CHAPTERI
INTRODUCTION

1.1 Background of the Study

Public debt was first raised in 1961 with the issue of treasury bill in Nepal. Thereafter, the government has been issuing development bond, special bond, national saving bond and such other securities to raise the fund internally and externally. The Central Bank of Nepal, issues various Government securities on behalf of Nepal government. The Bank issues various Government securities after analyzing liquidity position of market, private investment opportunity, average interest rate in the market, inflation, attitude of people toward risk bearing capacity, etc. The bank issue long-term securities and short-term securities."Public debt is money owed by government, at any level (municipal government, regional government, national government), which will indirectly be considered a debt of the citizens" (Investor Dictionary.com).

The debt owed by government is usually referred to as the national debt and is thus distinguished from the public debt of state and local governing bodies. Public debt is an obligation of a government. Although individuals are called upon in their capacity as taxpayers to provide funds for payment of interest and principal on the public debt, their private property cannot be attached to meet the obligations if the government fails to do so. Similarly, government property normally cannot be seized to meet these obligations. With sovereign governments, the debt holders can take only such legal action to enforce payment as the governments themselves prescribe. The ''liquidation and renegotiation'' hypothesis postulates that therenegotiation of public debt is difficult, costly and is more likely to lead to a liquidationof distressed firms (Chemmanur and Fulghieri, 1994). Public borrowing is generally believed to have an inflationary effect on the economy and for that reason is often resorted to in recessionary periods to stimulate investment, employment, and consumption.

Public debt is one result of government financing expenditures. It is different from

private debt, which consists of the obligations of individuals, businesses, and nongovernmental organizations. Public debt comes about as a result of taxing and borrowing by the federal government. The government has large capital outlays for such purposes as building or improving schools, hospitals, and highways. In order to pay for these projects, the government must finance part of their expenditures. When a government borrows money it also avoids the excessive tax burden that such payments would involve in a single tax period.

Public debt is advantageous in that part of the national funds are secured at an interest rate lower than that provided to private industry and in that the financial operations of government are funded on a permanent basis. It may also have an expansionary effect on employment and production during times of high unemployment. The disadvantages are that unjustifiable projects may be undertaken because the full burden of payment is postponed; that the government's demands may become so large that the interest rate on government bonds will rise to the point where money is diverted from private enterprise; and that too great a debt may induce governments to depreciate currency or default on obligations.Fama argues that bank debt is like insidedebt that may mitigate underinvestment problems (Fama, 1985).

Securities that are exercised by government of Nepal are Treasury bills, Development bonds, National saving bonds, Special bonds and Citizen saving bonds. They are issued to raise capital in the market. These securities are known as government securities. Government issues various types of securities both internally and externally. Government bond is an important source of raising public debt. Government issues various securities as per the appeal of investors. The internal investors of government are the people of the country. Government Securities are normally less risky than other corporate securities. The primary reason for issuing government securities arises due to deficit budget declaration in Nepal. Bernanke and Gertler (1989, 1990) point out that government require internal finance to undertake investment projects when theyhave low net worth, but low net worth leads to high agency costs to borrowers.Deficit in budgetary system has been normal features since the first budget. The trend of increasing government budget deficit has been balanced by borrowing from public.

There are two majors sources of public borrowing, external and internal sources. Internally government can borrow from individual, financial institution, non-banking financial institutions, commercial bank and central banks. Similarly, the main sources of external borrowing are firstly, international financial institution like IMF, World Bank and ADB etc. These institutions give loan to the member countries for a short term for convening the temporary balance of payment difficulties and for a long term development project. Secondly, the countries of good relations also provide the loan for development projects (MOF, 1996:48).

The primary goal of all developing societies including Nepal is attainment of rapid economic development. Economic development is basically a process of attaining sustainable increase in per capita income through the expansion of the productive capacity of the economy. The source of such growth is the new investment. New investment shall be financed through the external borrowing such as external loan, grant and through the domestic sources. The government bond or the securities shall be the major source of domestic resources.National resource can be mobilized from the two sources. First by collecting revenue (mainly tax revenue) and second is internal borrowing. Deficit budgetary system in Nepal is the cause of the issue of government securities

Development of systematic market of security is regarded as the securities issued by every government in the country. The government securities are issued in primary market by NRB and in secondary market by NEPSE. NRB was established as central bank of Nepal under the Nepal Rastra Bank act 1995 on April 26, 1956. As the country's central bank, this bank has the sole right to issue currency notes, coins and is responsible to manage the country's foreign exchange reserves. The bank also renders advices to the government on financial and economic matters. It prepares the monetary policy of the country. The banks also manage public debt. In the late 1980s, liberalization of interest rate, creation of regularities framework that includes prudential regulations on capital adequacy, and the establishment of separate supervision department at the Nepal Rastra Bank, were also undertaken. Therefore, the bank issues various governments securities to recoup deficit budgetary system of Nepal. The huge amount of government issuance has been

subscribing in short period in Nepal, which may be the low default risk of government securities.

A key factor in the development of an economy is the mobilization of domestic resources. The private sector makes new investment by ploughing back profits and by borrowing from banks. Public debt may be internal or external. When it is held by the subjects of the indebted government; it is an internally held debt. In this case, the community owes this debt to some of its own members. The debt will be external, if the creditors are foreigners and there is drainage of national resources in favor of foreign countries when the debt is served, it is clear that if loan obligations are allowed to change hands (H.L. Bhatia 2000:156).

Government securities play an important role in the economic development of the country. The most important purpose of the government security is to raise fund to fill the gap between the revenue and expenditure. Government bond is regarded as the temporary source of financing for various government functions.
The government of under develop countries can raise resources through public loans in two important methods. First, selling the government security to the public that are bought and sold in the capital and money market and of which market prices are quoted. This may be called market borrowing. And the second is the funds borrowed by the issue to the public, which is not negotiable and is called non market borrowing (R.N. Tripathi, 2005:316).

1.2Statement of the Problem

Most of the researchers have discussed and analyzed public debt and some of these have focused on its structure and importance whereas others have focused on its burden and impact on inflation, employment, national solvency etc. Similarly, the importance, role, need and scope of public debt have also been discussed by these thesis papers. Public debt is increasing tremendously year by year in Nepal. The economic growth rate is very low and other macroeconomic indicators are not so encouraging (Nar Bahadur Bista).

The total expenditure of Nepal Government have increased rapidly in the development process but the total revenue has not increased in the same pace. It is creating resource gap between expenditure and revenue. Ever increasing resource gap creates an ever growing budgetary deficit. To meet the budgetary deficit, government has been resorting to internal borrowing. The fund raised through internal borrowing is growing in absolute amount. But in relative term, it is very small portion of the total deficit. The major portion of the deficit is being met through the foreign loans and grants.

Nowadays, it is seen that the public interest has been increasing rapidly to invest in public limited companies as well as government securities. Moreover, largenumbers of investors are interested in investing in secure and profitable sectors. They select profitable investment sectors among various investment alternatives. Investors evaluate the growth and prosperity of their investment in future. This helps to achieve expected return from their investments. Thus, it is necessary to study on government security system and practices in Nepal.

In each fiscal year, both internal and external debts have been increasing rapidly. The external debt is increasing more rapidly than internal debt but servicing capacity of the country is not increasing with the same pace (NRB,Economic Report). So, the country is more heavily indebted from external debt than internal debt. This study is related to internal government borrowing. The government issues have higher marketability because it does not have liquidity risk. There are two main sources of government income: taxation and borrowing. Taxation constitutes a method of forced saving and public borrowing is a device to utilize a substantial part of voluntary saving for financing the development plan of public sector. Public borrowing as a method of resource mobilization has certain advantages over taxation. When a government increases taxes, the tax payers may not be ready to pay tax. The government has to follow optimum tax policy. So the study of public borrowing is essential to find out investors attitude towards government securities, its issue policy, process and practice etc.In Nepal, most of the investors do not invest their funds logically. They normally invest using their interest, intuition, imagination, guess work etc. If it is not even a wholly rational or logical process which can be understood in terms of conventional reason and logic since it involves the use of intuition,

imagination, guesswork, conscious judgment based statistical probabilities (Grewal, 1995:147).

Most investors invest their funds in single security, though they can be benefited by investing in portfolio of securities through diversification of risk. Therefore, most of investor designs their investment and financing activities in a manner to maximize the market value of shares. People make investment decision on the basis of information provided by NEPSE. Investors may invest in the government securities or private organization's bonds. Government securities are risk less investment as compared to private securities. This study has focused on the practices and systems of government bonds in the context of Nepal. This study is only related to internal issue of government securities (Internal debt) giving special reference to government loans.

In this regard, the study deals with the following issues:

- What is the overall issue system and practice of government securities in Nepal?
- What are the causes of high marketability of government securities?
- What is the attitude of investors toward the government securities?
- What is the ownership pattern of government securities?
- What is the interest of particular group of investors on specific types of investment?
- How can the securities market and its system be improved?

1.3 Objectives of the Study

The overall objective of this study is toanalyze the policy regarding government securities, issue systems and practices. However, the following are the specific objectives.

- To analyze the trend and structure of government securities in Nepal
- To analyze the cause of high marketability of government securities.
- To examine the attitude of investors towards government securities.

- To examine the issue systems and practices of Government Securities.
- To recommend for the improvement based on the research findings.

1.4 Significance of the Study

This study is expected to make a clear concept of government securities while making investment. Government Securities are safe, marketable and liquid instrument to invest the funds. Only government securities have systematic market for the prospective investors. Therefore, an independent study in this sector is significant to give information about the government security market by analyzing the trend of investment and their yields. This study gives information about short-term government securities and long-term government securities.

The government issues are less risky issues. So, risk averter investors normally invest in the government securities. This study will prove helpful to the individual person, a group, and any institutions who want to know about government issues. This study will be usable and valuable for academicians, teachers, student and any institutions who want to know about government issues.

1.5 Limitations of the Study

Due to the limited resources and time available, the study has been limited by following factors.

- This study is based on the published secondary data as well as primary data.
- This study covers a time span from the F/Y. 1988 through F/Y. 2009.
- This study is not related to external government debt.
- Questionnaire for the primary data is gathered through the interview conducted within Kathmandu valley only.
- Time and cost constraints are other limitations of this study.
- This study assumes that the related published financial documents and other related journals and articles are realistic.

1.6 Organization of the Study

The study has been divided into following five chapters.

Chapter I	:	Introduction
Chapter II	:	Review of Literature
Chapter III	:	Research Methodology
Chapter IV	:	Presentation and Analysis of Data
Chapter V	:	Summary, Conclusion and Recommendations

First chapter deals with the introduction that includes background of the study, statement of the problem, objectives of the study, significance of the study and limitation of the study and organization of the study.

Second chapter is review of literature. It includes conceptual framework and review of major previous studies i.e. review of books, journals and unpublished thesis.

Third chapter explains the research methodology used in the study, which includes research designs, population and samples, nature and sources of data, methods of financial analysis and statistical analysis.

Fourth chapter is concerned with the application of defined research method on the collected data and information, which includes presentations and analysis of data using various financial and statistical tools. The major findings are also presented in this chapter.

Fifth chapter is concerned with the summary, conclusion and recommendations, which summarize the whole thesis report, presents the concluding remarks with a suggestive package as recommendations.

Bibliography and appendices will also be appended in the study at end of the study

CHAPTER II

REVIEW OF LITERATURE

Review of Literature consists of study of past research studies and relevant information that they used and induced. It is an advancement of existing knowledge and in-depth study of subject matters. It starts with a search of a suitable topic and continues throughout the volumes of similar or related subjects. This chapter, about review of literature deals with the review of the government securities and investment opportunity. For this study various books, journal and articles as well as the past thesis review were taken into consideration. During the review of this research, in depth study and theoretical investigation regarding government securities and their present application and potentialities also are made.

2.1 Conceptual Framework

Government sells various securities to raise funds in the market as per the appeal of investors. Growing public debt is a worldwide phenomenon and it has become a common feature of the fiscal sectors of most of the economies. The inadequate debt management and a permanent growth of debt to Gross Domestic Product ratio may result in negative macroeconomic performance, like crowding out of investment, financial system instability, inflationary pressures, exchange rate fluctuations and more importantly adverse effects on economic growth(International Journal of Business Research-Sep,2007).Treasury Bills, National Saving Bonds, Development Bonds, Citizen Saving Certificates, Special Bonds are the major forms of government securities. Government issues these securities both internally and externally. Government bond is an important source of public debt. The internal investors of government bonds are the people of the country. People have option either to invest in government securities or private securities. “Government issues risk free securities. So, all of the risk averter investors invest in government securities rather than private securities. The government can borrow more cheaply than individuals because of lesser risk (Dueand Friedlaender,1981:216)”. Therefore, the issues of government securities create high demand in the market.

The government bond can be defined as the loan taken by government through the issue of securities. It is a temporary source of income for government as it is returned back to the holders after its maturity period. The concept of government loan had come into practice after 19th century. In the modern era, the functions of government have been increasing day by day. The present economic problems of the country may be the main reason behind raising government loan. Normally, the income or revenue generation is less than expenditure every year. So, the government raises funds by issuing government securities to carry out its several functions. “Government debt arises out of the borrowing by the treasury from banks, business organization, and individuals. The debt is in the form of promises by the treasury to pay the holders of these promises a principle sum and in most instance interest on principal (Taylor, 1965:258-259)”.

The primary reason for issuing government securities is to meet the deficit budget of the country. Deficit in the budgetary system of our country has been the normal feature since the first budget. It is believed that government plans people’s welfare and infrastructure development of the country. It is the duty of the government to work for the economic development of the country. Therefore, the issuance of government securities to meet government expenditure is important for the overall development of the country and living standard of people.“Government bonds are part of the national debt, as are loans from banks, and Treasury securities. The debt also includes unfunded liabilities like pension plan payments and, by some measures, social security. Bonds sold for infrastructure projects are also part of the national debt. Some economists, but not all, include sums related to bills the government must pay for goods and services it has contracted for in the current fiscal year”(Investor Dictionary.com- Us public debt).

Investors, on the other hand, have different thinking regarding their investment strategy i.e. some investors want to invest in short-term debt (treasury bills) and others want to invest into long-term debt (bonds).

2.1.1 Historical Background of Government Securities

The idea of public debt was originated in the Great Britain in the seventeenth century, where a group of city merchants provided grants and loans to the government. In return, they received the privilege of royal charter to fund the bank of England, which became country's central bank.

Government debt (also known as public debt, national debt) is money (or credit) owed by any level of government; either central government, federal government, municipal government or local government. By contrast, annual government deficit refers to the difference between government receipts and spending in a single year. Debt of a sovereign government is called sovereign debt(http://en.wikipedia.org/wiki/Public_debt).

The first public issue of government securities took place in Holland in 1542. To raise the necessary funds, the government of Holland issued various securities, the interest to be funded from excise and property taxes enacted for the purpose. Some of these securities were transferable and therefore suitable for resale, and there developed a limited secondary market. Similarly, the first English government security was issued in 1693. In 1694, it chartered the bank of England to buy government securities. Alexander Hamilton issued the first U.S. government securities in 1970. The idea was copied from these countries worldwide (Meir, 1999:494,495). Historically, during the period of world war, the government borrowed large amount of loans to meet its expenditure. Therefore, the public debt has become one of the most useful instruments to generate income and to maintain the welfare state and to develop the country. In 1945, the Thai government made short term borrowing for the first time by holding auction of Treasury Bill with maturity period of less than 12 months, in accordance with the Treasury Bill Act B.E 2487 (1944). In terms of long term borrowing, issuance of government bonds was used as a tool. Issuance of both treasury bills and government bonds was backed by loan acts issued for specific purpose.

In Nepal, there was lack of knowledge of government borrowing at the time of Kirat period. Taking into account the Mithila Kingdom during the Ramayan period, King Birat's Kingdom during the Mahabharat period and Gautam Buddha's father's Kingdom Kapilvastu, it is defined that these kingdoms must have generated

revenues through taxes and levies on the simple logic that there were many state functions and development functions carried out such as construction of roads, maintenance of religious places, running of state administration and recruiting soldiers. Thereafter, in the middle ages, borrowing was a rare event and it was undertaken in small amounts and that after great difficulty. Most of the borrowing was under taken by the rulers for financial wars. Such borrowing was not approved by the society. It was considered 'dead-weight' debt (Poudel, 2002:20).

The public debt in Nepal was first raised in 1961 with the issue of Treasury bill. Thereafter the government has been issuing development bond, special development bond, national saving bond and such other Securities to raise the fund internally and externally (NRB-Annual Report). The NRB, which is the Central Bank of Nepal, issues various government Securities on behalf of Nepal Government. The Bank issues the long-term securities and short-term securities after analyzing the liquidity position of market, private investment opportunity, average interest rate in the market, attitude of people toward risk, etc. The bank charges government 0.25 percent commission on transaction amount.

Nepal has also started to borrow from external sources since F/Y 1964/65 to bridge financial resource gap in her budgetary position. The main sources of the external borrowing of Nepal are the government of developed countries, international agencies like IMF, World Bank and ADB."Government debtmeans the total gross debt at nominal value outstanding at the end of the year of the sector of'general government', with the exception of those liabilities, the corresponding financial assets ofwhich are held by the sector of "general government (Council Regulation (EC) N. 475/2000)".

Out of the total expenditure, recurrent expenditure is estimated as Rs. 128 billion 516.5 million, capital expenditure Rs. 91 billion 311 million and principal payment Rs. 16 billion 189.3 million. This expenditure estimate is higher by 39.7 percent against the total allocation of Fiscal Year 2007/08 and by 44.5 percent than the revised expenditure. On the recurrent expenditure side, it is increased by 40.6 percent and on the capital expenditure side by 64.5 percent to the revised expenditure. The

principal payment is lowered by 1 percent against the revised expenditure. (Budget Speech, 2008/09:46)

2.1.2. Review of Literature

Being a crucial issue of government financing, the public debt is studied by the several economist, researcher from the very beginning of state government concept. When the government feels the need of higher volume of financial sources than the sources available from the regular revenue points to cover the immediate need of country, the concept of public debt is emerged. These are the sources to fulfill the budgetary gap of every country. It has been discussed by several economists in 19th century. It has also been discussed by modern economists. Keynesians and their views towards public debt are centered on its size and use. The views of different economists at different time periods on matter of public borrowing are presented as under:-

- Classical view
- Keynesian View and
- Post-Keynesian view

2.1.2.1 Classical View

The classical philosophy propounded by Adam Smith and his supporters have viewed laissez-faire equates a sound and balance budgetary policy that doesn't consider the fiscal deficit and hence public borrowing. The classicists say that just as private economic units should not run into a persistent deficit. Moreover, they state if debts are indispensable and inevitable for a particular period of time it should be paid if as soon as possible.

The classical view was practiced after the 9th century and followed by their neoclassical successors. The classical authors were generally against public borrowing. They assumed that individual consumer and business firm employ resources more efficiently. Actually, most classical authors were not against public borrowing. They favored minimum public expenditure and favored taxation than borrowing (Singh, 2001:360).

The reasons against taxation are as follows:

- Debt financing means an increase in public debt. Since it is an easy method of obtaining income, government is likely to be extravagant and irresponsible. Consequently, public debt will become a definite burden in the economy.
- Payment of interest as public debt and refund of the principle will require additional taxation. It might prove to be difficulty since government's power to tax is not unlimited.
- Deficit financing will produce currency deterioration and price inflation
- It should, however, be kept in mind that classical economists were not against all types of public debt. They approved public debt for productive purpose.

2.1.2.2 Keynesian View

After the great depression of 1930's, J.M. Keynes, advocated for increasing government role in then economic activities by adopting deficit financing so that effective demand is created in the economy ensuring employment opportunities. He advanced the concept of under employment equilibrium and affected a truly significant revision in the theory of public debt. Keynes argued that if debts are internally held, there is nothing to worry about their size. Such debt involves merely a series of transfer payments and they cancel out for the economy as a whole. Hence, the only concern should be about economic stability at high levels of income and employment. Keynes also stressed and challenged the version of classical economists and hold opposite opinion on the subject of burden of public debt. He submits that there is no shift of the basic burden to the future generation because the same posterity which pays the additional taxes will be benefited from the repayment of the debt. Thus the Keynesian theory of public debt is emphasized. Keynes' revolution brought change in the role of public borrowing. Keynes held the view that increases in the public debt through multiple effects would raise the national income. It is because Keynes correlated public borrowing with deficit financing. He authorized the government to borrow for all purpose so that effective demand may also increase.

Many Keynesians carried this analysis to the other extreme and held the view that, if debts are internally held, there is nothing to worry about their size. Such a debt

involves merely a series of transfer payments and they cancel out for the economy as a whole. Hence the only concern should be about economic stability at high levels of income and employment. A.P. Lerner maintains the theory that the government should borrow only when it wants to make people hold more bonds in place of money. This action will raise the rate of interest by lowering the value of bonds and will prove to be anti-inflationary. In the event of falling aggregate demand and shortage of funds for productive investment, government should lend to the private sector or increase its own expenditure to arrest the fall in real income and employment. The government may also borrow from the central bank to retire the debt held by the public (Singh, 2001:364).

2.1.2.3 Post Keynesian View

During World War II and in the post war years, the size of public debt increased enormously. The post-Keynesian position accepts a large part of the modifications of the classical debt theory has brought about by Keynesian economics. It emphasizes, however, the transfer and management aspects as well as the inter relationships between public debt and money supply (Singh, 2001:364).

Many economists argue that borrowing today constitutes burden for future. A large public debt, if internally held, pose problems in the economy. It complicates monetary policy and creates difficulties of management. Both classical and Keynesian economists agree that a distinction should be made between an internal and external debt. Internal borrowing is largely an act of expediency by a government when it prefers to finance its expenditure by taxation but finds it inconvenient to do so. In the event of seasonal fluctuations of spending or revenue or errors in budget estimates, a government may resort to temporary borrowings. In case of an emergency, it is better to borrow than to go for sharper increases in taxation.

According to Richard Goode, a better argument in form of internal borrowing should be avoiding borrowing to pay for government consumption expenditures. Domestic borrowing is a use of national saving. The inference is to restrict borrowing to the finance of investment will retard economic growth in future. A weakness of the

argument is that, not all outlays classified as investment actually contribute to growth, while some expenditure usually classified as government consumption promotes growth (Goode, 1986:195).

In modern times, public borrowing is in both extensive and intensive. Financial operations are bound to affect production, consumption, distribution and level of income and employment through public borrowing in the country (Dewett, 1994:580).

2.1.3 Recent Issues on Government Borrowing

Many economists and analysts have keenly studied on government borrowing in the country. Some have criticized and some have taken it as very good prospective in the country. All public debt is not burdensome in the country. Some economists suggested that it is essential to raise idle funds from public by issuing government bonds. Now days, public borrowing is considered necessary for the following purposes:

Public borrowing has a great role in emergency expenditures or war expenditures. It also plays an effective role in macro-economic stabilization. A discretionary increase in public spending to cure unemployment was a Keynesian prescription. In the country, a part of recurrent outlays could be met out of public borrowing.

The ideal situation is one in which first, revenues will meet subsidies, other transfers, interest payments and the greater part of current expenditure, debt finance will be used for meeting the government's non-remunerative capital formation, a proportion of current expenditure designed to increase social capital and productivity and the requirements of financial investments; and second, the total of domestic borrowing will be determined in such a way that, given the rate of domestic saving, the non-government sector will be able to obtain a due share of saving and there will be no need borrow from the central bank more the correct amount of seignior age (Chelliah, 1976:208).

The level of government borrowing is a function of the ability and willingness of persons and business to lend and the government's power and intention to tax. Minimum level of debt can be expressed in terms of the following equation:

$$D = \frac{Y_1 - O}{R}$$

Where,

D= Maximum sustainable national debt.

O = Constant expenditure for ordinary government operation

Y = Maximum ratio of tax receipts to national income (Y), and

R = Contractual interest rate of government debt

Consequently in the past, public finance was taken as 'a dull, un-imaginative, extremely limited and almost irrelevant discipline, but today it is considered as ' one of the most exciting areas in political economy'(Buchanan, 1966:257).

In the 20th century, almost all democratic government borrowed on large scale such borrowings have been made easy because of the development of capital market, increased confidence in the stability and integrity of the government and social sanction for welfare expenditure.

2.1.4 Types of Investor

The immediate subscription of stock depends upon various types of investors. They are classified into various groups on the basis of investment time horizon. Some are long-term investors; some are primary issue investors and some speculative investors. They are further described below (http://www.nrb.org.np).

2.1.4.1 Long-term Investor

The investor under this category has wide time horizon exceeding a period of one year and his primary motive is to get returns in excess of the prevailing bank interest rates. The period of such investment normally varies from one to three years and profits so accrued are termed as long-term capital gains. Conversely, a short-term investor look for short-term gains and his primary motive is capital appreciation. The time horizon in this case is normally three to six months.

2.1.4.2 Primary Issue Investor

Such a category of investor associates themselves only with the initial public offerings by any company raising capital. Such types of investors normally liquidate their holdings as soon as the security is listed in the Stock Exchange such an investor is called a Stag.

2.1.4.3 Speculator

One who anticipates a rise in price in the near future is called a speculator Speculators can be of two types a Bull or a Bear. A Bull speculator is one who anticipates a rise in the price in the near future and thus buys shares so that he can sell them at a higher price in the future and make profit. The market is termed bullish. A Bear speculator is one who anticipates a fall in the price of stock in the immediate future. Speculators with bearish tendency sell securities so that they may purchase in future at lower price and earn profit. The market is then termed bearish.

Thus, the investors of different group have different thinking while making investment. Some investors invest into government securities and some invest into private organization's securities. However, it has been realized that government securities are highly marketable than private organization's securities.

2.1.5 Types of Government Securities in Nepal

The gap between revenue and expenditure of the government has widened every year. By this cause, the nation is facing deficit budget. To tackle the deficit budget, the government has been issuing various securities to collect the funds from public. Many analyst and author agreed to collect the funds from internal debt, which is not so risky as compared with external debt. According to them the money just transfers from one person or institution to another institution. In fact, it circulates within the country. So the proper utilization of internal debt promotes the economy of the country. Therefore government issues long-term securities and short-term securities. The amount to be raised from internal debt is planned at the time of budget

declaration. Thus, the types of internal debt in Nepal are classified on the following headings,

2.1.5.1 Treasury Bills

It is a short-term government bonds to uphold deficit budgetary system. It normally matures in 91 days while some matures in 184 days and 364 days also. It is issued on the basis of auction, so that any individuals and institutions can invest in treasury bills. The treasury bills have been issuing since 1961. The Treasury bill will be issued by fixing the certain interest rate or by adopting the tap issue system.

The characteristics of this bond are listed below:

- To fulfill deficit budgetary system in Nepal.
- To collect scattered funds and to mobilize it in productive sector.
- To conduct fiscal and monetary policies.

In Mangsir10, 2045 B.S. treasury bills were issued on discount basis. Today, we see discounted interest rate Treasury bill in the market. Generally, treasury bills is raised from banking sectors, however, individual also can purchased the Treasury bill. Treasury bill can't be purchased less than Rs. 25,000. The maturity period of treasury bills was different in the past. They were issued on the monthly basis. Today, government has been issuing treasury bills in weekly basis. Every week, the auction is opened on Monday and the distribution is made on Tuesday. The face value of treasury bill is refunded to the holder after its fixed maturity period. The subscription of treasury bills is high in the market since the inception of its first issuance.

The investors of treasury bills have to calculate the discount rate percentage as it is issued on discount basis. The following examples can be taken to calculate the discount rate in percentage.

Example of discount rate in percentage

A person invests Rs 96 in the Treasury bills today to get Rs. 100 after 91 days. The discount rate in percentage is calculated as

Discount rate in percentage = $\frac{(100 - BP) \times \text{days in a year} \times 100}{\text{BP} \times \text{T}}$

Where,

BP = Bid Price or Purchase price of Treasury bills

T = Maturity Period of Treasury Bills

Days in a year = 364 days (364 days are taken in a year to calculate the discount percentage)

We have,

Discount Rate in percentage = $\frac{(100 - 96) \times 364 days \times 100}{96 \times 91}$

= 16.67%

Bid Price = $\frac{364 \times 100}{\frac{364 + (16.47 \times 91)}{100}}$

‘ = Rs. 96

Thus treasury bills are issued to meet short -term financial requirement of the government. It is issued on discount basis. The government has been collecting huge amount of fund through sale of treasury bills every years to fulfill the deficit budgetary system in Nepal.

2.1.5.2 Development Bonds

The bond that is issued to raise the fund from individual and institution for development purpose of nation for long-term is known as development bonds. It has normally 5 years maturity period. It was started in Nepal since fiscal year 1963. It can be used as collateral when taking loans. The holders normally obtained 90% amount of total value if he keeps them on collateral. It has also fixed and minimum interest percentage, the interest amount will be paid in semiannual basis. The income from this bond is taxable. It is seemed that institutions purchase the maximum share of development bonds. NRB has been issuing these bonds in the market on behalf of the government.

Characteristics of Development Bonds:

- It is a long-term government bond.

- The holder gets interest in semi-annual basis.
- The holder can use it as collateral if he needs money immediately.
- Institutional and individual buyers can purchase it.
- The holder obtains only 90 percent amount if he/she keeps it on collateral.

2.1.5.3 National Saving Bond

It is long-term government bond normally issued for 5 years maturity period. National saving bond can be purchased by non-banking sector only like individuals, organizations etc. If the purchaser is institution, it can be purchased in the form of stock and if the purchaser is an individual, it can be purchased in the form of stock as well as in the form of promissory notes. Generally, development bond and national saving bond carries the same nature. It has fixed interest rate and can be transferred from one person to another. It has also semiannual interest payment. The holder gets principle after certain maturity period. These bonds are normally tax free bonds and have high interest rate. Thus taxable bonds have lower subscription than other nontaxable bonds. So, national saving Bond can be sold easily in the market.

The characteristics of this bond are listed below:

- Interest is paid in semi-annual basis.
- It can be purchased as a promissory note.
- The income tax is normally exempt on the income from this bond.
- Principal is refunded after its maturity period.
- These bonds can be sold easily in the market.
- It can be used as collateral as in case of development bonds.

2.1.5.4 Citizen Saving Certificate

Citizen Saving certificate is also long-term bond. Its maturity period is normally 5 years. The natures are same as other long-term bonds like development bond, national saving bonds etc. Citizen saving certificates cannot be used as collateral. If the holders need fund immediately, the holder of national saving bond and development bond can be used as collateral to these bonds. The citizen saving

certificate can be purchased by individual as well as institutional buyers. It is non-tax free bonds. The interest amount is paid semiannual basis.

2.1.5.5 Special Bond

Special bond was issued for special occasion by indicating for special sector by government. Generally special bond was issued if there will be the scarcity of money on the government account and government has to pay the overdraft interest, commission, cash subsidy etc. The interest rate has been fixed in the special bonds. Special bond is issued only for institution. The holder of this bond can use it as collateral. Mostly, the owners of this bond are NRB and commercial banks. However, some non- banking financial institution are also been the owners of this bond.

2.1.5.6 NRB Bond

Treasury bill is issued to fulfill the budget deficit. However, the treasury can't be issued more than the deadline of the fiscal year budget. This is the main limitation of the Treasury bill. So, to control the monetary liquidity of the economy, NRB had been issuing the NRB bond as central bank since 1991. The liability of this bond lies on NRB, not the government. So, it is not considered as the government bond and it is not included among the financial accessory of internal debt. NRB Bond was issued according to the liquidity position of market. Generally it was also issued for 91 days and it was also gained the legal validity as Treasury bill. The fund had risen through NRB bond by adopting the auction system as Treasury bill. NRB bond has been closed to issue since fiscal year1996.

Among the five types of instruments, the Treasury bill is the oldest instrument and citizen savings certificate is the latest one introduced in Nepal. The National Savings Certificate, Citizen Savings Certificate is issued either in stock or promissory types as individuals demand, whereas Special Bonds and Development Bonds are issue as stock only. Bonds which are issued for institutions can be sold to the limited institutions. For example, the bonds which are issue for insurance companies can be sold only to the insurance companies. Treasury Bills can be bought both by individuals and institutional lenders. Issue purchase, repurchase and sale of

Treasury bills are completely based on auction and discount price, whereas all other bonds are sold on the basis of face value and coupon interest rates.

2.1.6 Types of Government Securities in US

In case of developed countries like United States, government issues various types of securities to raise capital. They are classified on the following headings.

2.1.6.1 U.S. Treasury Bills

A negotiabledebtobligation issued by the U.S. government and backed by its full faith and credit, having a maturity of one year or less. U.S. Treasury Bills are exempt from state and localtaxes. These securities do not pay a coupon rate of interest, and the interest earned is estimated by taking the difference between the pricepaid and the par value of the bond, and calculating that rate of return on an annual basis. Treasurybills are considered the safest securities available to the U.S. investor, and so the yield on these securities are considered the risk-free rate of returnalso calledBill or T-Bill or Treasury Bill. They are normally auctioned in 3, 6 and 12 month maturities. They are federally taxable but exempt from local/state taxes.

2.1.6.2 U.S. Treasury Notes and Bonds

A negotiabledebtobligation issued by the U.S. government and backed by its full faith and credit, having a maturity of between 1 and 10 years. U.S. TreasuryNotes are safeinvestments and are actively traded in the secondary market. These are intermediate to long-term securities, which carry a stated rate of interest, payable semiannually. They are also federally taxable but exempt from state/local taxes.

2.1.6.3 Zero Coupon Bonds

A bond which pays no coupons, is sold at a deep discount to its face value, and matures at its face value. A zero-coupon bond has the important advantage of being free of reinvestment risk, though the downside is that there is no opportunity to enjoy the effects of a rise in market interest rates. Also, such bonds tend to be very sensitive to changes in interest rates, since there are no couponpayments to reduce

the impact of interest rate changes. In addition, markets for zero-coupon bonds are relatively illiquid.These bonds are growing to full value at maturity. They have long maturity period, for instance, up to 40 years. The accreted interest is federally taxable each year as ordinary income but exempt but exempt from state/local taxes.

2.1.6.4 Mortgage Backed Securities

Debt instrumentsecured by a mortgage or a pool of mortgages (but not conveying a right of ownership to the underlying mortgage). Unlike unsecuredsecurities, they are considered 'investment grade,' and are paid out of the income generated by principleand interestpayments on the underlying mortgage. Mortgage backed securities make monthly payments of interest and principal, and have estimated maturity and payment characteristics. The credit quality is similar to that payment of principal and interest. They are estimated 5-30 year maturities but average estimated life is 3-12 year maturities.

2.1.6.5 Collateralized Mortgages Obligations

They are typically collateralized by mortgages backed securities pools designed to provide a wider range of maturities and payment features. They are financingmechanism that converts junk gradebonds into an investment gradeasset based security (ABS). Asset backed security (ABS) are structure similar to that of a collateralized bond obligation (CBO) but based on a bank's or a governmentalagency'sportfolio of mortgage loans instead of bonds. These are consisted monthly payments of principal and interest. These are fully taxable securities.

2.1.6.6 Assets Backed Securities

These are structured to provide monthly income. They are issued with an intermediate maturity that is more certain than of mortgage backed securities and collateralized mortgage obligations. These are primary backed by major bank or store credit card receivable and the principal is scheduled to be repaid in one lump sum at maturity. These are expected 3 to 7 year maturities. These are also fully taxable.

2.1.6.7 Federal Agency Securities

These securities have a very highcredit rating - second only to Treasury bonds - and have maturity periods from one month to 15 years. Their yields vary the way that market conditions, maturities, size of the issue, and tax status vary. Sold by a nationwide group of banks and dealers, these securities raisemoney to fundpublicneeds such as road building, low-cost housing, urban renewal, and also to provide lowinterest rate loans to farmers, small businessowners, and veterans. These are issued by government-sponsored enterprises. They are available as discounted securities or coupon bearing instruments, which pay interest semi-annually. These are also federally taxable and from local/state taxes.

In Nepal, government collects the needed funds by issuing treasury bonds. Government issues bonds after scheduling fixed face value, maturity period, yields, etc. Government of Nepal started issuing bonds in 1964. This issuance is continuing till today and occupies a chunk of trading in the security market. Government issues are to meet the financial deficit, which is growing every year.

2.1.7 Objectives of Government Debt

There are various objectives in issuing government securities. In the past, the way of living was very simple and the borrowing was not very significant. The government budgets were very small. The governments also followed the policy of non-intervention in economic system. But in modern times, especially after the world depression of 1930's, the public authorities have started to taken keen interest in the economic development of their respective countries. The objectives of government securities are summarized on the following headings:

- **To Recover the Deficit Budget**

A budget deficit occurs when a government spends more money than it takes in during a particular period of time. The most important aim of public borrowing is to fill the gap between the revenue received by the government and proposed expenditure during the year. Modern governments do not have piles of cash or treasure to meet any budget deficit. Normally, the annual expenditure proposed by the government for

the running year should be and is met by the annual revenue. But because of many unexpected and unplanned circumstances, the yield from the taxation and other sources may not be equal to actual expenditure. This is why the government raises funds through the issue of different securities.

- **To Restrain Inflation**

In economics, inflation is a rise in the general level of prices of goods and services in an economy over a period of time. When the price level rises, each unit of currency buys fewer goods and services; consequently, inflation is also erosion in the purchasing power of money – a loss of real value in the internal medium of exchange and unit of account in the economy. It is a condition that we are suffering from the pain of the gradually increasing prices in the market. In other words, we are surrounded by the phenomenon where too much money chases too few goods. In these conditions the government can withdraw a large volume of money from the public to check prices from increasing. Thus the best way to curb private spending is to borrow from the people and minimize the flow of cash in the market. Hence, the government can counteract the economy from the hyper-inflation and maintain the economic stability.

- **To know unpopularity of taxation**

A tax is not a voluntary payment or donation, but an enforced contribution. Most of the people are not interested to pay the taxes to the government. The tax will be resented by the people whether it may be old or new. People always opposed the enhancement of old rate of tax and the announcement of the new ones. The government through this device can protect itself from the critics of people in regard of levying the tax but it may lead the nation to grim predicament in long run.

- **To maintain economic growth**

The state should conduct the general administrative functions and development programs simultaneously. The government should implement the construction of public works like roads, railway lines, irrigations, powerhouses, etc. for accelerating its economic and social progress. Underdeveloped countries are unable to use their

natural resources optimum due to the various constraints. These cannot levy heavy taxation upon their people due to the low rate of real saving of their people. In this situation, borrowing from the people and abroad would be the main and only device of getting financial resources in the nation.

- **To meet unexpected expenses**

Sometimes the government borrows from the people to meet the unexpected expenses due to floods, famines, earthquakes, major accidents, epidemics, etc. Such terrible incidents lead the nation to a sudden spurt of the government expenses. On the other hand, there are a great tussles and enmities among the powerful countries for their economic and political supremacy and many other interests. And relatively powerless countries are also bearing the incessant tensions among their neighbors for their respective interests. In this very tense situation, war is the most probable at any time. Now a day, war is becoming very expensive. Of course, a country needs a large amount to maintain its defense service and up to date equipment if it wants to protect itself from its internal enemies or terrorism and foreign aggression and attack. These all cause the nation to be indebted.

- **To allocate resources properly**

Specially, the country having the capitalism economic system is not directly liable for its resources allocation. In this and similar other conditions, the country on one hand adopts the progressive tax system and on the other borrows huge amount of money from the capitalists so that the borrowed amount could be redistributed towards the poor people in the country. So the borrowing is justifiable in terms of better allocation of resources.

Apart from these all-public loans in modern times are necessary to remedy the business depression, to check the cyclical fluctuations, to finance public enterprises for public welfare to create the infrastructures, for establishment of socialistic state and even for meeting the current and regular expenses. It should be noted that different types of loans would be raised for different types of objectives.

2.1.8 Effects of Government Bonds

Borrowing has a number of effects and these can be taken on the following headlines:

- If a country borrows too much money, it has to pay a great deal of Interest every year in order to service that debt. This represents money that could have been used to pay for program spending instead. By borrowing money, the government has placed a greater emphasis on spending in the present than in the future. It has discounted the value of future expenditure.
- Depending on how much money the citizens of that country or that province save out of their own incomes, the borrowing government must sell its obligations to foreigners. By doing so, the government makes itself vulnerable to the shifting and often volatile sentiment of the international capital markets. If they have a sufficiently large external debt in relation to their GDP (as an indicator of their current and future capacity to repay), speculators might attack their currency or their countries bond markets forcing interest rates higher and causing the value of their economy to degrade in international terms.
- Indeed, an excessive debt policy can lead to a vicious cycle of speculative attacks, followed by higher interest rates and higher interest payments that can cause an economic slowdown. Just when a stimulation policy is required to help the economy struggle back to its normal growth trajectory, the government finds itself crippled by high interest rates and poor liquidity. Nobody else will lend the government money with which it can stimulate the economy under anything but the most onerous terms.
- The vicious cycle is one that has plagued economics of the Third World and particularly Brazil, for years. On the other hand, it may be prudent to borrow during those funds (and thereby dampening the technology) in times of economic growth.

A.P. Lerner says, the growth of national debt may not only make some people richer and some people poorer, but may increase the inequality of distribution. This is because richer people can buy more government bonds and so get more of the interest payments without incurring a proportionately heavier burden of the taxes (Houghton, 1973:371).Economist Paul Krugman disputed the existence of a solid

debt threshold or danger level, arguing that low growth causes high debt rather than the other way around. He also points out that in Europe, Japan, and the US this has been the case. In the US the only period of debt over 90% of GDP was after World War II when "when real GDP was falling, not because of debt problems, but because wartime mobilization was winding down and Rosie the Riveter was becoming a suburban housewife."Fed Chair Ben Bernanke stated in April 2010 (http://en.wikipedia.org/wiki/Public-debt).

Similarly, it has been argued by many authors that there is no direct money burden of internal debt as money is only transferred from one group to another. When interest on debt is paid by levying taxes, money is transferred from the tax payers to the bond holders. As regard payment of the principal sum, the future generation will bear the burden. In this case also, money remains within the country.

The burden of government debt is not similar so that of private debt. If the debt is internal to the country, interest payments and future retirement of the debt do not acquire that resources be transferred outside the country. Thus, except for some side effects, the goods and services available to the economy remain unchanged (Eckstein, 1987:187).

One clear burden of a government bond is reduction in output that is existence causes. To the extent that the taxes necessary to meet the interest payments have disincentive effects and cause a misallocation of resource, the debt does reduce output. If the debt also reduces investment, the future inherits a smaller capital stock and hence less potential output. A growth of debt can also add to inflation.

Economics have explained different types of burden of government bond as direct, indirect, monetary and real and it tend to fall either on the present or sometimes on the future generation. Direct money burden is measured by the extent of money payments involved and the rise in taxation needed. Direct real burden is equal to the loss of economic welfare on account of the direct money burden of increased taxation. Indirect burden of debt, however, refers to the extent of adverse effect of increased taxation on the level of production.

According to C.S. Sheth the following arguments have been advanced in the justification of government borrowing:

- Capital projects like heavy machine manufactures, roads, railways and power, steel mills, fertilizer factories, irrigation etc. require large sums of money initially. They have long gestation periods; initially they run into losses. The rate of return on such projects is low and less attractive to private investors and entrepreneurs. Government has to undertake such projects. Thus, the tax payer will have the option of pay as you use, an option similar to the option enjoyed by consumers in purchasing consumer durable like car or refrigerator on a hire purchase basis. Not only the present generation but the future generation will also benefits from such projects through public debt, newcomers pay for the cost of the projects from which they receive benefits.
- Secondly, loan finance enables government to secure money from even the low-income groups from whom, on equity ground, it may not be justifiable to collect tax revenues. Taxation may be administratively difficult and affects incentive to work.
- Borrowing is better than currency inflation, which affects all sections of people, and particularly poor people who have to tighten their belts. Forced saving is resented while loan finance is voluntary.
- Borrowing provides an opportunity to those who have idle savings. Generally the household sector has surplus saving, which is tapped by the government. Investor's preferences for different types of loans can be easily satisfied by the government.
- External debt permits import of real resources. It provides additional facilities and goods- capital equipment, know-how, raw materials and intermediate goods- without an immediate reduction in internal assumption or capital formation (Sheth, 1982:40).

Journals Review

The factors affecting the Government debt ownership structure in Germany and the UKare analyzed in the context of three hypotheses:

. liquidation and renegotiation;

. moral hazard and adverse selection; and

. flotation costs.

The results suggest that the degree and type of association of debt ownershipstructure specific factors are dependent on country's financial and corporategovernance traditions in which they operate. Several interesting findings emerge.

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O'Loughlin and Szmigin thus stronglyemphasize that education and regulation are needed in orderto create an environment that enables students to becomemore capable of managing their financial situations. They alsopoint out the moral responsibility of parents, financialinstitutions, consumer agencies and government and advisethese key players to address the matter urgently (Journal "I'll always be in debt": Irish and UK student behaviour).

Developing countries in recently decades have seen increasing economicinstability. Where crises occurred, more often than not they were related toexternal debts. LDCs in Asia, South America and Africa have increased theirindebtedness since the 1970s by two- to five-folds. The suspicion must bethat increased indebtedness and amplified volatility are linked. This paperoffers a model to formalize this view. Our main contribution is to apply theWDI (World Bank: International Bank for Reconstruction and Development,2002) data to this model and to measure the direction and magnitude of thedebt-induced LDC cycles.

2.1.9 Ownership, Marketability and Term Structure of Government Bonds

Ownership, marketability and term structure are important considerations in managing the government bond.

2.1.9.1 Ownership

The people and organizations that lend money to the government by purchasing government bonds are the owners of the government bonds. The U.S. government

had divided its owners into three categories, according to debt held report from 1951 to 1976. The largest portion of the government debt is owned by private investors, including banks, insurance companies, corporations, private individuals, and state and local governments (which are classed as private investors because their decision to buy bonds is voluntary and based on ordinary financial management considerations). The second largest portion of the debt is held by government accounts, such as the socials security and highway trust and the reserve of retirement programs for federal government employees. The smallest portion of debt is held by the Federal Reserve Banks. These banks acquire government bonds in the process of money creation. They may purchase bonds to help the U.S. government to cover a deficit in the budget.

The debt owned by private investors represents genuine borrowing by the federal government. This borrowing involves a transaction between the government and investor who agrees to transfer funds to the government in exchange for the receipt of periodic interest payments and eventual repayment of the sum loaned. Interest payments are necessary to persuade investors to purchase these bonds and the maturity debt, which is part of the conventional bond agreement, obligates the government to repay the principal at some specified date. Genuine borrowing withdraws funds from the private sector of the economy and therefore has effects on the equilibrium level of national income similar in many respects to those of taxation. Taxation, however, is compulsory and genuine borrowing is a voluntary transaction (Gardner1978:161).

Thus bonds owned by government accounts are not money creation indebtedness because the money used to purchase them has come from taxes collected from the public. But bonds do not reflect genuine borrowing in the sense of voluntary transaction between the buyers and seller.

2.1.9.2 Marketability

Marketability is relative ease in which different bonds can be sold quickly at a price near the price at which similar bonds are selling. The government in a country issues bonds that are normally marketability which means that person who owns such a bond may sell on mutual agreement. Therefore, the marketable of these bonds can

fluctuate depending upon the interaction of demand and supply. In United States, some U.S. government bonds are marketable. Markets for government securities are important for their size. A government security plays special roles in the economy. The interest rate on government securities is the risk-free rate against which all others interest rates are measured. In many countries, the central bank regulates the quantity of money by buying and selling the government securities (Meir, Kohn, 1999:494).

2.1.9.3 Term Structure

The term of a debt instrument is the length of time that must elapse before the obligation matures and the principal sum of the loan must be repaid. The treasury issues a variety of different debt instruments, some with short term maturities of a few months and some with long-term maturities of twenty or thirty years. At the short end of the term structure are treasury bills, which mature after 90 or 180 days from the date of issue. Treasury bills are sold on a discount on the basis of competitive bidding, which means that the rate of interest actually paid on each issue is determined only after the issue has been sold. Because the time period is short, the risk incurred by buyers is low; interest rates on Treasury Bills, therefore, are typically the lowest in the family of government debt instruments. Treasury notes are intermediate term instruments and have maturities of one to five years. Interest rates on treasury notes ordinarily will be somewhat higher than those on treasury bills because the longer maturity time exposes the buyer to greater risk.

Bonds have many characteristics such as the way they pay their interest, the market they are issued in, and the currency they are payable in, protective features and their legal status. Bond Characteristics are as follows:

- Issue Price:-The price at which investors buy the bonds when they are first issued.
- Maturity Date:-The date on which the issuer has to repay the nominal amount
- Coupon:-The interest rate that the issuer pays to the bond holders. Usually this rate is fixed throughout the life of the bond.
- Issuer:-They are mainly issued by government, corporations, special purpose trusts or even non-profit organizations.

2.1.9.4 Terms used in Bonds

- **Coupon**

The fixed interest paid on a debt instrument expressed as a percentage of the face value for its whole life is called coupon. Usually the coupon interest is paid annually and semi-annually.

- **Par Value**

It is the apparent worth i.e. the nominal value of bond which appears on the face of the debt instrument. The amount of par value is repaid at maturity also known as face value. The par value of bond normally in Nepal is Rs.1000.

- **Price**

It is price, which is set for purchasing or selling the securities in the market. It is expressed in rupee amount.

- **Yield**

It is the income from an investment in debt instruments expressed as a percentage of purchase price or current market price.

2.1.10 Review of Legislations

As per the Nepal Rastra Bank Act 2058, the NRB is the banker, advisor and financial agent of government in monetary system of country. This act has authorized NRB to formulate and execute the monetary policy of country. Under the provision of this act, the NRB can issue various types of securities on behalf of government as well as on its own. The government shall take suggestion of NRB regarding the internal debt at the time of budget preparation. NRB shall sanction loan to government for the maximum period of 180 days. The total loan to the government shall not be more than 5 percent of total revenue collected by the government in last fiscal year.

The government has introduced National Debt Act on 2059.03.24 B.S for overall management of government debt and to encourage the people for the mobilization of the economic development of country.

This act authorized Nepal Rastra Bank to issue various types of government securities (Public Debt) and to mobilize the same. The government can declare the interest and principal payment arrangement, rate of interest and tenure of public debt. NRB can suggest government in this regard.

The act indicated that the NRB is responsible for the overall management of government securities. NRB prepares and issues various reports and furnish related suggestions and recommendations to the government. It also manages the primary and secondary market for the trading of government securities. The government and NRB shall enter in agreement for the management of government securities on time to time.

The act has formulated several criteria to transfer the ownership of the debt. Under the authority of this act, the government has formulated regulation called Nation Debt Regulation 2059 to clarify the procedure for issuance of securities, interest and principle payment, ownership transfer etc. A seven member's operation committee under the chairmanship of the Deputy Governor of Nepal Rastra Bank is to be formed for the entire issuance procedure of Public Debt. Besides, the government has introduced the Primary and Secondary Market Management of Debt Certificate Regulation 2061 to make easy transaction of such certificates.

2.1.11 Procedure of Issue of short term bond

Government collects internal debt from banking and non-banking sector using various tools. These tools are divided into two groups on the basis of the recovery period. The types are short term debt and long term debt. Normally the debt whose maturity period is less than one year is called short term debt and the debt whose maturity period more than one year is called long term debt. Short term debts are taken as tools of money market whereas long term debt is taken as the tools of capital market. Treasury bills are the short term debt instrument whereas national saving bond, development bond, special saving bond and citizen saving certificate are the instrument of long term debt.

Buying and selling of bond at the beginning is called internal issue. According to fiscal policy internal debt are issued by the government with the cooperation of Nepal Rastra Bank. Type of bond and amount of date is determined by open market committee, formed by NRB. Generally one year is divided into quarters to make the schedule of date. In the bond issue schedule, amount of total issue is mentioned but type of bond is not mentioned at the beginning. Primary issue of bond is related to debt management of the government with the help of which government tries to maintain optimum indexes to the central bank. By studying impact of date for monitor index, government may increase or decrease the amount of long term as well as short term debt. Process of bond issue depends upon the types of bond whether it is short term or long term. The process of issuing short term debt is given below.

Short term debt is an important debt for internal debt management of the government. Primary issue of short term debt includes renew of old debt as well as issue of new debt. This is issued for fulfilling shorter deficit of government budget. All the procedure are carried out by open market committee. The bond which are not in the schedule of annual recovery are renewed. New issue is also carried out at the time of renew depending on the liquidity position. Renew of old bond is fixed at the beginning for number of times but new issue is practiced at two conditions. First, when the liquidity is permanently shown by monetary indexes and the next, when the government is facing the problem of deficit budget instantly.

2.2 Review of Empirical Studies

The various studies have been made in the national and international area in the field of government securities and practices. Some of them have been reviewed in this part. There are various articles regarding the government securities system and practices available. Some of related articles written by the intellectuals and authors have been reviewed here.

In article 'Domestic Debt Management' discusses domestic debt and their composition, target group of the debt instruments, ownership pattern of domestic debt, domestic debt management practices in Nepal and challenges and suggestions for debt management in Nepal(G.R. Thapa 2005).

Regarding the target groups of debt instrument, instruments such as National Bonds and Citizen Saving Certificates are issued specially for the individuals and cannot be purchased by the institutions. Development bonds and treasury bills are very familiar to the commercial banks and other financial institutions. These instruments can be bought by individuals too. All the special bonds are stock in character and they cannot be bought by individuals. Regarding ownership pattern of domestic debt, the highest amount of domestic were held by commercial banks with almost 63 percent of the total domestic borrowing of the government.

The article highlights transparency and accountability, coordination, risk management, auditing of the debt management activity, legal framework and internal operational control under aspects of debt management. It has prescribed certain recommendation for domestic debt management in Nepal which consist of preparation of issue calendar, primary issue management of bonds, secondary market management of bonds, issue of treasury bill by bidding auction, secondary market management of treasury bill, facilities of duplicate certificate, payments, record keeping, promotional activities etc.

The article concludes with suggestion that the development of an efficient security market is a must and borrowings should be invested in the productive sector. The financial return to government out of these investments should be greater than the cost. The objective of borrowing should not be making easy money for the government as this will result in the gradual deterioration in the paying capacity of government and finally the public will have less confidence on government (Thapa, 2005: 363-377).

In book 'An Introduction to Nepalese Economy' says that the importance of government finance in underdeveloped countries like Nepal may be appreciated in terms of the strategic role, which the government of such countries have to play in initial stages of development. In the first phase, it has task of government to create some minimum preconditions of development such as building of social and economic overheads, which do not generally attract private investments for one obvious reason that such investment works usually require huge resources but do

not promise immediate returns. Even it provides individuals who are interested in such investment works; divergence between private and social gains from the overhead facilities justifies their ownership and management by the government itself in the interest of community at large. (Shrestha, 1981:210).

Article “Adhoc Treasury bill versus ways and means advanced debate on their implication for monetary policy” says that Government borrowing from the Central Bank is not considered good because it collects funds regarding for money print (N.B.Thapa, 2054:48).

Classic venture ‘Capital Market, Financial Flows and Industrial finance in Nepal’ has asserted that the government has the virtual monopoly over the security market (Mahat,1981). The resort to security market by the government has been only in the form of borrowing mainly through the issuance of development bonds to meet the budgetary expenses. The first series of development bond were floated on February 12, 1964. It carried 6 percent rate of interest and had the maturity period of five years. Since then, the government has been floating the development bonds each year. Till 1981, it had floated fourteen issues of such bonds carrying the interest rate ranging from 5 percent to 10 percent and with maturity period varying from the five years to ten years. The magnitude of funds raised through this method also has been rising each year. The total bonds issued during the fiscal year 1965/66 amounted to Rs.705 million. In 1970/71, it was equivalent to Rs. 30 million and it reached Rs. 300 million in 1976/77. The growth has been in absolute as well as relative term (Dr. R.S.Mahat, 1981**:**25).

Public borrowing is treated as sources of revenue like raising funds from securities but the collected funds should be returned back to the holders with in the maturing periods. Borrowing may be from banks, from public or from abroad. Likewise, it is important to note public expenditure. In the context of Nepal, major public expenditure categories come under economic services, social services and defense, administrative and miscellaneous services (Khanal, 1988:90). Thus public expenditure can be classified into two main categories viz., regular expenditure and development expenditure. This is budgetary classification. For instance, in regular expenditure there are four sub categories, viz., economic services, social services,

defense & administration and miscellaneous services. Similarly, the development expenditure consists of three sub groups, viz., economic services, social services and miscellaneous services.

Mohiudiin Alamgir and Sungsup Ra, the research consultant of ADB, Nepal, in their working paper “Nepal public debt sustainability analysis” 2005, has analyzed the public debt sustainability of Nepal. The outcome of the study was intended to improve debt management by government of Nepal and to provide inputs for the plan development process and other long term perspective plans. This paper also focuses that the public debt, domestic and foreign loan has played an important role in financing the overall budget deficit and public development expenditure.

The workingpaper highlightsthat Nepal’s public debt positionisprojectedto remain manageable but vigilance will be prudent on account of questions related to fiscal sustainability and currency composition of exports and foreign reserves. At the end of F/Y 2001, total public debt stood at NRS 248,313 million. Between F/Y 1993 and F/Y 2001, disbursed outstanding debt (DOD) as percentage of GDP remained unchanged at 14 %, government bonds accounted for a third of total domestic DOD in FY 2001 and debt service burden turns out to be heavier at 3-4 %. According to the paper, the public borrowing increased two and half time between F/Y 1993 and F/Y 2001 from NRS.23, 164 million to NRS.56, 576 million. Actually, government borrowing helps to wipe up with excess liquidity, which has limited outlet due to poor business climate (ADB, 2005:50).

In “Public Debt management Policy in Nepal” covering the various aspects of public debt management policy adopted by Nepal with recommendations for sustainability of public debts in a country like Nepal. The report discussed the importance of public debt management along with the practical principles. It analyzes the concept of optimal benchmark portfolio concept as an indicator of sustainable debt management tool. It highlights the activities for debt management into three categories namely - Resource mobilization, Debt and risk analysis and Management information system and settlement(C. Rhee,2005)

Firstly, the resource mobilization comprises of implementation of the borrowing plan based on the strategy from the benchmark framework; mobilization of resources from the international capital market and the domestic capital market based on the borrowing strategy; organizing and executing hedging and derivative transactions; processing applications for government guarantees, and issue guarantees; processing applications for on-lending borrowed funds; function as clearing house for requests for information from donors, international financial institutions, commercial banks and other creditors.

Secondly, the debt and risk analysis comprises of preparing debt sustainability to assess the long-term sustainability of projected borrowing strategy; undertaking frequent portfolio analysis to assess future debt service prospects and problems, and proper action that should be taken to overcome them; formulating policies for the issue of government guarantees and on -lending borrowed funds; assessing and managing market, rollover, liquidity, credit, settlement and operational risks in the loan portfolio; preparing a borrowing strategy for implementing the annual borrowing plan involving choices between domestic and foreign borrowings, foreign markets to be accessed, currency of borrowing, interest rate and maturity structures; formulating guidelines for guaranteed borrowing of state enterprises and the private sectors; preparing or providing inputs on public debt to periodic economic and financial reports and data for presentation to interested parties.

Thirdly, the management information system and settlement comprises of managing the debt information system and maintain an accurate and up-to-date loan database; linking the debt management software to other software used for Treasury management and accounting systems of the government; preparing and processing debt service payments and effect payment on time; monitoring the implementation of loans agreement's the performance of loan guarantees, and the performance of on-lending agreements, and report defaults to the government; monitor all contingent liabilities and ensure that adequate loan loss provisions are made in the budget to meet likely defaults; prepare forecasts of government cash requirement and preparing periodic statistical and other reports on the status of public debt and maintain a web site.

2.2.1 Review of Nepalese Studies

The first study made in the field of public borrowings by Acharya (1968) entitled “A case study on Pubic Debt in Nepal" includes the features, problems and pattern of public debt. He reached on the conclusion that public debt is most popular in these days because of the payment of debt on maturity and it can be adjusted through the issue of fresh public debt. But the fact is that the habit of purchasing bonds issued by the government should be developed among the people so that any difficulty may not be faced in getting the bonds purchased by the people. He also concluded that investors have full trust on government bond and subscription of government bond is higher than the bonds issued by other non-government institutions.

In dissertation entitled “A Study on the Impact of Internal Borrowing in Nepal". He has analyzed the trend of revenue, expenditure and deficit and effect of under borrowing on money supply, inflation and import. He also analyzed the structure of internal public debt and impact of it on the economy. He found most inflationary nature of internal borrowing to increase inflation in the economy(Singh,1983)

In dissertation entitled, "A Study on Government Securities Practices in Nepal", has analyzed the attitude of the investors towards the government securities. He has also studied issue system and practices of government securities. The study was based on secondary data for the year 1984 to 2001 to analyze the trends in public borrowing. The study used the curvilinear model for internal debt forecasting for forthcoming years. The study employed questionnaire survey to examine behaviour related to purchase of government bond among people in Nepal along with Chi-square test to examine parametric behaviors(Poudel,2002)

He has concluded that the educated and uneducated as well as low and high income people are interested in government security, but the income is the major factor of investment on government security. The study on the other hand concludes that the people in rural area are less aware to the government security. Further, due to lack of good entrepreneurial skills, the investors used to invest in government security for risk less investment. He has recommended to reduce the borrowing from banking sectors since it is most inflationary source of internal borrowing. It also recommends

government to influence individuals to use their idle money on government security. This will stimulate the investment and is at the same time non-inflationary in nature.

In thesis titled “Public Debt: System and Practices in Nepal” focused on the positive aspects of public debt. It itself is neither the worse nor it impairs the economy. He has focused public borrowing in the country for budgetary aspects but for maintaining smooth and sound economy. He further emphasizes that public debt is quite beneficial for the nation as it outstrips the national economy as a whole. He has also focused bad aspects of borrowing the loan according to its whim and indulgence and it pours the whole amount of borrowing on non-productive sectors(Sharma, 2001**)**

Thus, the borrowing from people can be considered important if generated funds are honestly used in education, health and other development functions. Every year, Government has been borrowing huge amount of money from public by issuing Government bonds to finance deficit budgetary system of Nepal. The External debt threats the economy but internal debt is considered good because it transfers money from one person to another person within country. Therefore, the internal debt is somewhat better than external debt.

In dissertation paper titled “Public Debt in Nepal” has suggested that borrowing internally is better than borrowing externally. The internal borrowing mobilization for the development purpose has also been fluctuating and the banking sector has dominated the total internal borrowing. Government should have to initiate policies to attract maximum borrowing from non-banking sector. It is the most non-inflationary source of internal borrowing since it is simply transfer of idle saving from people to government for development purpose(Koirala ,1997)

In dissertation "Government Finance in Nepal” has analyzed internal resources, external resources, internal borrowing, deficit financing & government expenditure. He described that the inability of curbing the increasing growth resource gap and deficit financing could be an effective way for meeting the resource gap of the developing countries. He reached on the conclusion that the deficit financing in Nepal has exceeded the limit, and thus effective measures are necessitated for its control(Bista,1986)

In dissertation paper titled “Burden of Public Debt in Nepal” has dealt on the positive role of public borrowing for the sound economic growth and prosperity. He also suggested that the state should not disburse the debt unproductively. The rich people can get more benefit from public debt due to increasing trend in the issue of public debt. He clearly says-the interest rate and its development are the major benefit from the public debt. But if there increase in small saving, ownership of debt is defused and the problem of inequality in the distribution of wealth and income minimized (Sharma,1998)

In thesis "Study on the Internal Public Debt in Nepal". His objective was to analyze the contribution of internal borrowing to the financing of development plans. He concluded that the system of internal debt has helped to mobilize the internal financial resources in the productive sector of the country’s economy(Chhetri,1984)

In dissertation paper titled "An Analysis of Internal Borrowing and Government Security Market in Nepal" studies the public borrowing situation in Nepal. Her analysis about the trend and structure of government bond in Nepal examined the attitude of the investors towards the government securities. She has concluded that the public borrowing is growing rapidly with domestic and external borrowing. She emphasized the requirement of institutional reforms in public debt management to win the confidence of the public and expanding the range of public bond subscribers. The subscription of debt depends on the environment confidence in political, social and economic sphere through the formation of disciplined, accountable and efficient government institution(Sunita Sharma,2006)

2.3 Research Gap

Many researches were conducted on the government debt and it issues system. Most of researches were based on past secondary data. Major theses focused on the trend analysis of government securities. Some researcher had attempted to analyze the primary data classifying them into the category of institutional and individual group, but had not tried to analyze the primary data based on their

profession. Further no one's research work studied the ownership pattern of the government securities, which is a crucial matter of public debt. It shows the interest of various investors on specific types of government securities. Besides, most of the researcher had analyzed the trend and issue system of government securities on lump sum, but because of specific nature of particular securities, it has to be analyzed separately.

In addition to above research gap some differences between previous research and this research is given below:

- This research work search role of the government securities in annual government expenses as first time on the university thesis provision
- It analyzes the position of public debt in annual government expenses from different viewpoints.
- Even now other researchers are not trying to show the positive and negative relationship between annual government expenses and public debt.
- Further, no research work studied the ownership pattern of government securities, which is crucial matter of public debt.

Hence, reviewing the related literature in this regard, and considering the several gaps as above, this research has attempted to analyze the government securities system and practices in Nepal obtaining recent data to find out the objectives of this research work.

CHAPTER III
RESEARCH METHODOLOGY

Research methodology states the method with which data have been extracted and discusses the tools that have been used in interpretation of such data to fulfill the objectives. Research methodology is defined as the systematic technique adopted by a researcher in studying or finding solution to a problem, through which the researcher systematically collects, records, analyses, interprets, and reports on information about various facts of a phenomenon under study. Research methodology is a way for systematically solving the research problems. The chapter implies the research design, population and sample of the study, nature and sources of data and analysis of data. The main purpose of this chapter is to focus on different research method and condition, which are used while conducting this study. Every study needs a systematic methodology to show the better results of research.

3.1 Research Design

Research design is the plan,structure, and strategy of investigation conceived so as to obtain answers to research question and to control variance.The plan is the overall scheme or programof the research. It includes an outline of what the investigator will do from writing the hypotheses and their operational implications to the final analysis of data. The structure of the research is more specific. It is the outline, the scheme, the paradigm of the operation of the variables. When we draw diagram that outline the variables and their relation and juxtaposition, we build structural schemes for accomplishing operational research purposes. Strategy, as used here, is also more specific than plan. In other words, strategy implies how the research objectives will be reached and how the problems encountered in the research will be tackled. (H.K.Wolff/P.R.Pant,p92,2008)

3.2 Population and Sample

In order to show the trend and structure of government debt in Nepal, 22 years

data (1988 to 2009) have been taken into account and the sample will not be more than 45 respondents for chi-square (χ^2) test of hypothesis. This test also helps to examine investor's attitude towards government securities.

3.3 Nature and Sources of Data

For the reliability and effectiveness of research work, true and correct information are essential because information is the life-blood of every research. In order to achieve the objective of the study, primary data and several secondary data have also been used.

Primary information is the original source of this study. As per requirement of the study these information have been collected to meet the specific objectives through developing the schedule questionnaire. The primary data has been collected by making questionnaire survey and conducting interviews among various groups of investors, intellectuals, officers of financial institutions like commercial banks development banks, finance companies etc. Their views and responses in this regard have been properly tabulated, presented and analyzed as per the objectives of this research work.

Secondary date has been collected from the published and unpublished books, booklet, bulletin, journals, research study etc. Official website of various organizations will be utilized for the secondary data.

3.4 Methods of Data Analysis

For the reliability and effectiveness of research work, true and correct information are essential. In order to achieve the objectives of the study primary information were collected from businessmen, service holder, retired person and other. But several secondary data has also been used in this research. To find out the identification, condition capacity and performance of government securities secondary data were used.The different types of financial and statistical tools have been used in this study. The tools of analysis consist of various analytical instruments. The financial

tools of the analysis consists total internal debt analysis. In statistical tools, mean, standard deviation, coefficient of variance have been used. Chi square test is used to test the level of significance. Presentation is made in the form of tables, graphs, chart and figures.

3.4.1 Financial Tools

Financial tools, such as ratio analysis are used for the analysis of change of internal debt collection based on previous year. By the help of this tool, the change in percentage in each year for each bond has been studied. For financial tool, following tool is analyzed.

Percentage Change in Internal Debt=

$$\frac{\text{Internal Debts of Current Year} - \text{Internal Debts of Previous Year}}{\text{Internal Debts of Previous Year}} \times 100\ \%$$

3.4.2 Statistical Tools

Statistical tools are the instrument to analyze the collected data from different sources. In statistics, there are numerous statistical tools to analyze data of various natures. In this study, the researcher has used the following statistical tools.

a) Arithmetic Mean

The most popular and widely used measure of representing the entire data by single value is arithmetic mean. The arithmetic mean is defined as the total sum of observation divided by the total number of observation. Let $x_1, x_2, x_3 \ldots\ldots\ldots x_n$ be the n variables. The arithmetic mean is denoted by ($\bar{x}$) and is given by:

$$\bar{X} = \frac{X1 + X2 + \ldots\ldots\ldots\ldots + X_n}{n}$$

b) Standard Deviation

Standard deviation is known as root mean of square deviation for the reason that is the square mean of the equated deviation from the arithmetic mean. It is denoted by small Greek letter sigma i.e.∞. The standard deviation measures the absolute

dispersion or variability of the distribution, the greater the amount of dispersion the greater the standard deviation, greater will be the magnitude of deviation of the values from their mean. A small standard deviation means a high degree of uniformity of observation as well as homogeneity of series, a large standard deviation means just the opposite (Gupta, 1991:8-18). In this study standard deviation is calculated for selected dependent and independent variables specified in the model presented below.

Standard Deviation (S.D) of $\sigma = \sqrt{\frac{\Sigma(Y-\bar{Y})^2}{N}}$

Where,

N = Total No of Year

Y = Internal Debt

$\bar{Y}$ = Average Internal Debt

c) Coefficient of the Variation

The coefficient of the variation is the relative measure of desperation comparable according to which is define as the ratios of standard deviation to the mean expressed in percentage.

$$\text{Coefficient of Variation (C.V)} = \frac{\text{Standard Deviation}}{\text{Mean}} \times 100\%$$

$$= \frac{\sigma}{\bar{Y}} \times 100\%$$

The highest CV denotes to the higher variability of variable and vice versa.

d) Curvilinear Model

Correlation would be called non-linear or curvilinear if the amount of change in one variable does not bear a constant ratio to the amount of change in other variable (Gupta, 1969: E-10.6). In this study the model shows the debt collection policy,

which is gradually increasing. A curvilinear model based on data on various government securities issued from1990 to 2008 is utilized to make projections the government borrowing by utilizing regression analysis up to the year 2014.

The regression equation for Curvilinear Model is as follows:

$\hat{Y} = a + bx + cx^2$..... (i)

Where a, b and c are constants.

$\hat{Y}$ = Dependent variables

x and x^2 = independent variables

Now, the value of a, b and c can be found by solving the following normal equations. The three normal equations are constructed by multiplying the first equation by$\sum$, $\sum x$ and $\sum x^2$ respectively.

So,

$\sum Y = Na+b\sum x+c\sum x^2$ .....(ii)

$\sum xY = a\sum x+b\sum x^2+c\sum x^3$ .....(iii)

$\sum x^2Y = a\sum x^2+b\sum x^3+c\sum x^4$ ..... (iv)

The following equation is used for forecasting based on the value of

$\hat{Y} = a + bx_i + cx_i^2$

Where,

x_i = the value of data in n^{th} year.

A trend line is drawn on the basis of this forecast.

e) Correlation and Regression Analysis

The various statistical methods discussed upon only one variable. But in practice, we may come across a number of problems consisting two or more variables. Distributions consisting two variables are said to be bivariate distribution. Two variables are said to be “correlation”, when they are so related that the change in the

value of one variable is accompanied by the change in the value of the other. One of the widely used mathematical methods of calculating the correlation coefficient between two variables is Karl Pearson's correlation coefficient. It is denoted by r_{xy} or simply r and is defined by:

$$r = \frac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}}$$

Where,

r = Correlation Coefficient

$x = X - \ddot{X}$ and $y = Y - \hat{Y}$

$\ddot{X}$, $\hat{Y}$ are the arithmetic average of X series and Y series respectively.

Regression analysis is one of the most powerful tools of statistics, which being used in the estimates of the strength of the relationship between two variables. The theory was first developed by Sir F. Galton. It is a statistical device, with the help of which, we can estimate or predict the value of one variable when the value of other variable is known. The unknown variable which we have to predict is called dependent variable and the variable whose value is known is called independent variable. The analysis used to describe the average relationship between two variables is known as regression analysis.

Regression equation of x on y is

$X = a' + b' y$

Where 'a' and 'b' are constants to be determined to find the position of the line completely. The parameter 'a' determines the distance of the line directly above or below the origin and 'b' the change in 'y' per unit change in 'x' (i.e. slope).
The parameters 'a' and 'b' of equation can be obtained by solving the following two equations (fulfilling the techniques of least square).

Then, we have the following two normal equations

$\sum x = n\, a' + b' \sum y$

$\sum xy = a' \sum y + b' \sum y^2$

Now substituting the values of 'a' and 'b' in equation, we get the equation of line of regression of x on y. In this case, b is called the regression coefficient of x on y and is bitterly denoted by b_{xy}.

f) Chi-square Test ($_i{}^2$)

The (χ^2) test (pronounced as Chi-square test) is one of the simplest and most widely used non-parametric test in statistical work. The symbol (χ^2) is the Greek letter Chi. The (χ^2) test was first used by Karl Pearson in year 1990. The quantity (χ^2) describes the magnitude of the discrepancy between theory and observations. It is define as:

Chi Square (χ^2) **=** $\sum \frac{(O-E)^2}{E}$

Where, O refers to the observed frequencies and E refers to the expected frequencies.

Expected Frequency (E) = $\frac{RT \times CT}{N}$

Where,

RT= the row total for the row containing the cell

CT= the column total for the column containing the cell

N= the total number of observations

CHAPTER IV
PRESENTATION AND ANALYSIS OF DATA

The presentation of data is the basic organization and classification of the data for analysis. After data collection is completed, the data will be in the raw form. It has to be arranged so that it makes some sense. First they are summarized and presented in table, charts and graph form and thereafter they are analyzed in terms of risk, return, and coefficient of variation. To make data more realistic and complete qualitative and quantitative analysis is done. The chapter has been divided mainly into two sections. The first section of the chapter deals with the analysis of the secondary data and the second section deals with the analysis of primary data. At the end of the chapter, major finding of the study have been included.

4.1 Analysis of Secondary Data

4.1.1 Trend of Government Debt in Nepal

Here the analysis is made on the basis of amount raised in term of treasury bills, development bonds, national saving bonds, special bonds and citizen saving certificates. Internal debt is interrelated with the basic government fiscal flows of revenue and expenditures. If the volume of the government expenditure exceeds the volume of government revenue, it is fundamental precondition for creating public debt. Debt creation should be viewed as one of several alternatives of financial managements. Debt is simply a means of meeting a particular budgetary situation, namely a deficit Budget caused by excess of government spending over receipt (Herber, 1988:436).

The expenditure and revenue generation are not at same speed in Nepalese economy. So, Nepal has been suffering from shortage of capital since the first budget speech. The main sources of revenue generation are custom duty, tax, etc. Due to the frequent changes in political situation, the government has not been able to implement efficient and effective policy to collect revenues in Nepal.
Public borrowing is normally for the following reasons:

a) To recover the deficit budget.
b) To maintain the source for government expenditure.
c) To maintain economic and monetary stability.

4.1.1.1 Trend of Government Securities Issued in Nepal

The government of Nepal has been issuing five types of securities as the instrument of public borrowing. They are treasury bills, development bonds, national saving bonds, special bonds and citizen saving certificates. Every year, the government has been adopting a deficit budgetary system in the name of development functions. It issues various bonds to recover the deficit budget of the country. The magnitude of public borrowing is increasing. The analysis of the magnitude of the total internal debt and its composition is discussed in detail. The types and amount of government securities under the review period 1988 to 2009 is tabulated below.

In the table 4.1, the net outstanding internal public debt has been presented in terms of types such as treasury bills, development bonds, national saving certificate, citizen saving certificate and special bonds.

The five types of government securities are not insignificant. Government has been collecting huge amount by issuing these securities. Treasury bills are short term loan. They are issued for the period of less than one year. Treasury bills are normally floated for the period of 91 days. However; sometimes government issues bills for 364 days. Development bonds, national saving certificate, citizen saving certificates and special bonds are the long term government securities.

In the table, treasury bills in 1988 is Rs.4,090.0 million whose trend is growing and reached to Rs.86515.0 million in 2009. The government has been collection large amount of internal debt from treasury bills. The loan has been growing sharply from 1988 to 2009. Every week, government has been selling huge amount of treasury bills in the market. Most of the individual and institutional investors purchase short-term securities. It may be due to maturity of short period.

Table 4.1

Trend and Amount of Government Securities Issued in Nepal

(Rs in million)

Year	Treasury Bills (a)	Development Bonds (b)	National Saving Certificates (c)	Citizen Saving Certificates (d)	Special Bonds (e)	Total Internal Debt (a+b+c+d+e)
1988	4,090.0	4,651.7	2,196.5	0	697.8	11,636.00
1989	1,171.0	5,088.6	2,196.5	0	4,431.8	12,887.90
1990	1,821.0	5,388.6	2,896.5	0	4,567.0	14,673.10
1991	2,351.0	5,482.3	3,646.5	0	9,376.1	20,855.90
1992	3,483.2	5,132.2	4,546.3	0	10,073.2	23,234.90
1993	4,403.2	5,132.2	4,901.5	0	11,019.1	25,456.00
1994	5,216.3	4,732.2	5,691.5	0	14,991.2	30,631.20
1995	6,392.5	4,122.2	6,076.4	0	15,466.8	32,057.90
1996	7,142.5	3,672.2	7,376.5	0	16,050.6	34,241.80
1997	8,092.5	3,042.2	8,736.5	0	16,019.6	35,890.80
1998	9,182.5	3,302.2	9,886.4	0	16,035.5	38,406.60
1999	17,586.9	3,872.2	10,426.4	0	17,784.2	49,669.70
2000	21,026.9	4,262.2	11,526.5	0	17,541.4	54,357.00
2001	27,610.8	5,962.3	12,476.4	0	13,994.3	60,043.80
2002	41,106.6	11,090.7	11,536.3	628.1	9,259.3	73,621.00
2003	46,844.9	13,090.7	10,659.9	931.1	9,621.7	81,148.30
2004	49,429.6	17,549.2	9,029.8	1,178.9	8,946.2	86,133.70
2005	51,383.1	19,999.2	6,576.8	1,428.9	8,176.3	87,564.30
2006	62,970.3	17,959.2	3,876.8	1,678.9	3,469.8	89,955.00
2007	74,445.3	19,177.1	1,516.9	1,391.0	2,773.5	99,303.80
2008	85,033.0	21,735.4	1,116.9	3,014.4	339.40	111,239.10
2009	86,515.1	29,478.5	216.9	4,433.6	229.60	120,873.70

(Source: Quarterly Economic Bulletin, Volume: 44, NRB (From 1988 to Mid-July 2009)

In table 4.1 the development bonds have been found in increasing situation between years 1988 to 1991 which later found in decreasing trend till 1997. However it started to increase in volume after 1998 till 2005 and reached to the volume of Rs.19,

999.20 million after which it decreased to Rs.17959.2 and Rs.19177.1 in 2006 and 2007 respectively. In 2008 and 2009, it increased to the volume of Rs.21735.43 and Rs.29,478.50 million respectively. It is the highest volume of development bond over the decade. This shows that collecting fund from development bond is being effective these days. However, the increment of such bond is not high as the increment of treasury bills. The trend shows fluctuation in issuance of government securities during the review period.

The national saving certificates have been growing in the years from 1988 to 2001 and reached to Rs.12476.40 million. But during the years from 2002 to 2009, the certificates have been decreasing and the collection of fund from national saving certificate has reached to Rs.216.9 million. The government has been gradually increasing its funds by issuing national saving certificate since the year 1988 to 2001. National saving certificate have been decreasing from the period of 2002 to 2009 which were Rs.11, 536.1 million, Rs.10659.9million, Rs.9029.8 million, Rs.6576.7 million, Rs.3876.8 million, Rs.1516.92 million, Rs.1116.92 million and Rs.216.9 respectively. This shows that the collection of fund from national saving certificate has been in highly decreasing order.

The citizen saving certificates being issued since year 2002. The first issue of citizen saving certificate for collecting fund from internal debt is Rs.628.1 million. The trend of citizen saving certificate have been increasing since the first issue. The government has issued Rs.628.1 million in year 2002, Rs.931.1 million in year 2003, Rs.1178.9 in 2004, Rs.1428.9 million in year 2005, Rs.1678.9 million in year 2006, Rs.1391.0 million in year 2007, Rs.3014.4million in year 2008 and it reached to Rs.4433.6 million in the year 2009. This shows that the collecting fund from the citizen saving certificate is very effective for the government.

Special bonds were first issued in year 1988. In the first year government issued Rs 697.8 million and it increased up to Rs. 17,784.20million in year 1999. After that it is in decreasing trend and reached to Rs.229.6million in the year 2009. The collection fund from special bond was effective during year 1988 to 1999 and it reached to the highest collection of Rs. 17,784.20million in year 1999. But after that government fails to collect huge amount from special bonds. Now the fund collection from special

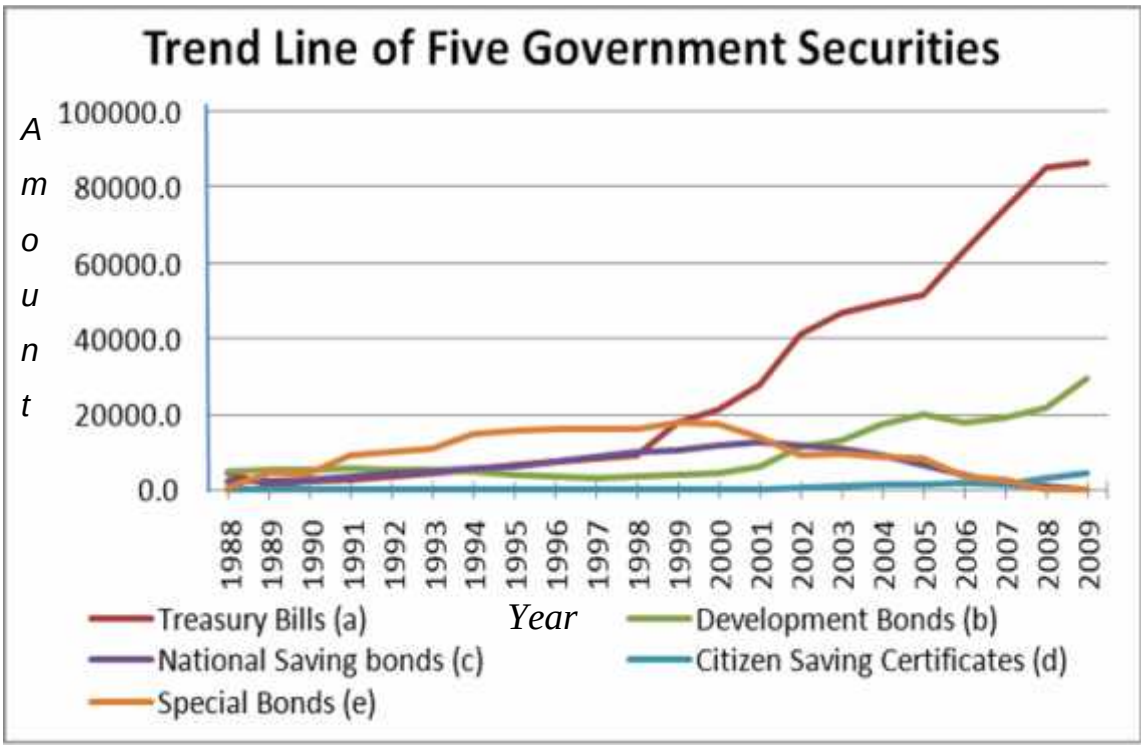
bond has reached to Rs.229.6million in the year 2009. This is the lowest collection of fund from special bonds over the period. There is vast difference between the highest and the lowest issue. This shows that government fails to collect higher volume of fund from this bond.

The government of Nepal has been borrowing huge amount by issuing various government securities at different times. The various securities are issued for the purpose of fulfilling deficit budget and several requirement of the nation. The issuance of government securities for the collection of fund is increasing highly. In 1998 the fund collected from internal debt is Rs.11,636.0 million and it reached to Rs.120,873.70million in year 2009.

The data of securities issued by the government during the period of 1998 to 2009 has been presented in figure 4.1.

Figure 4.1

Trend Line of Five Government Securities



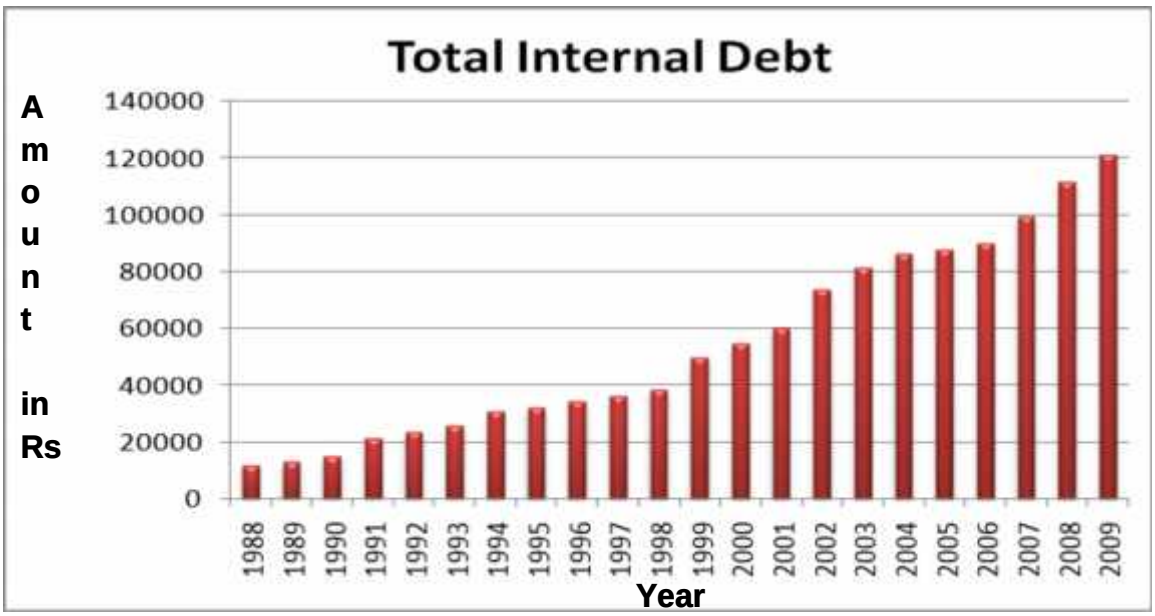
The above figure 4.1 shows that the issuance of the government securities is irregular. The trend of the treasury bills, development bonds, national saving bonds, citizen saving bonds and special bonds is fluctuating. However, till 1999, all government securities were issued more or less similar. After that issuance of

special bonds and national saving bonds are decreasing. Treasury bill is highly increasing. Development bond and citizen saving certificate are slowly increasing. This shows that people are highly investing in short term securities as compare to long term securities.

The trend line of total internal debt during the period of 1988 to 2009 has been presented in figure 4.2.

Figure 4.2

Total Internal Debt



The trend of total internal debt is upward slopping. The above bar chart clearly shows the debt collection policy of Nepal government. The government has been selling five types of securities and the government is borrowing the debt constantly higher each year. Trend of collecting fund from internal debt is highly increasing. Public are also becoming aware of benefit from purchasing government securities.

4.1.1.2 Percentage Change in Types and Amount of Government Securities

The table 4.2 shows the trend and growth rate of total internal debt and various internal debt instruments severally issued by the government during last 22years.

Table 4.2

Growth Trend of total internal debt

(Rs in million)

Years	Total Internal Debt	Percentage Change in Internal Debt

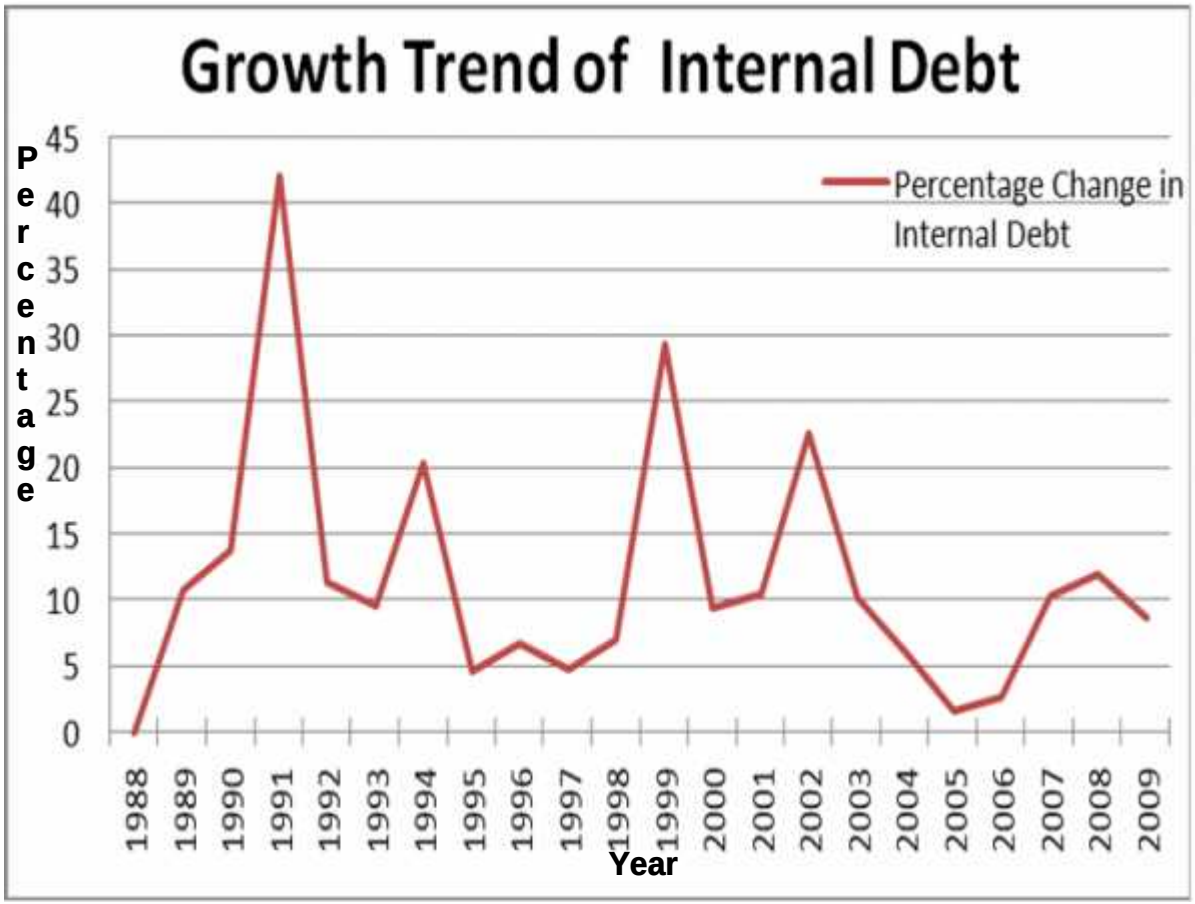
1988	11636.00	0.00
1989	12887.90	10.76
1990	14673.10	13.85
1991	20855.90	42.14
1992	23234.90	11.41
1993	25456.00	9.56
1994	30631.20	20.33
1995	32057.90	4.66
1996	34241.80	6.81
1997	35890.80	4.82
1998	38406.60	7.01
1999	49669.70	29.33
2000	54357.00	9.44
2001	60043.80	10.46
2002	73621.00	22.61
2003	81148.30	10.22
2004	86133.70	6.14
2005	87564.30	1.66
2006	89955.00	2.73
2007	99303.80	10.39
2008	111239.10	12.02
2009	120873.70	8.66
Total	1193881.50	
Average	54267.34	11.79
S.D.	33240.8079	
C.V.	0.6125	

(Source: Quarterly Economic Bulletin, Volume: 44, NRB (From 1988 to Mid-July 2009)

The issuance of total internal debt in Nepal is found irregular. Hence the growth rate of total internal debt is not consistent. The growth rate of internal debt in 1989 was 10.76 percent. The highest growth rate is in year 1991, i.e. 42.14 percent over the period of 22 year. During the period, the growth rate of total internal debt is found lower in year 2005 (1.66 percent) only. The standard deviation of the variables 33240.8079 is considerably high, which means the high magnitude of deviation of variables from the average value. The coefficient of variance is 0.6125 which shows that there is average risk in collecting fund from internal debts.

Figure 4.3

Growth Trend of Internal Debt



The above figure 4.3 shows the growth trend of total internal debt. Total internal debt has been calculated by adding different government securities. Growth of internal debt has been in very fluctuating order as shown in the chart. It is due to the social condition of the country.

Table 4.3

Growth Trend of Treasury Bills

(Rs in million)

Years	Treasury Bills	Percentage Change in Treasury Bills
1988	4090.00	0.00
1989	1171.00	-71.37
1990	1821.00	55.51
1991	2351.00	29.10
1992	3483.20	48.16
1993	4403.20	26.41
1994	5216.30	18.47
1995	6392.50	22.55
1996	7142.50	11.73
1997	8092.50	13.30
1998	9182.50	13.47
1999	17586.90	91.53
2000	21026.90	19.56
2001	27610.80	31.31
2002	41106.60	48.88
2003	46844.90	13.96
2004	49429.60	5.52
2005	51383.10	3.95
2006	62970.30	22.55
2007	74445.30	18.22
2008	85033.00	14.22
2009	86515.10	1.74
Total	617298.20	
Average	28059.01	16.93
S.D.	28373.25	
C.V.	1.01	

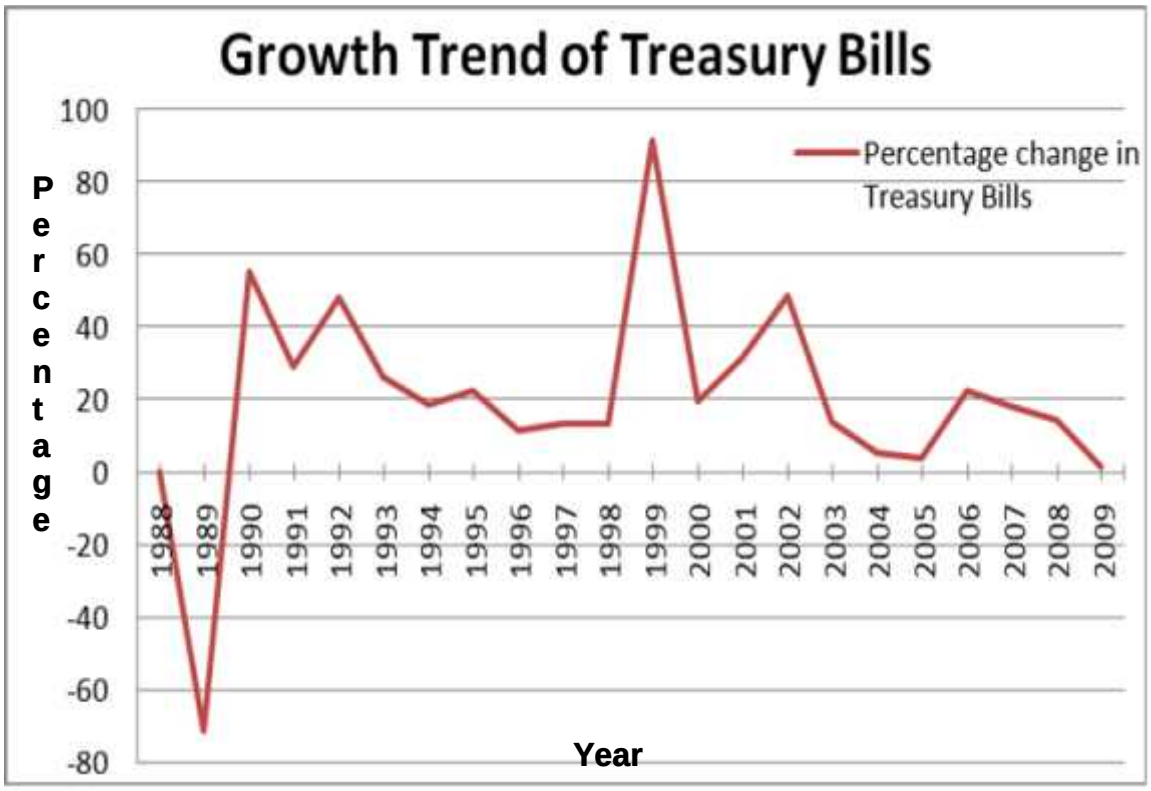
(Source: Quarterly Economic Bulletin, Volume: 44, NRB (From 1988 to Mid-July 2009)

Table 4.3 shows the growth trend of treasury bills issued during last 22 years. The issuance of the treasury bills is not consistent. In year 1989, it decreased by 71.37 percent (this is the highest negative growth during the review period) despite of overall growth in total internal debt by 28.30 percent in the same year. The highest growth (91.53 percent) in treasury bills issuance has been found in year 1999. The growth has been increased to 22 percent in year 2006. But after that it is in

decreasing order and reached to 1.74 percent in year 2009.The standard deviation of the variables 28373.25 is high, which means the high magnitude of deviation of variables from the average value. The coefficient of variance is 1.01 which shows that there is some more risk in collecting fund from treasury bills. Treasury bills are short time debt it needs to be repaid soon. So, the fund collected from treasury bill cannot be invested in long term project. In treasury bill the standard deviation is high than average. So, it is highly riskier.

Figure 4.4

Growth Trend of Treasury BIlls



The above figure 4.4 shows the growth trend of Treasury bill from year 1998 to 2009. There have been various ups and downs in growth trends of Treasury bills from year 1988 to year 2009. In initial year, the treasury bills surplus is decreased significantly, resulting in negative growth. However, it has improved drastically from 1990. The growth rate has been significantly noticeable in year 1999, amounting to 91.526% growth than previous year. The overall performance of treasury bills in collecting fund from internal debts is also in fluctuating order. The growth of Treasury bill in 2009 is 1.74 percent.

Table 4.4

Growth Trend of Development Bonds

(Rs. in million)

Years	Development Bonds (b)	Percentage Change in Development bonds
1988	4651.70	
1989	5088.60	9.39
1990	5388.60	5.90
1991	5482.30	1.74
1992	5132.20	-6.39
1993	5132.20	0.00
1994	4732.20	-7.79
1995	4122.20	-12.89
1996	3672.20	-10.92
1997	3042.20	-17.16
1998	3302.20	8.55
1999	3872.20	17.26
2000	4262.20	10.07
2001	5962.30	39.89
2002	11090.70	86.01
2003	13090.70	18.03
2004	17549.20	34.06
2005	19999.20	13.96
2006	17959.20	-10.20
2007	19177.10	6.78
2008	21735.40	13.34
2009	29478.50	35.62
Total	213923.30	
Average	9723.79	9.19
S.D.	7552.59	
C.V.	0.78	

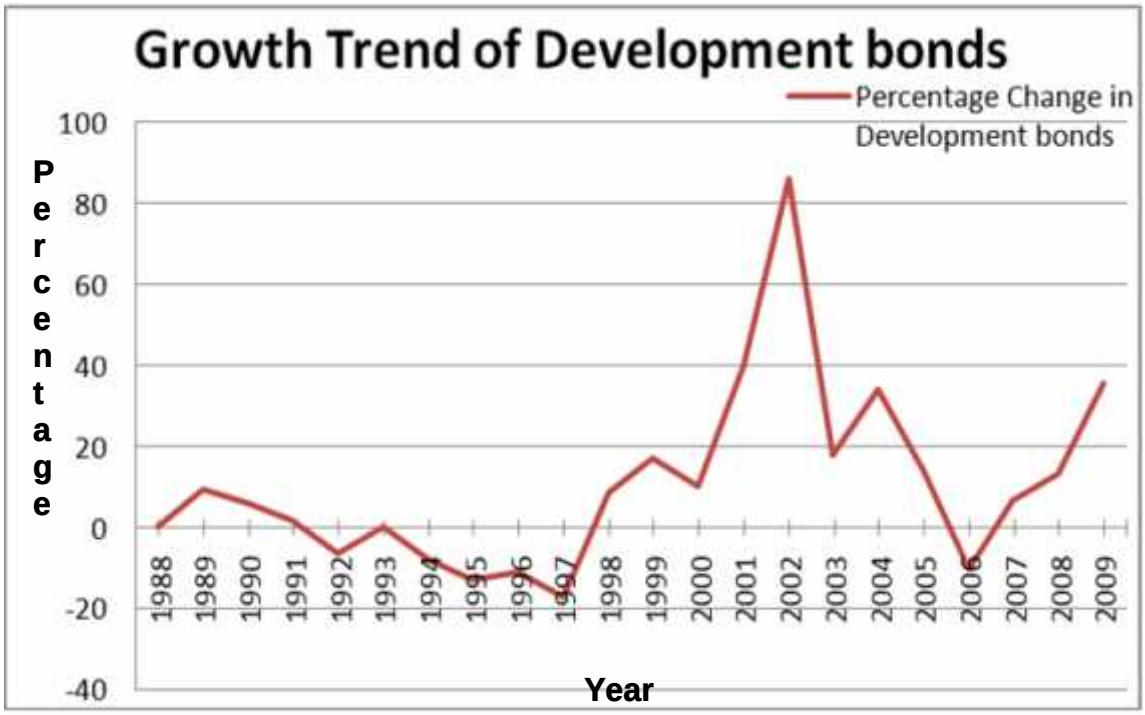
(Source: Quarterly Economic Bulletin, Volume: 44, NRB (From 1988 to Mid-July 2009)

The above table 4.4 shows the growth trend of development bond issued during last 22 years. The issuance of the development bond is not also consistent. In year 1989, it is 9.39 percent. However, it goes down till 1997 and reaches highest negative growth of -17.2 percent during the review period. The highest growth in issuance of development bond (86.01 percent) is recorded in year 2002. The average growth rate of development bond is 9.19 percent which is good in overall performance. Now

the collection of fund from development bond is increasing from year 1998 but the growth is negative in year 2006.The standard deviation of variables is still high, which means the inconsistency in growth rate. The standard deviation of the variables 7552.59 is still high, which means the high magnitude of deviation of variables from the average value. The coefficient of variance is 0.78 which shows that there is some more risk in collecting fund from development bonds. Development bonds are long term debt so it is better than treasury bills.

Figure 4.5

Growth Trend of Development Bonds



The above figure 4.5 shows the growth trend of Development Bonds from year 1998 to 2009. The growth in the beginning is positive till 1991 and it is negative and zero from 1991 to 1997 and reached 17.16 highest negative growths. After that it tends to be increasing and reached to the highest positive growth in year 2002 which is 86.01 percent. From year 2002 the growth is in decreasing order and reached to negative in year 2006 and again increased in year 2009 and reached to 35.62 percent. By this we can see that issuance of Development bonds is irregular.

Table 4.5

Growth Trend of National Saving Certificate

(Rs. in million)

Years	National Saving Certificate	Percentage Change in National Saving Certificate
1988	2196.50	0.00
1989	2196.50	0.00
1990	2896.50	31.87
1991	3646.50	25.89
1992	4546.30	24.68
1993	4901.50	7.81
1994	5691.50	16.12
1995	6076.40	6.76
1996	7376.50	21.40
1997	8736.50	18.44
1998	9886.40	13.16
1999	10426.40	5.46
2000	11526.50	10.55
2001	12476.40	8.24
2002	11536.30	-7.54
2003	10659.90	-7.60
2004	9029.80	-15.29
2005	6576.80	-27.17
2006	3876.80	-41.05
2007	1516.90	-60.87
2008	1116.90	-26.37
2009	216.90	-80.58
Total	137110.70	
Average	6232.30	-10.44
S.D.	292.85	
C.V	0.05	

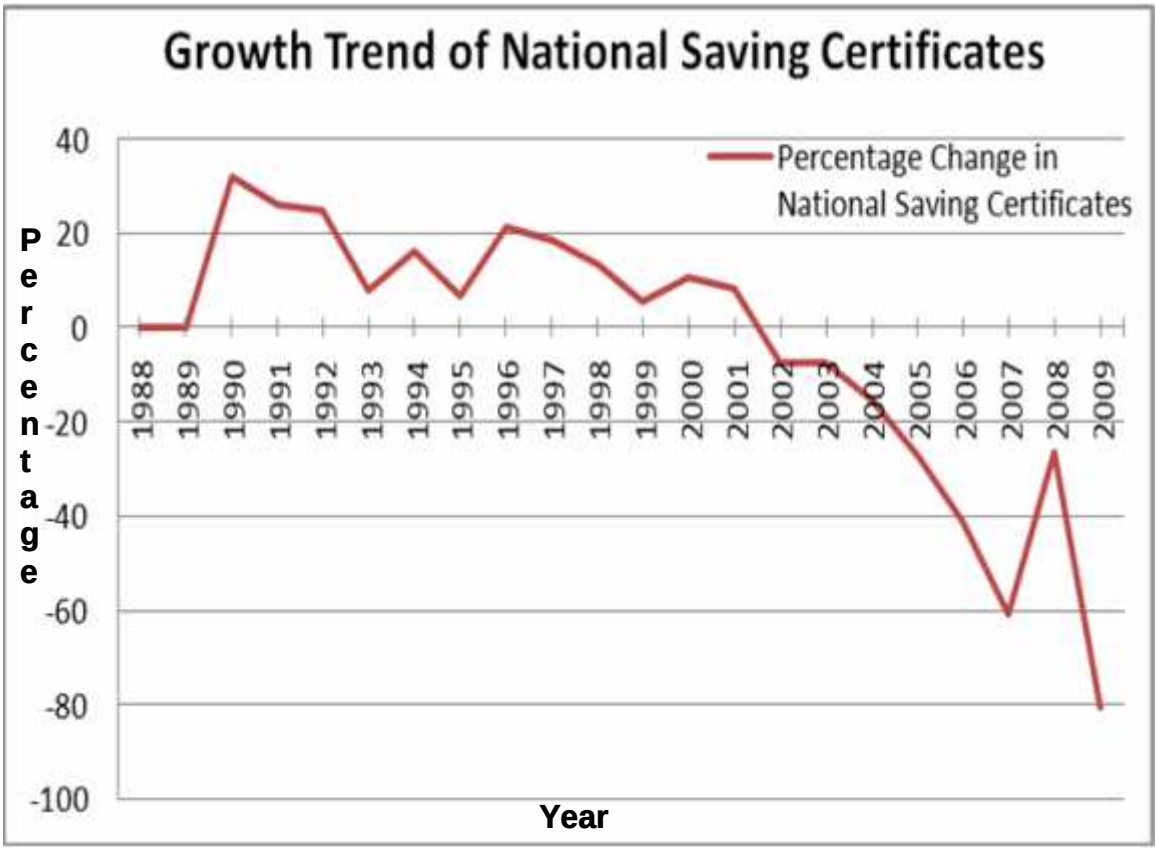
(Source: Quarterly Economic Bulletin, Volume: 44, NRB (From 1988 to Mid-July 2009)

The above table 4.5 shows the growth trend of national saving certificate issued during last 22 years. The issuance of the saving certificate is irregular. In the earlier years (till 2001) it is found to be positive growth. The highest growth of national saving certificate is 31.87 percent in year 1990. The issuance of national saving certificate is found decreasing since the year 2002. The highest decrease is observed in year 2009, which is -80.58 percent. There is high fluctuation in issuance of National Saving Certificate the average growth is -10.44 percent. The standard deviation of variables is 292.85 which is lower than the average. This shows that

there is lower risk in issuing national saving certificates. Since the standard deviation is lower it shows that its C.V. is lower which is 0.05. According to the risk factor national saving certificate is best.

Figure 4.6

Growth Trend of National Saving Certificate



The above figure 4.6 shows the growth trend of National Saving Certificate from year 1998 to 2009. According to the graph, the national saving certificate has decreased significantly in last 15 years, resulting in negative growth, after year 2002. This graph shows the volatile market trend of national saving certificate. The growth in the beginning is positive till 2001. From the above chart we can see that the growth is highest positive in year 1990 and it is highest negative in year 2009.

Table 4.6

Growth Trend of Citizen Saving Certificate

(Rs. in million)

Years	Citizen Saving Certificate	Percentage Change in Citizen Saving Certificates
2002	628.1	0.00
2003	931.1	48.24
2004	1,178.90	26.61
2005	1,428.90	21.21
2006	1,678.90	17.50
2007	1,391.00	-17.15
2008	3,014.40	116.71
2009	4,433.60	47.08
Total	14684.9	
Average	1835.6125	9.75
S.D.	1185.02	
C.V	0.65	

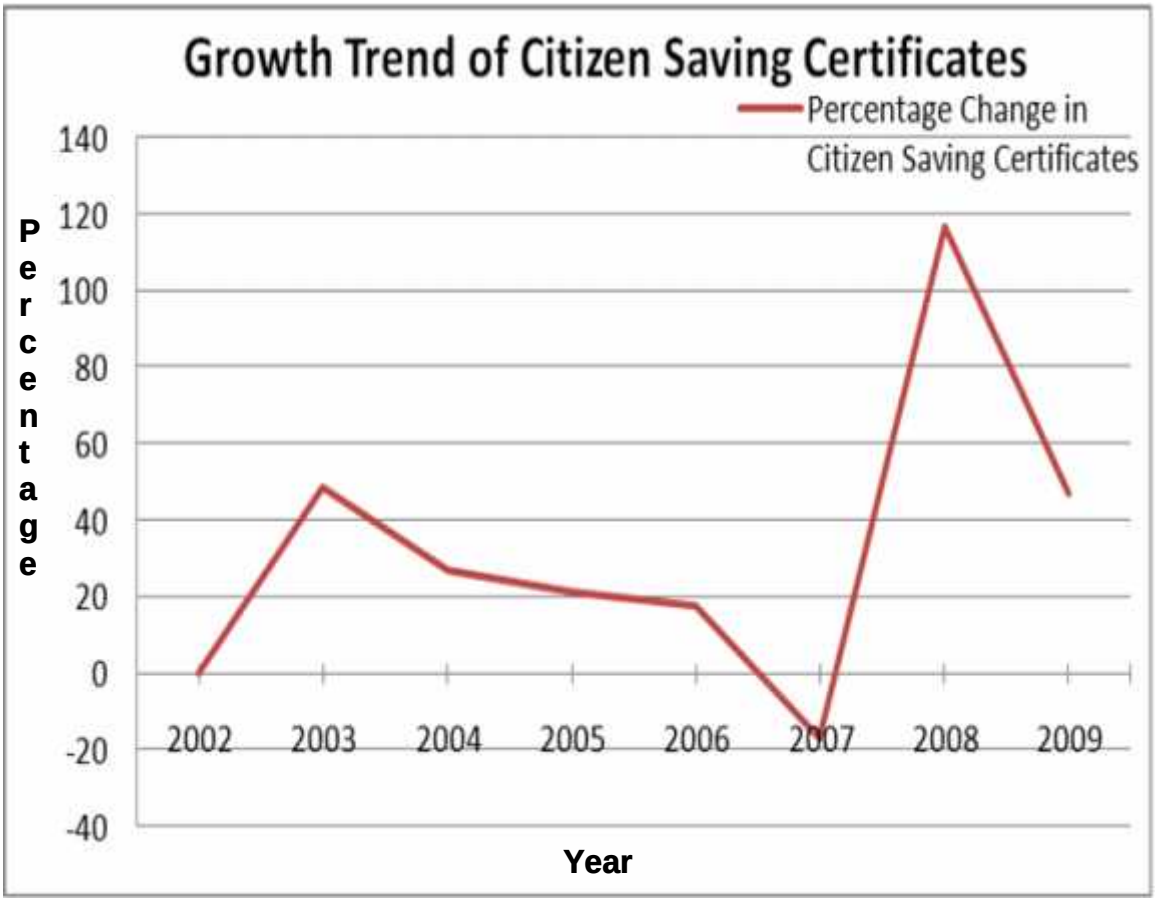
(Source: Quarterly Economic Bulletin, Volume: 44, NRB (From 1988 to Mid-July 2009)

The above table 4.6 shows the growth trend of citizen saving certificate issued during last 8 years. The government started to issue citizen saving certificate since 2002 only. The highest and lowest growth of issuance is in 2008 and 2007 respectively. The growth rate is decreasing up to 2007 and increased in 2008 and again decreased in 2009. The growth rate of issuance of citizen saving bond is more constant. Standard deviation of the variables 1185.02 which shows that it is good to collect fund from citizen saving certificates. Since its average is higher than its S.D. so its C.V. is low. It shows it is low risky.

According to figure 4.7, the overall growth trend of Citizen Saving Certificates is positive expect in year 2007. It first increased in year 2003 and it decreased simultaneously upto year 2007. The growth of this certificate is highly positive at about 116 percent in year 2008. It is 47.08 percent in year 2009. The average growth is 9.75 percent .This shows that the overall collection of fund from citizen certificate is better.

Figure 4.7

Growth Trend of Citizen Saving Certificate



The table 4.7 shows the growth trend of special bond issued during last 22 years. The growth rate of 1989 (535.11 percent) is the highest positive growth and highest negative growth is in year 2008 (i.e. -87.76percent). The average growth is negative. The collection of fund from the special bond has highly decreased. The growth is also highly decreasing since year 2004. The standard deviation is also highest at 5750.29, which means the highest inconsistency in variables. Since its average is higher than its S.D. so its C.V. is low. Therefore fund collection from special bond is less risky

Table 4.7

Growth Trend of Special Bonds

(Rs. in million)

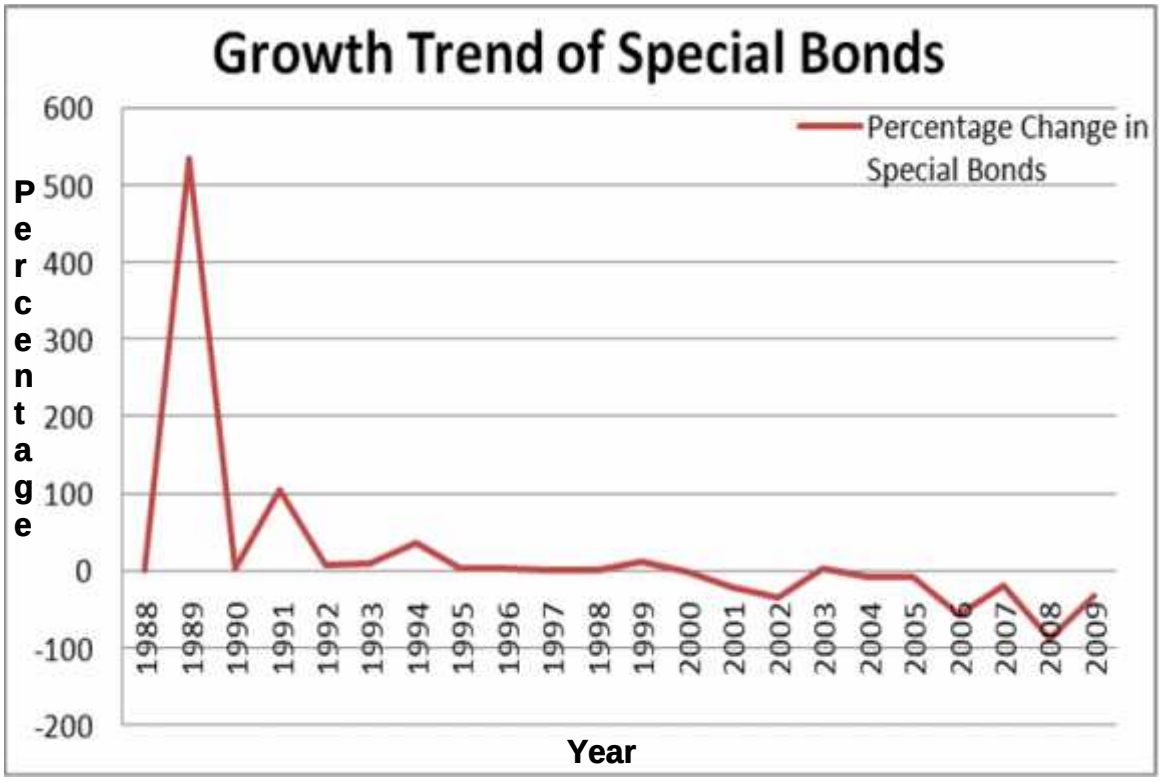
Years	Special Bonds	Percentage Change in Special Bonds
1988	697.8	0
1989	4,431.80	535.11
1990	4,567.00	3.05
1991	9,376.10	105.30
1992	10,073.20	7.43
1993	11,019.10	9.39
1994	14,991.20	36.05
1995	15,466.80	3.17
1996	16,050.60	3.77
1997	16,019.60	-0.19
1998	16,035.50	0.10
1999	17,784.20	10.91
2000	17,541.40	-1.37
2001	13,994.30	-20.22
2002	9259.30	-33.84
2003	9621.70	3.91
2004	8946.20	-7.02
2005	8176.30	-8.61
2006	3469.80	-57.56
2007	2773.50	-20.07
2008	339.40	-87.76
2009	229.60	-32.35
Total	210864.40	
Average	9584.75	-5.15
S.D.	5750.29	
C.V	0.60	

(Source: Quarterly Economic Bulletin, Volume: 44, NRB (From 1988 to Mid-July 2009)

According to the below figure 4.8, it shows the growth trend of special bond for the last 22 years. From the above chart we can see that it has been in decreasing order. It has reached to the highest positive growth in year 1989 and from that it is in decreasing order and reached to the highest negative growth in 2002. After year 2004 it is unable to increase its growth and now in year 2009 it is in negative growth of 32.35percent.

Figure 4.8

Growth Trend of Special Bonds



The average debt of treasury bills, development bonds, national saving certificates, citizen saving certificates and special bond are Rs.28059.01 million, Rs. 9723.79million, Rs 6232.30million, Rs. 667.50million and Rs. 9584.75million respectively. The treasury bills have the highest average among all the government securities, whereas the citizen saving certificates has lowest average. The treasury bills, development bonds, national saving certificates, and special saving bonds are the regular source of government borrowing. The government has started to collect fund though the citizen saving certificate only after 2002. During 1988-2009, government has raised highest amount from treasury bills (Rs 617298.20million) and the lowest amount from the citizen saving certificates (Rs 14684.90million). The government issues treasury bills in the market for fulfillment of short-term funds. From the overall internal debts collection by the government the proportion of treasury bill is 51.7%, development bonds is 17.9%, national saving certificate is 11.5%, Citizen certificate is 1.2% and special bond is 17.7%.

The standard deviation shows the deviation (variability) of internal debt. The most deviation is in treasury bills in comparison to all other government securities. The C.V. of total internal debt is 61.25 percent, whereas the C.V. of treasury bills is 101 percent, development bonds is 78 percent, national saving certificates is 5 percent, citizen saving certificates is 65 percent, special bonds is 60percent respectively. The highest C.V. among the government securities has been found for Treasury bills i.e. 61.25 percent, which indicates the less consistency in internal debt in comparison to others. The C.V. of national saving certificates is lowest of all, which shows that there is more consistency in national debt in comparison to others securities. The C.V. of special bonds is below than the average C.V. of internal debt (total internal debt), whereas the remaining have higher than the average.

4.1.1.3 Forecasted Trend of Internal Debt based on Curvilinear Model

The table 4.2 shows the possible internal debt of government for next 6 years based on the trends during last 21 years. Internal debt has been projected for year 2010 to 2015. A positive curvilinear model was adopted to forecast the internal debt in the forthcoming years.

The Equation based on Curvilinear Model is fitted as below,

$\hat{Y} = a + b\,x_i + cx_i^2$ ..... (i)

Where a, b and c are constants.

$\hat{Y}$ = Dependent variables

x_i and x_i^2 = independent variables

The below table 4.8 shows the forecasted trend of total internal debt. The estimated internal debt for the years 2010, 2011, 2012, 2013, 2014 and 2015 are Rs.128419.53 million, Rs.137511.30 million, Rs.146933.75 million, Rs.156686.88 million, Rs166770.69 million and Rs.177185.18 million respectively. The total internal

debt has been increasing every year the projected value can be in the shown in figure 4.9.

Table 4.8

Forecasted Trend of Total Internal Debt

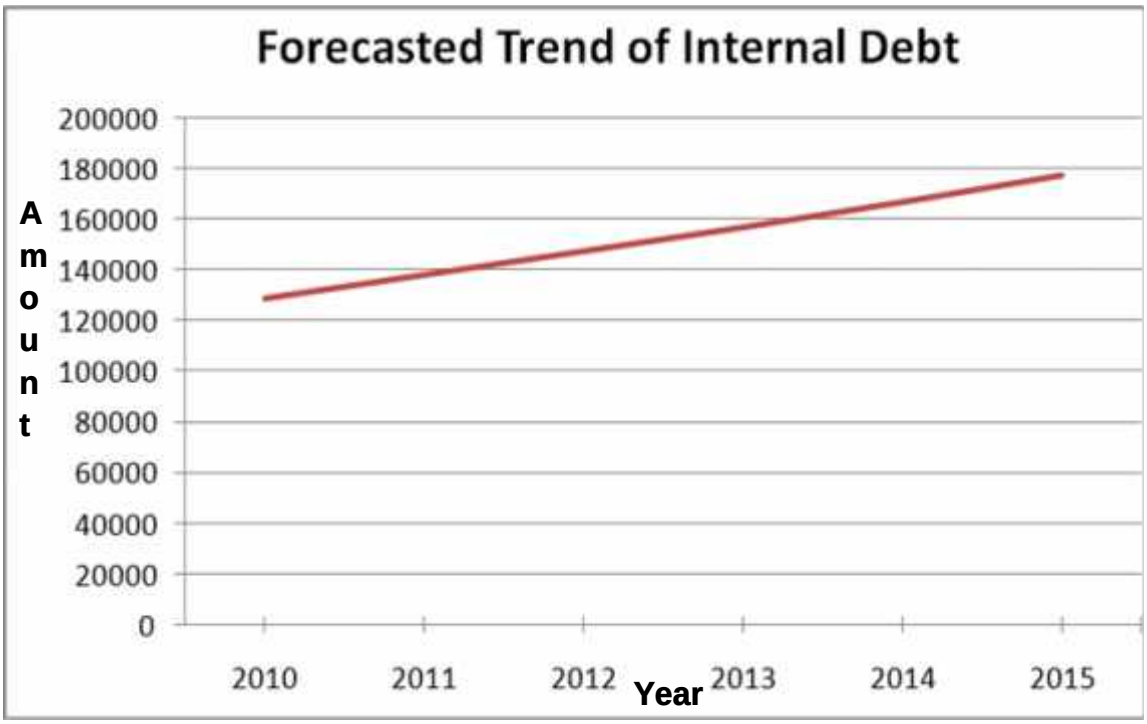
(Rs. in million)

Years	Projected Internal Debt
2010	128419.53
2011	137511.30
2012	146933.75
2013	156686.88
2014	166770.69
2015	177185.18

(Source: Appendix-A)

Figure 4.9

Forecasted Trend of Total Internal Debt



The above figure 4.9 shows the forecasted trend of total internal debt. The Trend line is gradually slopping upward, which is fitted by Curvilinear Model. The government borrowing shall increase at slow pace as shown in the above figure 4.9.

4.1.2 Structure of Government Securities in Nepal

Internal borrowing is one of the appropriate sources of public borrowings. It is applied as means of mobilizing internal resources in the development process of the country in a wider perspective. Public borrowing policy helped to transfer the ownership of resources to the hands of government from the hands of people scattering all over the country. In the Investment Strategy in Nepal, published by the World Bank, it is suggested to keep the internal debt within 2 percent of GDP of the nations (Upreti, 1999:117). Government borrows the amount that equal to the gap between aggregate expenditure and current revenue. Nepalese government mainly issues five types of securities treasury bills, development bonds, national saving bonds, special bonds and citizen saving certificates.

4.1.2.1 Composition of Government Securities in Nepal

Table 4.9

Composition of Government Securities

Securities	Amount (In Million)	Proportion
Treasury Bills	617,298.2	51.7
Development Bonds	213,923.3	17.9
National Saving Certificates	137,110.7	11.5
Special Bonds	14684.9	1.2
Citizen Saving Certificates	210,864.4	17.7
Total	1,193,881.5	100

The table 4.9 shows the total fund collected by the government over the period of 1988 to 2009. The major collection of fund is through treasury bills. Collection from development bonds and citizen saving certificate is almost same. The lowest portion of fund is collected from special it is due to long term bond. People want to invest in short term securities. So, the fund collection from treasury bill is higher.

Figure 4.10

Composition of Government Securities

The above Pie chart 4.10 shows that funds collected from treasury bill 52 percent, development bond 18 percent, national saving certificates 11 percent, special bonds 1 percent and citizen saving certificates 18 percent. Here the highest share of Government securities has been subscribed by Treasury bill.

4.1.2.2 Ownership Pattern of Government Securities

The government is issuing different kind of bonds for public to raise the internal fund that help to meet the deficit budget of the country. On the basis of nature of specific bond, the ownership pattern of each bond is varying each other. Interest of each investor toward the different kind of bond is also playing a vital role to shape the different ownership pattern on each bond. On the basis of ownership on each bond, during the period of 1988 to 2009 has been presented below:

Table 4.10

Ownership Pattern of Treasury Bills

(Rs. in million)

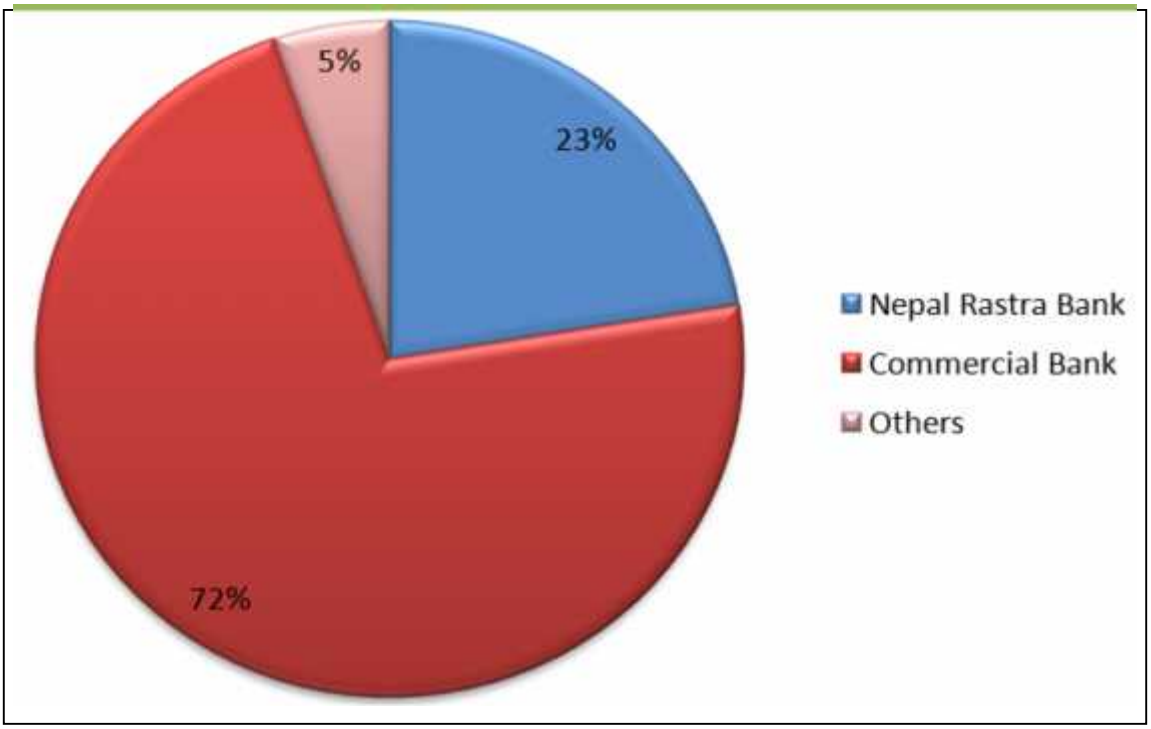
Years	Owner/amount		
	NRB	CB	Others
1988	3834.0	204.5	51.5
1989	320.0	821.0	30.0
1990	1468.0	310.0	43.0
1991	1273.5	940.0	137.5
1992	535.7	2769.5	178.0
1993	242.0	3967.4	193.8
1994	310.0	4371.1	535.2
1995	1410.0	4339.0	643.5
1996	1261.9	4207.1	1673.5
1997	1641.3	5412.1	1039.1
1998	0.0	8127.5	1055.0
1999	4,696.70	10,059.0	2,831.2
2000	2,794.9	15,686.0	2,546.0
2001	3,050.5	22,267.0	2,293.3
2002	15,263.9	23,029.8	2,812.8
2003	16550.5	27835.2	2459.2
2004	9,804.4	36,154.3	3,470.9
2005	10,923.8	39,501.6	957.7
2006	9,209.30	51,645.8	2,115.2
2007	13,768.8	58611.5	2065.0
2008	17,579.0	64966.3	2487.7
2009	22548.6	61054.8	2911.7
Total	138486.8	446280.5	32530.8
Percent	22.43	72.30	5.27

(Source: Quarterly Economic Bulletin, Volume: 44, NRB (From 1988 to Mid-July 2009)

As shown in table 4.10, the major owner of the treasury bills is the commercial bank sector. Nepal Rastra Bank itself is the second highest owner of the treasury bills issued from 1988 to 2009. The total value of treasury owned by Nepal Rastra Bank, commercial banks and other sector during 1988 to 2009 are Rs.138486.8 million, Rs.446280.5 million and Rs.32530.8 million respectively. The total value of Treasury bill owned by the each group has been presented below in pie chart.

Figure 4.11

Ownership Pattern of Treasury Bill



The above Pie chart 4.11 shows that the commercial bank sector owns (i.e. 72.30) 72 percent of treasury bills, Nepal Rastra Bank owns 23 (i.e. 22.43) percent and others own 5 (i.e. 5.27) percent of overall debts collected in 22 years. Here the highest share of Treasury bill has been subscribed by commercial banks.

In the below table 4.11 there are 9 major owners of development bond during the period of 1988 to 2009. It is found that the largest owner of the Development bond is also commercial banks sector. Nepal Rastra Bank is the second largest owner of Development bond. Nepal Rastra Bank owned Rs.40927.50 million, whereas Commercial Banks and Financial Institutions owned Rs.91136.50million and Rs.36608.81million respectively. Likewise, Provident Fund, Government Business Enterprises, Private Business Enterprises, Individuals, Non-profit Organization and Nepal Telecommunication Corporation has purchased development bond of Rs.23454.80 million, Rs.96.10 million, Rs.1448.30 million, Rs.7985.15 million Rs.10464.85 million and Rs.1801.20 million respectively during the period. The total figure of development bond and ownership status has been presented below in pie chart.

Table 4.11

Ownership Pattern of Development Bond

(Rs. in million)

Years	Owner/amount								
	NRB	CB	FI	PF	GBE	PBE	I	NPO	NTC
1988	1513.5	2947.7	102.0	0.0	20.1	39.8	5.9	22.7	0.0
1989	2001.9	2900.4	101.6	0.0	9.5	37.9	3.4	33.9	0.0
1990	2001.9	3222.6	96.5	0.0	9.5	31.8	2.5	23.8	0.0
1991	2001.9	3324.0	90.4	0.0	9.5	31.6	2.1	22.8	0.0
1992	1824.6	3177.1	88.9	0.0	10.0	29.4	2.1	0.1	0.0
1993	1824.6	3177.1	90.1	0.0	10.0	28.2	2.1	0.1	0.0
1994	1674.6	2937.6	82.5	0.0	10.0	27.4	0.0	0.1	0.0
1995	1674.4	2330.4	81.8	0.0	9.5	25.9	0.2	0.0	0.0
1996	1534.4	2046.5	63.1	0.0	8.0	20.0	0.2	0.0	0.0
1997	1526.7	1052.6	8.5	0.0	0.0	2.0	0.0	452.4	0.0
1998	1526.7	1211.6	110.5	0.0	0.0	1.0	0.0	452.4	0.0
1999	1526.7	1658.6	133.5	0.0	0.0	1.0	0.0	452.4	100.0
2000	2,068.6	1549.1	401.1	0.0	0.0	0.0	3.0	65.4	175.0
2001	2,822.2	2184.4	539.1	0.0	0.0	10.0	3.2	228.4	175.0
2002	3,468.2	5426.6	1404.0	500.0	0.0	11.0	3.1	202.9	75.0
2003	3,519.2	6,993.6	1736.9	500	0	10	53.1	202.9	75
2004	3,298.3	6587.4	3903.7	1797.6	0.0	289.5	925.6	734.6	12.5
2005	1518.7	8104.5	4355.8	2635.1	0.0	219.8	3069.0	83.8	12.5
2006	1518.6	6271.0	4131.8	2635.1	0.0	289.5	2143.0	957.7	12.5
2007	1518.6	6280.3	4636.48	4056.4	0.0	342.5	594.45	1735.85	12.5
2008	260.9	7016.7	6608.13	4965.4	0.0	0.0	603.6	2189.8	91.0
2009	302.3	10736.7	7842.4	6365.2	0.0	0.0	568.6	2602.8	1060.2
Total	40927.5	91136.5	36608.81	23454.8	96.10	1448.30	7985.15	10464.85	1801.20
Proportion	19.13	42.60	17.11	10.96	0.04	0.68	3.73	4.89	0.84

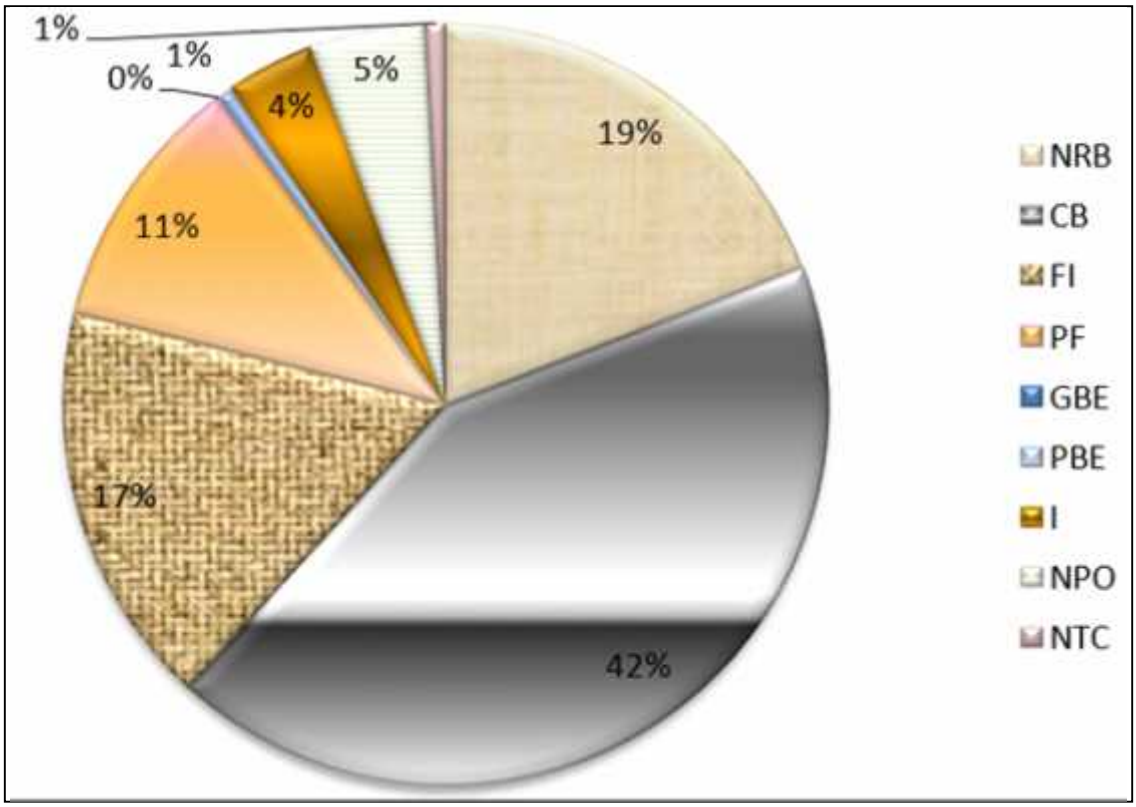
(Source: Quarterly Economic Bulletin, Volume: 44, NRB (From 1988 to Mid-July 2009)

The below figure 4.12 shows that the commercial bank sector owns 42 (i.e. 42.60)percent of development bond, the highest owner, whereas the NRB owns 19 (i.e.19.13) percent, FI owns 17 (i.e.17.11) percent, PF owns 11 (i.e.10.96) percent, GBE owns 0.0(i.e.0.04) percent, PBE owns 1 (i.e.0.68) percent, I owns 4 (i.e.3.73) percent, NPO owns 5(i.e.4.89) percent and NTC owns 1 (i.e.0.84) percent of

development bond respectively issued by the government during the period of 1988 to 2009.

Figure 4.12

Ownership Pattern of Development Bond



In the below table 4.12 the major buyer of national saving certificates is Individuals during the period of 1988 to 2009. The second largest owner of the National saving certificate is Provident Fund. The Commercial Bank and Others sector has owned less National Saving Certificates during the period. The total value of National Saving Certificate owned by Nepal Rastra Bank is Rs. 8578.6 million, Commercial Bank is Rs.2116.3 million, Financial Institutions is Rs.7761.2 million, Rastriya Beema Sansthan is Rs.16162.2 million, Provident Fund is Rs.22783.2 million, Non-Profit Organization is Rs.9430.0 million, Individuals is Rs.56648.6 million, Private Business Enterprises is Rs.5221.7 million, Government Business Enterprises is 8333.4 million and Others is Rs.75.6 million.

Table 4.12

Ownership Pattern of National Saving Certificates

(Rs. in million)

Years	Owner/amount									
	NRB	**CB**	**FI**	**RBS**	**PF**	**NPO**	**I**	**PBE**	**GBE**	**Others**
1988	194.2	41.7	64.6	442.7	647.1	153.0	462.6	190.6	0.0	0.0
1989	0.0	41.7	63.3	491.9	667.1	189.4	514.1	229.0	0.0	0.0
1990	0.0	41.7	106.0	557.6	997.7	370.6	552.0	179.5	91.4	0.0
1991	0.0	41.7	102.8	691.5	1089.6	488.9	853.2	206.6	172.2	0.0
1992	245.6	167.8	132.1	849.3	1456.4	65.7	1090.3	197.1	342.0	0.0
1993	179.7	167.9	100.5	969.5	1535.0	94.0	1259.1	210.6	385.2	0.0
1994	354.1	167.9	129.3	1063.5	1557.9	114.6	1566.2	275.4	462.6	0.0
1995	602.5	167.8	192.0	1074.6	1411.5	210.0	1694.0	297.8	426.2	0.0
1996	1288.6	167.8	224.8	1261.6	1384.6	248.8	1999.8	328.5	472.0	0.0
1997	1470.5	154.5	578.3	1244.2	1473.2	340.8	2605.5	407.6	461.9	0.0
1998	663.3	154.5	1371.7	1246.1	1567.1	793.4	2854.7	411.7	823.9	0.0
1999	368.7	154.5	1111.2	1473.2	1384.9	1031.2	3499.5	429.8	973.4	0.0
2000	764.4	154.5	771.2	1331.7	1231.1	929.0	5098.9	439.9	805.8	0.0
2001	343.2	154.5	987.9	713.7	1475.6	1268.1	6615.7	343.8	573.9	0.0
2002	200.6	117.8	608.9	788.2	1455.7	1059.7	6237.3	342.2	725.9	0.0
2003	186.7	110.0	587.5	695.7	1285.6	1010.1	5766.4	309.4	705.9	2.6
2004	403.9	110.0	211.7	525.8	1063.1	463.8	5709.7	154.6	380.8	6.4
2005	243.0	0.0	209.9	420.7	980.0	403.3	3872.1	138.6	300.3	8.9
2006	266.0	0.0	207.5	320.7	120.0	195.6	2407.2	129.0	230.0	0.8
2007	279.5	0.0	0.0	0.0	0.0	0.0	1230.8	0.0	0.0	6.6
2008	447.2	0.0	0.0	0.0	0.0	0.0	625.0	0.0	0.0	44.8
2009	76.9	0.0	0.0	0.0	0.0	0.0	134.5	0.0	0.0	5.5
Total	8578.6	2116.3	7761.2	16162.2	22783.2	9430.0	56648.6	5221.7	8333.4	75.6
Proportion	6.3	1.5	5.7	11.8	16.6	6.9	41.3	3.8	6.1	0.1

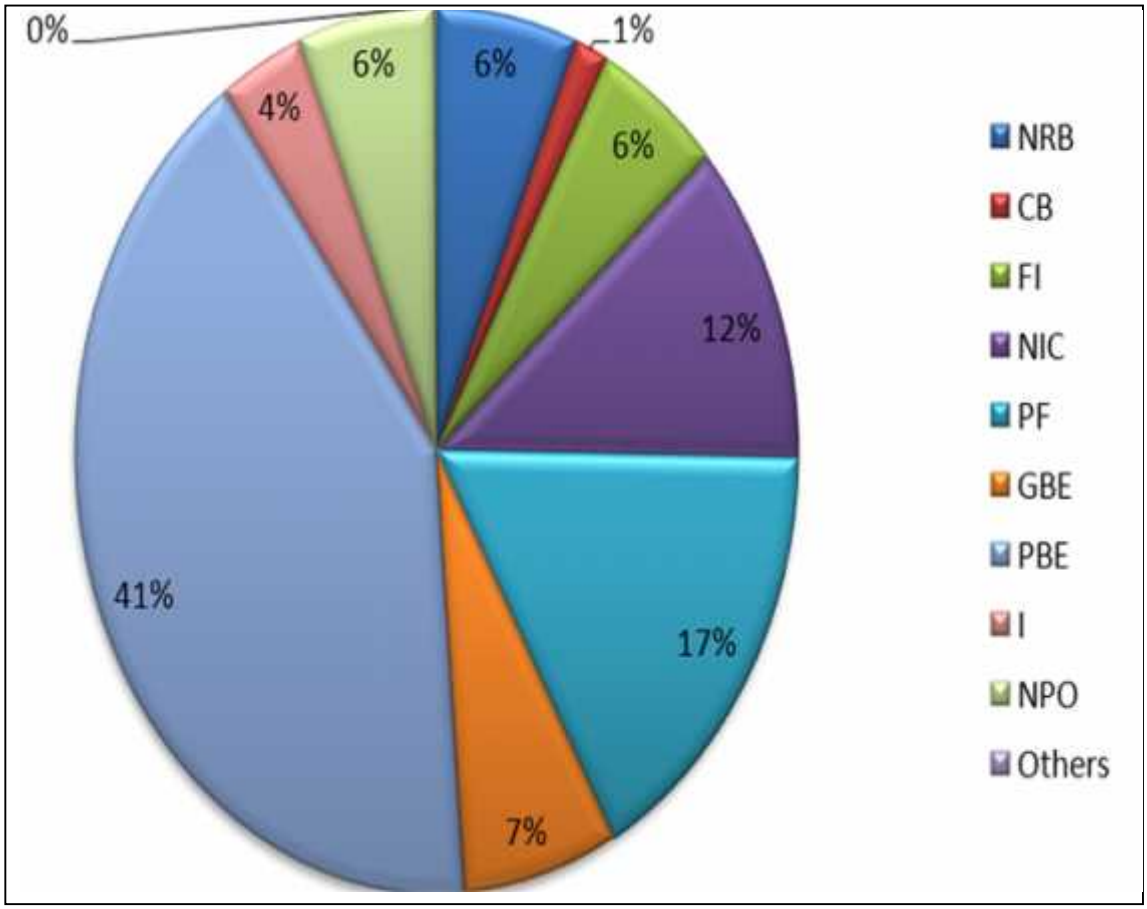
(Source: Quarterly Economic Bulletin, Volume: 44, NRB (From 1988 to Mid-July 2009)

The below Pie Chart 4.13 shows that the I owns the 41 (i.e.41.3) percent of National Saving Certificates, the largest owner. Whereas the NRB, CB, FI, RBS,PF,NPO,PBE,GBE and Others owns 6 (i.e.6.3) percent, 1 (i.e.1.5) percent, 6(i.e.5.7) percent, 12 (i.e.11.8) percent, 17 (i.e.16.6) percent, 7 (i.e.6.9) percent, 4

(i.e.3.8) percent, 6 (6.1) percent and 0.0 (0.1) of National Saving Certificate respectively issued by the government during the period of 1988 to 2009

Figure 4.13

Ownership Pattern of National Saving Certificates



In the below table 4.13 the major buyer of citizen saving certificate is Personal Area which owns about 86.36 percent share. Government has started to issue Citizen Saving certificate only after year 2002. The interest of individual people on citizen saving certificate is constantly increasing. The total value of citizen saving certificate purchased by Nepal Rastra bank and Individuals is Rs.2003.4 million and Rs.12681.4 million respectively. The total figure of citizen saving certificate and ownership status has been presented below in pie chart 4.14.

Table 4.13

Ownership Pattern of Citizen Saving Certificate

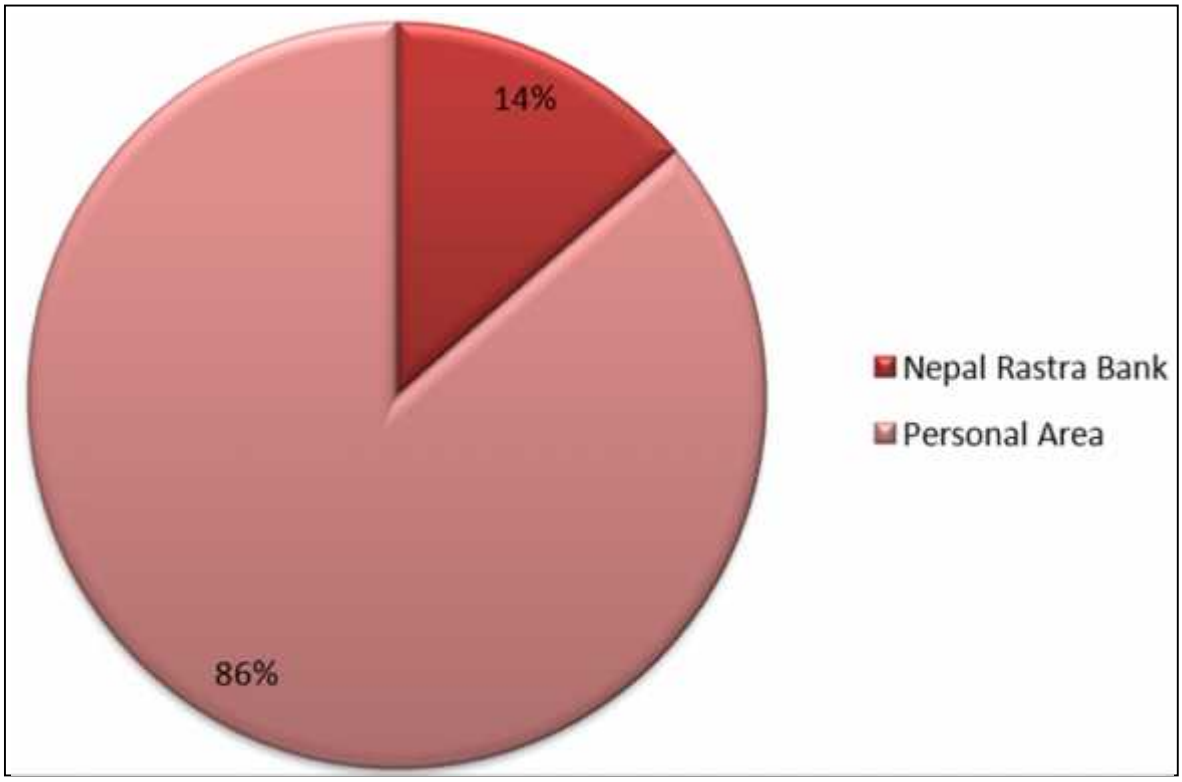
(Rs. in million)

Years	Owner/amount	
	Nepal Rastra Bank	Personal Area
2002	3.1	625.0
2003	1.0	930.1
2004	45.8	1133.1
2005	49.6	1379.3
2006	55.3	1623.6
2007	62.7	1328.30
2008	630.8	2383.5
2009	1155.1	3278.5
Total	2003.4	12681.4
Proportion	13.64	86.36

(Source: Quarterly Economic Bulletin, Volume: 44, NRB (From 1988 to Mid-July 2009)

Figure 4.14

Ownership Pattern of Citizen Saving Certificate



The above chart 4.14 shows that the individuals owns the 86 (i.e.86.36) percent of Citizen Saving Certificates, the highest owner. Whereas, Nepal Rastra Bank owns

only 14 (i.e. 13.64) percent of citizen saving certificates issued by the government over the period of 1988 to 2009.

Table 4.14

Ownership Pattern of Special Bonds

(Rs. in million)

Years	Owner/amount		
	NRB	CB	Others
1988	697.80	0.0	0.0
1989	4431.80	0.0	0.0
1990	4567.00	0.0	0.0
1991	6347.00	3029.1	0.0
1992	6997.50	3075.7	0.0
1993	8323.4	2695.7	0.0
1994	12108.60	1409.1	1473.5
1995	12641.10	1352.1	1473.5
1996	13458.5	1118.6	1473.5
1997	13427.5	1118.6	1473.5
1998	13775.0	787.0	1473.5
1999	15523.7	787.0	1473.5
2000	15280.9	787.0	1473.5
2001	11733.8	787.0	1473.5
2002	6568.4	787.0	1903.
2003	6568.4	944.6	2,108.7
2004	5586.30	944.6	2,415.3
2005	4722.30	944.6	2,509.4
2006	4755.80	944.6	2525.2
2007	0.0	944.6	1828.9
2008	0.0	157.6	181.8
2009	0.0	157.6	72.0
Total	162759.00	22772.10	25333.20
Proportion	77.19	10.80	12.01

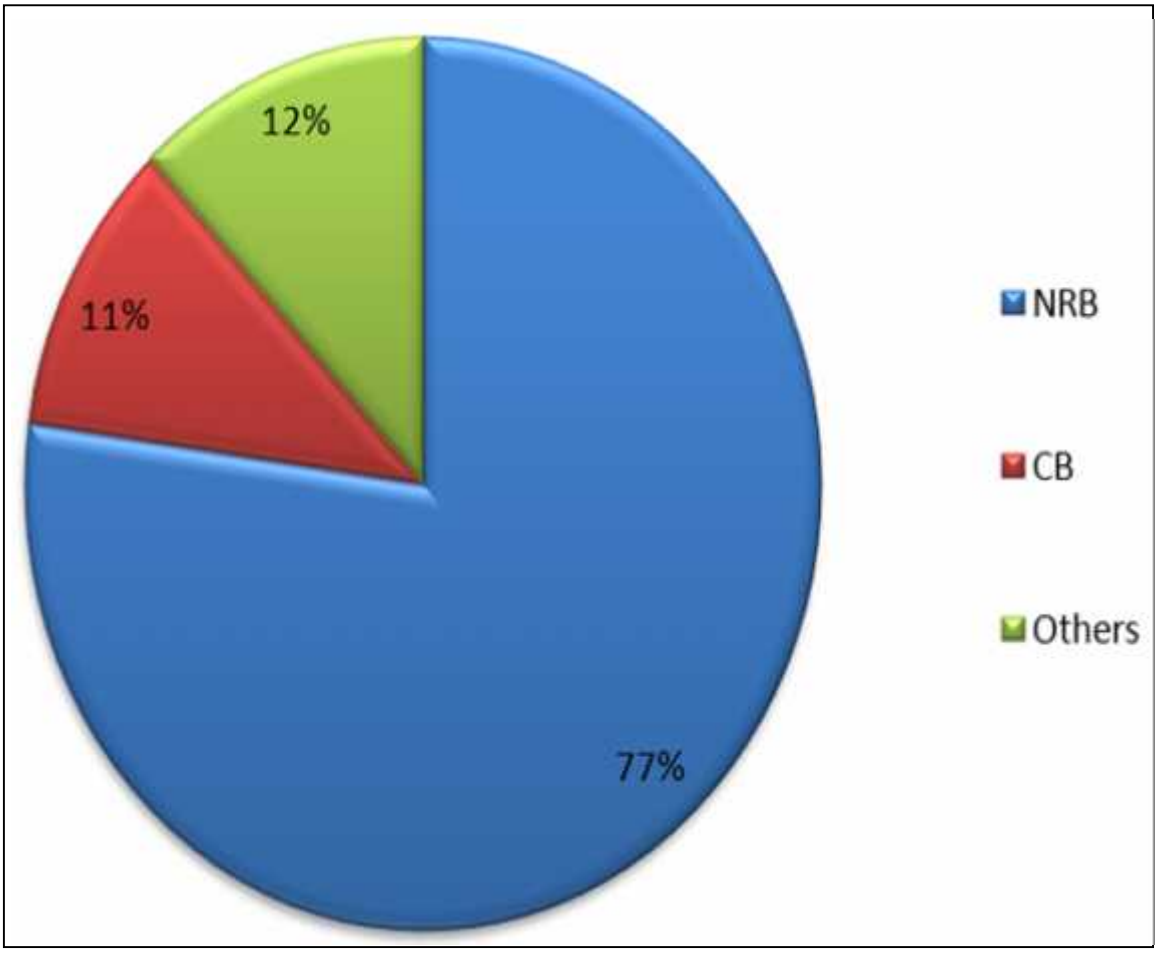
(Source: Quarterly Economic Bulletin, Volume: 44, NRB (From 1988 to Mid-July 2009)

In the above table 4.14 there are 3 major owners of special bond during the period of 1988 to 2009. It is found that the largest owner of the special bond is Nepal Rastra Bank. The major buyer of the special bond is Nepal Rastra Bank. Generally it is issued for the specific purpose by the government. The Others is the second largest

owner of the special bond. Nepal Rastra bank has started to purchase special bond from the beginning of the issue i.e. 1988, whereas commercial bank has started from 1991 and others from 1994. The total value of special bond owned by the Nepal Rastra Bank, Commercial Bank, and others during the period of 1988 to 2009 is Rs.162759.00 million, Rs.22772.10 million and Rs.25333.20 million respectively. The total figure of special bond and ownership status has been presented below in pie chart.

Figure 4.15

Ownership Pattern of Special Bonds



The above Pie Chart 4.15 shows that the NBR owns the 77 (i.e.77.19) percent of special bond, the highest owner. Whereas the CB owns 11 (i.e.10.80) and Others owns 12 (i.e.12.01) percent of special bond issued by the government during the period of 1988 to 2009.

4.1.2.3 Public Debt Position in Government Expenditure

Table 4.15

Public Debt Position in Government Expenditure

(Rs. in million)

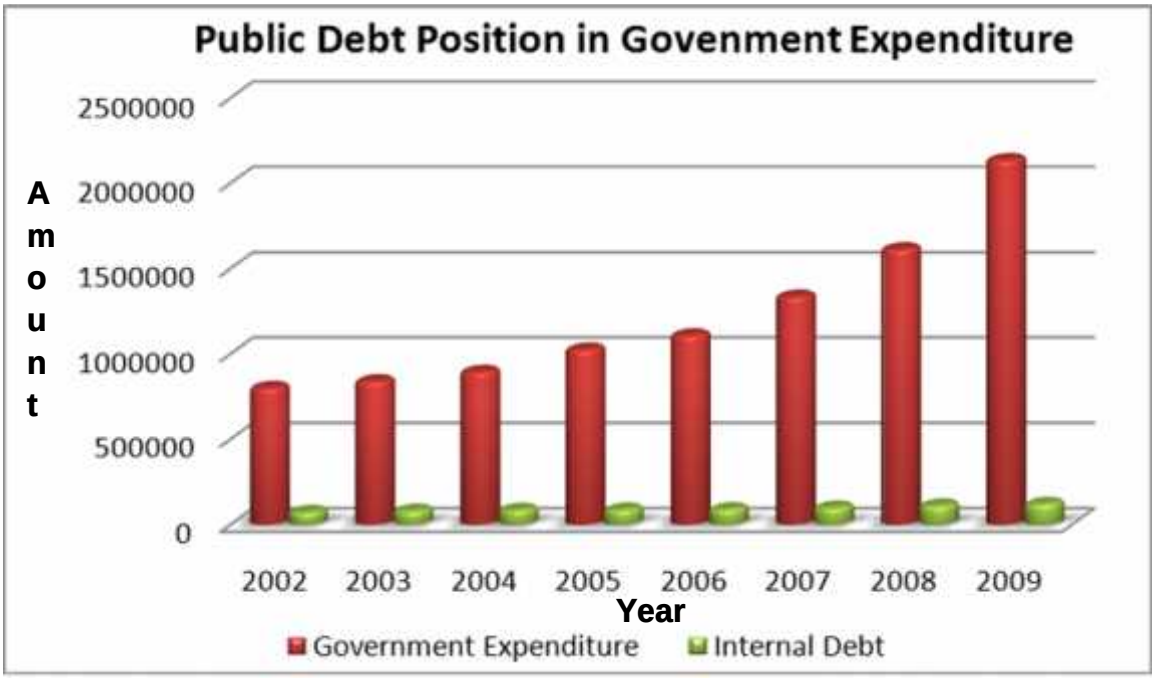
Year	Government Expenditure	Internal Debt	Internal Debt Percentage
2002	800,722.91	73,621.00	9.19
2003	840,060.81	81,148.30	9.66
2004	894,425.93	86,133.70	9.63
2005	1,025,604.71	87,564.30	8.54
2006	1,108,891.58	89,955.00	8.11
2007	1,336,046.06	99,303.80	7.43
2008	1,613,498.94	111,239.10	6.89
2009	2,135,783.74	120,873.70	5.66

Source :- www.mof.gov.np annual Budget from 2003 to 2009

The above table 4.15 shows that government expenditure of Nepal government is in increasing trend from 2002 to 2009. With increase in the government expenditure fund collection from internal debt is also increasing. Since the internal debt is in increasing trend but the percentage of internal debt is in decreasing order. It is because of highly increased in government debt as compared to the fund collected from internal debt.

Figure No: 4.16

Public Debt Position in Government Expenditure



From the above bar diagram 4.16 it can be seen that as the size of government expenditure is in increasing trend, the fund collection from internal debt is also increasing. But the percentage of internal debt to government expenditure is decreasing. Percentage of debt in 2002, 2003, 2004, 2005, 2006, 2007, 2008 and 2009 are 9.19, 9.66, 9.63, 8.54, 8.11, 7.43, 7.43, 6.89 and 5.66 respectively. Decreasing percentage of internal debt in government expenditure is positive symptom of economic growth. Though, role of internal debt in economic development, it represent good index of economic growth of the nation. In the context of Nepal, various economic determinants determine the sound economic position of the country. Thus internal debt can play a vital role in economy position.

4.1.4Correlation and Regression Analysis

4.1.4.1 Correlation Analysis

One of the widely used mathematical methods of calculating the correlation coefficient between two variables is Karl Pearson's correlation coefficient.

Table 4.16
Computation of Correlation Coefficient

Years	GDP (X)	Total Internal Debt (Y)	x =X- Ẍ	y = Y- Ŷ	x2	y2	xy
2003	459487	81148.3	-58947.7	-15454.3	3474833020	238834063.8	910993134.6
2004	481004	86133.7	-37430.7	-10468.9	1401058372	109596969.9	391856800.6
2005	496027	87564.3	-22407.7	-9038.3	502105659.5	81690092.18	202526683.7
2006	514485	89955	-3949.7	-6647.6	15600242.94	44190015.97	26255951.41
2007	531682	99303.8	13247.3	2701.2	175490578.8	7296712.973	35784135.91
2008	560124	111239.1	41689.3	14636.5	1737996543	214228386.8	610187017
2009	586234	120873.7	67799.3	24271.1	4596743143	589088375.6	1645566149
Total	3629043	676217.9			11903827559	1284924617	3823169872

$\ddot{X} = \frac{\sum X}{n} = \frac{3629043}{7} = 518434.71$; $\hat{Y} = \frac{\sum Y}{n} = \frac{676217.9}{7} = 96602.557$

Now,

$$r = \frac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}}$$

$$r = \frac{3823169872}{\sqrt{11903827559}\ \sqrt{1284924617}}$$

$$r = 0.977555575$$

The correlation Coefficient from the above calculated data between GDP and Total Internal Debt is obtained 0.977. The theory tells that if the correlation lies between, 0.79 to 1 it will be highly positive correlation coefficient. So, the above results assert the relation between GDP and Total Internal Debt is highly positive correlated.

Table 4.17

Computation of Correlation Coefficient

Years	**GNDI (X)**	**Government Expenditure (Y)**	**x =X-** ẍ	**y = Y- Ŷ**	**x2**	**y2**	**xy**
2003	567,088	840,060.81	-247,728	-439,126.59	61369303.54	192832158.3	108784076.3
2004	619,954	894,425.93	-194,862	-384,761.47	37971310.39	148041385.5	74975498.66
2005	688,752.00	1,025,604.71	-126,064	-253,582.69	15892204.13	64304178.49	31967720.14
2006	785,185.00	1,108,891.58	-29,631	-170,295.82	878013.0931	29000664.85	5046083.971
2007	864,602.00	1,336,046.06	49,786	56,858.66	2478617.347	3232907.704	2830749.215
2008	984,730.00	1,613,498.94	169,914	334,311.54	28870670.3	111764208.6	56804116.22
2009	1,193,403.00	2,135,783.74	378,587	856,596.34	143327900.2	733757297	324295995.5
Total	5,703,714	8,954,311.77			290788019000	1282932801000	604704240000

ẍ = $\frac{\sum X}{n} = \frac{5703714}{7} = 814816.3$ Ŷ = $\frac{\sum Y}{n} = \frac{8954311.77}{7} = 1279187.4$

Now,

$$r = \frac{\sum xy}{\sqrt{\sum x^2}\sqrt{\sum y^2}}$$

$$r = \frac{604704240000}{\sqrt{290788019000}\sqrt{1282932801000}}$$

r = 0.990040144

The correlation Coefficient from the above calculated data between GNDI and Government Expenditure is obtained 0.99. The theory tells that if the correlation lies between, 0.79 to 1 it will be highly positive correlation coefficient. So, the above results assert the relation between GNDI and Government Expenditure is highly positive correlated.

4.1.4.2Regression Analysis

Table 4.18

Computation of Regression Equation

Years	Gross Domestic Product (X)	Total Internal Debt (Y)	X^2	Y^2	XY
2003	459487	81148.3	211128303200	6585046593	37286588920
2004	481004	86133.7	231364848000	7419014276	41430654230
2005	496027	87564.3	246042784700	7667506634	43434257040
2006	514485	89955	264694815200	8091902025	46280498180
2007	531682	99303.8	282685749100	9861244694	52798042990
2008	560124	111239.1	313738895400	12374137370	62307689650
2009	586234	120873.7	343670302800	14610451350	70860272650
Total	3629043	676217.9	1893325698000	66609302940	354398003700

$\sum x$= 3629043, $\sum y$ = 676217.9, $\sum x^2$= 1893325698000, $\sum y^2$ = 66609302940, $\sum xy$ = 354398003700

Let the regression equation of x on y be

X = a' + b' y …….i

Then, we have the following two normal equations

$\sum x = n\ a' + b' \sum y$

$\sum xy = a' \sum y + b' \sum y^2$

Substituting the values

3629043 = 7 a' + 676217.9 b' …….ii

354398003700 = 676217.9a' + 66609302940b' …….iii

Solving ii and iii

a' = 231003.0732
b' = 2.975404064

Substituting the values of a' and b' in i, the regression equation of x on y is

x= 231003.0732+ 2.975404064y

From the above regression equation we can estimates the strength of the relationship between GDPand Total Internal Debt. Here GDP is 'x' unknown variables and Total Internal Debt is y known variables. The value of GDP depends upon the value Total Internal Debt. If the value of Total Internal Debt increases the value of GDP also increase. The strength between the GDP and Total Internal Debt is positive.

Table 4.19

Computation of Regression Equation

Years	GNDI (X)	Government Expenditure (Y)	X^2	Y^2	XY
2003	567,088	840,060.81	321588799700	705702164500	476388404600
2004	619,954	894,425.93	384342962100	799997744260	554502933000
2005	688,752.00	1,025,604.71	474379317500	1051865021170	706387295200
2006	785,185.00	1,108,891.58	616515484200	1229640536190	870685035200
2007	864,602.00	1,336,046.06	747536618400	1785019074440	1155148096000
2008	984,730.00	1,613,498.94	969693172900	2603378829380	1588860811000
2009	1,193,403.00	2,135,783.74	1424210720000	4561572184050	2548850723000
Total	5,703,714	8,954,311.77	4938267075000	12737175553990	7900823298000

$\sum x = 5{,}703{,}714$, $\sum y = 8{,}954{,}311.77$, $\sum x^2 = 4938267075000$,

$\sum y^2 = 12737175553990$, $\sum xy = 7900823298000$

Let the regression equation of x on y be

X = a' + b' y ……i

Then, we have the following two normal equations

$\sum x = n\ a' + b' \sum y$

$\sum xy = a' \sum y + b' \sum y^2$

Substituting the values

5,703,714 = 7 a' + 8,954,311.77 b' …….ii

7900823298000 = 8,954,311.77 a' + 12737175553990b' …….iii

Solving ii and iii

a' = 5100775.14

b' = 0.47

Substituting the values of a' and b' in equation 'i', the regression equation of x on y is

x =5100775.14 + 0.47y

From the above regression equation we can estimates the strength of the relationship between GNDI and Government Expenditure. Here GNDI is 'x' unknown variables and Government Expenditure is y known variables. The value of GNDI depends upon the value government expenditure. If the value of government expenditure increases the value of GNDI also increase. The strength between the GNDI and Government Expenditure is positive.

4.2 Presentation and Analysis of Primary Data

This section includes the analysis of primary data collect through the questionnaire survey to achieve the objectives of the study set in chapter one. The questionnaire has been distributed to 45 individual investors of various professions. The individual investors represented by the respondents are the businessmen, service holders in several organizations such as staff of banks, financial institutions, lecturers, government officers and employee of other organization, retired persons from the government as well as private service and other persons such as stock brokers, students from finance and economics background.

The information were collected from all the categories comprised, businessmen, service holder, retired person and other. Data collected are categorized on the basis of the perception of which types of government securities are highly subscribed in the market and the interest on government securities. The date were classified on

the basis of the factors that induce investors to invest in government securities, the main reason for investing in government securities, the default risks they perceived on the investment in government securities in terms of payment of principal and interest and their perception about difficulty in collecting interest and principal. The date were also analyzed to find out the reasons for the sale of government securities, perceived situations of uncertainty to invest on government securities, the kind of funds used to purchase government securities, the reasons for full subscriptions of government securities and their perception on utilization of collected fund through the government securities.

Table 4.20

Profession wise Distribution of Investors

Occupation of Investors	No. of Respondents	Proportion
Business Man	11	24.44%
Service holders	19	42.22%
Retired persons	6	13.33%
Others	9	20.00%
Total	45	100.00%

Table 4.20 shows the distribution of investor on the basis of occupation. Investors are classified into four major groups i.e. Businessmen, Service holders, Retired Persons and Others. Information was collected from individual respondents about current professions. Out of total 45 respondents who were questioned about the category they belong to, 24.44 percent claimed that they belong to businessman, 42.22 percent declared themselves as the service holders, 13.33 percent categorized themselves as the retired persons and remaining 20.00 percent said that they belonged to other category i.e. students, household and counselors.

Perception on the subscription of Government Securities

Table 4.21

Perception of Business Man

Types of Government security	Business man				
	Priority				
	1	2	3	4	5

Treasury bills	73	27	0	0	0
Development bonds	9	0	64	9	18
National saving Certificates	9	9	27	36	18
Special bonds	0	9	9	27	55
Citizen saving certificates	9	55	0	27	9

The table 4.21 shows the perception of business man on the subscription of government securities. When they were questioned about their perceptions on the types of government securities that are highly subscribed in the market, most of them 73 percent has given first priority and 27percent has given second priority for treasury bills. Likewise, for development bonds 64percent has given third priority and 18 percent has given fifth priority whereas 9-9percent has given first and fourth priority. For national saving certificate 36percent has given fourth priority, 27 percent has given third priority, 18 percent has given fifth priority and 9-9percent has given first and second priority. For special bonds 55 percent has given fifth priority, 27percent has given fourth priority and 9-9percent has given second and third priority. For Citizen saving certificates 55 percent has given second priority, 27 percent has given fourth priority and 9-9percent has given first and fifth priority. There are total 11 respondents from Business man group.

The below table 4.222 shows the perception of service holder on the subscription of government securities. When they were questioned about their perceptions on the types of government securities that are highly subscribed in the market, most of them 84 percent has given first priority and 16 percent has given second priority for treasury bills. Likewise, for development bonds 58 percent has given third priority, 21 percent have given fourth priority and 11 percent have given second priority whereas 5-5percent has given first and fourth priority. For national saving certificate 37 percent has given third priority, 21 percent has given forth priority , 16-16percent has given second and fifth priority and 11 percent has given first priority. For special bonds 58 percent has given fifth priority, 37 percent has given fourth priority and 5 percent has given third priority. For Citizen saving certificates, 58 percent has given second priority, 21–21 percent has given fourth and fifth priority. There are total 19 respondents from Service Holder group.

Table 4.22

Perception of Service Holders

Types of Government security	Service Holders				
	Priority				
	1	2	3	4	5
Treasury bills	84	16	0	0	0
Development bonds	5	11	58	21	5
National saving Certificates	11	16	37	21	16
Special bonds	0	0	5	37	58
Citizen saving certificates	0	58	0	21	21

Table 4.23

Perception ofRetired Person

Types of Government security	Retired Person				
	Priority				
	1	2	3	4	5
Treasury bills	67	17	17	0	0
Development bonds	33	33	33	0	0
National saving Certificates	0	33	33	17	17
Special bonds	0	17	17	17	50
Citizen saving certificates	0	0	0	67	33

The table 4.23 shows the perception of retired person on the subscription of government securities. When they were questioned about their perceptions on the types of government securities that are highly subscribed in the market, most of them 67 percent has given first priority and 17-17percent has given second and third priority for treasury bills. Likewise, for development bonds 33-33 percent has given first, second and third priority. For national saving certificate 33-33 percent has given second and third priority, 17-17 percent has given fourth and fifth priority. For special bonds 50 percent has given fifth priority and 17-17 percent has given second, third and fourth priority. For Citizen saving certificates, 67 percent have given fourth priority and 33 percenthave given fifth priority. There are total 6 respondents from Service Holder group.

Table 4.24

Perception ofOthers

Types of Government security	Others				
	Priority				
	1	2	3	4	5
Treasury bills	67	22	11	0	0
Development bonds	22	11	33	22	11
National saving Certificates	0	11	33	11	44
Special bonds	11	0	0	67	22
Citizen saving certificates	0	56	22	0	22

The table 4.24 shows the perception of other category on the subscription of government securities. When the y other category were questioned about their perceptions on the types of government securities that are highly subscribed in the market, most of them 67 percent has given first priority, 22 percent has given second priority and 11percent has given third priority for treasury bills. Likewise, for development bonds 33 percent has given third priority, 22-22percent have given first and fourth priority, 11-11 percent have given second and fifth priority. For national saving certificate 44 percent has given fifth priority, 33 percent has given third priority, 11-11 percent has given second and fourth priority. For special bonds 67percent has given fourth priority, 22percent has given fifth priority and 11present has given first priority. For citizen saving certificates, 56present has given second priority, 22-22 present has given third and fifth priority. There are total 9 respondents from others group.

Table 4.25

Interest to Buy the Government Securities on the Basis of Profession

Interest to buy the government securities	Types of Investors			
	Business man	Service Holders	Retired Person	Others
	Prop.	Prop.	Prop.	Prop.
Highly interested	18.18	10.53	33.33	0
Moderate interested	54.55	57.89	50.00	22.22
Less interested	18.18	26.32	16.67	55.56
Totally indifferent	9.09	0.00	0.00	22.22
Others	0.00	5.26	0.00	0.00

Table 4.25 shows the interest of investor to buy the government securities. With respect to interest to buy the government securities on the basis of their profession, major businessmen 54.55 percent were found moderate interested, about 18.18 percent each found to be highly and less interested and about 9.09 percent found totally indifferent to buy government securities.

Regarding the interest of service holders to buy the government securities moderate interest is found to be the highest of 57.89 percent. Likewise 26.32 percent are found to be less interested, 10.53 are highly interested and 5.26 percent opined that they put themselves as their portfolio plan.

With respect to the interest of retired persons to buy the government securities, 50 percent were found to be moderately interested on it. Likewise 33.33 percent are found to be highly interested and 16.67 percent are less interested to buy government securities. There is nobody in retired person group to be totally indifferent and others to buy government securities.

In other category out of total respondents, highest portion 55.56 percent of investors were found less interested to buy the government securities, whereas 22.22 percent each were found moderate interested and totally indifferent on it.

Table 4.26

Main Reasons for Investing in Government Securities

Reasons for investment in Government securities	Types of Investors			
	Business man	Service Holders	Retired Person	Others
	Prop.	Prop.	Prop.	Prop.
Risk less Investment	90.91	68.18	16.67	66.67
Zero liquidity risk	9.09	22.73	66.67	22.22
Lack of other investment opportunity	0	4.55	0	11.11
Declining interest rate in other investment	0	4.55	16.67	0
Others	0	0	0	0

Table 4.26 shows the reason for investing in government securities. With respect to the reasons for investing in government securities on the basis of their profession about 91 percent of businessman invests their fund considering as risk less investment. About 9 percent invest as zero liquidity risk in government securities. No businessman invest in government securities due to lack of other investment opportunity, declining interest rate in other investment and others..

When the service holder were questioned about the reason for the reasons for investing in government securities, 68.18 percent of service holders viewed that they invest on it considering as risk less investment, whereas 22.73 percent invest their fund considering as zero liquidity risk and 4.55 percent invest as considering lack of investment opportunity & declining interest rate in other investment.

When the retired person were questioned about the reasons for investing in government securities, it is found that 66.67 percent opined that they invest on it being zero liquidity risk and 16.67 percent each invest their fund on it because of risk less investment & declining interest rate in other investment.

Regarding the reasons for investing in government securities by other respondents, it is found that 66.67 percent opined that they invest on it being risk less investment

and 22.22 percent invest their fund on it because of zero liquidity risk and 11.11 percent invest due to lack of investment opportunity.

Table 4.27

Difficulty in Collecting Interest and Principal Repayment

Difficulty in collection of interest and principal	Types of Investors			
	Business man	Service Holders	Retired Person	Others
	Prop.	Prop.	Prop.	Prop.
Difficulty due to long process	18.18	5.26	16.67	22.22
Difficulty due to complex procedures	18.18	21.05	33.33	33.33
No difficulty at all	63.64	68.42	50.00	44.44
Others	0.00	5.26	0.00	0.00

Table 4.27 shows the difficult in collecting interest and principal of government securities.With respect to the difficulty in collection of interest and principal in government63.64 percent of businessman expressed that they do not feel any difficulty at all, whereas 18.18 percent each fell difficult due to long process and complex procedures.

When the service holder were questioned about perception on difficulty in collecting the interest and principal repayment, 68.42 percent of them viewed that they have not felt any problem at all, whereas 21.05 percent felt difficult due to complex procedures and 5.26 percent felt difficult due to long process and other reasons respectively.

When the retired person were asked same question, about 50 percent reported that they do not feel any difficulty at all, whereas 33.33 percent and 16.67 percent reported that they have felt difficult due to complex procedures and difficulty due to long process respectively.

When others were asked same question about collecting interest and principal, 44.44 percent reported that they have felt no difficult at all, whereas 33.33 percent

have felt difficulty due to complex procedure and 22.22 percent felt difficulty due to long process

Table 4.28

Reasons for Selling Government Securities

Reasons for selling Government security.	Types of Investors			
	Business man	Service Holders	Retired Person	Others
	Prop.	Prop.	Prop.	Prop.
To grab alternative investment opportunity	45.45	45.45	50.00	44.44
To meet household requirement	18.18	9.09	0.00	11.11
To benefit from investment in real estate	18.18	9.09	16.67	11.11
When securities is overpriced	18.18	27.27	33.33	33.33
Others	0.00	9.09	0.00	0.00

Table 4.28 shows the reason for selling government securities.Regarding the reason for selling government securities as observed by different types of investor, 45.45 percent of businessman sell to grab alternative investment opportunity and 18.18 percent each sell to meet household requirement, to benefit from investment in real estate and when securities is overpriced.

With respect to the reasons for selling the government securities, when the service holder were questioned , 45.45 percent of them used to sell it to grab alternative investment opportunity, whereas 27.27 percent use to sell it when the securities is overpriced and 9.09 percent each sell to meet household requirement, to benefit from investment in real estate & others respectively.

Regarding the reasons to sell the government securities, most of retired persons, 50 percent, opined that they used to sell it to grab alternative investment opportunity and remaining 33.33 and 16.67 percent used to sell to benefit from investment in real estate & sell it when the stock is overpriced respectively.

When the others were asked same question, 44.44 percent of them sell the government securities to grab the alternative opportunity , whereas 33.33 percent sell it when securities is overpriced and 11.11 percent each sell to meet household requirement and to benefit from investment in real estate respectively.

Table 4.29

Participation in Government Securities

Causes of feeling uncertain about investment	**Types of Investors**			
	Business man	**Service Holders**	**Retired Person**	**Others**
	Prop.	**Prop.**	**Prop.**	**Prop.**
Lower rate of return	54.55	68.42	50.00	77.78
Complex rules and regulations to be followed at the time of making investment	45.45	10.53	33.33	11.11
No consideration of time value of money	0.00	10.53	16.67	11.11
Others	0.00	10.53	0.00	0.00

Table 4.29 shows the cause of felling uncertain about investment in government securities.Regarding the reason for lower participation in investment of government securities, most of the businessman, 54.55 percent, view that it is because of lower rate of return, whereas 45.45 percent views that it is because of complex rules and regulations to be followed at the time of making investment. No investor feels of any consideration of time value of money and other factor.

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With respect to the low participation in investment of government securities, most service holder, 68.42 percent, view that it is because of lower rate of interest, whereas 10.53 percent of each investor view that it is because of complex rules and regulation to be followed at the time of making investment.

When the retired persons were questioned regarding the reasons of lower participation of general investors in government securities, most of the retired person, 50 percent, view that it is because of lower rate of return, 33.33 percent view as complex rules and regulations to be followed and 16.67 percent view as no consideration of the time value of money.

When the other persons were questioned about it, 77.78 percent view that it is because of lower rate of return, whereas 11.11 percent in both complex rule & regulation and no consideration of time value of money. No one has viewed lower participation in investment of government securities in other factor.

Table 4.30

Types of Funds used to Purchase Government Securities

Kinds of funds used	Types of Investors			
	Business man	Service Holders	Retired Person	Others
	Prop.	Prop.	Prop.	Prop.
Residual amount	30.77	72.73	16.67	77.78
Profit from business	61.54	4.55	0.00	11.11
Loan	0.00	9.09	16.67	0.00
Retirement fund	7.69	9.09	66.67	0.00
From the sale of fixed assets	0.00	4.55	0.00	0.00
Others	0.00	0.00	0.00	11.11

Table 4.30 shows the fund used by investor to purchase government securities.Regarding the types of fund used to purchase government securities, most of the businessman, 61.54 percent, use their amount of profit from business, whereas 30.77 use their residual amount to purchase it and remaining 7.69 percent use their retirement fund. No one use fund from sale of fixed assets and others to purchase government securities.

When the service holder were questioned the same, most of the service holder, 72.73 percent, use their residual amount , whereas 9.09 percent each use their loan & retirement fund and 4.55 percent each use their profit from business & fund from sale of fixed assets to purchase government securities.

With respect to the fund use to purchase government securities, most of retired person, 66.67 percent, opined that they use fund of retirement fund, whereas 16.67 percent each declared that they have invested in government from use their residual amount and loan.

When the other persons questioned the same matter, it is found that major 77.78

percent, have purchased government securities through residual amount, whereas 11.11 percent each have invested in government securities from their profit from business and others.

Reason for Full Subscription of Government Securities

Table 4.31

Reason of Business Man

Reasons for full Subscription of Government Securities	BusinessMan			
	Priority			
	1	2	3	4
High Marketability	67	17	17	0
Convenient to purchase and sell	33	33	33	0
involve low risk	0	33	33	17
Lack of information of other investment sectors	0	17	17	17

Table 4.31 shows the reason for full subscription of government securities.When the businessmen were questioned about the reason for full subscription of government securities that are highly subscribed in the market, most of them 9 percent has given first priority, 27 percent has given second priority, 45 percent has given third priority and 18 percent has given fourth priority for high marketability. Likewise, for convenient to purchase and sell 45 percent has given first priority, 9 percent has given second priority, 18 percent has given third priority and 27 percent has given fourth priority. For involve low risk 36 percent has given first priority, 55 percent has given second priority and 9 percent has given third priority. Whereas for lack of information of other investment sector 9 percent has given first and second priority, 27 percent has given third priority and 55 percent has given fourth priority. There are total 11 respondents from Business man group.

Table 4.32
Reason of Service Holders

Reasons for full Subscription of Government Securities	Service Holders			
	Priority			
	1	2	3	4
High Marketability	16	47	37	0
Convenient to purchase and sell	47	21	26	5
involve low risk	37	32	32	0
Lack of information of other investment sectors	0	0	5	95

Table 4.32 shows the reason for full subscription of government securities.When the service holder were questioned the reason for full subscription of government securities that are highly subscribed in the market, most of them 16 percent has given first priority, 47 percent has given second priority and 37percent has given third priority for high marketability. Likewise, for convenient to purchase and sell 47 percent has given first priority, 21 percent has given second priority, 26 percent has given third priority and 5 percent has given fourth priority. For low involvement of risk 37 percent has given first priority, 32-32percent has given second and third priority. Whereas for lack of information of other investment sector 5 percent has given first priority and 95 percent has given fourth priority. There are total 19 respondents from service holder

Table 4.33
Reason ofRetired Person

Reasons for full Subscription of Government Securities	Retired Person			
	Priority			
	1	2	3	4
High Marketability	17	50	17	17
Convenient to purchase and sell	33	17	50	0
involve low risk	33	33	17	17
Lack of information of other investment sectors	17	0	17	67

Table 4.33 shows the reason for full subscription of government securities.Among the retired persons, most of them 17 percent has given first priority, 50 percent has given second priority and 17-17percent has given third and fourth priority for high marketability. Likewise, for convenient to purchase and sell 33 percent has given first priority, 17 percent has given second priority and 50 percent have given fourth priority. For low involvement of risk 33-33percent has given first and second priority and 17-17percent has given third and fourth priority. Whereas for lack of information of other investment sector 17-17percent has given first and third priority and 67 percent has given fourth priority. There are total 6 respondents from retired persons group.

Table 4.34

Reason ofOthers

Reasons for full Subscription of Government Securities	Others			
	Priority			
	1	2	3	4
High Marketability	11	33	44	11
Convenient to purchase and sell	22	33	44	0
involve low risk	56	11	11	22
Lack of information of other investment sectors	11	22	0	67

Table 4.34 shows the reason for full subscription of government securities.When the other category were questioned the reason for full subscription of government securities that are highly subscribed in the market, most of them 11-11 percent has given first and fourth priority, 33 percent has given second priority and 44percent has given third priority for high marketability. Likewise, for convenient to purchase and sell 22 percent has given first priority,33 percent second priority and 44 percent have given third priority. For low involvement of risk 55 percent has given first priority, 11-11 percent has given second and third priority and 22 percent has given fourth priority. For lack of information of other investment sector 11 percent has given first priority, 22 percent has given second priority and 67 percent has given fourth priority. There are total 9 respondents from others group.

Table 4.35

The Perception on the Utilization of Collected Fund from the People

Utilization of Collected Fund from the People	Types of Investors			
	Business man	Service Holders	Retired Person	Others
	Prop.	Prop.	Prop.	Prop.
It will be utilize properly	45.45	45.00	0.00	22.22
It will be unutilized	27.27	20.00	16.67	44.44
Cannot say	27.27	30.00	83.33	33.33
Others	0.00	5.00	0.00	0.00

Table 4.28 shows the reason for selling government securities.With respect to the perception on the utilization of collected fund from the people through the different government securities, most of businessmen, 45.45 percent, opined that it will be utilized properly, whereas 27.5 percent each opined that it will be unutilized and cannot say.

Regarding the perception of service holders, most of them, 45 percent, opined that the fund collected through the government securities will be utilized properly, whereas 30 percent opined as they cannot say, 20 percent opined as it will be unutilized and rest 5 percent opined that at least it help to bring money in and out from the money market and support the Nation's Monetary policy.
Whereas, the most of the retired persons, 83.33 percent, were unknown about the utilization of money or not. Rest 16.67 percent opined that it will be unutilized.

When the other persons were questioned, most of them, 44.44 percent, were viewed that it will be unutilized. 33.33 percent opined that they cannot say about it and rest 22.22 percent viewed it as positive and opined that it will be utilized properly.

4.2.1 Test of Hypothesis

The chi-square(χ^2) test of hypothesis, based on various categories of samples (investors) is used to find out the perception of investors on government securities.

Test -1

For calculation and analysis purpose, highly interested and moderate interested investors are cubed in more interested. Likewise, less interested and totally indifferent investors are cubed in less interested. Hypothesis Test for investor attitude on government securities on the basis of the investors professions:

Formulation of Hypothesis:

Null Hypothesis (Ho): The investor's attitude to invest on government Securities are independent on their Profession.

Alternative Hypothesis (H_1): The investors' perception of risk in government Securities are dependent of their Profession.

Table: 4.36

Distribution of Respondent by profession

Distribution of Respondent by their Professions Attitude	Profession			Total
	Businessman	Service holders	Retired person and others	
More Interested	8	13	7	28
Less Interested	3	6	8	17
Total	11	19	15	45

Level of Significance:

The level of significance (α) = 5%

Calculation of Expected Frequencies = $\frac{\text{Row Total} \times \text{Column Total}}{\text{Total Sample Size}}$

$$R_1C_1\ (8) \quad = \frac{RT \times CT}{N} = \frac{28 \times 11}{45} = 6.844$$

R_2C_1 (3) = $\frac{RT \times CT}{N} = \frac{17 \times 11}{45}$ = 4.156

R_1C_2 (13) = $\frac{RT \times CT}{N} = \frac{28 \times 19}{45}$ = 11.82

R_2C_2 (6) = $\frac{RT \times CT}{N} = \frac{17 \times 19}{45}$ = 7.178

R_1C_3 (7) = $\frac{RT \times CT}{N} = \frac{28 \times 15}{45}$ = 9.333

R_2C_3 (8) = $\frac{RT \times CT}{N} = \frac{17 \times 15}{45}$ = 5.667

Table: 4.37

Calculation of Chi-Square ($_i^2$):

Observed Frequency(O)	**Expected Frequency (E)**	**(O-E)**	**$\frac{(O-E)^2}{E}$**
8	6.844	1.16	0.195
3	4.156	-1.16	0.322
13	11.82	1.18	0.118
6	7.178	-1.18	0.193
7	9.333	-2.33	0.583
8	5.667	2.33	0.960
Total	**44.998**	**0**	**2.372**

Test Statistics:

Chi Square (χ^2) **=** $\sum \frac{(O-E)^2}{E}$

= 2.372

Calculated Value of χ^2 = 2.372

Tabulated Value of χ^2 at 5% level of Significance for,

(R-1) ×(C-1) d.f.

= (2-1) × (3-1) d.f.

= 1 × 2 d.f

= 2 d.f.

= 5.991 (i.e. 2.372< 5.991)

Decision:

Since the calculated value of Chi-Square is lower than that of tabulated value of Chi-square (i.e. 0.22834< 5.991) at 5 percent level of significance for 2 degree of freedom. So, null hypothesis is accepted in this level. That is the investors' attitude to invest on government securities is independent on their profession. In other words the perception of Nepalese investors toward the government securities is not affected by their profession i.e. all professional investors are equally interested to purchase the government securities.

The chi-square(χ^2) test of hypothesis, based on various categories of samples (investors) is used to find out the perception of investors on government securities.

Test - 2

Hypothesis Test for investor attitude on government securities and corporate securities on the basis of the professions:

Formulation of Hypothesis:

Null Hypothesis (Ho): There is no significant difference between attitude toward government securities and attitude toward corporate securities among different investors.

Alternative Hypothesis (H_1): There is significant difference between attitude toward government securities and attitude toward corporate securities among different investors.

Table: 4.38

Distribution of Respondent by Attitude toward Securities

Attitude toward Securities	Profession			Total
	Businessman	Service holders	Retired person and others	

Government Security	**2**	**6**	**4**	**12**
Corporate Security	**9**	**13**	**11**	**33**
Total	**11**	**19**	**15**	**45**

Level of Significance:

The level of significance (α) = 5%

Calculation of Expected Frequencies = $\frac{\text{Row Total} \times \text{Column Total}}{\text{Total Sample Size}}$

R_1C_1 (2) = $\frac{RT \times CT}{N} = \frac{12 \times 11}{45} = 2.93$

R_2C_1 (9) = $\frac{RT \times CT}{N} = \frac{33 \times 11}{45} = 8.07$

R_1C_2 (6) = $\frac{RT \times CT}{N} = \frac{12 \times 19}{45} = 5.07$

R_2C_2 (13) = $\frac{RT \times CT}{N} = \frac{33 \times 19}{45} = 13.93$

R_1C_3 (4) = $\frac{RT \times CT}{N} = \frac{12 \times 15}{45} = 4$

R_2C_3 (11) = $\frac{RT \times CT}{N} = \frac{33 \times 15}{45} = 11$

Table: 4.39

Calculation of Chi-Square ($_i^2$):

Observed Frequency(O)	**Expected Frequency (E)**	**(O-E)**	**$\frac{(O-E)^2}{E}$**
2	2.93	-1.07	0.391
9	8.07	1.07	0.142

6	5.07	-2.93	1.693
13	13.93	2.93	0.616
4	4	-2	1.000
11	11	2	0.364
Total	45	0	4.206

Test Statistics:

Chi Square (χ^2) **=** $\sum \frac{(O-E)^2}{E}$

= 4.206

Calculated Value of χ^2 = 4.206

Tabulated Value of χ^2 at 5% level of Significance for,

(R-1) ×(C-1) d.f.

= (2-1) × (3-1) d.f.

= 1 × 2 d.f

= 2 d.f.

= 5.991 (i.e. 4.206< 5.991)

Decision:

Since the calculated value of Chi-Square is lower than that of tabulated value of Chi-square (i.e. 4.206< 5.991) at 5 percent level of significance for 2 degree of freedom. So, null hypothesis is accepted in this level. Therefore, there is no significant difference between attitude toward government securities and attitude toward corporate securities among different investors.In other words the attitude of Nepalese investors toward the government securities and corporate securities is not affected by their profession i.e. all professional investors are equally interested to purchase the government securities and corporate securities.The chi-square(χ^2) test of hypothesis, based on various categories of samples (investors) is used to find out the attitude toward government securities and corporate securities.

4.3 Concluding Remarks

The government has been borrowing public fund through the different type of government securities regularly to meet the deficit budget of the country. Treasury bills, development bonds, national savings certificates, citizen saving certificates and special bond from Nepal Rastra Bank are the major instruments to borrow or to collect the public fund. Government has borrowed highest fund using treasury bills.The highest growth among the government securities has been found for special saving bond. The risk has been calculated by using standard deviation and coefficient of variance. Standard deviation is the statistical measurement of the variability of a distribution of return around its mean. Coefficient of variance is used to standardize the risk per unit of return.The issuance of total government securities is in increasing trend. The curve shows the upward sloping from the beginning of study period.For the forecasting of total internal debt for coming years curvilinear model has been used. It shows that the total internal debt will be in increasing trend. For the dependent variable and independent variable correlation coefficient and regression analysis has been done. First correlation coefficient and regression analysis has been done between GDP and Total Internal debt of 7 years data. Second correlation coefficient and regression analysis has been done between GNDI and Government Expenditure.

With respect to the classification of investors based on their profession, all the respondent in primary data survey has been classified into four groups i.e. Businessman, Service holder, Retire persons and others. Major investors belonged to the service holder in various organizations. Most of the investor found interested to buy the government securities and they want to purchase treasury bills. Most of people viewed that they do not feel any difficult in investing in government securities because government securities are risk free. Most of the investor does not feel any inconvenience in collection of interests and principal invested in government securities. When they were asked about selling the government securities they most of them has opined they sell to grab the alternative investment opportunities. Due to the low interest rate risk seeker investor does not want to invest in government securities rather they want to invest in corporate securities. Most of them opined that they use their excess fund to purchase these types of securities.

The government expenditure is in increasing trend and revenue collection is in decreasing trend by which it need to collect high amount from internal debt. Government has to use collected fund in investment sector but due political instability it is facing difficulty. By which the economic condition will be poor.

CHAPTER V
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

For the economic development of the country, government securities play a vital role. The most important purpose of the government securities is to raise the fund to fulfill the gap between the public revenue and public expenditure. The expenditures of country have aimed to cover by the revenue and other sources. Government bond is regarded as the temporary sources of financing for various government functions as per the national budget. From the beginning of budgetary system, Nepalese government set the deficit budget in each year, which it is bearing through the internal and external loan and grants. At present, the internal borrowing is the major sources of deficit budget financing of the country. The government started to raise the internal loans since 1960s. Nepal Rastra Bank is making an endeavor for the selling and buying of the bond in the primary and the secondary market expanding the latter for the effectiveness of the transaction of public debt. The expansion and development of the market of the bond support to make the provision of debt cost effective, more reliable, durable and attractive. Thus, it helps to increase the saving and investment in the economy of the country. The interest of the people toward the government securities is more optimistic. This helps government to collect more funds from government securities. The collection of fund from securities is in increasing order.

This study mainly aims to examine the practices of the government securities in Nepal. The Specific objective of this study are to analyze the trend and structure of government securities in Nepal; to overview the issue systems and practices of government securities; to review the ownership pattern of government securities and to examine the attitude and preference of investors towards government securities.

The secondary and primary source of data has been analyzed to find out the objectives of this study. Secondary data of 22 years (1998 to 2009) has been analyzed. Several statistical tools, such as mean, standard deviation, coefficient of

variation, curvilinear model and financial tools, such as growth rate, have been used to get the result of study. To test the significance of questionnaire survey, chi-square test is used at 5 percent level of significance for 2 degree of freedom.
The major findings of the study are as under :

Government has been borrowing public fund through the different type of securities. It borrow public fund to meet the deficit budget of the country. Treasury bills, development bonds, national savings certificates, citizen saving bond and special bond from Nepal Rastra Bank are the major instruments to borrow or to collect the public fund. During the last 22 years (1988 to 2009) the government borrowed Rs.617298.20 million from Treasury bills (highest among the different instruments). Similarly, the government borrowed Rs.213923.30million, Rs.137110.70 million, Rs.14684.9 million and Rs.210864.40 million through the Development bond, National Saving bond, Citizen Saving Certificate and Special Saving bond respectively. The average growth of total internal debt is 12.14 percent. The highest growth among the government securities has been found for special saving bond 21.39 percent. For the calculation of risk standard deviation and coefficient of variance has been used. The highest C.V. among the government securities has been found for Treasury bills i.e. 101 percent, which indicates the less consistency in internal debt in comparison to others. The C.V. of national saving certificates is lowest of all i.e. 5 percent, which shows that there is more consistency in national debt in comparison to others securities. The C.V. of special bonds is below the average C.V. of internal debt (total internal debt), whereas the remaining have higher than the average. Coefficient of Variance is used to standardize the risk per unit of return.

Forecasting has been done for coming six year from 2010 to 2015. The total internal debt will increased gradually in this period too. The estimated (forecasted) internal debt for the years 2010, 2011, 2012, 2013, 2014 and 2015 are Rs.128419.53 million, Rs.137511.30 million, Rs.146933.75 million, Rs.156686.88 million, Rs166770.69 million and Rs.177185.18 million respectively.

The ownership status of each security has been determined by using the data from year 1988 to 2009. The major owner of the treasury bills is commercial bank; it

owned 72.3 percent of total issue of Rs.617298.1 million. The highest owner of development bond is also commercial bank, which owned 42.60percent of total issue of Rs.213923 million. The highest owner of national saving certificate is individuals, which owned 41.3 percent of total issue of Rs.137111 million. Likewise, The highest owner of citizen saving certificate is private area which own 86.36 percent of total issue of Rs.14685 million. The highest owner of special bonds is Nepal Rastra bank which owned 77.19 percent of total issue of Rs.210864 million.

The average growth rate of total internal debt is 12.14 percent during the study period, with S.D. of 33240.8079 and C.V. of 0.6125. The average growth rate of treasury bills has been found 20.89 percent with S.D. of 28373.25 and C.V. of 1.01. The average growth rate of development bond is 11.20 percent with S.D of 7552.59 and C.V. of 0.78. The average growth rate of national saving bond is -3.62percent, whereas the S.D. and C.V. are 292.85 and 0.05 respectively. The average annual growth rate of citizen saving certificate is 12.39 percent with S.D. of 1185.02 and C.V. of 0.65. Whereas as the average growth rate of special bond is 21.39percent with S.D and C.V. of 5750.29and 0.60respectively.

With respect to the classification of investors based on their profession, all the respondent in primary data survey have been classified into four groups i.e. Businessman, Service holder, Retire persons and others. Major investors belonged to the service holder in various organizations. With regard to the interest of general investors on government securities, most of the respondents in primary data survey have found interested to buy the government securities. The attitude and perception of all types of investors towards the government securities is not affected by their profession i.e. all professional investors are equally interested to purchase the government securities.Most of the investors are found moderate interested to purchase the government securities, which mean that the investors' perception towards the government securities is independent on their profession. Interest of general investors varies on each government securities. Major number of investor given first priority for treasury bills, second priority for citizen saving certificates, third priority for development bonds, fourth and fifth priority for special bonds.The government security is issued by the government. So, it is risk free. People do not feel difficult in investing in government securities because they are secure of their

investment. Most of the investors invest in government securities because of low default risk in this investment and zero liquidity risk.

Most of the investors do not feel any inconvenience in collection of interests and principal invested in government securities. However, due to the hesitation and lack of practical knowledge of banking system of general people, some investors feel difficulty in collection of interests and principal because of long process, complex procedures and other factors in this regard.Most of the investor opined that they sell the government securities to grab the alternative investment opportunities and when securities are overpriced. This shows that people are highly aware of the security they purchase. Every investor wants to gain some profit after they invest in any securities.Most of the investors fells that there is low annual rate of return in government securities, so the participation of investment in it is low. Since it is risk less investment, the rate of return is also low. Most people also viewed that Nepalese government security has complex rules and regulation.With respect to source of fund people use to purchase the government securities, major investors from business group opined that they use profit from business. Likewise most of service holder and others opined as they use their residual amount. Whereas, most of retired person viewed that they use their retirement fund to purchase government securities.Interest of general investors varies on each government securities. Major number of investor given first priority for involve low risk and convenient to purchase and sell, second priority for high marketability and fourth priority for lack of information of other investment sector. Regarding the utilization of collected fund through the different government securities, most of investor from businessman and service holder viewed that it will be utilized properly. Likewise retired person opined they cannot say. Whereas other opined it will be unutilized.

In study of public debt position in annual expenditure the economic position of the country is in decreasing condition but annual government budget and public debt position both are is in increasing condition.To examine the attitude and preference of investors towards the government securities, the views and perception of 45 individual from different profession have been gathered and analyzed. People do not feel difficult in investing in government securities because they are secure of their investment. Most of the investors do not feel any inconvenience in collection of interests and principal invested in government securities. Most of the investor opined

that they sell the government securities to grab the alternative investment opportunities and when securities are overpriced. Most of the investors fells that there is low annual rate of return in government securities. Major number of investor has given first priority for involved low risk. Regarding the utilization of collected fund through the different government securities, most of investor viewed that it will be utilized properly. To test the significance of responses of individual respondents, chi square test is tested at 5 percent level of significance for 2 degree of freedom.

5.2 Conclusion

Based on the findings of study it can be concluded that the government is borrowing the internal debt in increasing trend, the composition of the internal debt is built by several government securities and the major portion of internal debt is covered by the short term debt like treasury bills. Similarly this study also concludes that the public borrowing is growing rapidly. In the government borrowing, the internal debt covers the significant portion at present. The average annual growth rate of total internal debt is 12.14 percent, which consist of treasury bills, development bonds, national saving bonds, special bond and citizen saving certificate from Nepal Rastra Bank. This study has analyzed the policy regarding government securities, issue systems and practices. It also analyzed trend and structure, cause of high marketability and attitude of investor toward government securities.

Similarly, this study concludes that government is borrowing the internal debt on the basis of needs and all the classes of individual people, banks, financial institution, government owned organization, private sector investors are the main investors of government securities for specific types of government securities.With respect to the respondent in primary data survey, many investor view that government security are risk less investment, secure, risk free, low involvement of risk. They also viewed that in Nepalese perspective investing in government securities is secure but due to low risk it gives lower return. So many risk taker investor has viewed corporate security is better than government security due to more return with more risk.

5.3 Recommendations

On the basis of the analysis and findings of this study, following recommendations have been made:

- Government should maintain balanced and strong fiscal and monetary discipline by controlling the unproductive expenditure so that budgetary expenses would not increase immensely than the annual revenue of the country. Funds collected from internal debt should be invested in the productive sector not for the use of government expenditure, which helps government to collect more funds from public and control inflation.

- The government securities for the individual people are available only in urban areas of the country. Scattered fund in rural and semi urban areas of the country is still unreachable and uncovered. The government should collect the fund from such areas, so that public debt collection could be balanced.

- The requirement of public debt in coming years seems more vital than previous year. Internal debt is more comfortable than the external borrowing for the nation. Hence more focus should be given on internal borrowing rather than the external borrowing.

- Short term debt such as treasury bills should be discouraged for the long term development projects. Funds for the long term development project should be collected through the long term bond, even innovating new types of bonds (like, power development bond for hydropower projects).
- Borrowing from banking sectors must be minimized since it is most inflationary source of internal borrowing. The government should influence individuals to use their idle money on government security because this stimulates the investment.

- The policy on public debt should be made based on the fiscal and monetary policy analyzing the inflation rate, investment opportunities in the country to cope the requirement of the fund for the development of nation through the advice of Nepal Rastra Bank.The government may borrow the overdraft from NRB within the stipulated limitation rather than the ad-hoc decision.

- It is found that the structure of public debt is not regular in each year. It should be made balanced based on the available sources. The ownership pattern of the

government securities is also irregular.So, it is also recommended to make consistent based on available options.

- The payment of interest of all types of the government bonds should be made available through all banks and financial institutions of the country and such institutions should be directed to pay the interest to the bonds holders timely. This will make the interest realization of the bonds hassles free.

- The government shows the decrease in size of budget and budget should be implacable when size of budget decreased than size of debt wills obviously decreased.Government should provide some seminar for the awareness of government securities.

- Government should focus to collect the huge fund form long term securities rather than short term securities. So, it can invest in productive sector and easily refund the fund in long run.

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Appendix A

Calculation of forecasted amount of total internal debt for next 6 year (2009 to 2014) based on Curvilinear Model: (Amount in Million)

Year	Total Internal Debt (Y)	x= (year - 1999)	xY	x^2	x^3	x^4	x^2Y
1989	12,887.90	-10	-128879	100	-1000	10000	1288790
1990	14,673.10	-9	-132058	81	-729	6561	1188521
1991	20,855.90	-8	-166847	64	-512	4096	1334778
1992	23,234.90	-7	-162644	49	-343	2401	1138510
1993	25,456.00	-6	-152736	36	-216	1296	916416
1994	30,631.20	-5	-153156	25	-125	625	765780
1995	32,057.90	-4	-128232	16	-64	256	512926.4
1996	34,241.80	-3	-102725	9	-27	81	308176.2
1997	35,890.80	-2	-71781.6	4	-8	16	143563.2
1998	38,406.60	-1	-38406.6	1	-1	1	38406.6
1999	49,669.70	0	0	0	0	0	0
2000	54,357.00	1	54357	1	1	1	54357
2001	60,043.80	2	120087.6	4	8	16	240175.2
2002	73,621.00	3	220863	9	27	81	662589
2003	81,148.30	4	324593.2	16	64	256	1298373
2004	86,133.70	5	430668.5	25	125	625	2153343
2005	87,564.30	6	525385.8	36	216	1296	3152315
2006	89,955.00	7	629685	49	343	2401	4407795
2007	99,303.80	8	794430.4	64	512	4096	6355443
2008	111,239.10	9	1001152	81	729	6561	9010367
2009	120,873.70	10	1208737	100	1000	10000	12087370
Total	∑Y= 1,182,245.50	∑x= 0	∑xY = 4072494	∑ x^2= 770	∑x^3= 0	∑ x^4= 50666	∑ x2Y = 47057994

Percentage change in internal debt in each year has been calculated taking the preceding year as the base year. For example;

Percentage change in internal debt in 1989

$$\frac{\text{Internal Debt in 1989- Internal Debt in 1988}}{\text{Internal Debt in 1988}} \times 100\%$$

$$= \frac{12887.90 - 11636.00}{12887.9} \times 100\%$$

=10.76%

Similarly, remaining percentage has been calculated in the same process.

Standard Deviation (S.D.) is calculated by using the formula as shown below

$$S.D = \sqrt{\frac{\sum(X - \ddot{X})^2}{N}}$$

Where,

X = Total internal debt

$\ddot{X}$ = Average

N = total number of years

Coefficient of Variance (C.V.) is calculated by using following formula:

$$C.V. = \frac{S.D.}{\ddot{X}}$$

Similarly remaining standard deviation and coefficient of variance is calculated by using same formulas.

Now, the value of 'a', 'b' and 'c' can be found by solving the following three normal equations. The three normal equations are constructed by multiplying the first equation by$\sum$, $\sum x$ and $\sum x^2$ for the equation (ii), (iii) and (iv) respectively.

So,

$\sum Y = Na + b\sum x + c\sum x^2$

$\sum xY = a\sum x + b\sum x^2 + c\sum x^3$

$\sum x^2Y = a\sum x^2 + b\sum x^3 + c\sum x^4$

Here, the researcher take deviation of the independent variable (i.e. time) from the middle of the time period so that $\sum x=0$ and $\sum x^3 = 0$, then the above three equation reduced to

$\sum Y= Na + c\sum x^2$ .....(ii)

$\sum xY = b \sum x^2$ .....(iii)

$\sum x^2Y = a\sum x^2 + c\sum x^4$.....(iv)

Where, N= Total Number of year = 21

Now,

$\sum Y$ = 1,182,245.50

$\sum xY$= 4072494

$\sum x$ = 0

$\sum x^2$ = 770

$\sum x^3$ = 0

$\sum x^4$ =50666

$\sum x^2Y = 47057994$

Substituting the value of $\sum Y$, $\sum xY$, $\sum x^2$

$\sum x^4$ and $\sum x^2Y$ in the equations (ii), (iii) and (iv), we get,

1,182,245.50 = 21a+770c ..... (v)

4072494 = 770b.....(vi)

47057994 =770a+50666c.....(vii)

Now, from the equation (vi), we get,

$b = \frac{4072494}{770} = 5288.95$

$\therefore$ b = 5288.95

Now, Multiplying equation (v) by 110 and equation (vii) by 3 and solving the equation (v) and (vii), we get the value of a and c

[1,182,245.50 = 21a + 770 c] x 110 and [47057994= 770a + 50666c] x3

130047005 = 2310a + 84700 c

141173991 = 2310a + 151998 c

\- - - .

-11126989 = 0 - 67298 c

Or, $c = \frac{-11126989}{-67298}$

$\therefore$ c = 165.34

Again,

The value of 'a' can be calculated by putting the value of 'c' in the equation (v), we get,

1,182,245.50 = 21 a + 770 c

Or, 1,182,245.50 = 21a +770 x 165.34

Or, 21 a = 1,182,245.50 – 127311.8

Or, $a = \frac{1054933.7}{21}$

$\therefore$ a = 50234.94

By substituting values of a, b, and c in the equation (i), is,

$\hat{Y} = a + bx + cx^2$

$= 50234.94 + 5288.95\ x + 165.34\ x^2$

The above estimated equation is used to forecast the total of total internal debt for the year 2010, 2011, 2012, 2013 , 2014 and 2015. Here the internal debt for 6 years has been estimated below using Curvilinear Model. Before making calculation the value of $X_{10,}$ X_{11}, X_{12}, X_{13}, X_{14} and X_{15} are calculated below:

Where,

X_{10} = 2010 - 1999 = 11

X_{11} = 2011 - 1999 = 12

X_{12} = 2012 - 1999 = 13

X_{13} = 2013 - 1999 = 14

X_{14} = 2014 - 1999 = 15

X_{15} = 2015 - 1999 = 16

Now,

<u>The forecasted internal debt for 2010</u>

$\hat{Y}_{2010} = 50234.94 + 5288.95\ X + 165.34\ X^2$

$= 50234.94 + 5288.95\ (11) + 165.34\ (11^2)$

= Rs.128419.53 million

<u>The forecasted internal debt for 2011</u>

$\hat{Y}_{2011} = 50234.94 + 5288.95\ X + 165.34\ X^2$

$= 50234.94 + 5288.95\ (12) + 165.34\ (12^2)$

= Rs.137511.3 million

<u>The forecasted internal debt for 2012</u>

$\hat{Y}_{2012} = 50234.94 + 5288.95\ X + 165.34\ X^2$

$= 50234.94 + 5288.95\ (13) + 165.34\ (13^2)$

= Rs.146933.75 million

The forecasted internal debt for 2013

$\hat{Y}_{2013}$ = 50234.94 + 5288.95 X + 165.34 X^2

= 50234.94 + 5288.95 (14) + 165.34 (14^2)

= Rs. 156686.88 million

The forecasted internal debt for 2014

$\hat{Y}_{2014}$ = 50234.94 + 5288.95 X + 165.34 X^2

= 50234.94 + 5288.95 (15) + 165.34 (15^2)

= Rs. 166770.69 million

The forecasted internal debt for 2015

$\hat{Y}_{2015}$ = 50234.94 + 5288.95 X + 165.34 X^2

= 50234.94 + 5288.95 (16) + 165.34 (16^2)

= Rs.177185.18 million

Appendix-B
(Questionnaire)

The information provided by the Respondent will be kept strictly confidential and will be used only for analysis of group behaviors.

Full Name:	
Occupation:	
Age:	**Gender:**

1. In which occupation you are involved at present.

   ☐ Businessman
   ☐ Service holder
   ☐ Retired person
   ☐ Others (specify)…….

2. In your opinion, what types of Government Securities are highly subscribed in the market? (Mark 1, 2,3,4,5, in order of priority)
   ☐ Treasury Bills
   ☐ Development Bonds
   ☐ National Saving Bonds
   ☐ Special Bonds
   ☐ Citizen Saving Certificate

3. In what following classes you want to put yourself?

   ☐ Highly interested to buy government securities
   ☐ Moderate interested to buy government securities
   ☐ Less interested to buy government securities
   ☐ Totally indifferent to buy government securities
   ☐ Others (specify)……..

4. What is the main reason for investment in Government Securities?
   ☐ Risk-less investment
   ☐ Zero liquidity risk.
   ☐ Lack of other investment opportunity
   ☐ Declining interest rate in other investment sectors (i.e. interest rate on saving account)
   ☐ Others (specify)…….

5. Have you felt any difficulty in collecting interest and Principal of your investment?
   ☐ Difficult due to long process
   ☐ Difficult due to complex procedures
   ☐ No difficulty at all.
   ☐ Others (specify)…….

6. Which of the following makes one to sell the Government Securities?
   - ☐ To grab alternative investment opportunity (i.e. to invest on shares issued by the reputed private company)
   - ☐ To meet household requirement
   - ☐ To benefit from investment in real estate (tangible assets)
   - ☐ When stock is overpriced
   - ☐ Others specify)……..

7.. In your opinion, why general investors are low participating in investment of Government Securities?
   - ☐ Lower annual rate of return
   - ☐ Complex rules and regulations to be followed at the time of making investment.
   - ☐ No consideration of time value of money.
   - ☐ Others (specify)…….

8.. What kinds of fund do you use to purchase Government Securities?
   - ☐ Residual amount
   - ☐ Profit from business
   - ☐ Loan
   - ☐ Retirement fund
   - ☐ From the sale of fixed assets
   - ☐ Others (specify)……..

19. Mark (1, 2, 3, 4) in order to priority the reasons for full subscription of Government Securities?
   - ☐ High Marketability
   - ☐ Convenient to purchase and sell
   - ☐ Involve low risk.
   - ☐ Lack of information of other investment sector
   - ☐ Others (specify)…….

10. What is your opinion about the utilization of collected fund from the people?
   - ☐ It will be utilized properly
   - ☐ It will be unutilized
   - ☐ Cannot say
   - ☐ Others (specify)…….

11. In Your Opinion which type of security do you purchase most ?
   - ☐ Government Security
   - ☐ Corporate Security

.....
Signature

Appendix-B
(Result of Questionnaire Survey)

Table 1. Occupation wise distribution of Investors as observed by Investor Category

Occupation of Investors	No. of Respondents	Respondent
Business Man	11	24.44%
Service holders	19	42.22%
Retired persons	6	13.33%
Others	9	20.00%
Total	45	100.00%

Table 2. Class of Interest to buy the Government Securities

Types of Government security	Types of Investors																			
	Business man					Service Holders					Retired Person					Others				
Priority	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Treasury bills	8	3				16	3				4	1	1			6	2	1		
Development bonds	1		7	1	2	1	2	11	4	1	2	2	2			2	1	3	2	1
National saving Certificates	1	1	3	4	2	2	3	7	4	3		2	2	1	1		1	3	1	4
Special bonds		1	1	3	6			1	7	11		1	1	1	3	1			6	2
Citizen saving certificates	1	6		3	1		11		4	4				4	2		5	2		2
Total	11	11	11	11	11	19	19	19	19	19	6	6	6	6	6	9	9	9	9	9

Table3. Perception on Government Securities Highly Subscribed in the Market as observed by different types of Investors

Interest to buy the government securities	Types of Investors							
	Business man		**Service Holders**		**Retired Person**		**Others**	
	No	Prop.	No	Prop.	No	Prop.	No	Prop.
Highly interested	2	18.18	2	10.53	2	33.33	0	0
Moderate interested	6	54.55	11	57.89	3	50.00	2	22.22
Less interested	2	18.18	5	26.32	1	16.67	5	55.56
Totally indifferent	1	9.09	0	0.00	0	0.00	2	22.22
Others	0	0.00	1	5.26	0	0.00	0	0.00
Total	11	100.00	19	100.00	6	100.00	9	100.00

Table.4. Reasons for Investment in Government Securities as Observed by Investor Category

Reasons for investment in Government securities	Types of Investors							
	Business man		Service Holders		Retired Person		Others	
	No	Prop.	No	Prop.	No	Prop.	No	Prop.
Risk less Investment	10	90.91	15	68.18	1	16.67	6	66.67
Zero liquidity risk	1	9.09	5	22.73	4	66.67	2	22.22
Lack of other investment opportunity	0	0	1	4.55	0	0	1	11.11
Declining interest rate in other investment	0	0	1	4.55	1	16.67	0	0
Others	0	0	0	0	0	0	0	0
Total	11	100	22	100	6	100	9	100

Table .5. Difficulty in Collection of Interest and Principal as Perceived by different types of Investors

Difficulty in collection of interest and principal	Types of Investors							
	Business man		Service Holders		Retired Person		Others	
	No	Prop.	No	Prop.	No	Prop.	No	Prop.
Difficulty due to long process	2	18.18	1	5.26	1	16.67	2	22.22
Difficulty due to complex procedures	2	18.18	4	21.05	2	33.33	3	33.33
No difficulty at all	7	63.64	13	68.42	3	50.00	4	44.44
Others	0	0.00	1	5.26	0	0.00	0	0.00
Total	11	100	19	100	6	100	9	100

The Reasons for Selling Government Securities as observed by different types of Investors

Reasons for selling Government security.	Types of Investors							
	Business man		Service Holders		Retired Person		Others	
	No	Prop.	No	Prop.	No	Prop.	No	Prop.
To grab alternative investment opportunity	5	45.45	10	45.45	3	50.00	4	44.44
To meet household requirement	2	18.18	2	9.09	0	0.00	1	11.11
To benefit from investment in real estate	2	18.18	2	9.09	1	16.67	1	11.11
When securities is overpriced	2	18.18	6	27.27	2	33.33	3	33.33
Others	0	0.00	2	9.09	0	0.00	0	0.00
Total	11	100	22	100	6	100	9	100

Table. 7. Why general investor are low participating in investment of Government Securities

Causes of feeling uncertain about investment	Types of Investors							
	Business man		Service Holders		Retired Person		Others	
	No	Prop.	No	Prop.	No	Prop.	No	Prop.
Lower rate of return	6	54.55	13	68.42	3	50.00	7	77.78
Complex rules and regulations to be followed at the time of making investment	5	45.45	2	10.53	2	33.33	1	11.11
No consideration of time value of money	0	0.00	2	10.53	1	16.67	1	11.11
Others	0	0.00	2	10.53	0	0.00	0	0.00
Total	11	100	19	100	6	100	9	100

Table 8. Different types of Fund used to Purchase Government Securities

Kinds of funds used	Types of Investors							
	Business man		Service Holders		Retired Person		Others	
	No	Prop.	No	Prop.	No	Prop.	No	Prop.
Residual amount	4	30.77	16	72.73	1	16.67	7	77.78
Profit from business	8	61.54	1	4.55	0	0.00	1	11.11
Loan	0	0.00	2	9.09	1	16.67	0	0.00
Retirement fund	1	7.69	2	9.09	4	66.67	0	0.00
From the sale of fixed assets	0	0.00	1	4.55	0	0.00	0	0.00
Others	0	0.00	0	0.00	0	0.00	1	11.11
Total	13	100	22	100	6	100	9	100

Table 9. The Reasons for Full Subscription of Government securities in order to Priority

Reasons for full Subscription of Government Securities	Types of Investors																			
	Business man					Service Holders					Retired Person					Others				
Priority	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
High Marketability	1	3	5	2		3	9	7			1	3	1	1		1	3	4	1	
Convenient to purchase and sell	5	1	2	3		9	4	5	1		2	1	3			2	3	4		
involve low risk	4	6	1			7	6	6			2	2	1	1		5	1	1	2	
Lack of information of other investment sectors	1	1	3	6				1	18		1		1	4		1	2		6	
Total	11	11	11	11	0	19	19	19	19	0	5	5	5	5	0	9	9	9	9	0

Table 10. The Utilization of Collected Fund from the People

Utilization of Collected Fund from the People	Types of Investors							
	Business man		Service Holders		Retired Person		Others	
	No	Prop.	No	Prop.	No	Prop.	No	Prop.
It will be utilize properly	5	45.45	9	45.00	0	0.00	2	22.22
It will be unutilized	3	27.27	4	20.00	1	16.67	4	44.44
Cannot say	3	27.27	6	30.00	5	83.33	3	33.33
Others	0	0.00	1	5.00	0	0.00	0	0.00
Total	11	100	20	100	6	100	9	100