares to GDP. It is on an average is around 0.1 during the study period. It has fluctuated in the range of 0.03 to 0.16. In developing countries it is in between 0.2 to 0.4 (K.C., 2004). The findings of Demirguc- Kunt and Levine (1995) shows that countries with developed stock market had market capitalization ratio greater than and very close to one and in most underdeveloped stock market such as Colombia, Nigeria, Venezuela and Zimbabwe had this ratio 0.07, 0.04, 0.10 and 0.18 respectively from 1986 to 1993. According to above mentioned results the market capitalization ratio in Nepalese stock market is less than that of developed stock market but more or less similar to most underdeveloped stock market. This fact implies that the stock market in Nepal is very small in size and it is yet to show its impact on economic activities of the country. MCR is highest in FY 2007/08 which is 0.47. The value of MCR from 2003/04 to 2007/08 is in increasing. This indicates that the size of stock market is increasing, in Nepal. The MCRs of the recent past suggest that the ideal resources are getting mobilized in an increasing rate, in Nepal. If this trend continues to take place in the future, it can be said that Nepal is on the way to economic development.

There are two major indicators of market liquidity the first one is the ratio of value of share traded to GDP. Except in the FY 2007/08, the ratio of the value of shares traded to GDP was always below 0.01. During the study period, the value of shares traded accounted, on an average only for about 0.006 of GDP. In developed stock market this figure in as high as 0.4 and in developing countries, it varies in the range of 0.001 to 0.01 of GDP (K.C., 2004). This shows that value of share traded to GDP is very low in Nepal. Low ratio of value of Shares traded to GDP indicates that trading in equity relative to size of an economy is very low in Nepal.

The turnover ratio is another measure of liquidity of stock market. Table 4.1 shows that, in Nepal the turnover ratio have remained very low during the study

period. Low turnover ratio indicates high transaction cost and relative difficulty in buying and selling of securities. It is on an average 0.12 during the study period. It has fluctuated in between 0.01 to 0.08 in the FY 1993/94 to 2005/06. This shows highly illiquid stock market in Nepal. In developing countries this ratio is in the rage of 0.15 to 0.3. The turnover ratio is highest in FY 2007/08 which is 0.78. The figure of last fiscal year (i.e. 2007/08) shows a sign of improving liquidity in country's stock market.

Taken together, these ratios i.e. market capitalization, value of traded to GDP and turnover indicate that stock market in Nepal is very small relatives to it's economy and highly illiquid and stock market in Nepal is yet to make it's presence felt in national economy.

Market concentration in Nepalese stock market in an average is around 0.52 over the fifteen years period. This indicates that the market values of shares of ten largest companies account for 52 percent of the total market value. However, the countries with developed stock market have concentration ratio of 0.2 of the market. The findings of by Demiguc-Kunt and Levine (1995) shows that the countries with developed stock market such as Japan, U.K. and U.S. have concentration ratio 0.19, 0.24 and 0.14 respectively, and in most underdeveloped countries Colombia, Nigeria, Venezuela have this ratio 0.74, 0.51 and 0.63 respectively from 1986 to 1993. According to above results, market concentration in Nepalese stock market is very high in comparison to then that of developed stock market but more or less similar to most of the under developed stock markets. These facts indicate that stock market in Nepal is highly dominated by ten largest companies in terms of market capitalization. This high concentration has adversely affected the liquidity and significance of the stock market in national economy of Nepal. Looking at appendix II, it is interesting to note that the ten largest companies that dominated the Nepalese market in 2000/01, nine of them are commercial banks.

Although high volatility in the stock market denotes risk in equity investment, it does not necessarily imply underdeveloped stock market. It is generally

expected that developed stock markets absorb risks in financial assets and offer higher return with less volatility.

Put simply, it means that as an indicator of country's stock market development less volatility is preferred than high. The volatility on an average around 33 during the study period indicate risk in equity investment.

4.2 Performance of Stock Market

The performance of stock market can be analyzed in terms of number of issue approval, amount of issue approval, number of listed companies and number of traded companies, market capitalization, paid up capital, annual turnover and NEPSE index. The performance of stock market in Nepal is presented in Appendix I.

Public issue approval

Public issue of securities is made in primary market. As per the securities legislation, it is mandatory for corporate bodies to get their securities registered with SEBON. The SEBON reviews application and documents if the documents fulfill the mandatory requirements, it gives issue approval of different class of securities such as equity shares, right shares, debentures, preference shares, mutual fund and unit schemes which are in practice. And the companies can issue their securities in the primary market.

The number of public issue approval granted by SEBON showed a sharp down ward trend in the first four FYs where issue approval amount has change in erratic trend during the same period. Then from fiscal year 1997/98 to 2003/04 the number of issue approval of companies remained fluctuating. But it showed an increasing trend in the successive FY's and reached 64 issue approval in the FY 2007/08. The empirical result revels that over all growth rate of number of companies issue approval is very small i.e. 9.24 percent during the study period. This short of growth trend indicates the expansion of public issue approval, in primary market, very poor. The amount of issue approval shows

ups and down during the study period. In the FYs 1994/95, 1998/99, 2002/03 and 2006/07 the growth rate on yearly basis is negative. The study has found that over all growth rate of public issue approval amount is 25.96 percent, which can be considered small growth. The result indicating a small growth trend implies a weak performance of the primary market in case of public issue.

Number of listed and traded companies and their securities –

As stated earlier, the number of listed companies in 1993/94 was 66. This increased to 142 in the FY 2007/08. Likewise during the same period, securities listed with the stock exchange increased from 58 million Rupees to 243 million Rupees. The number of traded companies has an increasing trend. But the securities traded in NEPSE has fluctuating trend during the study period. The percentage of traded companies over listed companies is more then 57%. Similarly, the percentage of traded securities over listed securities range between 1.33% to 89.06%. The growth rate of listed and traded companies during the study period is 5.24% and 8.87% respectively. Similarly, the growth rate of listed and traded securities are 12.63% and 33.15%. However, the number of companies traded is not satisfactory and volume of securities traded is also negligible during the study period. These evidence indicate that the trading of securities is unattractive and illiquid in the capital market and this also implies that there is a lack of confidence among investors or investors are not quite certain in investing in the Nepalese stock market. The percentage of traded companies over listed companies is highest in FY 2007/08 which is 95.77%. The percentage of traded companies over listed companies is above 80% from FYs 2003/04. This shows improving sign of traded companies over listed companies.

Listing and de-listing-

The number of listed companies in the FY 2007/08 reached 148 with the listing of 13 new companies. However, the number of listed companies at the end of the fiscal year came down to 142 with the delisting of five companies and merger of two. De-listed companies have been either already closed or have not held annual general meetings or have not audited their results for more than

two years. Altogether 0.17 million unit shares amounting Rs.174.91 million have been de-listed during the year.

At the end of the FY 2006/07 there were 17 companies listed under the commercial bank group. Similarly, there were 23 companies in the development bank group, 17 companies in the insurance group, 55 companies in the finance group, 18 companies in the manufacturing and processing group, 4 each in the hotel and trading group, 1 in other group and 3 in the hydropower group. During the year, a total of 7.49 million units of ordinary shares amounting Rs. 749.40 million, 38.45 million units of rights shares amounting Rs. 384.56 million, 18.69 million units bonus shares amounting Rs. 1869.73 million were listed for trading. With the listing of these shares the number of listed securities other than corporate and government bonds reached 321.13 million units in the FY 2007/08. This is an increase of 31.9 per cent, from 243.50 million units in the previous year. The paid-up value of listed shares reached Rs. 29.46 billion during the FY 2007/08, which rose by 35.50 percent over the previous year. Likewise, for the first time 2 million units of convertible preference shares amounting Rs.200 million were listed during the review period. (Annual Trading Report- 2007/08)

Classifications of listed Companies

NEPSE has classified 71 companies under the 'A' category on 8 February 2008 while there were 66 companies under this category last year. Nine new companies comprising Nepal Insurance Company, Annpurna Finance Company, Everest Finance Company, Prudential Bittiya Snasthan, Bhajuratna Finance and Saving Company, Chimek Vikas Bank, Business Development Bank, Sanima Vikas Bank and Sahayogi Viksa Bank have been upgraded from category 'B' to 'A' and four companies namley Paschimanchal Development Bank, Prudential Insurance Company, Union Finance and Fewa Finance have been demoted to 'B' category owing to their poor performance. Companies earning profi t consecutively for three years with at least 1000 shareholders and the paid-up capital of Rs. 20 million are listed under category 'A'.

Category "A" Companies in last 5 years
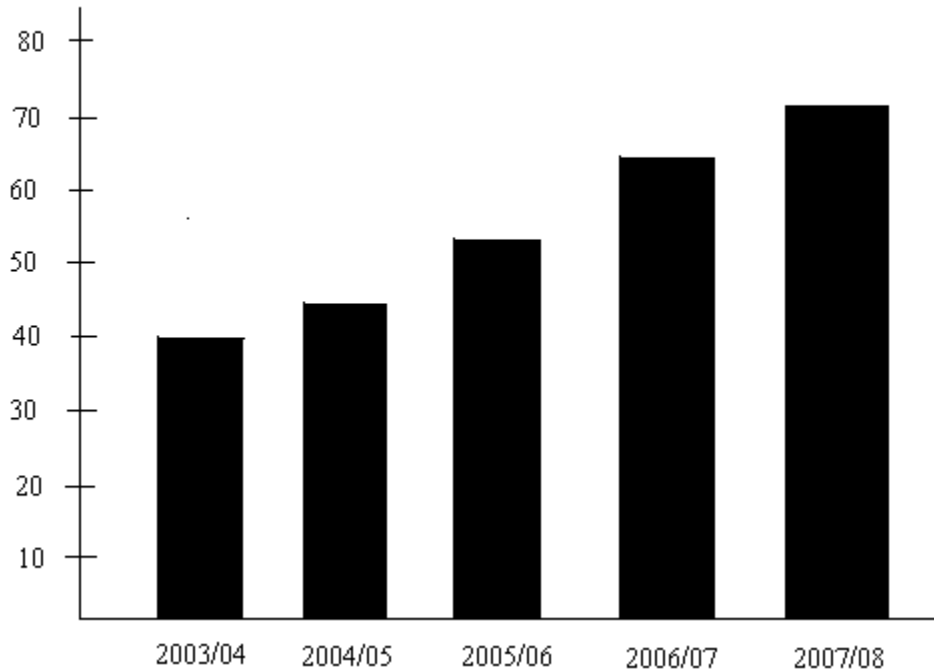
Above chart shows an increase in the number of companies classified under 'A' category. There were 43 companies classified as category 'A' in the FY 2003/04. This number reached 71 in the FY 2007/08: 12 commercial banks, 8 development banks, 11 insurance companies, 38 finance companies and one each company from the hydropower group, and the manufacturing and processing group. Companies classified under the 'A' category occupied 55.8 percent of the total paid-up capital, 50.9 percent of the total listed shares and 79.4 percent of market capitalization. (Annual Trading Report- 2007/08)

Paid up Capital and Market Capitalization

Total Paid up capital is the function of number of listed securities of traded companies and paid up values per shares. Market capitalization simply refers to the market price of listed securities. It is the sum of the number of listed securities multiplied by closing market price of the corresponding securities. Thus, total paid up capital, indicates the actual investment in the financial assets where as market capitalization indicates the present value of the investments (Gurung, 2004).

The amount of paid up capital has increased in every subsequent FYs. However, the annual growth rate has not increased in the same ratio. The over all growth rate is 18.30 percent over the study period. This indicates pace of investment in corporate sector through securities is still in snails pace.

The worth of market capitalization was Rs 13872 million, in 1993/94. It decreased during the subsequent two fiscal years, which significantly recovered in the later years of the study period. Annual growth rate is positive in all the observed FYs except in 1994/95, 1995/96 and 2001/02. The initiation of reforms program in the economy after the restoration of democracy, the problem of peace and insecurity, frequent closer of market, occasional programs of peace talk with Maoist and peoples revolution against monarchy etc. have made frequent changes in the value of market capitalization during the study period. The overall growth rate of market capitalization is 2.12 percent during the study period. The erratic trend in value of market capitalization and it's low contribution to GDP imply the poor and immature capital market, demotivation in investment in the companies and downward trend in the economy during the study period. The percentage of market capitalization on nominal GDP is highest in FY 2007/08 which is 44.62. The percentage of market capitalization on nominal GDP from 2003/04 to 2007/08 is increasing.

The total market capitalization of listed shares almost doubled to Rs.366.24 billion during the review year. The central bank's directive to increase the capital base of banks and financial institutions has a major impact on the market value of listed shares. Most of the companies opted to issue bonus and right shares to increase their capital base, which attracted lots of investors.

Sectorwise Market Capitalization and ratio
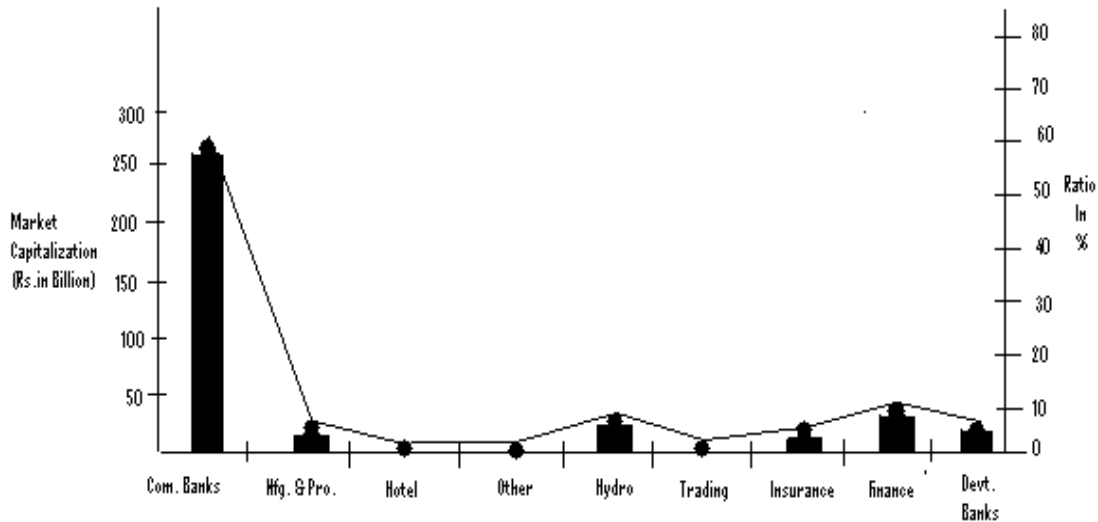
With the steep increase in market capitalization, its ratio to GDP went up to 44.3 percent this year. It is a notable increment over previous year's 29.8 percent level. In terms of market capitalization, the commercial bank sector again dominated the stock market. The market capitalization of the commercial banking group touched Rs.259.55 billion in the FY 2006/07, which is 72 percent of the total market capitalization. Hydropower companies occupied 7 percent of the total market capitalization. Similarly, shares of finance companies, insurance companies, development banks, manufacturing and processing, hotels occupied 10 percent, 3 percent, 5 per cent, 2 percent and 1 percent of the total market capitalization whereas others and trading each occupied less than 1 percent. (Annual Trading Report- 2007/08)

NEPSE Index

The stock market indices are used to study the trend of growth pattern in the economy, to analyze as well as to forecast business cycle and to correlate it with economic activities (Bhalla, 1997). A high index implies an increase in the market price of securities and better performance of companies and vice versa. NEPSE index at the end of 1993/94 was 226.03. Then it started to move down and reached to a trough level of 163.35 in 1997/98. Then in two subsequent FYs it increased and reached to a level of 360.70 point in the FY 1999/00. From FY 2000/01 to 2002/03 NEPSE decreased and reached 204.86 in the FY 2002/03. And from the fiscal year 2003/04 onwards there has been an increasing trend in NEPSE index. These facts prove that the NEPSE index is highly volatile during the observed period. On the whole, the market was bullish in 2005/06 to 2007/08. The overall growth rate of NEPSE is 10.15 percent during the study period. The low and highly fluctuating NEPSE index growth rate indicate the poor performance of the public limited companies listed in the stock exchange.

Due to a whopping increment in the share prices of banks, financial institutions, hydropower companies and development banks, the NEPSE index increased notably over the year. The restoration of peace, an improvement in listed companies' financial performance and, most importantly, the central bank's direction, dated 26 March 2007, to double paid-up capital for banks and financial institutions contributed to a remarkable increment in share prices and subsequently the stock market indices.

NEPSE during F/Y 2007/08
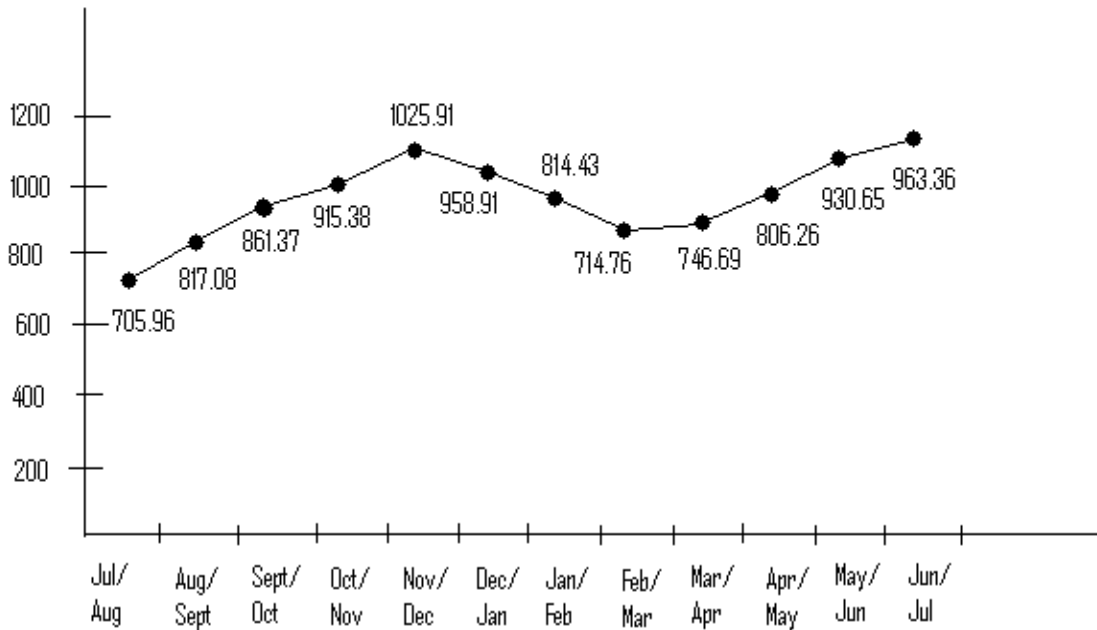
The stock market opened with the NEPSE index of 683.95 points at the beginning of the FY 2007/08 and ended with 963.36 points during the year. The year on year NEPSE index increased by 40.9 percent. It reached the high of of 1064.09 on 17 December 2007 and the low of 677.98 on 18 July 2008. Of the NEPSE Index, banking sub-index went up by 181.39 points to 985.65 (which is also the highest point) during the year. The banking sub-index measures the transactions of companies listed under commercial bank group. It touched the lowest point of 759.67 on 31 July August 2007.

The sensitive index, unveiled from 1 January 2007, which shows the share price movement of the companies categorized under Class A reached 253.72 point at the end of the fiscal year registering a rise of 44.9 points. It recorded the low of 172.19 on 30 July 2007 and the high of 275.21 on 19 December 2007. (Annual Trading Report- 2007/08)

4.3 Correlation Analysis

The correlation coefficient between the data of each of the seven variables (Four stock market and three economic growth) from the fiscal year 1993/94 to 2007/08, are computed and table 4.2 presents the results in the matrix form.

Table 4.2
Correlation Matrix

		GDP	S	I	MC	VT	TO	V
GDP	Pearson Correlation	1						
	Sig(2-Tailed)							
S	Pearson Correlation	0.46	1					
	Sig(2-Tailed)	0.09						
I	Pearson Correlation	0.38	0.521*	1				
	Sig(2-Tailed)	0.17	0.047					
MC	Pearson Correlation	0.27	0.576*	0.759**	1			
	Sig(2-Tailed)	0.34	0.024	0.001				
VT	Pearson Correlation	0.39	0.553*	0.774**	0.47	1		
	Sig(2-Tailed)	0.15	0.032	0.001	0.080			
TO	Pearson Correlation	0.22	0.484	0.302	0.34	0.633*	1	
	Sig(2-Tailed)	0.42	0.067	0.274	0.22	0.011		
V	Pearson Correlation	0.25	0.508	0.368	0.34	0.516*	0.05	1
	Sig(2-Tailed)	0.38	0.053	0.177	0.22	0.049	0.86	

*. Correlation is significant at the 0.005 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Appendix-VI

       Appendix- VII

The study computes the correlation coefficient between stock market development indicators and economic growth indicators. The following results are worth highlighting. There is a positive correlation between stock market development indicator and economic growth indicator. The interesting relation prevail between stock market indicator market capitalization (MC) and growth indicator investment (I). The correlation coefficient between MC and I is 0.759 and is also significant at 1% level. In the context of significant relationship a few inference can be made. As MC is the product of market price of share multiplied by outstanding number of shares, if the firms are performing strongly in a bull markets, it passes a optimistic message to the general investors who tend to invest more in the market and firms on the other hand with out having any productive and profitable investment project in hand no firm will be able to influence its share prices in the market. So, to finance such projects, firms need to capitalize their earnings which will increase their saving. The inference is that, as the share are performing strongly in the market general investors as well as firms tend to save their earning for further investment purpose which will increase gross domestic saving. Ultimately, that increases the investment, therefore strong correlation between MC and I is quite natural.

Some other indicators of stock market are also related to economic growth indicators. The value traded (VT) which is equal to amount of turnover in the domestic market divided by GDP has positive relation with GDP and saving. More interestingly, there is positive and significant correlation with investment. Its correlation coefficient with investment is 0.774 which is significant at 1% level. Value traded measures the trading relative to size of the economy. Higher value traded is regarded as developed stock market and contributes positively towards the GDP. The significant relationship between VT and I is meaningful. Higher value traded means that stock market is performing better with maximum participation of investors, if more investors are involved in the market saving and investment are likely to increase and hence GDP. Therefore, a positive significant relation between VT and I is but obvious.

Another measure of stock market development is turnover (TO) which equal to trading value of stocks in domestic market divided by market capitalization. It measures trading relative to size of market. A high turnover indicate more liquid market and has positive correlation with growth. The correlation coefficient of turnover and growth indicator GDP and S are 0.224 and 0.484 respectively. This is because of underdevelopment of secondary market. But, the coefficient of turnover and growth indicator investment is 0.302. This signifies, even though at present the contribution of turnover is very small but its contribution to investment is important from economic point of view.

Volatility (V) is another important indicator of stock market development. The correlation coefficient between stock market indicator V and growth indicators GDP, S, I are positive but all of them are in significant. Statistically in significant relationship makes little sense. One can not draw inference from a statistically in significant result, so I have avoided to draw inferences based on these results.

4.4 Regression Analysis

For the purpose of investigating the causality between stock market indicators and economic growth indicators four regression equations have been used. Variables entered into the regression equations are: Gross Domestic Product (GDP), Saving (S), Investment (I), Market Capitalization (MC), Value Traded (VT), Turnover (TO) and Volatility (V).

The relationship of GDP with all stock market indicators MC, VT, TO, and V is investigated in table 4.3. The complete results are presented in Appendix- X.

Table 4.3

Regression of Gross Domestic Product (GDP), on market capitalization(MC), Value Traded(VT), Turnover(TO), and Volatility(V)

	Independent Variables			
	Market Capitalization (MC)	Value Traded (VT)	Turnover (TO)	Volatility (V)
Estimated Coefficient	0.114	-0.024	-0.006	-0.273
Standard Error	0.338	0.319	0.430	0.229
T-Stastistics	2.337*	-0.076	-0.014	-1.190
R^2	0.228	0.220	0.220	0.309
F	4.083*	1.037	1.034	1.639

*Results are significant at the 0.05 level

Source: Appendix- X

The results presented in table 4.3 indicate that the regression coefficient of market capitalization is 0.114 and value of R2 is 0.228 which states that 22.8 percent change in GDP is attributed to S, I and MC and other variables may attribute 77.2 percent change. The regression coefficient of MC (=0.114) states that one percent change in MC cause GDP to increase by 0.114 percent. The calculated value of t ratio (2.337) is greater than tabulated 't' at 5% significance level. Since, the calculated value of /t/ is greater then tabulated /t/ null hypothesis is rejected. Thus, we can conclude that there is a significant relation between GDP and market capitalization. The market capitalization can be

regarded as one of the significant determinant of GDP. The tabulated value of F at 5% level of significance for (3,10) degree of freedom is 3.71. And the calculated value of F is 4.083 which is greater then tabulated value. Therefore, the regression line is significant.

The relation of GDP with MC is that as MC is the market value of the entire listed outstanding share and the price element is associated with it. Pricing of securities is done with lots of aspects keeping in view. Some factors are the profitability of firm, it's investment plans, and it's saving position. If the price of stocks are increasing it shows that the listed firm on an average have got good investment projects in their hand and are expected to turn profitable in future. This causes investment to increase and it leads to over all optimism in the economy, which helps to grow GDP.

The liquidity indicator, value of traded share (VT) has regression coefficient of -0.024 but it is insignificant. And stock market indicator TO has negative and insignificant relation with GDP. As turnover measures the size of stock market, a positively significant relation with GDP is important. However the result of this study is negative and insignificant. The unexpected result may be due to other factors that have not been considered in this study or wrong assumption of the study.

Another variable of stock market indicator volatility, measured by standard deviation of monthly stock return has negative relation with GDP. The regression coefficient is -0.273, it is insignificant as well. Hence no inference is made here.

The result presented in the table 4.3 should be viewed very skeptically because the results are based on only 15 observations from FY 1993/94 to 2007/08 which can not considered sufficient enough to draw inferences confidently.

4.5 Major Findings

The major findings of trend analysis are as follows:

1. The size of secondary stock market as measured by market capitalization is small but it has an increasing trend. It is in an average around 0.1. The sizes of secondary market measured by number of listed companies has also increasing trend.

2. The liquidity of secondary stock market as measured by ratio of value of share traded to GDP and turnover ratio is very low but it is increasing. The ratio of value traded to GDP and turnover ratio is in an average around 0.004 and 0.07 respectively.

3. The Nepalese stock is highly volatile. It is in an average around 31.17. From the above finding few inferences can be made. The ratio of market capitalization value traded is very small. Low turnover ratio, value traded and high volatility indicate that the stock market, in Nepal, is highly illiquid and risky.

4. The Nepalese stock market is highly concentrated. Especially it is bank dominated.

5. The primary stock market in Nepal is poor but it is improving gradually.

6. Number of listed companies and their securities, annual turnover, market capitalization, paid up capital and NEPSE index have been found fluctuating in nature during the study period. This indicates the performance of Nepalese stock market is not stable though it is improving gradually.

The major findings of correlation analysis are as follows:

1. The relationship between market capitalization (a stock market variable) with various economic growth variables is positive.

2. The relationship between value traded (a stock market variable) with various economic variable is positive.

3. The relationship between turn over with GDP is very low. This is mainly because of illiquid and underdeveloped stock market, in Nepal.

4. The relationship between volatility (a stock market variable) with various economic variables is positive. This indicates that the investment in Nepal can increase through stock market.

More interestingly, economic variable investment and stock market variable MC, VT, TO, has positive and significant relationship.

Major finding of regression analysis are follows:

1. The study of the size of secondary market revealed that market capitalization and gross domestic product are positively and significantly related. The causal relation tells that with an increase in this size of the market as measured by MC the size of the economy as measured by GDP also increases. This result supports the theoretical assumption of Levine and Zervos (1998).

2. VT and V was expected to have significant positive influence on GDP but VT and V, in this study have insignificant positive influence on GDP. The insignificant influence of VT and V on GDP may have to do with other factors such as very small observation period, data distortion and other invisible factors.

3. The indicator of stock market is (i.e. turnover) has negative and insignificant relation with GDP.

Chapter – V

Summary, Conclusion and Recommendations

5.1 Summary

Nepal Stock Exchange (NEPSE) is the only one exchange center for listed securities in Nepal. It was converted into stock exchange in 1993, with an objective to make it a full fledged organized market under the program initiated to reform the capital market. NEPSE is an organization operating under the securities ordinance 2005. The main objective of NEPSE is to impart free marketing ability and liquidity to government and corporate bodies by listing and facilitating transaction in its trading floor through licensed financial intermediaries. NEPSE started its trading floor on January 13, 1994 through licensed members. It has replaced "open out-cry" system by the automation system firm August 15, 2007. In Nepal, NEPSE is the only one stock market, which comprises listed 142 companies, 23 stock brokers, nine issue managers and two securities dealers (SEBON, 2007/08).

NEPSE is only one stock market in Nepal. It opened its trading floor from 13th January, 1994 through licensed members. However, trading facilities is confined in Kathmandu valley which hindered wide public participation in stock market. A few companies are listed in the exchange market most of trading take place in share of financial institution and a few are multi national business entities such as Standard Chartered Bank(Nepal) Ltd., Bottlers Nepal, Uni Lever Nepal, Yak & Yeti Hotel, Soaltee Hotel, Bishal Bazar, Butwal Power Company, Chilime Hydropower etc.

Stock markets help investors to cope with liquidity risk by allowing those who are hit by a liquidity shock to sell their shares to other investors who do not suffer from a liquidity shock. Moreover, stock market can promote economic

development by fueling engine of growth through faster capital accumulation and by tuning it through better resource allocation.

The main aim of this study was to examine relationship between stock market development and economic growth. The objectives of this study are to analyze stock market development in Nepal specifically focusing on size, liquidity, volatility and concentration of Nepalese stock market; to analyze the performance of NEPSE and to evaluate the relationship between stock market development and economic growth.

To fulfill the purpose of this study's objectives, the data are on aggregate economic variables such as gross domestic product, saving, investment and stock market variables such as market capitalization, value traded, turnover, volatility and market concentration were collected from 1993/94 to 2007/08. This study is totally based on secondary data. The study has found that there is a positive correlation between stock market development and economic growth in Nepal.

5.2 Conclusion

Nepal is a landlocked country situated between two giant economies China and India. It has been going through a political and economic limbo in the recent times. Nepal's neighbours china and India grew respectively by 11.4 percent and 9.2 percent in 2007 and are projected to record respective growth rates of 9.3 percent and 7.9 percent in 2008. South Asia, which attained a growth rate of 8.6 percent in 2007, is expected to rise by 7.5 percent in 2008, but growth rate of Nepal was 5.56 percent during the FY 2007/08. This was the highest during the last seven years. Favorable monsoon and good policy impact contributed to raise the growth rates both in agriculture and non- agriculture, which expanded by 5.65 percent and 5.57 percent respectively, compared to previous year's growth estimates of 0.9 percent and 4.1 percent respectively. But in FY 2001/02, 2002/03, 2003/04, 2004/05, 2005/06, 2006/07 and 2007/08 the growth

rate of Nepal was 0.2, 3.8, 4.4, 2.9, 4.1, 2.6, 4.7 percent respectively (Economic Survey, 2007/08).

However, there is a lack of institutional infrastructure and an absence of institutional investors. The market is dominated by individual investors. The potential institution that can invest as Citizen Investment Trust (CIT), Employees Provident Fund (EPF), NCM mutual fund and insurance companies and so on. However, except NCM mutual fund, the investment of other institutions is very nominal. Regarding the investment of CIT in securities market, out of the total investment only 4.58% investment was made in corporate securities in FY 2003/04, which was only 2.41% in FY 2002/03, and 4.20% in FY 2001/02. Similarly, regarding the EPF out of total investment only 1.19% was invested in corporate securities in FY 2002/03, 1.24% in FY 2001/02, 0.72% in FY 2000/01, and 0.41% in FY 1999/00. This shows that investment of EPF is very negligible portion of their huge fund. And investment of insurance companies in corporate securities was 1.30% in FY 2002/03, 2.13% in FY 1999/00 which is also a very small portion of their huge fund.

The diversity in securities market instruments attracts the investors of various risk performance providing choice in the investment alternatives. But in the case of Nepalese securities market, it is mostly dominated by risky instruments (equity share) which constitute more then 80% of the total paid up value of the securities listed in the exchange market and the rest comprises of consisting preference shares, debentures, bonds and mutual funds.

Various measure of stock market development indicates that stock market in Nepal is underdeveloped and has failed to show significant positive impact on overall national economy. Low market capitalization ratio, low value-traded-ratio and low turnover ratio, high volatility and high concentration ratio indicate that stock market in Nepal is highly illiquid and risky. And stock market in Nepal is basically bank dominated. Apart from this, regression and correlation results state that only market capitalization has significant relation

with gross domestic product, which also indicates that the stock market in Nepal is on underdeveloped stage. More interestingly, investment in Nepal can increase through stock market. However, annual turnover, market capitalization, number of listed and traded companies, market capitalization to nominal GDP and NEPSE index have been found fluctuating in nature, that indicate performance of Nepalese stock market is not stable however it is improving gradually. This study also finds positive relationship between stock market development and economics growth in Nepal.

5.3 Recommendations

From the numerous research works, from international as well as national and present study, it is found that stock market is one of the very strong instruments of economic growth in Nepal. However, various problems exist in the stock market of Nepal which has to be solved. The following measures are recommended to over come the existing problem of the Nepalese stock market.

1. Central Depository System (CDS) is very important to make ease in transforming securities from owner's account to depositor's account. Therefore CDS must establish.

2. The involvement of prominent institutional investor like, Citizen Investment Trust (CIT), Employers Provident Fund (EPF) and Insurance companies in securities market is going to be very insignificant in Nepal. They have huge amount of fund under their management, however the unproductive mobilization of their funds has resulted to a sluggish fund management business practices in Nepal. There are various programmes in national plan to encourage the investment of these institutions in securities market for productive mobilization of their funds. However, these programmes are not duly implemented which could be attributed to the absence of special regulator for these institutions. Thus the legal and regulatory gap in this respect should be duly addressed. Further the

government should have strong commitment to implement the programmes as envisaged in national plan.

3. To complete prerequisite of capital market the Nepalese government should immediately enact Fund Act.

4. Trading facility of stock exchange should expand out of the Kathmandu valley.

5. Nepal government has initiated financial sector reform program and has increased the effort towards improving the financial system of the country to stimulate economic growth. However, up to now, it has focused on banking system only. Policy makers should equally encourage stock market development. They should remove impediments to stock markets, such as tax, legal and regulatory barriers. One of the reasons Nepal has a small stock market is low saving rate. To promote stock market development, government should encourage saving and investment by implicating appropriate policies. Therefore, equal importance must be given to both bank based financial sector and market based stock market of the economy for fostering capital accumulation and investment in increasing living standard of the people via economic growth.

6. Proper information is one of the important measures to promote stock market. The proper information of the companies will attract people to invest in company. Hence proper information system of stock market should be established.

7. Information of firm is essential to gain public confident thus, regular and timely information of financial data of the firms should make.

8.   High volatility of market share price should be checked by implementing various rules and regulations.

If the necessary measures are taken not only the investors and participating firms but also

the whole economy of the country is likely to benefit.

Since the growth of the economy is cause of the efficient and developed stock market, authorities of the nation should concern more seriously and vigorously about the effective stock market.

Finally, there is a lot of scope for research in the field of stock market development and economic growth. Finding the contribution of stock market to economy and research study in this area are new phenomena. Therefore, comprehensive study in this field is necessary. The present study contented limited variables therefore; this particular study can be extended by including more specific variables to get more effective result. Another aspect of future research may be not merely estimating the causal relationship between stock market and growth variable but focus on channels through which the stock market influences the growth positively. And another aspect of future research may be relationship between bank and stock market development and its impact on economic growth.

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Appendix - II

Top ten companies on the basis of Market Capitalization fro year 1995/96 to 2007/08

Fiscal year 1995/96		Rs. Millions	Fiscal year 1998/99		Rs. Millions
SN	Name of Companies	Amount	SN	Name of Companies	Amount
1	Yak and Yeti Hotal Ltd.	1701.09	1	Nepal Grindlays Bank Ltd.	3945.60
2	Nepal Arab Bank Ltd.	1177.00	2	Nepal Arab Bank Ltd.	2749.60
3	Nepal Bank Ltd	1106.09	3	Nepal Bank Ltd.	1490.70
4	Nepal Grindlays Bank Ltd	1080.00	4	Nepal Lever Ltd.	1382.00
5	Nepal Industrial Dev. Corp.	893.64	5	Himalayan Bank Ltd	1200.00
6	Himalayan Bank Ltd.	720.00	6	Nepal Indosuez Bank Ltd.	1112.60
7	Bishal Bazar Co.Ltd	627.90	7	Hotel Yak & Yeti Ltd	1104.60
8	Soaltee Hotel Ltd.	580.64	8	Nepal Industrial Dev. Corp.	893.64
9	Rastriya Beema Sansthan	537.55	9	Nepal Bangladesh Bank Ltd.	739.20
10	Nepal SBI Bank Ltd.	493.66	10	Bottlers Nepal Ltd. (Balaju)	701.60
Total		8917.57	Total		15319.54

FY 1996/97

SN	Name of Companies	Amount
1	Nepal Grindlaya Bank Ltd.	1455.00
2	Nepal Arab Bank Ltd.	1309.00
3	Yak & Yeti Hotel Ltd.	1193.00
4	Nepal Bank Ltd.	883.00
5	Nepal Industrial Dev. Corp.	804.00
6	Himalayan Bank Ltd.	760.00
7	Bottlers Nepal (Balaju) Ltd.	624.00
8	Nepal Indosuez Bank Ltd	563.00
9	Bishal Bazar Company Ltd.	510.00
10	Nepal SBI Bank Ltd.	494.00
Total		8595.00

FY 1999/00

SN	Name of Companies	Amount
1	Nepal Grindlays Bank Ltd.	6740.04
2	Nepal Arab Bank Ltd.	5499.14
3	Himalayan Bank Ltd.	4080
4	Nepal Ind. And com. Bank	2750
5	Nepal Lever Ltd.	2053.16
6	Nepal Indosuez Bank Ltd.	1896.26
7	Nepal Bangladesh Bank Ltd	1802.4
8	Bank of Kathmandu Ltd.	1796.4
9	Nepal SBI Bank Ltd.	1395.9
10	Yak & Yeti Hotel Ltd.	1325.52
Total		29338.82

FY 1997/98

SN	Name of Companies	Amount
1	Nepal Grindlaya Bank Ltd.	1890.00
2	Nepal Arab Bank Ltd.	1687.98
3	Yak & Yeti Hotel Ltd.	994.14
4	Himalayan Bank Ltd.	906.00
5	Nepal Industrial Dev. Corp.	893.64
6	Nepal Indosuez Bank Ltd	810.00
7	Bottlers Nepal (Balaju) Ltd.	730.83
8	Nepal SBI Bank Ltd.	527.21
9	Nepal Bank Ltd.	523.86
10	Soaltee Hotel Ltd.	508.79
Total		9472.45

FY 2000/01

SN	Name of Companies	Amount
1	Nepal Grindlaya Bank Ltd.	6824.93
2	Nepal Arab Bank Ltd.	5695.54
3	Himalayan Bank Ltd.	4050.00
4	Nepal Bangladesh Bank Ltd.	2404.80
5	Nepal SBI Bank Ltd.	2156.76
6	Nepal Indosuez Bank Ltd	2030.26
7	Nepal Lever Ltd.	2025.54
8	Nepal Ind. & Com. Bank	1955.00
9	Bank of Kathmandu Ltd.	1780.74
10	Nepal Bank Ltd.	1551.56
Total		30475.13

FY 2001/02

SN	Name of Companies	Amount
1	Standrad Chartered Bank Ltd.	5263.01
2	Nabil Bank Ltd.	3608.81
3	Himalayan Bank Ltd.	3000.00
4	Bottlers Nepal (Balaju) Ltd.	1364.22
5	Yak & Yeti Hotel Ltd.	1325.22
6	Nepal Investment Bank Ltd.	1285.78
7	Nepal Ind. & Com. Bank	1250.00
8	Nepal Bangladesh Bank	1224.00
9	Nepal Bank Ltd.	1197.90
10	Soaltee Hotel Ltd.	652.29
Total		20171.23

FY 2005/06

SN	Name of Companies	Amount
1	Standrad Chartered Bank Ltd.	14142.68
2	Nabil Bank Ltd.	10998.29
3	Himalayan Bank Ltd.	8494.20
4	Nepal Investment Bank Ltd.	7441.38
5	Everest Bank Ltd.	5212.62
6	Butwal Power Company Ltd.	4530.91
7	Nepal SBI Bank Ltd.	3964.56
8	Bank of Kathmandu Ltd.	3940.44
9	Nepal Ind. & Com. Bank	2976.00
10	Chilime Hydro Power Ltd.	2918.40
Total		64619.48

FY 2002/03

SN	Name of Companies	Amount
1	Standrad Chartered Bank Ltd.	5568.80
2	Nabil Bank Ltd.	3608.81
3	Himalayan Bank Ltd.	3586.44
4	Nepal Investment Bank Ltd.	1881.33
5	Bottles Nepal Ltd.(Balaju)	1364.22
6	Nepal Bangladesh Bank	1296.00
7	Everest Bank Ltd.	1171.00
8	Nepal SBI Nepal Ltd.	1100.72
9	Nepal Lever Ltd.	1040.00
10	Bank of Kathmandu Ltd.	917.00
Total		21534.32

FY 2006/07

SN	Name of Companies	Amount
1	Standrad Chartered Bank Ltd.	24795.25
2	Nabil Bank Ltd.	24382.03
3	Himalayan Bank Ltd.	14270.26
4	Nepal Investment Bank Ltd.	13855.39
5	Everest Bank Ltd.	9185.40
6	Butwal Power Company Ltd.	8390.58
7	Bank of Kathmandu Ltd.	8293.19
8	Nepal SBI Bank Ltd.	7618.17
9	Chilime Hydro Power Company	6858.24
10	Nepal Ind. & Com. Bank	6270.00
Total		123918.51

FY 2004/05

SN	Name of Companies	Amount
1	Standrad Chartered Bank Ltd.	8785.32
2	Nabil Bank Ltd.	7389.47
3	Himalayan Bank Ltd.	4830.00
4	Butwal Power Company	4111.38
5	Everest Bank Ltd.	2740.50
6	Nepal Investment Bank Ltd.	2362.34
7	Bank of Kathmandu Ltd.	1993.40
8	Unilever Nepal Ltd.	1973.51
9	Nepal Ind. & Com. Bank Ltd.	1830.00
10	Laxmi Bank Ltd.	1567.50
Total		37583.42

FY 2007/08

SN	Name of Companies	Amount
1	Standrad Chartered Bank	42337.90
2	Nabil Bank Ltd.	36259.90
3	Nepal Investment Bank	24564.50
4	Himalayan Bank Ltd.	16054.00
5	Bank of Kathmandu Ltd.	14173.80
6	Butwal Power Company	13080.90
7	Everest Bank Ltd.	11839.00
8	Chilime Hydro Power Company	11396.30
9	Manchhapuchchre Bank Ltd.	10393.90
10	Nepal Ind. & Com. Bank	10169.30
Total		190269.50

Source: Various Yearly Publications of Trading Reports of NEPSE from the Year 1995/96 to 2007/08

Top Ten Companies on the basis of Market Capitalization for Fiscal Year 2007/08 :
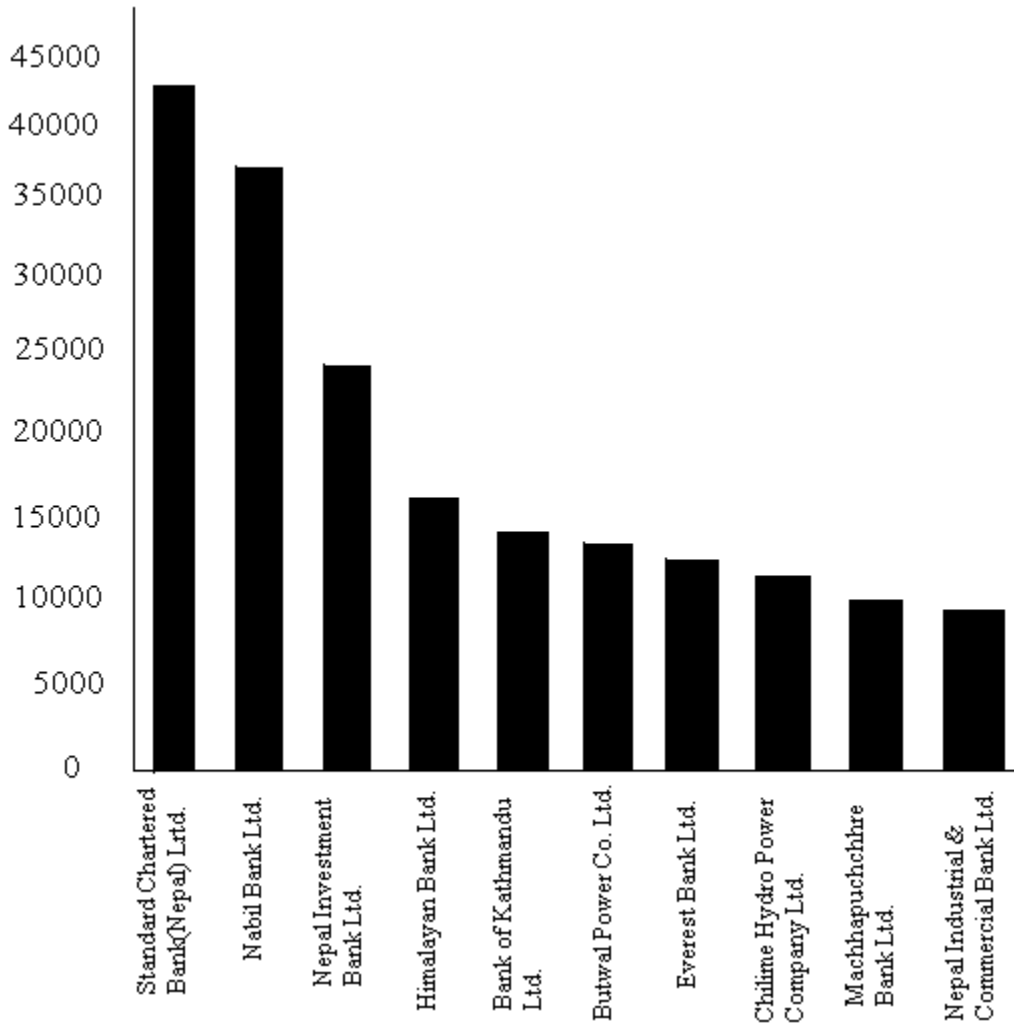
Source: Annual Trading Report 2007/08

Appendix-III

Monthly NEPSE index from the fiscal year 1993/94 to 2007/08

Year	Month	Index	1995/96	Nov/Dec	179.07
1993/94	Dec/Jan	-	1996/97	Dec/Jan	179.44
1993/94	Jan/Feb	100.00	1996/97	Jan/Feb	180.07
1993/94	Feb/Mar	98.25	1996/97	Feb/Mar	188.36
1993/94	Mar/Apr	135.62	1996/97	Mar/Apr	180.83
1993/94	Apr/May	188.34	1996/97	Apr/May	184.66
1993/94	May/June	264.97	1996/97	May/June	176.99
1993/94	June/July	226.03	1996/97	June/July	176.31
1993/94	July/Aug	254.29	1996/97	July/Aug	169.52
1993/94	Aug/Sep	220.54	1996/97	Aug/Sep	170.45
1993/94	Sep/Oct	230.54	1996/97	Sep/Oct	169.43
1993/94	Oct/Nov	220.61	1996/97	Oct/Nov	172.02
1993/94	Nov/Dec	210.02	1996/97	Nov/Dec	170.16
1994/95	Dec/Jan	195.25	1997/98	Dec/Jan	170.60
1994/95	Jan/Feb	205.17	1997/98	Jan/Feb	176.63
1994/95	Feb/Mar	191.67	1997/98	Feb/Mar	180.36
1994/95	Mar/Apr	204.67	1997/98	Mar/Apr	158.80

1994/95	Apr/May	194.63	1997/98	Apr/May	157.97
1994/95	May/June	194.05	1997/98	May/June	159.95
1994/95	June/July	195.48	1997/98	June/July	163.35
1994/95	July/Aug	189.66	1997/98	July/Aug	166.00
1994/95	Aug/Sep	192.03	1997/98	Aug/Sep	168.40
1994/95	Sep/Oct	205.15	1997/98	Sep/Oct	168.80
1994/95	Oct/Nov	208.35	1997/98	Oct/Nov	184.20
1994/95	Nov/Dec	207.03	1997/98	Nov/Dec	187.20
1995/96	Dec/Jan	206.53	1998/99	Dec/Jan	181.70
1995/96	Jan/Feb	195.42	1998/99	Jan/Feb	178.50
1995/96	Feb/Mar	193.64	1998/99	Feb/Mar	180.20
1995/96	Mar/Apr	183.99	1998/99	Mar/Apr	188.40
1995/96	Apr/May	175.78	1998/99	Apr/May	197.00
1995/96	May/June	180.34	1998/99	May/June	212.30
1995/96	June/July	185.61	1998/99	June/July	216.90
1995/96	July/Aug	185.02	1998/99	July/Aug	227.80
1995/96	Aug/Sep	180.89	1998/99	Aug/Sep	228.20
1995/96	Sep/Oct	181.64	1998/99	Sep/Oct	245.40
1995/96	Oct/Nov	180.29	1998/99	Oct/Nov	254.60

1998/99	Nov/Dec	254.30		2002/03	Feb/Mar	209.70
1999/00	Dec/Jan	269.90		2002/03	Mar/Apr	214.10
1999/00	Jan/Feb	285.30		2002/03	Apr/May	207.50
1999/00	Feb/Mar	329.20		2002/03	May/June	207.70
1999/00	Mar/Apr	331.80		2002/03	June/July	204.90
1999/00	Apr/May	364.20		2002/03	July/Aug	207.90
1999/00	May/June	338.80		2002/03	Aug/Sep	208.50
1999/00	June/July	360.70		2002/03	Sep/Oct	207.50
1999/00	July/Aug	364.20		2002/03	Oct/Nov	206.20
1999/00	Aug/Sep	421.20		2002/03	Nov/Dec	201.90
1999/00	Sep/Oct	433.90		2003/04	Dec/Jan	201.90
1999/00	Oct/Nov	519.30		2003/04	Jan/Feb	211.30
1999/00	Nov/Dec	486.10		2003/04	Feb/Mar	207.80
2000/01	Dec/Jan	464.80		2003/04	Mar/Apr	201.20
2000/01	Jan/Feb	455.30		2003/04	Apr/May	204.30
2000/01	Feb/Mar	395.90		2003/04	May/June	213.10
2000/01	Mar/Apr	369.10		2003/04	June/July	222.01
2000/01	Apr/May	355.60		2003/04	July/Aug	241.50

2000/01	May/June	333.20		2003/04	Aug/Sep	234.60
2000/01	June/July	348.40		2003/04	Sep/Oct	231.30
2000/01	July/Aug	332.10		2003/04	Oct/Nov	235.10
2000/01	Aug/Sep	265.20		2003/04	Nov/Dec	236.40
2000/01	Sep/Oct	281.20		2004/05	Dec/Jan	239.61
2000/01	Oct/Nov	300.20		2004/05	Jan/Feb	257.30
2000/01	Nov/Dec	284.50		2004/05	Feb/Mar	280.70
2001/02	Dec/Jan	255.90		2004/05	Mar/Apr	293.30
2001/02	Jan/Feb	236.00		2004/05	Apr/May	285.40
2001/02	Feb/Mar	187.90		2004/05	May/June	277.80
2001/02	Mar/Apr	216.20		2004/05	June/July	286.70
2001/02	Apr/May	239.10		2004/05	July/Aug	300.10
2001/02	May/June	226.00		2004/05	Aug/Sep	293.40
2001/02	June/July	227.50		2004/05	Sep/Oct	297.30
2001/02	July/Aug	226.60		2004/05	Oct/Nov	302.40
2001/02	Aug/Sep	223.00		2004/05	Nov/Dec	303.10
2001/02	Sep/Oct	219.30		2005/06	Dec/Jan	305.50
2001/02	Oct/Nov	220.70		2005/06	Jan/Feb	317.70
2001/02	Nov/Dec	214.60		2005/06	Feb/Mar	339.80
2002/03	Dec/Jan	200.80		2005/06	Mar/Apr	334.80
2002/03	Jan/Feb	213.30		2005/06	Apr/May	385.90

2005/06	May/June	372.00
2005/06	June/July	386.80
2005/06	July/Aug	389.20
2005/06	Aug/Sep	382.60
2005/06	Sep/Oct	398.40
2005/06	Oct/Nov	447.40
2005/06	Nov/Dec	508.60
2006/07	Dec/Jan	537.10
2006/07	Jan/Feb	523.90
2006/07	Feb/Mar	499.00
2006/07	Mar/Apr	494.60
2006/07	Apr/May	513.50
2006/07	May/June	575.00
2006/07	June/July	683.90
2006/07	July/Aug	705.96
2006/07	Aug/Sep	817.08
2006/07	Sep/Oct	861.37
2006/07	Oct/Nov	915.38
2006/07	Nov/Dec	1025.91
2007/08	Dec/Jan	958.91
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/June	930.65
2007/08	June/July	963.36
2007/08	July/Aug	
2007/08	Aug/Sep	
2007/08	Sep/Oct	
2007/08	Oct/Nov	
2007/08	Nov/Dec	
2008/09	Dec/Jan	
2008/09	Jan/Feb	
2008/09	Feb/Mar	
2008/09	Mar/Apr	

Source: Various Yearly Publications of Trading Reports of NEPSE from Year 1993/94 to 2007/08

Appendix-IV

Data Relating to Gross Domestic Product(GDP)

Rs. Millions

Fiscal Year	Nominal GDP	GDP Deflator	Real GDP (Base Year 1993/94 = 0)
1993/94	191596	100.00	19159.60
1994/95	209976	106.70	196789.10
1995/96	239388	115.10	207982.60
1996/97	269570	123.40	218452.10
1997/98	289798	128.40	225699.30
1998/99	330018	139.90	352129.20
1999/00	366251	146.20	390789.80
2000/01	393566	150.10	419734.90
2001/02	405632	155.20	432809.30
2002/03	460325	160.00	287703.10
2003/04	500699	166.70	300359.30
2004/05	548485	177.50	309005.60
2005/06	611089	189.90	317889.90
2006/07	675484[R]	204.60	327756.10
2007/08	768832[P]	220.70	348360.70

R= Revised, P= Preliminary

Source: Economic Survey 2003/2004

Economic Survey 2007/08

Appendix-V

Data Relating to saving(S) and Investment(I)

Rs.Millions

Fiscal Year	Saving In current Price	Investment in Current Price	CPI (Base Year 1993/94 = 100)	Real Saving	Real Investment
1993/94	29220	44644.00	100.00	29220.00	44644.00
1994/95	32465	55231.00	107.70	30143.90	51282.30
1995/96	34426	68017.00	116.40	29575.60	58433.80
1996/97	39162	71084.00	125.80	31130.40	56505.60
1997/98	41438	74728.00	136.30	30402.00	54826.10
1998/99	46563	70061.00	151.80	30673.90	46153.50
1999/00	57577	92272.00	156.90	36696.60	58809.40
2000/01	61532	98815.00	160.70	38289.90	61490.30
2001/02	50775	101668.00	165.40	30698.30	61467.90
2002/03	42141	105383.00	173.30	24316.70	60809.50
2003/04	63064	131671.00	180.20	34996.70	73069.40
2004/05	68110	155907.00	188.30	36171.00	82797.10
2005/06	58727	175603.00	203.30	28886.80	86376.30
2006/07[R]	70813	203741.00	216.40	32723.20	94150.20
2007/08[P]	94129	262582.00	230.60	40819.16	113869.04

R=Revised, P=Preliminary
Source: Economic Survey 2003/04 & 2007/08
Quartely Economic Bullitin, Mid-July 2008, Nepal Rastra Bank

Appendix-VI

Data Relating to Gross Domestic Product(GDP), Saving(S) and Investment in Real Term

Rs. Millions

Fiscal Year	GDP	S	I
1993/94	19159.60	29220.00	44644.00
1994/95	196789.10	30143.90	51282.30
1995/96	207982.60	29575.60	58433.80
1996/97	218452.10	31130.40	56505.60
1997/98	225699.30	30402.00	54826.10
1998/99	352129.20	30673.90	46153.50
1999/00	390789.80	36696.60	58809.40
2000/01	419734.90	38289.90	61490.30
2001/02	432809.30	30698.30	61467.90
2002/03	287703.10	24316.70	60809.50
2003/04	300359.30	34996.70	73069.40
2004/05	309005.60	36171.00	82797.10
2005/06	317889.90	28886.80	86376.30
2006/07[R]	327756.10	32723.20	94150.20
2007/08[P]	348360.07	40819.16	113869.04

R=Revised, P=Preliminary

Source: Appendix- IV
Appendix-V

Appendix-VII

Data Relating to Stock Market Development indicator such Market Capitalization(MC),Value Traded(VT), Turn Over(TO) and Volatility(V) from year 1993/94 to 2007/08

Fiscal Year	MC	VT(%)	TO(%)	V
1993/94	13872.00	0.230	3.183	58.41
1994/95	12963.00	0.502	8.132	6.85
1995/96	12295.00	0.090	1.753	8.71
1996/97	12698.00	0.154	3.277	6.34
1997/98	14289.00	0.069	1.418	9.92
1998/99	23508.00	0.454	6.38	28.08
1999/00	43123.33	0.315	2.68	76.02
2000/01	46349.40	0.595	5.057	64.70
2001/02	34703.90	0.379	4.439	16.22
2002/03	35240.40	0.125	1.633	3.90
2003/04	41424.77	0.428	5.176	15.08
2004/05	61365.99	0.821	7.345	19.18
2005/06	96763.70	0.571	3.559	56.19
2006/07	18630.13	1.246	44.87	66.24
2007/08	366247.50	0.964	6.781	58.32

Source: Appendix-I

Appendix-VIII

Logarithms Values of Variable GDP, S, I, MC,VT, TO and V

Fiscal Year	GDP	S	I	MC	VT	TO	V
1993/94	4.2823864	4.4656802	4.6497631	4.1421391	-0.6382722	0.5028366	1.7664872
1994/95	5.2940010	4.4791994	4.7099675	4.1127055	-0.2992963	0.9101974	0.8356906
1995/96	5.3180270	4.4709336	4.7666641	4.0897285	-1.0457575	0.2437819	0.9400182
1996/97	5.3393562	4.4931847	4.7520915	4.1037353	-0.8124793	0.5154764	0.8020893
1997/98	5.3535302	4.4829022	4.7389874	4.1550018	-1.1611509	0.1516762	0.9965117
1998/99	5.5467020	4.4867690	4.6642046	4.3712157	-0.3429441	0.8048207	1.4483971
1999/00	5.5919432	4.5646258	4.7694467	4.6347123	-0.5016894	0.4281348	1.8809279
2000/01	5.6229751	4.5830842	4.7888066	4.6660441	-0.2254830	0.7038930	1.8109043
2001/02	5.6362966	4.4871143	4.7886484	4.5403783	-0.4213608	0.6472851	1.2100508
2002/03	5.4589445	4.3859046	4.7839714	4.5470408	-0.9030900	0.2129862	0.5910646
2003/04	5.4776411	4.5440271	4.8637355	4.6172601	-0.3685562	0.7139943	1.1784013
2004/05	5.4899664	4.5583605	4.9180151	4.7879277	-0.0856568	0.8659918	1.2828486
2005/06	5.5022767	4.4606994	4.9363946	4.9857125	-0.2433639	0.5513280	1.7496590
2006/07	5.5155508	4.5148558	4.9738212	4.2702159	0.0955180	0.6519561	1.8211203
2007/08	5.5420284	4.6108641	5.0564057	5.5637747	-0.0159230	0.8312937	1.7658175

Source: Appendix –VI

Appendix - VII

Appendix-IX
Growth Rate

Compound Growth Rate

S.N.	Compound Growth Rate	Percentage
1	Number of Public Issue	9.24
2	Amount of Public Issue	25.96
3	No. of listed Companies	5.24
4	No. of traded Companies	8.87
5	Turnover	30.08
6	Market Capitalization	24.38
7	Paid Up Capital	18.3
8	NEPSE Index	10.15
9	Listed Securities	12.05
10	Traded Securities	33.15

Annual Growth Rate:

Fiscal Year	Number of Public Issue	Amount of Public Issue	Paid Up Capital	MC	Turn over	NEPSE Index
1993/94	-	-	-	-	-	-
1994/95	-29.41	-23.96	25.08	-6.55	138.75	-13.51
1995/96	0	15.55	13.36	-5.15	-79.54	-5.04
1996/97	-58.33	9.68	33.29	3.27	93.04	5.01
1997/98	140	43.47	10.79	12.52	-51.29	-7.35
1998/99	-58.3	-44.19	30.8	64.51	639.96	32.79
1999/00	80	144.3	15.33	83.44	-22.94	66.28
2000/01	0	24.11	9.13	7.48	102.23	-3.4
2001/02	77.77	166.83	18.61	-25.125	-34.27	-34.69
2002/03	6.25	-45.1	1.54	1.54	-69.62	-9.95
2003/04	-5.86	81.31	17.54	17.54	272.39	8.38
2004/05	-14.28	5.1	48.13	48.13	110.22	29.1
2005/06	107.14	50.2	57.68	57.68	-23.43	34.39
2006/07	17.24	-6.06	-80.7	-80.74	142.22	76.8
2007/08	88.24	364.74	35.17	96.59	172.97	40.85

Source: Appendix-I

Appendix-X

Regression

Vriables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	MC,S,l[a]		Enter

a. All requested Variable entered.

b. Dependent Variable: GDP

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.477[a]	0.228	0.017	0.32428

a. Predictors: (Constant), MC,S,I

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.342	3	0.114	4.083	.397[a]
	Residual	1.157	11	0.105		
	Total	1.498	14			

a. Predictors: (Contant), MC, S, I

b. Dependent Variable : GDP

Coefficients[a]

Model		Unstandardized coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.900	8.239		-0.231	0.822
	S	0.618	1.811	0.108	0.341	0.739
	I	0.831	1.133	0.295	0.734	0.478
	MC	0.114	0.338	0.141	2.337	0.743

a. Dependent Variable: GDP

Regression

Vriables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	VT, S, 1[a]		Enter

a. All requested Variable entered
b. Dependent Variable: GDP

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.469[a]	0.220	0.008	0.32586

a. Predictors: (Constant), VT,S,I

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.330	3	0.110	1.037	0.414[a]
	Residual	1.168	11	0.106		
	Total	1.498	14			

a. Predictors: (Contant), VT, S, I
b. Dependent Variable : GDP

Coefficients[a]

Model		Unstandardized coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.899	8.975		-0.434	0.672
	S	0.868	1.896	0.152	0.458	0.656
	I	1.117	0.964	0.396	1.159	0.271
	VT	-0.024	0.319	-0.028	-0.076	0.941

a. Dependent Variable: GDP

Regression

Vriables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	TO,I,S[a]		Enter

a. All requested Variable entered.

b. Dependent Variable: GDP

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.469[a]	0.220	0.007	0.32594

a. Predictors: (Constant), TO,I,S

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.330	3	0.110	1.034	0.415[a]
	Residual	1.168	11	0.106		
	Total	1.498	14			

a. Predictors: (Contant), TO, I,S

b. Dependent Variable : GDP

Coefficients[a]

Model		Unstandardized coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3.515	8.007		-0.439	0.669
	S	0.822	1.963	0.144	0.418	0.684
	I	1.084	0.856	0.385	1.266	0.232
	TO	-0.006	0.430	-0.004	-0.014	0.989

a. Dependent Variable: GDP

Regression

Vriables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	V,I,S[a]		Enter

a. All requested Variable entered.
b. Dependent Variable: GDP

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.556[a]	0.309	0.120	0.30680

a. Predictors: (Constant), V,I,S

ANOVA[b]

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	0.463	3	0.154	1.639	0.237[a]
Residual	1.035	11	0.094		
Total	1.498	14			

a. Predictors: (Contant), V,I,S
b. Dependent Variable : GDP

Coefficients[a]

Model	Unstandardized coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-8.594	7.76		-1.108	0.292
S	1.925	1.878	0.338	1.025	0.327
I	1.181	0.809	0.419	1.460	0.172
V	-0.273	0.229	-0.367	-1.190	0.259

a. Dependent Variable: GDP

Appendix – XI

First set of regression equations

Log GDP = a1+b1Log S + b2 Log I + b3 CF + b4 Log MC

Log GDP = a1+b1Log S + b2 Log I + b3 CF + b4 Log VT

Log GDP = a1+b1Log S + b2 Log I + b3 CF + b4 Log TO

Log GDP = a1+b1Log S + b2 Log I + b3 CF + b4 Log V

Second set of regression equations

Log S = a + b1Log GDP + b2 Log I + b3 Log CF + b4 Log MC

Log S = a + b1Log GDP + b2 Log I + b3 Log CF + b4 Log VT

Log S = a + b1Log GDP + b2 Log I + b3 Log CF + b4 Log TO

Log S = a + b1Log GDP + b2 Log I + b3 Log CF + b4 Log V

Third set of regression equations

Log CS = a + b1 Log GDP + b2 Log S + b3 Log I + b4 Log MC

Log CS = a + b1 Log GDP + b2 Log S + b3 Log I + b4 Log VT

Log CS = a + b1 Log GDP + b2 Log S + b3 Log I + b4 Log TO

Log CS = a + b1 Log GDP + b2 Log S + b3 Log I + b4 Log V

Fourth set of regression equations

Log PG = a + b1 Log I + b2 Log S + b3 Log CF + b4 Log MC

Log PG = a + b1 Log I + b2 Log S + b3 Log CF + b4 Log VT

Log PG = a + b1 Log I + b2 Log S + b3 Log CF + b4 Log TO

Log PG = a + b1 Log I + b2 Log S + b3 Log CF + b4 Log V

Where, S = Saving, I = Investment,   CF = Capital Formation

MC= Market Capitalization,   VT = Value Traded Shares

TO = Turnover of Shares,   V = Volatility of Market return

PG = Productivity growth,   CS = Fixed Capital Stock

Appendix-I
Stock Market Indicators

Rs. Millions

S.N.	Market Indicator	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
1	No. of Public Issue	17.00	12.00	12.00	5.00	12.00	5.00	9.00	9.00	16.00	17.00	16.00	14.00	29.00	34.00	64
2	Amount of Public Issue	334.40	254.21	293.74	332.20	462.36	258.00	630.31	717.20	1555.11	853.63	1547.79	1626.80	2443.60	2295.50	10668.2
3	Number of Listed Companies	66.00	79.00	89.00	95.00	101.00	107.00	110.00	115.00	96.00	108.00	114.00	125.00	135.00	135.00	142
4	Number of Trade Companies	38.00	53.00	59.00	67.00	68.00	69.00	69.00	67.00	69.00	81.00	92.00	102.00	110.00	116.00	136
5	Turn Over	441.56	1054.27	215.61	416.23	202.61	1499.98	1155.78	2344.16	1540.63	575.80	2144.27	4507.70	3451.40	8360.10	22820.8
6	Market Capitalization	13872.00	12963.00	12295.00	12698.00	14289.00	23508.00	43123.32	46349.40	34703.90	35240.40	41424.77	61365.90	96763.70	186301.30	366247.50
7	Paid up Value of Listed Securities	2368.00	2962.00	3358.47	4476.52	4959.75	6487.36	7482.20	8165.20	9685.04	12560.07	13404.90	16771.80	19958.00	21798.80	29465
8	Number of Transaction	NA	21472.00	17943.00	12428.00	15483.00	15814.00	29136.00	46095.00	42028.00	69163.00	85533.00	106246.00	97374.00	120510.00	150800
9	Number of Listed Securities ('000)	NA	58247.00	65880.00	85193.00	90107.00	105632.00	114057.00	124971.00	12685.00	159958.00	161141.00	194673.00	226540.00	243504.00	321131
10	Number of Traded Shares ('000)	NA	3901.00	2954.00	9103.00	1195.00	4827.00	7674.00	4989.00	6005.00	2428.00	6428.00	18433.55	12224.93	18147.25	285997.7
11	% of Turnover on Market Capitalization	3.18	8.13	1.71	3.25	1.42	6.38	2.68	5.06	4.44	1.63	5.18	7.35	3.57	4.48	6.23
12	% of Market Capitalization on Nominal GDP	7.24	6.17	5.14	4.71	4.93	7.18	11.77	11.78	8.56	8.08	8.77	12.06	16.03	27.78	44.62
13	NEPSE Index (Points)	226.03	195.48	185.61	176.31	163.35	216.92	360.70	348.43	227.54	204.86	222.04	286.67	386.83	683.95	963.36

Source: Annual Report 1999/00, SEBON

Annual Report 2003/04, SEBON/ Annual Report 2007/08, SEBON