CHAPTER-I
INTRODUCTION

1.1 Background of the Study

The economic development of country depends upon the strategy implemented by the government and participation of private sectors. The financial institutions play a major role in the economic development. In recent year, people in Nepal have poured funds in newly established companies encouragingly. However, there is no satisfactory growth of such business enterprises until 1993. Nepal government, under a program initiated to reform capital markets, converted securities exchange center into Nepal stock exchange in 1996, which brought new atmosphere in the Nepalese capital market.

The development of systematic market of security is regarded as the securities issued by every government in the country. Though the secondary market of government securities is not available in Nepal, Nepal Rastra Bank (NRB) has been issuing various government securities in the country. NRB was established as central bank of Nepal at on April 26, 1956 under the Nepal Rastra Bank act 1955. 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.

Government sells various securities in the market. Treasury Bills, Development Bonds, National Saving Bonds, Special Bonds and Citizen Saving Bonds are the main government securities floating in the country. They are issued to raise capital in the

market. These securities are known as government securities. The Government issues securities internally and externally. The main source of internal debt is government bonds. Government takes loan from its own people as well as financial institutions to fulfill the budgetary deficit and others purpose and such type of is called internal debt. Government bond is one of the most important issuance of the government to maintain the deficit budgetary system of Nepal. It has been suffering a lot since the first budget 1951 in Nepal. The increasing trend of deficit budget has been balanced by borrowing from public. Government bond is a part of public debt. Similarly, many economists have defined public debt as per their own views. According to **H. L. Bhatiya**, the Public debt includes five types of obligations that the government of a country usually incurs. He has focused the currency as the entire currency circulation in the market, which can be a part of public debt only if the Central bank is classified as a part of the government sector. But he has also added that in any case currency obligation normally remains dormant and inactive and the government does not pay off them (Bhatiya, 2003:188). Public finance deals with the income and the expenditure of the State (Aiyar, 1984:520). Every state first determines its expenditure and adjusts it from its different income sources such as collection of tax, selling government securities, etc. According to him, Public finance brings the government into the picture. Like all produces, government also is a producer. It produces a collective, though intangible product which shows itself in various forms , like law and order, security of life and property, health and education, roads, bridges, communications, Medicare, hospitals, schools, universities and a host of other amenities, which surround modern civilized life. Government collects its revenue principally through taxation and borrowing (Aiyar, 1984:520).

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. This institution gives 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, 1999:48).

A key factor in the development of an economy is the mobilization of domestic resources. The private sector makes new investment by plugging back profits and by borrowing from banks.

The government securities play an important role in the economic development of the country. The most important purpose of the government security is to raise the fund to government to fill the gap between the revenue and expenditure. Government bond is regarded as the temporary sources of financing for various government functions.

Government collects the revenues in terms of tax in order to meet expenses like war, maintain of law and order, general administration, government expenditure, deficit budget etc. But in Nepal, most of the people lie under the poverty line. So they are unable to pay taxes. In others words, the earning of the most people is below the taxable income. Second source of revenue collection is subsidies and internal debt. It is said that basically, Nepal depends upon the foreign aid for required capital imports. But the subsidies are not strong sources because it depends upon the vision, attitude, and capacity of external donors. External debt is not an easy way to get sufficient funds. External debt is very costly loan because it has to repay to the foreigners in term of gold, silver or some others hard currency acceptable to them. Third source of revenue collection is internal debt. Beside it, internal debt is collected for other purpose also such as: to develop the infrastructure, to increase productivity and to generate wealth for critical situation etc.

For the socio-economic development of the country the provision means and resources found in the public sector for efficient debt management is essential and foremost. The government needs to make the provision of internal debt simple, reliable and prompt in order to obtain required funds by mobilizing internal equipments, encouraging internal saving and introducing effective monetary laws for the long term development. In Nepal, the concept of internal debt was introduced in the year 2018 B.S. by issuing the 90 days treasury bills for Rs.7 million at 1 percent interest annually. Initially the sale of the treasury bills has been distributed via bids system in primary market since Mangsir 2045 but this trend came to end as it has been issued weekly since Poush 2048. Similarly, the transaction of the secondary market of the Treasury bill in 2051 has replaced the primary market operation and has also

adopted the bids system since the fiscal year 2061/62 (Arunodaya,2063: 21). Besides the treasury bills, development bond, national saving bond, citizen saving bond and special bond are in use at present. In Nepal the function of public debt management is conducted by Nepal Rastra Bank. For the economic efficiency and to stabilize economic growth rate the central bank co-operatively collect and allocate the required fund consistently in accordance with the government policy.

There has been a praiseworthy change in the structure of the ownership of the Government bond in the current years. The Nepal Rastra Bank Act, 2058 had determined the ratio of the total amount of the Government bond that Nepal Rastra Bank can retain under its ownership. The total amount of Government bond is decreasing since the role of the monetary policy in open market is crux these days. The total internal debt under Nepal Rastra Bank in Ashad, 2059 was Rs 21 billion 290 million and in Ashadh 2062 was Rs. 14 billion 620 million. As per economic survey 2064, the total internal debt as on Ashadh end 2063 reached to Rs. 94 billion 710 million 600 thousand, which was Rs. 87 billion 564 million 200 thousand in previous year. As a percentage of total internal debt the amount was decreased by 30.7 percent in 2059 and 17.6 percent in the 2062. The ownership ratio of the total debt of commercial bank, other organizations and individuals was increased by 69.3 percent in 2059 to 82.4 percent in 2062. During these three years the government bond which was under the ownership of Nepal Rastra Bank was decreased yearly by 11.8 percent whereas the Government bond that was under the ownership of commercial Bank, other organization and individuals was increased by 12.3 percent of the amount reached from Rs. 48 billion 160 million to Rs 68 billion 220 million. Comparatively, according to the ownership pattern, the share of the commercial banks occupy large portion which is 56.8 percent. That is the reason behind the crucial role of Nepal Rastra Bank and commercial Bank in the development of the Government bond and management of internal debt. By the end of Falgun, 2062, out of Rs 88 billion 224 million100 thousand internal debt to be paid, Rs 19 billion 576 million300 thousand was under the ownership of Nepal Rastra Bank (Arunodaya, 2063:26-27).

In fiscal year 2064/65 the government has proposed to collect the deficit budget of Rs. 20 billion 500 million from the internal borrowing (MOF Budget Speech, 2064/65:31).

1.2 Statement of the Problem

Most of the student having economic and finance background have discussed and analyzed public debt and some of these have focused on its structure and importance where as 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.

The total expenditures 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 the 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 loan and grants.

Nowadays, it is seen that the public interest has been increasing rapidly in investing public limited companies as well as government securities. Moreover, a large number of investor is interested in investing in secure and profitable sectors. They selected profitable investment sectors among various investment alternatives. Investors evaluate the growth and prosperity of their investment for future. This helps to accomplish their expected return from their investments. Thus, it is necessary in these connections, a study on government security system and practices in Nepal due to its systematic market.

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. 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 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 reason and logic since it involves the use of intuition, imagination, guesswork, conscious judgment based statistical probabilities (Grewal, 1998:147).

Most of investors invest their funds in single security rather they can be benefited 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 rather than systematic investment where most private organization's stocks have been listed in the NEPSE. 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 comparing 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 trend and structure of government securities in Nepal?
- What is the attitude of investor 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 Objective of the Study

This main objective of this study is to analyze the government securities, issue system and practice in Nepal. The specific objectives of this study are as follows:

- To analyze the trend and structure of government securities in Nepal
- To examine the ownership pattern of government securities.
- To analyze the attitude and preference of investors towards government securities.

1.4 Significance of the Study

This study is expected to make a clear concept on 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. 1991 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

The 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.

The 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.

The 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.

The fourth chapter is concerns 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.

The fifth chapter is concerned with summary, conclusions and recommendations of the study. And at the end of the study bibliography and appendices are also appended.

CHAPTER-II
REVIEW OF LITERATURE

2.1 Conceptual Framework

Government sells various securities to raise funds in the market as per the appeal of investors. 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 almost all of the risk averter investors invest in to government securities rather than private securities. The government can borrow more cheaply than individuals because of lesser risk (Due and Friedlaender, 1981:216). Therefore, the subscriptions 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 the 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 principle (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 out country has been the normal feature since the first budget. The increasing trend of government budget has been balanced by borrowing from public. It is believed that government plans towards

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.

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

2.2 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.

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, 2002:494,495). Historically, during the period of world war, the government borrowed large amount of loans to meet its expenditure. Now every state should after the economic development and welfare in addition to conventional work activities. 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 (1100 BC- 300 AD). 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, 2005:20).

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. The NRB, which is the Central Bank of Nepal, issues various Government Securities on the 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.

In April 2004, the NRB floated the long-term security named "RBP 2062 Na" of Rs.1000 m. at 9% interest (taxable) for which buyers applied for more than issue amount within a few hours. Similarly, in 2062/4/1 and 2062/9/1 the NRB floated securities named Special Bond 2067 and 2062 Ga of Rs. 10 million 557 thousand and 1 million 32 thousand respectively. Every year, the Government has been issuing securities and collecting huge amount of money from public to uphold deficit budgetary system of the country (NRB, 2064:61-63).

2.3. Review of Theoretical Literatures

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 the 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

2.3.1 Classical View

The classical philosophy propounded by **Adam Smith** and his supporters have viewed laissez-fair equates a sound and balances budgetary policy that doesn't consider the fiscal deficit and hence public borrowing. The classical says that just as private economic units should not rum 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 that borrowing. (Singh, 2004:360).

The reasons of their favor for 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 might be produced 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.

2.3.2 Keynesian View

After the great depression of 1930's, **J.M. Keynes**, who 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 who 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 concerned 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 is 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, 2004:364).

2.3.3 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 as 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, 2004:364).

Many economists argue that borrowing today constitutes burden for future. A large public debt, if internally held, pose may 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 that future to restrict borrowing to the finance of investment will retard economic growth. 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, 1989:195).

Dewett states, in modern times, public borrowing 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, 1997:580).

2.4 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.

- Chelliah observes that 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:

$$D = \frac{Y_1 ZO}{R}$$

Where,

D= Maximum sustainable national debt.

O = Constant expenditure for ordinary government operation

T = 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, unimaginative, 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.

2.5 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)

- **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.

- **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 terminology; such an investor is called a Stag.

- **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.

2.6 Types of Government Securities

The gap between revenue and expenditure of the government widen in 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 with within the country. So the proper utilization of internal debt promotes the economy of the country. Government issues long-term and short-term bonds depend upon the investment for such bonds. 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.

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 in beginning. The Treasury bill will issue by fixing the certain interest rate or by adopting the tap issue system.

The following 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 polices.

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 till now.

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

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

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,

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

$$= 16.67\%$$

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

$$= \text{Rs. } 96$$

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.

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 is started to rise 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.

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 following 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.
- These are normally issued at Rs. 100 and divisible by Rs. 100.
- It can be used as collateral as in case of Development bonds.

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 can not 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.

Special Bond

Special bond is issued for special occasion by indicating for special sector by government. Generally special bond is 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.

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.

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

U.S. Treasury Bills

These are short-term securities backed by the 'full faith and credit" of the U.S. government. Treasury Bills or T-bills are issued at a discount and pay interest at maturity. They are normally auctioned in 3, 6 and 12 month maturities. They are federally taxable but exempt from local/state taxes.

U.S. Treasury Notes and Bonds

These are intermediate to long-term securities, which carry a stated rate of interest, payable semiannually. They are backed by the 'full faith and credit" of the U.S.

government. They are auctioned in 2, 3,5,10 and 30 year maturities. They are also federally taxable but exempt from state/local taxes.

Zero Coupon Bonds

They are created from government and agency securities. They are offered at deep discount and pay no periodic interest but interest compounds at a stated rate. 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.

Mortgage Backed Securities

These securities represent ownership interest in a pool of mortgage loans. 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.

Collateralized Mortgages Obligations

They are typically collateralized by Mortgages backed securities pools designed to provide a wider range of maturities and payment features. These are consisted monthly payments of principal and interest. These are fully taxable securities.

Assets Backed Securities

These are structured to provide monthly income and high quality. They are generally rated AAA and issued with an intermediate maturity that is more certain than of Mortgagee 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.

Federal Agency Securities

These are issued by government-sponsored enterprises, with credit quality second only to Treasury Securities. 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 chuck of trading in the security market. Government issues are to meet the financial deficit, which is growing every year.

2.7 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 below on the following headings:

) To Recover the Deficit Budget

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 securities.

) To Restrain Inflation

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, so that can not flow the more 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

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 programmes 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 on one hand can not use their natural resources due to the various constraints and on the other hand these can not 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.

2.8 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 stimulate 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 economics 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).

Most people would agree that is bad for the country because it creates burden for paying regular interest and at the time, it should be back for the investors.

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 analogous 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, 1990:187).

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 steel mills, fertilizer factories, heavy machine manufactures roads, railways, and power, irrigation etc require large sums 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 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).

2.9 Ownership, Marketability and Term Structure of Government Bonds

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

2.9.1 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, 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.

2.9.2 Marketability

The government in a country issues bonds that are normally marketable 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, 2002:494).

2.9.3 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:

- Bonds have their fixed interest
- They have particular market they are issued in.
- They are currently payable in and protective features.
- They have their legal status
- They are issued by like government, corporations, special purpose trusts or even non-profit organizations.

2.9.4 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. In Thailand, the coupon is usually paid on annual or semi-annual basis.

- **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.

- **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 indebt instruments expressed as a percentage of purchase price or current market price.

2.9.5 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 subscribe various types of securities bond on behalf of government as well as its own. The government shall take suggestion of NRB regarding the internal debt and overdraft at the time 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 Nation Debt Act on 2059.03.24 B.S for overall management of government debt and to encourage the people for the mobilization of depart for the economic development of country.

This act authorized Nepal Rastra Bank to issue various types of government securities (Public Debt) and to mobilize of 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 report operate required accounts 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.

2.10 Review of Empirical Studies

The various studies have been made in the national and international arena in the field of government securities and practices. Some of them have been reviewed in this part.

2.10.1 Review of Books and articles

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.

B.P.Shrestha in his 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 is 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 it self in the interest of community at large (Shrestha, 1981:210).

Mahat in his classic venture *'Capital Market, Financial Flows and Industrial finance in Nepal'* has asserted that the Government has the virtual monopoly over the security market. The resort of 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 (Mahat, 1981**:**25).

Thapa in his 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 (Thapa, 2054:48).

Thapa (2008) in his articles *'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.

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, 2008: 363-377).

Public borrowing is treated as sources of revenue like raising funds from tax but the collected funds should be returned back to the holders with in the maturing periods borrowing may be form 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, 1991:90). 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 and 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"* 2008, 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 working paper highlights that Nepal's public debt position is projected to 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 2004, total public debt stood at NRS 248,313 million. Between F/Y 1996 and F/Y 2004, disbursed outstanding debt (DOD) as percentage of GDP remained unchanged at 14 %, government bonds accounted for a third of total domestic DOD in FY 2004 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 1996 and F/Y 2004 from NRS.23, 164 million to NRS.56, 576 million. Actually, government borrowing helps to mop up excess liquidity, which has limited outlet due to poor business climate (ADB, 2008:50).

Rhee (2008) has discussed on 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.

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 analyses to assess the long-term sustainability of projected borrowing strategy; undertaking frequent portfolio analyses to assess future debt service prospects and problems, and propose 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.

2.10.2 Review of Dissertations

It is the first study made in the field of public borrowings is 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 these days because of the payment of debt on maturity can be adjusted through the issue of fresh public debt. But, the fact is 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.

Koirala (1997) in his 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 from development purpose.

Sharma (1998) in his 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 (2001) in his 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 public debt is the quite beneficial for the nation as it outstrips the national economy as a whole.

He has also focused bad aspects of borrowing in the country, which are presented below:

- Government borrows the loan according to its whim and indulgence and
- It pours the whole amount of borrowing on non-productive sectors.

Thus, the borrowing from people can be considered important if generated funds are honestly used as 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 for 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

Poudel (2005) has studied a 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 2004 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 behavior related to purchase of government bond among people in Nepal along with Chi-square test to examine parametric behaviors.

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 because this stimulated the investment and is at the same time non inflationary in nature.

Sharma (2009) in her 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 examine 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.

2.11 Research Gap

Many researches were done 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 income bracket, profession who he or she belonged to. 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.

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

This chapter is related with the research methodology applied in the entire aspect of study. 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. It indicates the method and processes employed in the study. The chapter implies the research design, population and sample of the study, nature and sources of data and analysis of data.

3.1 Research Design

A research design refers to the conceptual structure within which the research is conducted. The research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose within the economy in procedure. Research design is necessary for each research work, it is a plan, structure and strategy of investigation conceived so as to obtain answer to reach question and to control variants. This study depends on the secondary data; some financial and statistical tools have been used to examine fact in this study. This study is based on primary as well as secondary sources of data. So, descriptive as well as analytical research design has been used. The primary data has been collected to examine the investor's attitude toward government securities.

3.2 Population and Sample

In order to show the trend and structure of government debt in Nepal, 19 years data (1991 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

The study is based on secondary data as well as primary data. The major sources **of** secondary data are magazines, website and official publications, annual report of the Nepal Rastra Bank and Ministry of Finance. Some other sources of secondary data are published data by National Planning Commission, Central Bureau of Statistics, and Center for Economics Development and Administration (CEDA), Security Board of Nepal, several working papers of Nepal Resident Mission of Asian Development Bank, and others concern Newspaper, Publication and Website.

The primary data has been collected by making questionnaire survey among and conducting interviews to the 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.

3.4 Data Collection Procedure

The different types of financial and statistical tools have been used in this study. The tools of analysis consist of various analytical instruments. The primary and secondary data are analyzed based on various financial and statistical tools. 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

$$= \frac{\text{Internal Debt in Current Year - Internal Debt in Preceding Year}}{\text{Internal Debt in Preceding Year}} \times 100\%$$

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:

$$\bar{x} = \frac{x_1 + x_2 + x_3 + \ldots\ldots\ldots + x_n}{n}$$

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, 1994:8-18). In this study standard deviation is calculated for selected dependent and independent variables specified in the model presented below.

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

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.

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

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

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 from1991 to 2009 is utilized to make projections the government borrowing by utilizing regression analysis up to the year 2012. The regression equation for Curvilinear Model is as follows:

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

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 , x and x^2 respectively.

So,

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

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

$x^2Y = a\ x^2+b\ x^3+c\ x^4$ ..... (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) Chi-square Test ($¡^2$)

The ($\Re^2$) test (pronounced as Chi-square test) is one of the simplest and most widely used non-parametric test in statistical work. The symbol ($\Re^2$) is the Greek letter Chi. The ($\Re^2$) test was first used by Karl Pearson in year 1993. The quantity ($\Re^2$) describes the magnitude of the discrepancy between theory and observations. It is define as:

Chi Square ($\Re^2$) = $\dfrac{(O\,Z\,E)^2}{E}$

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

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

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

This chapter deals with the presentation and analysis of data collected from various primary and secondary sources. The chapter has been divided into main 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 and Structure of Government Debt in Nepal

Here the analysis is made on the basic of amount raised in term of treasury bills, national saving bonds, special bonds and citizen saving certificates. Overdraft is also taken as internal debt for the analysis of the structure of the taken as internal debt for the analysis of the structure of the debt.

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, fundamental precondition for creating public debt. Debt creation should be viewed as one of several alternatives 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, 1991:436).

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 prospective. 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, 2002:117). Government borrows the amount that equal to the gap between aggregate expenditure and current revenue.

The expenditure and revenue generation are not 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. Due to the frequently 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.

4.1.2 Trend of Government Securities Issued in Nepal

The government of Nepal has been issuing six types of securities as the instrument of public borrowing. They are: treasury bills, development bonds, national saving bonds, special bonds; citizen saving certificates and overdraft are the debt-borrowing instruments in Nepal. Every year, the government has 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 1991 to 2009 is tabulated below:

Table 4.1

Trend and Amount of Government Securities Issued in Nepal

Amount in Rs million

Year	Treasury Bills (a)	Development Bonds (b)	National Saving bonds (c)	Citizen Saving Certificates (d)	Special Bonds (e)	Overdraft (f)	Total Internal Debt (a+b+c+d+e+f)
1991	4,090.0	4,651.7	2,196.5	0.0	697.8	0.00	11,636.0
1992	1,171.0	5,088.6	2,196.5	0.0	4,431.8	2,041.2	14,929.1
1993	1,821.0	5,388.6	2,896.5	0.0	4,567.0	406.1	15,079.2
1994	2,351.0	5,482.3	3,646.5	0.0	9,376.1	0.0	20,855.9
1995	3,483.2	5,132.2	4,546.3	0.0	10,073.2	622.3	23,857.2
1996	4,403.2	5,132.2	4,901.5	0.0	11,019.1	3,274.3	28,730.3
1997	5,216.3	4,732.2	5,691.5	0.0	14,991.2	684.7	31,315.9
1998	6,392.5	4,122.2	6,076.4	0.0	15,466.8	743.0	32,800.9
1999	7,142.5	3,672.2	7,376.5	0.0	16,050.6	2,288.3	36,530.1
2000	8,092.5	3,042.2	8,736.5	0.0	16,019.6	949.1	36,839.9
2001	9,182.5	3,302.2	9,886.4	0.0	19,035.5	2,224.0	43,630.6
2002	17,586.9	3,872.2	10,426.4	0.0	17,784.2	842.3	50,512.0
2003	21,026.9	4,262.2	11,526.5	0.0	17,541.4	522.7	54,879.7
2004	27,610.8	5,962.2	12,476.4	0.0	13,994.3	6,546.7	66,590.5
2005	41,106.6	11,090.7	11,536.3	628.1	9,259.4	5,897.2	79,518.3
2006	46,844.9	13,090.7	10,659.9	931.1	9,621.7	0.0	81,148.3
2007	49,429.6	17,549.2	9,029.8	1,178.9	8,946.2	0.0	86,133.7
2008	51,383.1	19,999.2	6,576.8	1,429.9	8,176.3	0.0	87,565.3
2009	62,970.3	17,959.2	3,876.8	1,678.9	3,469.8	0.0	89,954.9

(Sources: Quarterly Economic Bulletin, NRB (From 1991 to Mid January 2009)

(0.0 Surplus fund of government in NRB account (in 1991 Rs. 266.9 million, in 1994 Rs. 500.4 million, in 2006 Rs. 461.7 million, in 2007 Rs. 753.0 million and in 2008 Rs. 843.0 million)

In the above table, the net outstanding internal public debt has been presented in its terms of types such as treasury bills, development bonds, national saving bonds, citizen saving certificate, special bonds and overdraft. This study has covered overdraft also for the analysis of the total internal public debt.

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 bond, citizen saving certificates and special bonds are the long term government securities.

In the above table, treasury bills in 1991 is Rs.4,090.0 million which trend is growing and reached to Rs.62,970.3 million in 2009. The government has been collection large amount of internal debt from treasury bills. The loan has been growing sharply from 1991 to 2009.

Similarly, the development bonds have been found increased situation in year between 1991 to 1994which later found in decreased trend till 2000. However it started to increase its volume after 2001 till 2008 reaching highest volume of Rs.19, 999.20 million, which decreased to Rs.17, 959.2 million in year 2009. However, the increment of such bond is not high as the increment of treasury bills. The trend shows fluctuating of issuance of government securities during the period of reviewed period. 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.

The national saving bonds have been growing in the year from 1991 to 2004. But in the year from 2005 to 2009, the bonds have been decreasing. The government has been gradually increasing its funds by issuing national saving bonds since the year 1991 to 2004. National saving bonds have been decreasing from the period of 2005 to 2009 which were Rs.11, 536.3 million, Rs.9, 629.8 million, Rs.9, 029.8 million, Rs.6, 576.8 million and Rs.3, 876.8 million respectively.

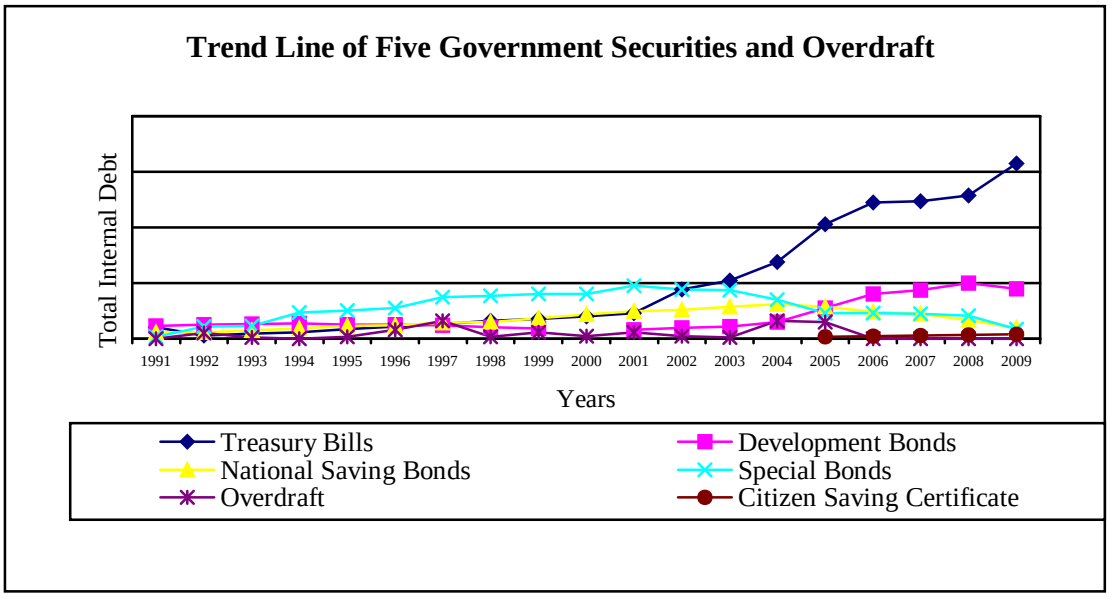
The citizen saving certificate were not issued in the period of 1991 to 2004. It has been issuing from the year 2005. The issue trend of citizen saving certificate have been increasing since the first issue. In the year 2005 the government was issued in 628.1 million and Rs.1, 678.9 million in the year 2009.

In the case of special bonds, the trend is same as in the case of other types of internal debt. It is also in fluctuating trend.

The government borrowing in the form of overdraft is not regular. Out of last 19 years, government have not borrowed overdraft for 6 years, having surplus fund in the respective years. Such case happened in 1991, 1994, 2006, 2007, 2008 and 2009. The government borrowed overdraft in highest level of Rs.6, 546.7 million in year 2004.

In short, the above table shows debt policy of Nepalese government. 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 to meet the deficit budget and several requirement of the nation. The data of securities issued by the government during the period of 2001 to 2009 has been plotted in the below figure.

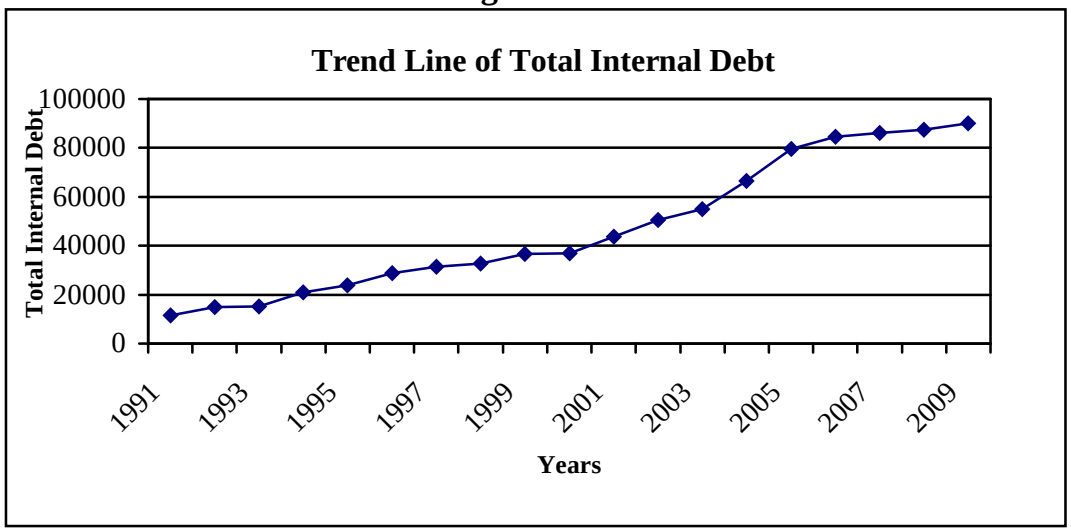
Figure 4.1



The above chart shows that the issuance of the government securities is irregular. The trend of the treasury bills, development bonds, national saving bonds, citizen saving bonds special bonds and overdraft is fluctuating. However, till 2002, all government securities were issued more or less similar. The treasury bills were issued highly after 2003.

The trend line of total internal debt during the period of 1991 to 2009 has been presented in below figure.

Figure 4.2



The trend of total internal debt is upward slopping. The above curve clearly shows the debt collection policy of Nepal government. The government has been selling the five types of securities and the government is borrowing the debt constantly higher.

4.1.3 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 19 years. Internal debt has been projected fro 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 on below;

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

Where a, b and c are constants.

Table 4.2

Forecasted Trend of Total Internal Debt

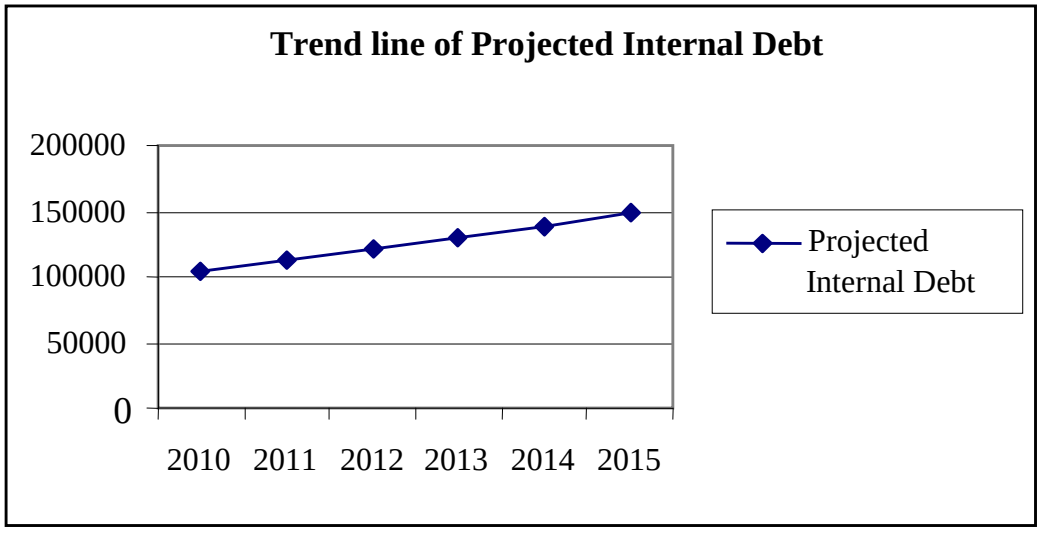
Amount in Rs. million

Years	Projected Internal Debt
2010	105,238.41
2011	113,284.86
2012	121,646.57
2013	130,323.54
2014	139,315.77
2015	148,623.26

(From Appendix-A)

The estimated (forecasted) internal debt for the years 2010, 2011, 2012, 2013, 2014 and 2015 are Rs. 15,238.41million, Rs. 113,284.86 million, Rs. 121,646.57 million, Rs. 130,323.54 million, Rs 139,315.77 million and Rs. 148,623.26 million respectively. The total internal debt has been increasing in every year the projected value can be in the diagram as below:

Figure 4.3



The Trend line is gradually slopping upward, which is fitted by Curvilinear Model. The government borrowing shall be increase at slow pace as shown in the above figure.

4.1.4 Percentage Change in Types and Amount of Government Securities

The following tables show the trend and growth rate of total internal debt and various internal debt instruments severally issued by the government during last 19 years.

Table: 4.3
Growth Trend of total internal debt

Amount in Rs million

Years	Total Internal Debt	Percentage Change in Internal Debt
1991	11,636.00	-
1992	14,929.10	28.30
1993	15,079.20	1.01
1994	20,855.90	38.31
1995	23,857.20	14.39
1996	28,730.30	20.43
1997	31,315.90	9.00
1998	32,800.90	4.74
1999	30,530.10	-6.92
2000	36,839.90	20.67
2001	43,630.60	18.43
2002	50,512.00	15.77
2003	54,879.70	8.65
2004	66,590.50	21.34
2005	79,518.30	19.41
2006	84,645.30	6.45
2007	86,133.70	1.76
2008	87,565.30	1.66
2009	89,954.90	2.73
Total	**890,004.80**	
Average	**46,842.36**	**12.56**
S.D.	**26,792.46**	
C.V.	**0.57**	

(Source: Quarterly Economic Bulletin, NRB (From 1991 to Mid January 2009)

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 1992

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

$$= \frac{14929.10 \text{ Z} 11636.00}{14929.10} \mid 100\%$$

=28.30%

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

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 1992 was 28.30 percent than the previous year. The highest growth rate is in year 1994, i.e. 38.31 percent than the preceding year. During the period, the growth rate of total internal debt found negative in year 1999 (-6.92 percent) only. The standard deviation of the variables (26,792.46) is considerably high, which means the high magnitude of deviation of variables from the average value.

Table: 4.4
Growth Trend of Treasury Bills

Amount in Rs. million

Years	Treasury Bills	Percentage Change in Treasury Bills
1991	4,090	
1992	1,171	-71.37
1993	1,821	55.51
1994	2,351	29.10
1995	3,483.2	48.16
1996	4,403.2	26.41
1997	5,216.3	18.47
1998	6,392.5	22.55
1999	7,142.5	11.73
2000	8,092.5	13.30
2001	9,182.5	13.47
2002	17,586.9	91.53
2003	21,026.9	19.56
2004	27,610.8	31.31
2005	41,106.6	48.88
2006	46,844.9	13.96
2007	49,429.6	5.52
2008	51,383.1	3.95
2009	62,970.3	22.55
Total	**371,304.8**	
Average	**19,542.35**	**22.48**
S.D.	**6,725.24**	
C.V.	**0.35**	

(Source: Quarterly Economic Bulletin, NRB (From 1991 to Mid January 2009)

The above table shows the growth trend of treasury bills issued during last 19 years. The issuance of the treasury bills is not also consistent. In year 1992, it is decreased by 71.37 percent (this is the highest negative growth during the studied 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 2002. The growth rate in year 2009 is 22.55 percent.

Table: 4.5
Growth Trend of Development Bonds

Amount in Rs. million

Years	Development Bonds	Percentage Change in Development bonds
1991	4,651.7	
1992	5,088.6	9.39
1993	5,388.6	5.90
1994	5,482.3	1.74
1995	5,132.2	-6.39
1996	5,132.2	0.00
1997	4,732.2	-7.79
1998	4,122.2	-12.89
1999	3,672.2	-10.92
2000	3,042.2	-17.16
2001	3,302.2	8.55
2002	3,872.2	17.26
2003	4,262.2	10.07
2004	5,962.2	39.89
2005	11,090.7	86.02
2006	13,090.7	18.03
2007	17,549.2	34.06
2008	19,999.2	13.96
2009	17,959.2	-10.20
Total	**143,532.2**	
Average	**7,554.32**	**9.97**
S.D.	**5,297.94**	
C.V.	**0.70**	

(Source: Quarterly Economic Bulletin, NRB (From 1991 to Mid January 2009)

The above table shows the growth trend of development bond issued during last 19 years. The issuance of the development bond is not also consistent. In year 1992, it is 9.39 percent which is near of average 9.97 percent. However, it goes down till 2000 and reaches highest negative growth of -17.16 percent during the whole studied period. The highest growth in issuance of development bond (86.02 percent) is recorded in year 2005. In the last year of studied period i.e. in 2009, it again decreased to -10.20 percent. The standard deviation of variables is still high, which mend the inconsistency in growth rate.

Table: 4.6
Growth Trend of National Saving Bonds

Amount in Rs. million

Years	National Saving Bonds	Percentage Change in National Saving Bonds
1991	2,196.5	-
1992	2,196.5	0
1993	2,896.5	31.87
1994	3,646.5	25.89
1995	4,546.3	24.68
1996	4,901.5	7.81
1997	5,691.5	16.12
1998	6,076.4	6.76
1999	7,376.5	21.40
2000	8,736.5	18.44
2001	9,,886.4	13.16
2002	10,426.4	5.46
2003	11,526.5	10.55
2004	12,476.4	8.24
2005	11,536.3	-7.54
2006	10,659.9	-7.60
2007	9,029.8	-15.29
2008	6,576.8	-27.17
2009	3,876.8	-41.05
Total	**134,260**	
Average	**7,066.31**	**5.10**
S.D.	**3,315.61**	
C.V	**0.47**	

(Source: Quarterly Economic Bulletin, NRB (From 1991 to Mid January 2009)

The above table shows the growth trend of national saving bond issued during last 19 years. The issuance of the saving bond is fond irregular. In the earlier years (till 2004) found positive growth. The highest growth of national saving bond is in 1993 by the growth of 31.87 percent than the preceding year. The issuance of national saving bond found decreasing since the year of 2005. The highest decrease is observed in year 2009, which is -41.05 percent. The standard deviation of variables is 3, 315.61, which is lower than the treasury bills and development bond.

Table: 4.7
Growth Trend of Citizen Saving Certificate

Amount in Rs. million

Years	Citizen Saving Certificate	Percentage Change in National Saving Bonds
1991	0	0
1992	0	0
1993	0	0
1994	0	0
1995	0	0
1996	0	0
1997	0	0
1998	0	0
1999	0	0
2000	0	0
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	628.1	0
2006	931.1	48.24
2007	1,178.9	26.61
2008	1,429.9	21.29
2009	1,678.9	17.41
Total	**5,846.9**	
Average	**307.73**	**28.29**
S.D.	**548.45**	
C.V	**1.78**	

(Source: Quarterly Economic Bulletin, NRB (From 1991 to Mid January 2009)

The above table shows the growth trend of citizen saving certificate issued during last 5 years. The government started to issue citizen saving certificate since 2005 only. The highest and lowest growth of issuance is in 2006 and 2009 respectively. The growth rate is in decreasing trend. The growth rate of issuance of citizen saving bond is more constancy than other instruments, standard deviation of the variables (548.45) justify the same.

Table: 4.8
Growth Trend of Special Bonds

Amount in Rs. million

Years	Special Bonds	Percentage Change in Special Bonds
1991	697.80	
1992	4,431.80	535.11
1993	4,567.00	3.05
1994	9,376.10	105.30
1995	10,073.20	7.43
1996	11,019.10	9.39
1997	14,991.20	36.05
1998	15,466.80	3.17
1999	16,050.60	3.77
2000	16,019.60	-0.19
2001	19,035.50	18.83
2002	17,784.20	-6.57
2003	17,541.40	-1.37
2004	13,994.30	-20.22
2005	9,259.30	-33.84
2006	9,621.70	3.91
2007	8,946.20	-7.02
2008	8,176.30	-8.61
2009	3,469.80	-57.56
Total	**210,521.90**	
Average	**11,080.1**	**32.81**
S.D.	**7564.4**	
C.V	**0.7**	

(Source: Quarterly Economic Bulletin, NRB (From 1991 to Mid January 2009)

The above table shows the growth trend of special bond issued during last 19 years. This instrument found the highly fluctuating during the studied period. The growth rate of 1992 (535.11 percent) is the highest and highest negative (-57.56 percent) in the last year 2009 during the studied 19 years. The standard deviation is also highest (7,564.4), which means the highest inconsistency in variables.

Table: 4.9
Growth Trend of Overdraft

Amount in Rs. million

Years	Overdraft	Percentage Change in Overdraft
1991	-	-
1992	2,041.20	-
1993	406.10	-80.10
1994	-	-100.00
1995	622.30	0.00
1996	3,274.30	426.16
1997	684.70	-79.09
1998	743.00	8.51
1999	2,288.30	207.98
2000	949.10	-58.52
2001	2,224.00	134.33
2002	842.30	-62.13
2003	522.70	-37.94
2004	6,546.70	1152.48
2005	5,897.20	-9.92
2006	-	-100.00
2007	-	0.00
2008	-	0.00
2009	-	0.00
Total	**27,041.90**	
Average	**1,423.3**	**82.45**
S.D.	**1,887.3**	
C.V	**1.3**	

(Source: Quarterly Economic Bulletin, NRB (From 1991 to Mid January 2009)

The above table shows the growth trend of overdraft taken by the government from Nepal Rastra Bank. During the period, government has not borrowed overdraft for year 1994 and 2006 to 2009. It is also highly fluctuating means of public finance. The growth rate of 2004 (1,152.48 percent) is the highest in comparison of preceding year. The lowest growth in (-100 percent) have been found in 1994 and 2006. In these years the government has not borrowed overdraft from Nepal Rastra Bank. The standard deviation is also high (1, 887.30), which mean the high inconsistency in variables.

The average debt of treasury bills, development bonds, national saving bonds, citizen saving certificates, special bond and overdraft are Rs. 19 542.35 million, Rs. 7,554.32 million, Rs. 7,066.31 million, Rs.307.73 million, Rs.11,080.10 million and Rs. 1,423.30 million respectively. The treasury bills have the highest average among the

all government securities, where as the citizen saving certificates has lowest average. The treasury bills, development bonds, national saving bonds, 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 2004. The utilization of overdraft has been found irregular. During 1991-2009, government has raised highest amount from treasury bills (Rs 371, 304.8 million) and the lowest amount from the citizen saving certificates (Rs 5, 846.9 million). The government issues treasury bills in the market for fulfillment of short-term funds.

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 57 percent, whereas the C.V. of treasury bills, development bonds, national saving bonds, citizen saving certificates, special bonds and overdraft are 35 percent,70 percent, 47 percent, 178 percent 70 percent and 130 percent respectively. The highest C.V. among the government securities has been found for citizen saving certificates i.e. 178 percent, which indicates the less consistency in internal debt in comparison to others. The C.V. of national saving bond is lowest of all, which shows that there is more consistency in national debt in comparison to others securities. The C.V. of citizen saving bond and overdraft are below than the average C.V. of internal debt (total internal debt), whereas the remaining have higher than the average.

4.1.5 Ownership Pattern of Government Securities

The government is issuing different kind of bonds to public to raise the fund 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 different kind of bond is also playing vital role to shape the different ownership pattern on each bonds. On the basis of ownership on each bond, during the period of 2002 to 2009 has been presented below:

Table: 4.10

Ownership Pattern of Treasury Bills

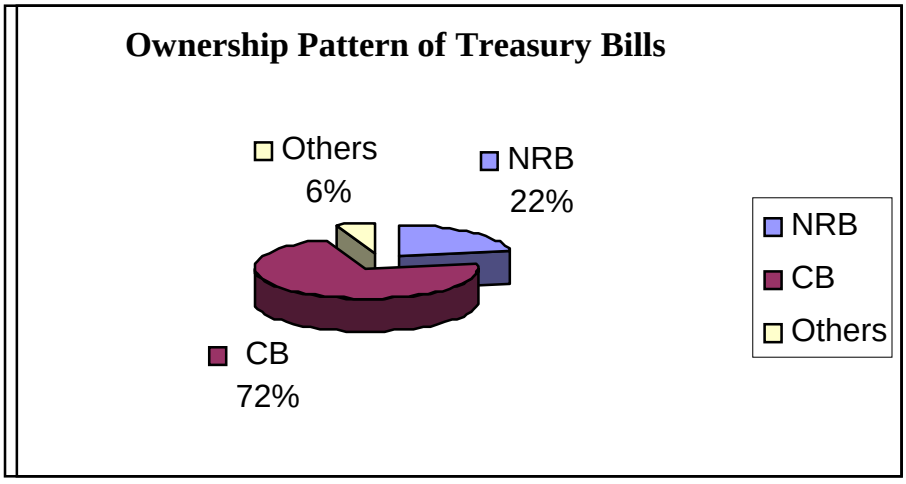
Amount in Rs. million

Years	Owner/amount		
	NRB	**CB**	**Others**
2002	46,967	100,590	28,312
2003	27,950	156,860	25,460
2004	30,505	222,670	22,933
2005	152,639	230,298	28,128
2006	158,169	311,738	18,700
2007	98,044	361,543	34,709
2008	109,238	395,016	9,577
2009	92,093	516,458	21,152
Total	**715,605**	**2,295,173**	**188,971**

(Source: Economic Survey F/Y 2008/09)

As shown in above table, 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 2002 to 2009. The total value of treasury owned by Nepal Rastra Bank, commercial banks and other sector during 2002 to 2009 are Rs. 715,605 million, Rs. 2,295,173 million and Rs. 188,971 million respectively. The total value of Treasury bill owned by the each group has been presented below in pie chart.

Figure 4.4



The above chart shows that the commercial bank sector own the 72 percent of treasury bills, the highest owner, whereas the others owns only 6 percent of treasury bills issued by government during the period of 2002 to 2009.

Table: 4.11
Ownership Pattern of Development Bond

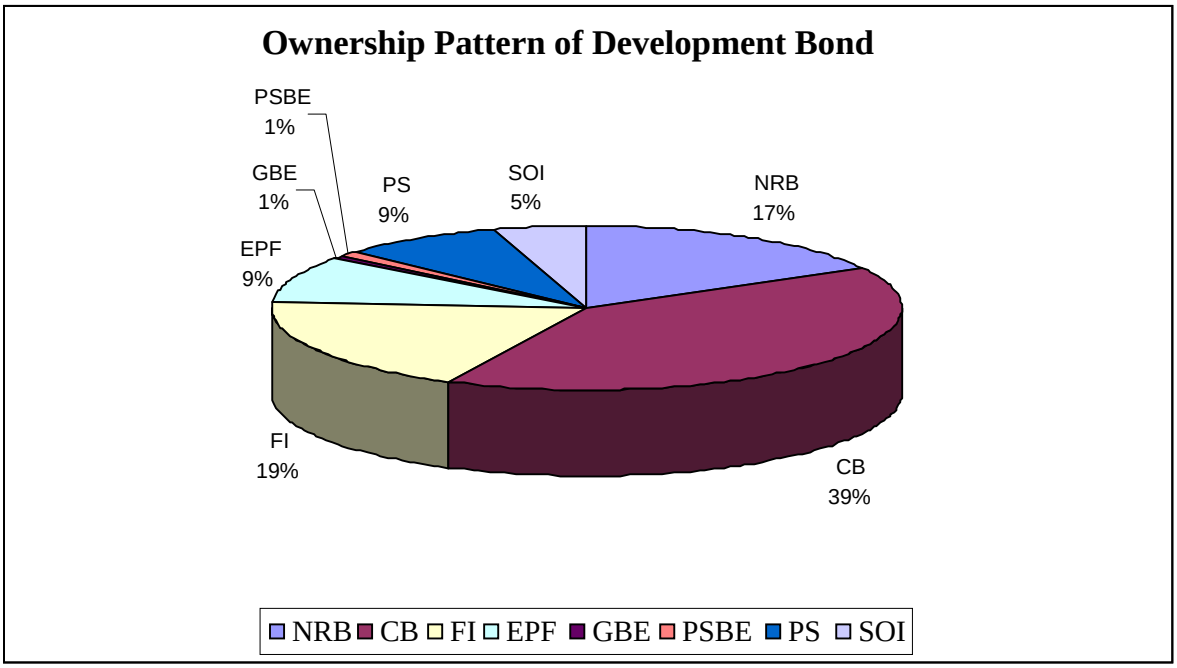
Amount in Rs. million

Years	Owner/amount							
	NRB	CB	FI	EPF	GBE	PSBE	PS	SOI
2002	15,267	16,586	1,335	-	1,000	10	-	4,524
2003	20,686	15,990	3,511	-	1,750	-	30	654
2004	22,722	21,844	3,591	-	1,750	10.0	5,531	2,284
2005	22,662	54,266	14,040	5,000	750	110	12,051	2,028
2006	17,960	72,409	36,217	12,500	125	1,015	11,657	8,709
2007	32,983	65,874	39,037	17,976	125	2,895	9,256	7,346
2008	15,187	61,045	43,558	26,351	125	2,198	22,350	9,178
2009	15,186	62,10	41,318	26,351	125	2,895	21,430	9,577
Total	**162,653**	**390,724**	**182,607**	**88,178**	**5,750**	**9,223**	**82,305**	**44,300**

(Source: Economic Survey F/Y 2008/09)

In Development bond, there are 8 major owners during the period of 2002 to 2009. It is found that the highest owner of the Development bond is also commercial banks sector. Nepal Rastra Bank is the second highest owner of Development bond. Nepal Ratra Bank owned Rs. 162,653 million, whereas commercial banks and financial institutions owned Rs. 390,724 million and Rs. 182,607 million respectively. Likewise, EPF, government business enterprises, private sector business enterprises, private sector and service oriented organization has purchased development bond of Rs. 88,178 million, Rs. 5,750 million, Rs. 9,223 million, Rs. 82,305 million and Rs. 44,300 million respectively during the period. The total figure of development bond and ownership status has been presented below in pie chart.

Figure 4.5



The above chart shows that the commercial bank sector owns the 39 percent of development bond, the highest owner, whereas the NRB, SOI, PS, PSBE, GBE, EPF and FI owns 17 percent,5 percent,9 percent,1 percent, 1 percent,9 percent and 19 percent of development bond respectively issued by the government during the period of 2002 to 2009.

Table: 4.12

Ownership Pattern of National Saving Bond

Amount in Rs million

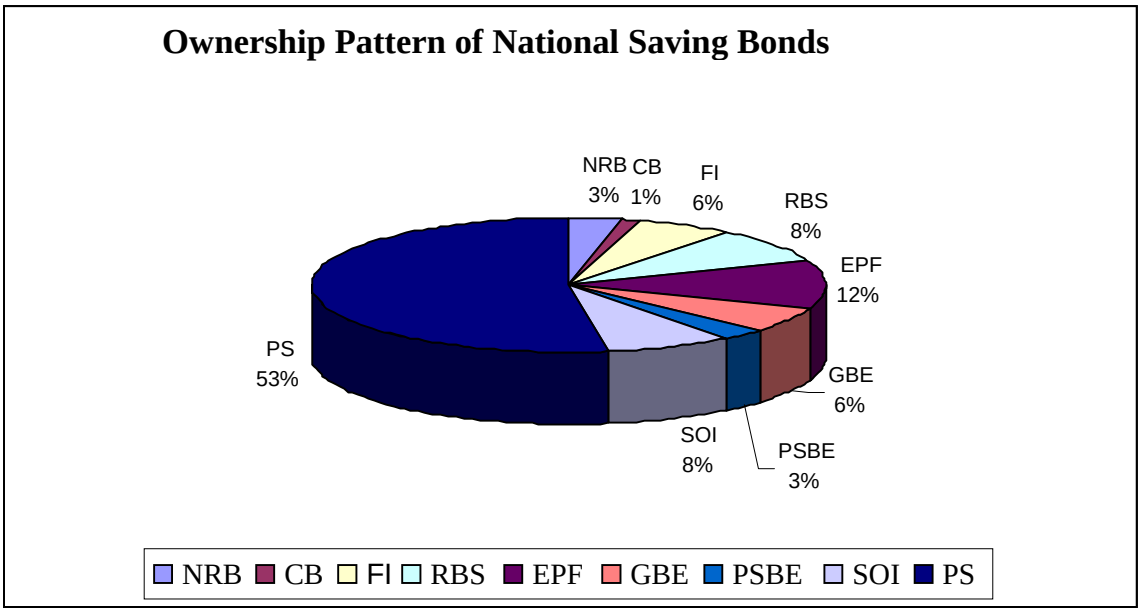
Years	Owner/amount								
	NRB	**CB**	**FI**	**RBS**	**EPF**	**GBE**	**PSBE**	**SOI**	**PS**
2002	3,687	1,545	11,112	14,732	13,849	9,734	4,298	10,312	34,995
2003	7,644	1,545	7,712	13,317	12,311	8,058	4,399	9,290	50,989
2004	3,432	1,545	9,879	7,137	14,756	5,739	3,438	12,681	66,157
2005	207	1,178	6,089	7,882	14,556	7,259	3,422	10,597	64,171
2006	631	1,100	5,747	5,792	11,581	4,808	2,825	5,517	58,294
2007	4,040	1,100	2,116	5,258	10,631	3,808	1,546	4,638	57,161
2008	2,314	-	2,098	4,207	9,800	3,003	1,386	4,033	38,926
2009	2,660	-	2,075	3,207	1,200	2,300	1,290	1,956	24,080
Total	**24,615**	**8,013**	**46,828**	**61,532**	**88,684**	**44,709**	**22,604**	**59,024**	**394,773**

(Source: Economic Survey F/Y 2008/09)

In National Saving bond, the major buyer is private sector. During the period of 2002 to 2009, it is found that the private sector has purchasing the National Saving Bond

constantly. The second highest owner of the National saving bond is Employee Provident Fund. The commercial bank sector has owned the least National Saving Bond during the period. The total value of National Saving Bond owned by Nepal Rastra Bank, Commercial Bank, Financial Institutions, Rastriya Beem Sansthan, EPF, government business enterprises, private sector business enterprises, service oriented organization and private sector is Rs. 24,615 million, Rs. 8,013 million, Rs. 46,828 million, Rs. 61,538 million, Rs. 88,684 million, Rs. 44,709 million, Rs. 22,604 million, Rs. 59,024 million and Rs. 394,773 million respectively. The total figure of national saving bond and ownership status has been presented below in pie chart.

Figure 4.6



The above chart shows that the private sector owns the 53 percent of National Saving bond, the highest owner, whereas the NRB, CB, FI, RBS, EPF, GBE, PSBE and SOI owns 3 percent, 1 percent, 6 percent, 8 percent, 12 percent, 6 percent, 3 percent and 8 percent of National Saving Bond respectively issued by the government during the period of 2002 to 2009.

Table: 4.13

Ownership Pattern of Citizen Saving Bond

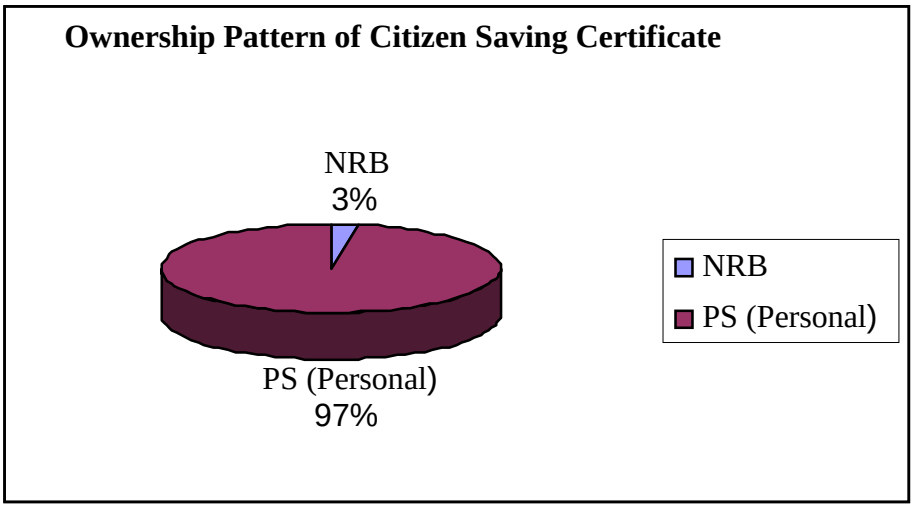
Amount in Rs million

Years	Owner/amount	
	NRB	**PS(Personal)**
2002	-	-
2003	-	-
2004	-	-
2005	31	6,250
2006	-	9,311
2007	458	11,331
2008	496	13,793
2009	553	16,236
Total	**1,538**	**56,921**

(Source: Economic Survey F/Y 2008/09)

In Citizen Saving certificate, the major buyer is private sector (personal). It is started to issue only after 2005. 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 private sector (personal) is Rs. 1,538 million and Rs. 56,921 million respectively. The total figure of citizen saving certificate and ownership status has been presented below in pie chart.

Figure 4.7



The above chart shows that the private sector(personal) owns the 97 percent of Citizen Saving Certificates, the highest owner, whereas the others owns only 3 percent of Citizen Saving Certificates issued by the government during the period of 2002 to 2009.

Table: 4.14
Ownership Pattern of Special Bonds

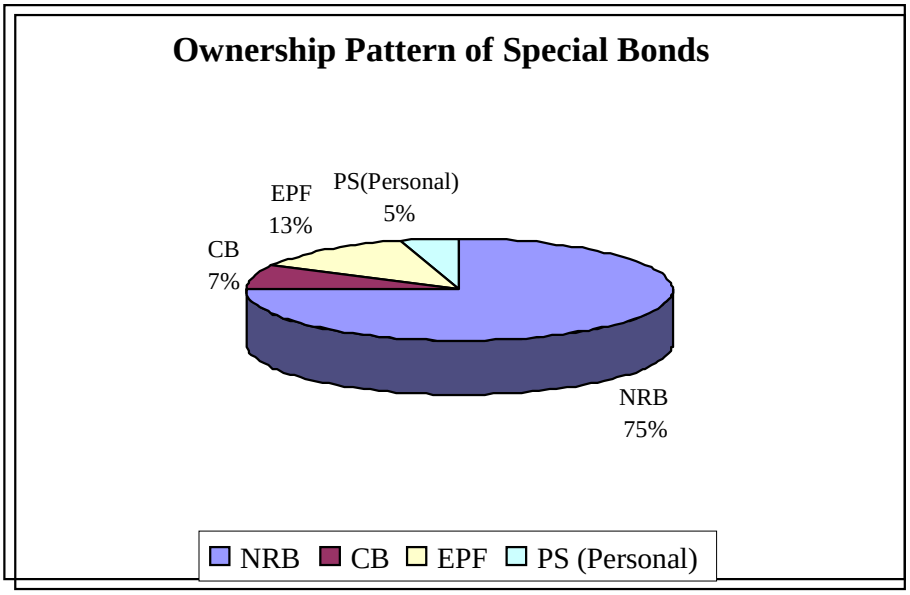
Amount in Rs million

Years	Owner/amount			
	NRB	**CB**	**EPF**	**PS(Personal)**
2002	155,236	7,870	14,735	-
2003	152,808	7,870	14,735	-
2004	117,338	7,870	14,735	-
2005	65,684	7,870	14,735	4,304
2006	60,097	9,446	14,735	7,367
2007	55,863	9,446	14,735	9,418
2008	47,223	9,446	14,735	10,359
2009	47,558	9,446	14,735	10,517
Total	**701,807**	**69,264**	**117,880**	**41,965**

(Source: Economic Survey F/Y 2008/09)

The major buyer of the special bond is also Nepal Rastra Bank. Generally it is issued for the specific purpose by the government. The Employee Provident Fund (EPF) is the second highest owner of the special bond. The total value of special bond owned by the Nepal Rastra Bank, Commercial Bank, EPF and Private sector (Personal) during the period of 2002 to 2009 is Rs. 701,807 million, Rs. 69,264 million, Rs. 117,880 million and Rs. 41,965 million respectively. The total figure of special bond and ownership status has been presented below in pie chart.

Figure 4.8



The above chart shows that the NBR owns the 75 percent of Special bond, the highest owner, whereas the CB, EPF and PS(Personal) owns 7 percent,13 percent and 5

percent of Special Bond respectively issued by the government during the period of 2002 to 2009.

4.2 Presentation and Analysis of Primary Data

This section includes the analysis of primary sources of 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 offering various professions. The individual investors represented by the respondents are the businessmen, service holders in several organizations such as staff of banks, financial institutions, government officers and employee of other organization, retired persons from the government as well as private service and other persons such as stock brokers, lecturers, students from finance and economics background.

The information were collected from all the categories comprised, businessmen, service holder, retired person and other. Each group of the investors are categorized on the basis of their monthly income group, their perception of which types of government securities are highly subscribed in the market and their 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 on government securities in terms of payment of principal and interest and their perception on difficulty in collecting interest and principal. The date were also analyzed to find out the reasons for the sales 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. The major findings of the survey are as follows:

Profession wise distribution of Investors as observed by Investor Category

Occupation of Investors	No. of Respondents	% of Respondents
Businessman	8	17.78%
Service holders	18	40.00%
Retired persons	7	15.56%
Others	12	26.66%

Investors are classified in four major groups i.e. Businessmen, Service holders, Retired Persons and Others. Information was collected among individual respondents about current professions. Out of total 45 participating respondents who were questioned about the category they belong to, 17.78 percent claimed that they belonged to businessman, 40 percent declared themselves as the service holders, 15.56 percent categorized themselves as the retired persons and remaining 26.66 percent said that they belonged to other category i.e. students, campus lecturers etc.

Distribution of Income level by Individual Investor Category

Monthly income group	Types of Investors			
	Business man	Service Holders	Retired Person	Others
Below Rs. 10000	-	-	-	-
Rs. 10000 to Rs. 20000	2(25%)	2(11%)	3(42.85%)	4(33.33%)
Rs. 20000 to Rs. 40000	3(37.5%)	4(22%)	3(42.85%)	2(16.67%)
Above Rs. 40000	3(37.5%)	12(67%)	1(14.30%)	6(50%)

Information was collected among individual respondents, groupings on the basis of their professions and their monthly income to enhance the analysis of perception about government securities on the basis of income level. Regarding the income level, nobody was found with monthly income below than ten thousand rupees per month. The major respondents (i.e. 48.89 percent) were found with monthly income more than Rs. 40,000. Out of total respondent 24.44 percent were found having monthly income between Rs. 10,000 to Rs.20, 000, while 26.67 percent were said that they were earning monthly income between Rs. 20,000 to Rs. 40,000.

Class of Interest to buy the Government Securities

Interest to buy the government securities	Types of Investors			
	Business man	Service Holders	Retired Person	Others
Highly interested	-	-	2(28.57)	2(16.67%)
Moderate interested	2(25%)	5(27.78%)	1(14.29%)	4(33.33%)
Less interested	3(37.5%)	6(33.34%)	2(28.57%)	3(25%)
Totally indifferent	3(37.5%)	7(38.88%)	2(28.57%)	3(25%)

With respect to interest to buy the government securities on the basis of their profession, major businessmen (i.e.75 percent) were found less interested and totally

indifferent to buy government securities, whereas 25 percent businessman were found moderate interested on it. It is interesting that, nobody in businessmen group were found highly interest to buy government securities.

Regarding the interest of service holders to buy the government securities, the results were found more or less similar the result of businessmen category. Highest number of service holders (i.e. 38.88 percent) was found totally indifferent to buy the government securities and nobody found highly interested on it. Only 27.78 percent and 33.34 percent respondents were found moderate interested and less interested respectively to buy government securities.

With respect to the interest of retired persons to buy the government securities, 28.57 percent were found highly interest on it. The equal portions of investors were found less interested and totally indifferent to buy the government securities. Only 14.23 percent of investors were found less interested on it.

In other category, out total respondents, highest portion (33.33 percent) of investors found moderate interested to buy the government securities, whereas 16.67 percent were highly interested on it. Remaining were found highly interested and less interested (25 percent on each) to buy government securities.

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

Types of Government security	Types of Investors			
	Business man	Service Holders	Retired Person	Others
Treasury bills	5(62.5%)	3(16.67%)	-	5(41.67%)
Development bonds	-	-	-	2(16.67%)
National saving bonds	-	4(22.22%)	5(71.42%)	1(8.33%)
Special bonds and Citizen saving certificates	3(37.5%)	3(16.67%)	2(28.58%)	4(33.33%)
Others	-	8(44.44%)	-	-

When the businessmen were questioned about their perceptions on the types of government securities that are highly subscribed in the market, most of them (62.5 percent) opined that treasury bills are highly subscribed in market, whereas 37.5

percent were found in favor of special bonds and citizen saving certificate. They were not found interested on development bond and national saving bond.

With respect to the perception about the type of government securities that are highly subscribed to the service holders, most of them (44.44 percent) were found interested on citizen saving certificate, whereas 16.67 percent, 22.22 percent and 16.67 percent were found interested on treasury bills, national saving bonds, special bonds respectively. Nobody was found interested on development bonds.

Regarding the perception of the retired persons, most of them (i.e. 71.42 percent) viewed that the national saving bonds are highly subscribed, whereas 28.58 percent viewed that the special bonds are highly subscribed. Nobody was found interested on treasury bills and development bonds and citizen saving certificate.

In other category, out of total respondents, 41.67 percent, 11.67 percent, 8.33 percent and 33.33 percent were viewed that the treasury bills, development bonds, national saving bonds and special bonds respectively are highly subscribed. Nobody was found interested on citizen saving certificate.

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**
Risk less Investment	2(25.00%)	10(55.56%)	5(71.42%)	2(16.67%)
Zero liquidity risk	-	2(11.11%)	-	2(16.67%)
Lack of other investment opportunity	3(37.50%)	6(33.33%)	2(28.58%)	2(16.67%)
Declining interest rate in other investment	3(37.50%)	-	-	6(50%)
Others	-	-	-	-

With respect to reasons for investing in government securities, out of total respondents in businessmen, 25 percent, 37.5percent and 37.5 percent invest their fund considering as risk less investment, lack of other investment opportunity and declining interest in other investment respectively.

Regarding the reasons for investing in government securities, most of service holders (55.56 percent) viewed that they invest on it considering as risk less investment, whereas 11.11 percent and 33.33 percent invest their fund considering as zero liquidity risk and lack of other investment opportunity respectively.

When the retired person were questioned about the reasons for investing in government securities, it is found that most of them (i.e. 71.42 percent) opined that they invest on it being risk less investment and rest of them (i.e 28.58 percent) invest their fund on it because lack of other investment opportunity.

The reasons for investing in government securities by other respondents, it is found that 16.67percent, 16.67 percent, 16.67 percent and 50 percent invest their fund considering as risk less investment, zero liquidity risk, lack of other investment opportunity and declining interest rate in other investment respectively.

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
Difficulty due to long process	5(62.5%)	2(11.11%)	1(14.29%)	3(25%)
Difficulty due to complex procedures	-	5(27.78%)	2(28.58%)	2(16.67%)
No difficulty at all	2(25%)	11(61.11%)	3(42.85%)	4(33.33%)
Others	1(12.5%)	-	1(14.29%)	3(25%)

Regarding the perception on difficulty in collecting interest and repayment of principal, the most of the businessmen (i.e. 62.5 percent) expressed that they have felt difficulty due to long process in this regard, whereas 25 percent and 12.5 percent businessmen reported that they have no difficulty at all and difficulty due to other reasons respectively.

With respect to the perception on difficulty in collecting the interest and principal repayment, most of them viewed that they have not felt any problem at all, whereas 11.11 percent and 27.78 percent reported that they have felt difficulty due to long process and due to complex procedures respectively.

When the same questions was asked to retired persons, most of them (i.e. 71.42 percent) reported that they have not felt any problem at all, whereas 14.29 percent and 28.56 percent reported that they have felt difficulty due to long process and due to complex procedures respectively.

When the same questions was asked to other persons, 25 percent reported that they have felt difficulty due to long process, 16.67 percent felt difficulty due to complex procedures, 33.33 percent reported that they have not felt any problem at all and 25 percent felt difficulty due to other reasons.

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
To grab alternative investment opportunity	2(25%)	5(27.78%)	5(71.42%)	4(33.33%)
To meet household requirement	5(62.5%)	8(44.44%)	-	6(50%)
To benefit from investment in real estate	-	2(11.11%)	-	-
When securities is overpriced	1(12.5%)	3(16.87%)	2(28.58%)	2(16.67%)
Others	-	-	-	-

With respect to the reasons for selling the government securities, when the businessmen were questioned about the reasons for selling the government securities, most of them (i.e. 62.5 percent) to meet the household requirement, whereas 25 percent, and 12.5 percent used to sell it to grab alternative investment opportunity and when the stock is overpriced respectively.

When the same question was asked to service holders, most of them (i.e. 44.44 percent) used to sell it to meet the household requirement, whereas 27.78 percent, 11.11 percent and 16.67 percent used to sell it to grab alternative investment opportunity, to benefit from investment in real estate and the stock is overpriced respectively.

Regarding the reasons to sell the government securities, the most of retired persons, (i.e. 71.42 percent) opined that they used to sell it to grab alternative investment opportunity and remaining 28.58 percent used to sell it when the stock is overpriced.

Whereas the other persons, most of them (i.e. 50 percent) used to sell it to meet the household requirement , whereas 33.33 percent and 16.67 percent used to sell it to grab alternative investment opportunity and when the stock is overpriced respectively.

Participation of general investor in invest on Government Securities

Causes of feeling uncertain about investment	Types of Investors			
	Business man	Service Holders	Retired Person	Others
Lower rate of return	1(12.5%)	5(27.78%)	1(14.29%)	1(8.33%)
Complex rules and regulations to be followed at the time of making investment	4(50%)	7(38.88%)	3(42.85%)	5(41.67%)
No consideration of time value of money	1(12.5%)	3(16.67%)	2(28.58%)	6(50%)
Others	2(25%)	3(16.67%)	1(14.29%)	-

With respect to the low participation in investment of government securities, most of the businessmen (i.e. 50 percent) viewed that it is because of no consideration of time value of money, whereas 12.5 percent, 12.5 percent and 25 percent viewed that it is because of lower rate of return, complex rules and regulations to be followed as the important reason and percent due to other factors respectively.

The service holders considered lower rate of return 27.78 percent, complex rules and regulations to be followed, 38.88 percent no consideration of the time value of money 16.67 percent and 16.67percent due to other factors for the low participation of general investors in government securities.

When the retired persons were questioned regarding the reasons of low participation of general investors in government securities, 14.29 percent, 42.85 percent, 28.58 percent and 14.29 percent considered lower rate of return, complex rules and regulations to be followed, no consideration of the time value of money and 14.29 percent due to other factors respectively.

When the other persons were questioned about it, most of them (50 percent) considered the time value of money is the main reason of low participation of general investors in government securities, whereas 8.33 percent and 41.67 percent respectively viewed that it is because of lower rate of return and complex rules and regulations to be followed.

Different types of Fund used to Purchase Government Securities

Kinds of funds used	Types of Investors			
	Business man	**Service Holders**	**Retired Person**	**Others**
Residual amount	-	10(55.56%)	-	4(33.33%)
Profit from business	8(100%)	-	-	2(16.67%)
Loan	-	2(11.11%)	1(14.28%)	6(50%)
Retirement fund	-	6(33.33%)	6(85.72%)	-
Others	-	-	-	-

Regarding the types of fund used to purchase of government securities, it is found that all (i.e. 100 percent) businessmen invested in this sector out of their profit obtained from the business.

Similarly majority of service holders (i.e.55.58 percent) opined that they have invested in government securities from the residual amount, whereas 11.11 percent and 33.33 percent opined that they have invested in government securities from the loan and the retirement fund respectively.

Whereas most of retired person (i.e.85.72 percent) opined that they have invested in government securities through their retirement fund, whereas rest (i.e.14.28 percent) declared that they have invested in government from the loan.

When the other persons questioned the same matter, it is found that major (i.e. 50%) have purchased government securities through the loan, whereas 33.33 percent and 16.67 percent have invested in government securities from their residual income and profit from the business respectively.

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
Convenient to purchase and sell	2(25%)	5(27.78%)	1(14.29%)	2(16.67%)
Involve low risk	3(37.5%)	3(16.67%)	3(42.85%)	4(33.33%)
High Marketability	1(12.5%)	2(11.11%)	2(28.58%)	3(25%)
Lack of information of other investment sectors	2(25%)	8(44.44%)	1(14.29%)	3(25%)

With respect to the reason for full subscription of government securities, the businessmen viewed in different ways. Out of total number of them 25 percent, 37.5 percent, 12.5 percent and 25 percent respectively viewed the government securities as convenient to purchase and sell, good investment sector involve low risk, high marketability and lack of information of other investment sectors respectively.

Among the service holders, highest respondents (44.44 percent) opined that the reason of full subscription of government securities is lack of information of other investment sectors, whereas 27.78 percent, 16.67 percent and 11.11 percent viewed it as convenient to purchase and sell, high marketability and involve low risk respectively.

Among the retired persons, highest number of investors (42.85 percent) viewed that the reason of full subscription of government securities is low risk in this sector, whereas 14.29 percent, 28.58 percent and 14.29 percent considered convenient to purchase and sell, high marketability and lack of information on other sectors respectively.

When the other persons questioned same question, 16.67 percent considered it as convenient to purchase and sell, 33.33 percent viewed as the low risk involved, 25 percent opined the high marketability and 25 percent considered it because of lack of information of other investment sectors.

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
It will be utilize properly	5(62.5%)	10(55.56%)	2(28.58%)	4(33.33%)
It will be unutilized	-	-	-	2(16.67%)
Can not say	3(37.5%)	8(44.44%)	5(71.42%)	-
Others	-	-	-	6(50%)

With respect to the perception on the utilization of collected fund from the people through the different government securities, most of businessmen (i.e. 62.5 percent) viewed that it is utilized properly, whereas 37.5 percent were found unknown about the utilization of collected fund.

Regarding the perception of service holders, most of them (i.e. 55.56 percent) viewed that the fund collected through the government securities has been utilizing property, whereas the rest (i.e. 44.44 percent) were fond unknown about the utilization of it.

Whereas the most of the retired persons (i.e. 71.42) were found unknown about the utilization of collected fund and 28.58 percent opined that it is utilized properly.
When the other persons were questioned, most of them (i.e. 50 percent) were found unknown about the utilization of collected fund, whereas 33.33 percent and 16.67 percent viewed that it is utilized properly, it is unutilized respectively.

4.3 Test of Hypothesis

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

Test-1

The randomly selected investors were classified according to their monthly income. A hypothesis was put forward to examine if, the perceived risk from government securities is independent of income level. For this purpose, the individual investors were categorized into three main categories; monthly income Rs10, 000 to Rs.20,000, Rs.20,000 to Rs.40,000 and above Rs.40,000 on the basis of data availability. There were only two categories of risk perceptions among the respondents: no risk and

moderate risk. The responses of each group of professional have been classified, presented, tested and analyzed below:

Table: 4.15

Distribution of Respondent by Income Level

Perception of risk	Income Level			Total
	Investors with monthly income Rs10,000-Rs20,000	Investors with the monthly income of Rs20,000-Rs40,000	Investors with the monthly income aboveRs40,000	
No Risk	6	11	14	31
Moderate and Other Risk	5	1	8	14
Total	11	12	22	45

Formulation of hypothesis:

Null Hypothesis (Ho): The investors' perception of risk is independent of level of income.

Alternative Hypothesis ($H_{1)}$): The investors' perception of risk in government securities is dependent of their income level.

Level of signification:

The level of signification is 5%

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

R_1C_1 (6) $= \frac{RT \mid CT}{N} = \frac{31 \mid 11}{45} = 7.78$

R_2C_1 (5) $= \frac{RT \mid CT}{N} = \frac{11 \mid 14}{45} = 3.42$

R_1C_2 (11) $= \frac{RT \mid CT}{N} = \frac{31 \mid 12}{45} = 8.27$

R_2C_2 (1) $= \frac{RT \mid CT}{N} = \frac{14 \mid 12}{45} = 3.73$

R_1C_3 (14) $= \frac{RT \mid CT}{N} = \frac{31 \mid 22}{45} = 15.15$

R_2C_3 (8) $= \frac{RT \mid CT}{N} = \frac{14 \mid 22}{45} = 6.84$

Table: 4.16
Calculation of Chi-square ($¡^2$):

Observed Frequency(O)	Expected Frequency (E)	(O-E)	$\frac{(O-E)^2}{E}$
6	7.78	-1.78	0.4072
5	3.42	1.58	0.7299
11	8.27	2.73	0.9011
1	3.73	-2.73	1.9980
14	15.15	-1.15	0.0872
8	6.84	1.16	0.1967
Total			**4.3201**

Test Statistics

Chi Square ($\Re^2$) = $\frac{(O\,Z\,E)^2}{E}$

= 4.3201

Calculated Value of $\Re^2$ = 4.3201

Tabulated Value of $\Re^2$ 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. 4.3201 < 5.991)

Decision:

Since the calculated value of Chi-square is lower than the tabulated value of Chi-square (i.e. 4.3201< 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' perception of risk to invest on government securities is independent of their income level. As such, investors from all income groups are equally interested to purchase the government securities

Test -2

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:

Table: 4.17
Distribution of Respondent by their Professions

Attitude	Profession			Total
	Businessman	Service holders	Retired person and others	
More Interested	3	7	6	16
Less Interested	5	11	13	29
Total	**8**	**18**	**19**	**45**

Formulation of Hypothesis:

Null Hypothesis (Ho): The investor's attitude to invest on government securities is independent on their occupation.

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

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 (3) $= \frac{RT \mid CT}{N} = \frac{16 \mid 8}{45} = 2.84$

R_2C_1 (5) $= \frac{RT \mid CT}{N} = \frac{29 \mid 8}{45} = 5.16$

R_1C_2 (7) $= \frac{RT \mid CT}{N} = \frac{16 \mid 18}{45} = 6.40$

R_2C_2 (11) $= \frac{RT \mid CT}{N} = \frac{29 \mid 18}{45} = 11.60$

R_1C_3 (6) $= \frac{RT \mid CT}{N} = \frac{16 \mid 19}{45} = 6.76$

$$R_2C_3\ (13) \quad = \frac{RT \mid CT}{N} = \frac{29 \mid 19}{45} = 12.25$$

Table: 4.18
Calculation of Chi-Square (¡ ^{2}):

Observed Frequency(O)	**Expected Frequency (E)**	**(O-E)**	**$\frac{(O-E)^2}{E}$**
3	2.84	0.15	0.00789
5	5.16	-0.16	0.00496
7	6.40	0.60	0.05142
11	11.60	-0.60	0.03272
6	6.76	-0.76	0.08544
13	12.25	0.75	0.04591
Total			**0.22834**

Test Statistics:

Chi Square ($\Re^2$) = $\frac{(O \text{ Z } E)^2}{E}$

=0.22834

Calculated Value of $\Re^2$ = 0.22834

Tabulated Value of $\Re^2$ 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. 0.22834 < 5.991)

Decision:

Since the calculated value of Chi-Square is lower than the 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.

4.3 Major Findings of the Study

From the analysis of data collected from various secondary and primary sources, following findings can be made:

1. The government has borrowing public fund through the different type of government securities and overdraft regularly to meet the deficit budget of the country. Treasury bills, development bonds, national savings bond, citizen saving bond, special bond and the overdraft from Nepal Rastra Bank are the major instruments to borrow or to collect the public fund.

2. During the last 19 years (1991 to 2009) the government borrowed Rs.371, 304.8 million from Treasury bills (highest among the different instruments). Similarly, the government borrowed the Rs 143,532.2 million, Rs 134,260 million, Rs 5,846.90 million, Rs 210,521.90 million and Rs 27,041.90 million through the Development bond, National Saving bond, Citizen Saving Certificate, Special Saving bond and Overdraft respectively.

3. Citizen Saving bond is started to issue only after 2005, whereas the government has not borrowed from overdraft on 1991, 2002 and after 2006.

4. The issuance of total government securities is in increasing trend. The curve shows the upward sloping from the beginning of studied period. However, trend of individual securities are different.

5. The CV of all government securities is high. Among all, Citizen Saving Certificates has the highest CV (i.e. 1.78), which indicate that the more inconsistency in issuance of citizenship saving certificate. The lowest CV is found in Treasury Bills (i.e. 0.35), which means that the government has borrowing public debt through the treasury bills is more steady than other government securities.

6. On the basis of curvilinear model, the trend of government securities has been forecasted for the next 6 years (i.e. up to 2012). The total internal debt will be increased gradually in this period too. It is forecasted that the total value of internal debt will be Rs. 105,238.41 million, Rs. 113,284.86 million, Rs. 121,646.57 million, Rs. 130,323.54 million in years 2007, 2008, 2009, 2010, 2011 and 2012 respectively.

7. Beside, the ownership status of each security has been determined. The major owner of the treasury bills is commercial bank, it owned about 72 percent of total issued during 2002 to 2009. The highest owner of development bond is also commercial bank, which owned about 39 percent of total issued development bond of Rs. 96,574 million. Private sector owns the highest national saving bond i.e. 53percent out of total Rs. 75,078.20 million. Likewise, the major portion of Citizen saving certificate owned by private sector (individual), it owned about 97 percent of total issued during 2002 to 2009. Nepal Rastra bank owned the major portion of Special Saving Bond. It owned about 75 percent of total issued bond of Rs. 93,091.60 million. The entire portion of overdraft has been borrowed from Nepal Rasta Bank.

8. The average growth rate of total internal debt is 12.56 percent during the studied period, with S.D. of 36,792.46 and C.V. of 0.57. The average growth rate of treasury bills has been fond 22.48percent with S.D. of 6,725.24 and C.V. of 0.35. The average growth rate of development bond is 9.97percent wit S.D of 5,292.94 and C.V. of 0.70. The average growth rate of national saving bond is 5.10 percent, whereas the S.D. and C.V. are 3,315.61 and 0.47 respectively. The average annual growth rate of citizen saving certificate is 28.29 percent whereas as Likewise, the average growth rate of special bond is 32.80 percent with S.D and C.V. of 7,564.40 and 0.7 respectively. The average growth rate of overdraft in each year is 82.45 percent (highest among all), however it is highly fluctuated. The S.D. and C.V. are 1, 87.30 and 1.3 respectively.

9. 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.

10. 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. However, a significant portion of service holders are totally indifferent on government securities.

11. With respect to the income level of general investors, it has been classified in different four groups. Major respondents have found monthly income more than Rs. 40,000.00

12. Most of the investors from all income level are found equally interested to purchase the government securities, which mean that the investors' perception towards the government securities is independent on their income level.

13. Interest of general investors is vary on each government securities. Major number of businessmen found interested for treasury bills, which means they prefer for short term investment. Most of the retired persons are interest in National Saving Bond, which indicate that they prefer for comparatively long term investment with higher return. The major portion of service holders are found interested on other types of securities.

14. The risk less feature is the main reason for the investment in government securities. Most of the investors invest in government securities because of low risk in this investment, lack of other investment opportunity and declining interest in other investment sectors.

15. 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.

16. With regard to source of fund to purchase the government securities, major investors invest in government securities through the residual amount of their income. It is vary in businessmen; all of them purchase the government securities through their business income only. Most of the retired persons purchase government securities through their retirement fund.

17. With respect to the reason to sell the government securities, most of the investors sell it for their household requirement and to grab the alternative investment opportunities.

18. With respect to the main reasons of full subscription of government securities, all the investors opinioned that it is convenient to purchase and sell, low risk in this investment and lack of information of other investment sectors.

19. Regarding the utilization of collected fund through the different government securities, most of investor viewed that it is utilizing properly.

CHAPTER-V

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

The government securities play an important role in the economic development of the country. The most important purpose of the government securities is to raise the fund to full fill the gap between the revenue and expenditure. Government bond is regarded as the temporary sources of financing for various government functions as per the national budget. The expenditures of country are aimed to cover by the revenue and other sources. From the beginning of budgetary system, the government set the deficit budget in each year, which 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 1960's. 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. On the other side, the volume of the government securities floating is also in increasing trend.

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 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 19 years (2001 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 tested at 5 percent level of significance for 2 degree of freedom.

To analyze the trend and structure of government securities and to test the issue systems and practices of government securities, data of past 19 years (1991 to 2009) have been presented and analyzed on the basis of total internal debt and each government securities severally. The growth trend of each government securities has been analyzed. The growth of total internal debt for next 6 years (2007 to 2012) on the basis of past issuance has been forecasted by the help of curvilinear model.

To review the ownership pattern of government securities, data of last 8 years (2002 to 2009) have been reviewed. The ownership of the each security has been presented in table and pie-chart.

To examine the attitude and preference of investors towards the government securities, the views and perception of 45 individual from different profession, income group have been gathered and analyzed. Their perception on several aspects of government securities transaction have been questioned and analyzed. To test the significance of responses of individual respondents, chi square test is tested at 5 percent level of significance.

Several researches have been conducted on the issue of government securities, practice, and perception of the investors. The results of this study have revealed 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 12.56 percent, which consist of treasury bills, development bonds, national saving bonds, citizen saving certificate, special bond and overdraft from Nepal Rastra Bank. Based on major findings of this study, conclusion with workable recommendation has been offered.

5.2 Conclusion

The basic objectives of this study were to examine the practices of government securities in Nepal and the attitude of investors towards it.

By analyzing the findings of present study it can be conclude 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, overdraft etc.

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.

Regarding the attitude and preference of the investors towards the government securities, general investors are found tremendously positive toward the government securities. The general investors prefer to invest on government securities because of the low risk on this investment and unavailability of other investment opportunities.

Because of insufficient revenue resources to meet the deficit budget, lack of regular commitment of foreign and donor agencies on development of the country, it can be assumed that the growth of internal debt in Nepal in coming years will be increased in same pace.

5.3 Recommendation

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

- 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.

- The 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. The efforts of government should be directed towards mobilizing internal revenue in order to reduce dependency on loans for financing development expenditure.

- 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.

- Short term debt such as treasury bills, overdraft should be discouraged for the long term development projects. Fund 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 etc).

- 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.

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APPENDICES

Appendix-A

Calculation of forecasted amount of total internal debt for next 6 year (2010 to 2014) based on Curvilinear Model:

Amount in Rs. Million

Year	Total Internal Debt (Y)	x = (Year-1996)	xY	x^2	x^3	x^4	x^2Y
1994	11636.0	-10	-116360.0	100	-1000	10000	1163600.0
1995	14929.1	-9	-134361.9	81	-729	6561	1209257
1996	15079.2	-8	-120633.6	64	-512	9096	965068.8
1997	20855.9	-7	-145991.3	49	-343	2401	1021939.1
1998	23857.2	-6	-143143.2	36	-216	1229	858859.2
1999	28730.3	-5	-143651.5	25	-125	625	718257.5
2000	31315.9	-4	-125263.3	16	-64	256	501054.4
2001	32800.9	-3	-98402.7	9	-27	81	295208.1
2002	30530.1	-2	-61060.2	4	-8	16	1221204
2003	36839.9	1	36839.9	1	1	1	36839.9
2004	43630.6	0	0	0	0	0	0
2005	50512.0	1	50512	1	1	1	50512.0
2006	54879.7	2	109759.4	4	8	16	219518.8
2007	66590.5	3	199771.5	9	27	81	599314.5
2008	79518.3	4	318073.2	16	64	250	1272292.8
2009	84645.3	5	423226.5	25	125	625	2116132.5
2010	86133.7	6	516802.2	36	216	1296	3100813.2
2011	87565.3	7	612957.1	49	343	2406	4290601.7
2012	89954.9	8	719639.2	64	512	4096	5757113.6
2013	89766.3	9	807896.7	81	729	6561	7271070.3
2014	90623.3	10	906233	100	1000	10000	9062330
Total	**pY = 1070394.6**	**px = 0**	**pxy= 3539163.2**	**p x^2 = 770**	**px^3 = M**	**px^4 =50666**	**px^2Y = 40631900**

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 , x and x^2 for the equation (ii), (iii) and (iv) respectively.

So,

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

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

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

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

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

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

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

Where, N= Total Number of year = 19

Now,

$\phi Y = 1070394.6$

$\phi xY = 3539163.2|$

$\phi x = 0$

$\phi\ x^2| = 770$

$\phi|x^3 = I$

$\phi|x^4 = 50666$

$\phi|x^2Y = 40631900$

Substituting the value of Y, xY, x^2 x^4 and x^2Y in the equations (ii), (iii) and (iv), we get,

$1070394.6 = 21a + 770c$ ..... (v)

$3539163.2 = 770b$.....(vi)

$40631900 = 770a + 50666c$.....(vii)

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

$b = \frac{2715038}{770} = 4596.31$

Now, the value of a and 'c' is found by solving the equation (v) and (vii), we get,

[1073394.6 = 21a + 770c] x110

[40631900 = 770a + 50666c] x 3

- - -

4152290 = 67298 c

4152290 = 67298 c

- -

- 4152290= - 67298c

Or, c = $\frac{40631937}{257757}$

|… c = 61.70

Again,

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

1070394.6 =21 a + 770 c

Or, 1070394.6 = 21a +770 x 61.7

Or, 21 a = 1070394.6 - 47509

Or, a = $\frac{1022885.6}{21}$

… a = 48708.8

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

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

= 48708.8 + 4596.31 x + 61.7 x^2

The above estimated equation is used to forecast the total of total internal debt for the year 2009, 2010, 2011, 2012, 2013 and 2014. Here the internal debt for 6 years has been estimated below using Curvilinear Model. Before making calculation the value of x_7 x_8, x_9, x_{10}, x_{11} and x_{12} are calculated below:

Where,

X_9 = 2009 - 1998 = 11

X_{10} = 2010 - 1998 = 12

X_{11} = 2011 - 1998 = 13

x_{12} = 2012 - 1998 = 14

x_{13} = 2013 - 1998 = 15

x_{14} = 2014 - 1998 = 16

Now,

The forecasted internal debt for 2009

$$\hat{Y}_{2009} = 48708.8 + 4596.31x + 61.70x^2$$
$$= 48708.8. + 4596.31\ (11) + 61.70\ (11)^2$$
$$= \text{Rs. } 106733.91 \text{ million}$$

The forecasted internal debt for 2010

$$\hat{Y}_{2010} = 48708.8 + 4596.31x + 61.70x^2$$
$$= 48708.8 + 4596.31\ (12) + 61.70(12)^2$$
$$= \text{Rs. } 112749.32 \text{ million}$$

The forecasted internal debt for 2011

$$\hat{Y}_{2011} = 48708.8 + 4596.31x + 61.70x^2$$
$$= 48708.8 + 4596.31\ (13) + 61.70\ (13)^2$$
$$= \text{Rs. } 118888.13 \text{ million}$$

The forecasted internal debt for 2012

$$\hat{Y}_{2012} = 48708.8 + 4596.31x + 61.70x^2$$
$$= 48708.8 + 4596.13(14) + 61.70\ (14)^2$$
$$= \text{Rs. } 125150.34 \text{ million}$$

The forecasted internal debt for 2013

$$\hat{Y}_{2013} = 48708.8 + 4596.31x + 61.70x^2$$
$$= 48708.8 + 4596.31\ (15) + 61.70\ (15)^2$$
$$= \text{Rs. } 131535.95 \text{ million}$$

The forecasted internal debt for 2014

$$\hat{Y}_{2014} = 48708.8 + 4596.31x + 61.70x^2$$
$$= 48708.8 + 4596.31(16) + 61.70\ (16)^2$$
$$= \text{Rs. } 138044.96 \text{ million}$$

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:	Sex:

1. In which occupation you are involved at present.

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

2. In which of the following monthly income group you belong

- ☐ Below Rs 10000
- ☐ Rs. 10000 to Rs 20000
- ☐ Rs. 20000 to Rs. 40000
- ☐ Above Rs. 40000

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. 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

5. 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)……

6. 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)……

7 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)……..

8. 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)……

9. 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)……..

10. Mark (1, 2, 3, and 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)……

11. What is your opinion about the utilization of collected fund from the people?

- ☐ It will be utilized properly
- ☐ It will be unutilized
- ☐ Can not say
- ☐ Others (specify)…….