

OWNERSHIP PATTERN OF GOVERNMENT SECURITIES AND ITS PRACTICES IN NEPAL

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RECOMMENDATION

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Ownership Pattern of Government Securities & Its Practices in Nepal

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DECLARATION

I hereby declare that the work reported in this thesis entitled “**Ownership Pattern of Government Securities & Its Practices in Nepal**” submitted to Balkumari College, Narayangarh in my original work. It is done in the form of partial fulfillment of the requirement for the Master of Business Studies (MBS) under the supervision and guidance of Mr. Babu Ram Panthi, lecturer of Bankumari College, Narayangarh.

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Balkrishna Adhikari

ABBREBIATIONS

BOP	Balance of Payment
CBS	Central Bureau of Statistics
CSC	Citizen Saving Certificates
CEDA	Center for Economic Development and Administration
Co. Bank	Commercial Bank
DF	Degree of Freedom
DR	Discounted Rate
FY	Fiscal Year
GDP	Gross Domestic Product
G.S.	Government Securities
ID	Internal Debt
IMF	International Monetary Fund.
GON	Government of Nepal
MOF	Ministry of Finance
NEPSE	Nepal Stock Exchange
NPC	National Planning Commission
NRB	Nepal Rastra Bank
QEB	Quarterly Economic Bulletin
Rs.	Nepalese Rupees
TD	Total Debt
TU	Tribhuwan University
T- Bills	Treasury Bills
YTM	Yield to Maturity

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CHAPTER 1

1.1 Introduction

Nepal is a developing country. To develop the economy of a country financial market plays a vital role. In Nepal, formal financial system began in 1937 with the establishment of the Nepal Bank Limited (NBL), which is the first commercial bank in the country. The economic development of the country depends upon the strategy implemented by the government and the participation of private sectors. In the recent years, people in Nepal have poured funds in newly established companies in the country encouragingly. However, there was no satisfactory growth of such business enterprises until 1990's.

Nepal Government (NG), under a program initiated to reform capital markets, converted Securities Exchange Center into Nepal Stock Exchange in 1993, which brought new atmosphere in the Nepalese Capital Market. Nepal Stock Exchange, in short NEPSE, is a non-profit organization, operating under Securities Exchange Act 1983. The basic objective of NEPSE is to impart free marketability and liquidity to the government and corporate securities by facilitating transactions in its trading floor through market intermediaries such as brokers. Even the rapid development and expansion of financial institutions, the country has not been able to achieve the desired income so far which is due to poor capital market condition in the country. Thus, the financial institutions play a major role in the economic development.

The development of systematic market of security is regarded as the securities issued by every government in the country. Due to lack of secondary market of government securities in Nepal, Nepal Rastra Bank (NRB) has been actively issuing various government securities in the country. It was established as Central Bank of Nepal under the Nepal Rastra Bank Act, 1955 on April 26, 1956. During the time the Nepalese economy was traditional and characterized by dual currency system, low level of infrastructural development and virtual absence of the financial system. As

the country's central bank, this bank has the sole right to issue currency notes and 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. The bank also manages public debt. In the late 1980s, liberalization of interest rates, creation of a regulatory 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 government securities to recoup deficit budgetary system of Nepal. The huge amount of government issuance has been subscribing immediately in Nepal, which may be due to no default risk of government securities.

Public debt in Nepal were found during the regime of Rana Bahadur Shah, who borrowed a large sum of money from the Indian merchants to meet its internal expenses levy was imposed on a country wide basis from 1804 to 1806 to finance the repayment of debts incurred by him. This initiation was interfered by the 104 years of rolling by Rana in Nepal. (Khanal: 2002, 25). Firstly government issued Treasury Bills in the year 1961 AD under the Public debt Act 1960. Government has been issuing Treasury Bills, Prize Bonds, Developing Bonds, National Saving Certificates, Special Bonds and Citizen Saving Certificates to collect small and scattered funds from public.

Internal borrowing program was carried out in fiscal year 1961/1962, when short term loan from Nepal Rastra bank as Treasury Bills amounting to Rs. 7.00 billion was carried out for the first time. Systematic internal debt service has been managed since the fiscal year 1964/65, in the budget of NG. (Paudel, 2002)

1.1.1 General Background

Government issues the different types of government securities to cover the government's borrowing requirement. Government of Nepal issues five types of government securities which are Treasury Bills, Development Bonds, National

Saving Bonds, Special Bonds, and Citizen Saving Bonds. Government issues securities internally and externally. The main source of internal debt is Government bonds. It 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 in Nepal. The increasing trend of deficit budget has been balanced by borrowing from public. Government bond is a part of public debt. Many economists have defined public debt as per their own views. According to HL 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 them off.

Government has various economic functions that are protective or necessary and development or optional. Government has to make the provision of defense, justice and security, the framing of laws for liberty, property and contracts, the maintenance of the police force and the judiciary and the raising of the necessary revenue for the discharge of state functions. Some functions are compulsory for government. These relate to the provisions of currency, and weights and measures, sanitation, labor legislation, and interference with trade by tariffs or bounties, restraints on trusts and monopolies, control money lending, operation of industries and the setting up of social welfare services.

Every government falls short of funds to carry on development in the country. Due to this reason, government issues various securities in the country. The collected funds are spent on development functions for the welfare of people. Government commences various projects in the country. These are not for getting benefit but for the welfare of the people. Therefore, it is believed by all that the

government works in the country on the behalf of people for it has high responsibility to develop country.

1.1.2 Types of Investor

The immediate subscription of stocks 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 are speculative investors. They are listed below:

– **Long-term Investor**

The investor under this category has wide time horizon exceeding a period of 1 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 to book their profit that may have accrued. 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. (<http://www.nrb.org.np>)

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.

1.1.3 Types of Government Security

To tackle the deficit budget of Nepal, Government has been issuing various securities to collect small and scattered funds from public. Many analysts and author agreed to collect the funds from internal debt, which is not so risky as compared with external debt. So the proper utilization of internal debt promotes the economy of the country. Government issues long- term and short-term bonds. The quantity of long-term or short –term bonds depends 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**

Treasury bills are issued to fulfill the short-term budgetary deficit, to collect scattered funds and mobilize it to productive sector, to control fiscal and monetary system. It is the present money market instrument issued by the government, which has less than one year maturity period. The government has issued 28 days, 91 days, 182 days & 364 day's Treasury bill. The issuance of short-term government bonds have following reasons:

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

- **Development Bonds**

Development Bond is long term government bond. Normally its maturity period is five years or more. Individuals as well as institutions investors can purchase this bond. DBs worth of Rs. 13.1 million with an interest rate of 5% was floated for the first time in February 12, 1964. Development bonds are issued in denomination of Rs. 25,000/- and multiples thereof. It is secondary market. It can be purchase as stock. Since June 2, 2005, government developments bonds are also issued through the auction system.

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.

- **National Saving Bonds**

Amongst the wide range of securities issued by the government of Nepal under small saving scheme, National Saving Certificates are issued. In the year 1984 Development Bonds has been issued under this category. In 1984 the 15 years National Saving Certificates (NSCs) worth of Rs. 5,00 million at 13% interest rate were issued for the first time. The National Saving Certificates are the long-term securities, which are popular among the people. So, the issuance of NSCs was initiated in order to mobilize

saving from the non-banking sector. Due to high rate of interest, the NSCs have large trading 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 (CSC)**

It is also long term marketable government security which has normally 5 years period of maturity. It has same characteristics as the NSCs. In 2001, CSCs were issued first time as amount Rs. 417.9 million at 8% interest of 5 years maturity period. Main purchasers are citizen people because it focuses to Nepali citizen only. Generally it can't be used as collateral. It is also semiannual payment bond and taxable bond. Investor can buy CSCs at a minimum price as low and multiples there of.

- **Special Bonds**

It is a special bond and it is issued on special occasion when government falls short of fund. Special bonds are those bonds issued to meet special objectives and for special purpose. The government issues SBs to those parties to whom the government has to make payments. Instead of paying cash the government issues special bonds as a substitute of cash repayment and extends the period of payment. The holder of this bond can use it as collateral to fulfill their funds need. In 1964, government issued special bond as the land and forest compensation bond.

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

- U.S Treasury Bills
- U.S. Treasury Notes and Bonds
- Zero Coupon Bonds
- Mortgage Backed Securities
- Collateralized Mortgage Obligations
- Asset Backed Securities
- Federal Agency Securities

1.2 Statement of Problems

Government Securities are a secure type of investment securities; but individual investors have not given so much interest to invest. Most of the government securities are hold by institutional investors except few individual investors in long term securities.

Today people are getting facilities of Internet, which is the most challenging communication media. People can access any information at any time from any part of the world. It is the age of information technology so any investor can use Internet access for the right selection of investment alternative. In Nepal, very few people have Internet connection. The communication media is also not so developed.

It is hard to obtain perfect information about the future risk and return on investment in Nepal. It is heard that even intellectuals, scholars, university graduates and postgraduates in business administration could not perfectly analyze good investment sector for future return. Similarly, there are no such organization that gives investment information to accelerate investment and market efficiency. Till today, the government of Nepal has not launched any effective program to develop investors' knowledge.

It is seemed that public concern towards government securities is increased but there are many problem faced by the people related with it. This study relates on the following problems:

1. What does the situation on the growth and development of government securities in Nepal?
2. What are the investors' attitudes of government securities?
3. How do the NG bond issue processes and practices run?
4. What are the causes of funds investing in single security rather than portfolio by investors?

1.3 Objectives of the Study

This study is entirely related to internal debts. The overall objective of this study is to analyse the policy of NG security, issue process and practice of government securities and the investors' preference towards government bonds issued by NG depending upon yields, face value, maturity period, cash receipts, etc. However, the following objectives are focused for specific study:

1. To analyze the trend and ownership pattern of government securities in different years.
2. To examine the attitude of the investors towards the government securities.
3. To overview Nepal Government bonds issue system and practices.
4. To examine the interest rate of government securities
5. To analyze the views & opinion on the policy and procedures to reform debt management of Nepal.

1.4 Need of the Study

This study has been conducted to find out the investors attitude towards government securities on the basis of yields, face value, maturity period, cash receipt, etc.

Investors are pouring funds into government bonds as it has zero default risk. In the stock market, government bond has systematic market. Some investors are unknowing involved as per the advise of their relatives. In Nepal, there is lack of information agency to get immediate information on investment opportunities. So it is a serious problem to get the right investment information on time. Investors normally do not calculate intrinsic value bonds while making investment.

The deficit budgetary system has been creating serious problems since the first budget in Nepal. The large amount of deficit budget is fulfilled by borrowing through sales of government bonds. In this study, only internal debt is included as the study is limited to government bonds. Most of the economists have strongly recommended that public borrowing should be used on the productive schemes and programmes. Similarly, most economists remarked that expensive debt should be discouraged.

The internal borrowing does not create problems in the country. The raising of fund by issuing internal securities means to transfer funds from one person to another person. The internal borrowing refers to mobilize the idle cash in productive sectors.

1.5 Research Hypothesis:

The Chi-square test of hypothesis is used to find out the interest and awareness of Nepalese people towards the government securities. Five tests have been done based on the various categories of the sample i.e. educational background, occupation, annual income, residence and education etc.

1. Null Hypothesis (H_0): There is no significant difference between observed and expected opinion regarding the investors' attitude to invest on government securities is independent on their income level.

Alternative hypothesis (H_1): There is significant difference between observed and expected opinion regarding the investors' attitude to invest on government securities is independent on their income level.

2. Null Hypothesis (H_0): The interest of Nepalese people and their level of education are independent each other.

Alternative hypothesis (H_1): The interest of Nepalese people and their level of education are dependent each other.

3. Null Hypothesis (H_0): There is no significant difference between the interest of Nepalese people and their occupation in the government securities.

Alternative hypothesis (H_1): There is significant difference between the interest of Nepalese people and their occupation in the government securities.

4. Null Hypothesis (H_0): There is no significant difference between the observed and expected frequency regarding to the awareness of investors and geographical residence to the government securities.

Alternative hypothesis (H_1): There is significant difference between the observed and expected frequency regarding to the awareness of investors and geographical residence to the government securities.

5. Null Hypothesis (H_0): There is not any relationship between the academic background of investors and their awareness about the government securities.

Alternative hypothesis (H_1): There is any relationship between the academic background of investors and their awareness about the government securities.

1.6 Limitation of the Study

The main problem of this study is related to deficit budgetary system of Nepal and the obvious problem will be found after the utilization of constraints resource. This study is strongly related to achieve the above mentioned objectives even though its broad study area. So, it is not a comprehensive study and limits to analyze the internal debts. The study is limited to find out on the following reasons:

- This study is based on the published secondary data provided by NRB and other related corporate bodies.
- It is based on limited area of government securities
- This study covers a time span from the FY 1992 through FY 2007.
- The study is not related to macro economics like inflation, monetary policy, etc.
- This study does not cover to external public debt.

1.7 Chapter Plan

The study has been organized into five chapters. Each of has some aspect of the study.

Chapter1: Introduction

Chapter2: Review of Literature

Chapter3: Research Methodology

Chapter4: Presentation and Analysis of Data

Chapter5: Summary Conclusions and Recommendation

The contents of each of the chapter of this study are briefly mentioned below:

- Chapter one deals with the subject matter of the study consisting background of the study, significance of the study, statement of the problem, objective of the study, Hypothesis of study, limitation of the study and scheme of the study.
- Chapter two deal with review of literature. It includes conceptual review, review of articles and journal, review of past thesis, review of other research works relating with government securities, government debts are review of major empirical study.
- Chapter three deals, with research methodology. It includes research question, data collection, research tools and models explanation of the variables taken, samples selection and period of the study of the samples enterprise.
- Chapter four deals with the presentation, analysis and interpretation of data by using statistical and financial models described in chapter three, findings of study.
- Lastly, chapter five deals with summary, conclusion and recommendation of the study.
- Bibliography and appendixes are included at last of the thesis report.

CHAPTER 2

REVIEW OF LITERATURE

A literature review is an evaluative report of information found in the literature related to our selected area of study. It is a body of text that aims to review the critical points of current knowledge on a particular topic. Likewise, it is an integral and mandatory process in research works. The researcher has reviewed various books, journals, newspapers and thesis that were found while studying about the government security market in Nepal.

2.1 Conceptual Framework

2.1.1 Introduction of Government Securities

Securities issued by a government to raise the funds necessary to pay for its expenses are called government securities. Government issues various types of securities both internally and externally. Treasury Bills, National Saving Bonds, Development Bonds, Citizen Saving Certificates, Special Bonds are the examples of government securities. Government issues the different types of government securities to meet the financial requirement in the country. In context of Nepal the primary reason for issuing government securities arises due to deficit budget declaration. Government Securities are less risky than other corporate securities. Therefore, risk averter investors are more attracting to hold the government securities.

The growth of the government securities helps the development of the money markets as well as capital markets. Large percentage of people in the country has small income while some people in the country have higher income. Public debt encourages both lower and higher income people to invest in government bonds. There are commercial banks, financial institutions, other private companies and individual investors in the country invest their saving funds in different investment alternatives. Investors can also classify into two groups as short term investors and long term investors. Some

investors want to invest in short term debt and some want to invest into long-term debt.

The issuance of government securities to meet government expenditures is important to raise the living standard of people. But the lack of proper utilization of the raised bonds is said to have caused many problems. Phillip E. Taylor says - "Government debt arises out of borrowing by the treasury from banks, business organizations, and individuals. The debt is in the form of promises by the treasury to pay the holders of these promises a principal sum and in most instance interest on that principal". He describes that government loan should be returned back to the investors after certain period. So it is not desirable to raise funds from public in every action taken by the government. An investor should familiar himself with the range and use of the various types of investment and aware of the current investment climate, so that he can evaluate and assess the advice he receives returns, investors on the other hand have different thinking regarding their investments strategy, investors of government securities can see the whole situation and interest rate on a purchase many only mean that the top price has been reached rather than that furthers appreciation is indicated. But the public debt has not been defined uniformly. It has been discussed by several economists in nineteenth century and after by modern economist.

The various types of government securities in term of maturity period & different nature are issued by the NRB. If the securities are not traded in the secondary market, they are called non-marketable securities. Special bonds issued by NRB are such type of debt securities. Non-marketable securities are also common in economically advanced countries. To develop the money and capital market, secondary market of government securities must be efficient.

2.1.2 Historical Background of Government Securities

2.1.2.1 National

Developed countries were provided the loans from their people even in 18th century in a very systematic way. But in case of Nepal, people had no power and inclination to provide the money as a loan. They traditionally provided the human labor and good to their ruler. People had compulsory to contribute to overcome several emergency situations.

Visma Upreti, in his article titled 'Public debt in Nepal' has written that the earlier king of Malla dynasty had borrowed the assets from renowned temple and social trust to hold the battle and overcome many emergency situations. The king Prithivi Narayan Shah was also indebted by the people in the expenditure of unification the nation (Acharya: 2003: 20). "Some instance of government borrowing in Nepal can be hold during the time of Rana Bahadur Shah we borrowed a large sum of money (Rs 60,00,000) from Indian merchant to meet internal administrative needs." (Khanal; 2002: 27). We had read that late Prime Minister Chandra Sumser Rana had also borrowed the loan from the trust of Pasupati temple to release the slavery in Nepal. But these all kinds of debt were not raised in a very systematic way. The government previous to the establishment of the democracy (1950) had no any legislation about the public finance and debt.

It has not been so larger of raising the public debt with in the legal from NRB act (1955) was first act in which the procurement of raising the debt on behalf of the government was systematized well. After the establishment of Nepal Rastra Bank as the central bank of Nepal, another act named public debt act (1960) was also proceeded out. Under this act the government issued first time security (Treasury Bill) of Rs 70,00,000.00 in 1961. At the earlier time of insurance, the government raised the debt internally. The government raised Rs. 131 million in 1963 with the means of development bond from the people in Nepal. Plus, the government issued the public debt regulation in 1963. In the same period the government issued compensation.

Bond for land acquisition with the interest rate of 3% per annum and with the maturity period of 10 years amounting Rs 407 thousands and compensation bonds for same with one percent interest rate per annum with the maturity period of 20 years amounting Rs. 5.56 million and the other component of the borrowing was from Nepal Rastra Bank as guaranteed as loan and special bond. The government also started to borrow since 1984 by issuing National saving certificate, which amounted Rs 5,000 million that year. Similarly in 1991, the government started to borrow by Rs 8,478.1 million that year. (Rana: 2005, 13 -14)

2.1.2.1 International

The idea of public debt was originated in the Great Britain in seventeenth century, where a group of city merchants provided grants and loans to the government. In return they received the privilege of a royal charter to fund the Bank of England, which becomes the country's Central Bank, Public debt has devoted simultaneously with the needs of the states development. Historically during the period of the world war, the governments borrowed larger amount of loans to meet in expenditure.

After the 1st & 2nd world war large amount were borrowed for the reconstruction and maintenance. In the previous time state only have to maintain the internal peace and prevent external disruption. But now every state should look after economic development and public welfare in addition to the previous work. Therefore the public debt becomes one of the most useful instruments for generating income to maintain the welfare state and economic development.

2.1.3 Attitude towards Government Bond

Most of the governments in the world collect money from two sources, namely, public revenue and public borrowing. These are the source to fulfill the budget expenditure in every country. The views of different economists at different time periods on matter of public borrowing are presented as under

2.1.3.1 Classical View

The classical view was practiced after the 19th 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 favoured minimum public expenditure and favoured taxation than borrowing. The reasons of their favour 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 on the economy.
- Payment of interest on public debt and refund of the principal will require additional taxation.
- Deficit financing might produce currency deterioration and price inflation. It should, however, be kept in mind that classical economists were not against all types of public debt. They approved public debt for productive purpose.

2.1.3.2 Keynesian View

It would not be correct to say that all classical authors stood against public debt. In 1967, Adam Smith in his 'Wealth of Nations' and James Stuart propounded the view that public debt should function as the balance wheel of the economy. Keynes effected a truly significant revision in the theory of public debt. He did not accept the classical notion of a free enterprise economy which is self equilibrating at full employment level. He advanced the concept of under employment equilibrium. Resources in the private sector might remain unemployed for relatively longer periods if corrective action is not taken by the government. In a situation when resources are unemployed on a large-scale

government employment of these resources does not necessarily deprive the private sector of anything. Thus, public borrowing need not necessarily be unproductive, inflationary and burdensome.

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.

2.1.3.3 Post Keynesian View

During World War II and in the post war years, the size of public debt increase 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.

Many economists argue that borrowing today constitutes burden for future. A large public debt, if internally held, poses many problems in the economy. It complicates monetary policy and creates difficulties of management. Both classical and Keynesian economists agree that 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 Sharpe 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 promote growth. (R. Goode, Government Finance in Developing Countries, 198)

2.1.4 Recent Thinking 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 saving, the non government sector will be able to obtain a due share of saving and that there will be no need to borrow from the central bank more the correct amount of seignior age.

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 following equation:

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

Where,

D = Maximum sustainable National Debt

O = Constant expenditure for ordinary government operation

T = Maximum ration of tax receipts to National Income (Y),

and

R = Contractual interest rate of government debt

2.1.5 Effects of Government Bonds

Borrowing has a number of effects and these can be taken from the following paragraph:

If a country borrows too much money, it has to pay 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 economies of the third world, and particularly Brazil, for years. On the other hand, it may be prudent to borrow during economic downturns in order to stimulate the economy with the intention of repaying those funds (and thereby dampening the economy) in times of economic growth.

A.P. Lerner says-“The growth of national debt may not only make some people richer and some people poorer, but may increase the inequality of distribution. This is because richer people can buy more government bonds and so get more of the interest payments without incurring a proportionately heavier burden of the taxes”.

Most people would agree that it is bad for the country because it creates a burden for paying regular interest and at the end of 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 to payment of the principal sum, the future generation will bear the burden. In this case also, money remains in the country.

The burden of Government debt is not analogous to that of a 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 total goods and services available to the economy remain unchanged.

One clear burden of a government bond is reduction in output that its existence causes. To the extent that the taxes necessary to meet the interest payments have disincentive effects and cause a misallocation of resources, 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. Economists have explained different types of burden of government bond as direct, indirect, monetary and real and it may tend to fall either on the present or sometimes on the future generation. Direct money burden is measured by the extent of money payment 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 refers to the extent of adverse effect of increased taxation on the level of production.

2.1.6 The status of Primary and Secondary Market of Government Securities:

Public debt plays an important role in the development of the capital market.

2.1.6.1 Primary Market

Primary market includes the transactions through which securities are issued, redeemed and interest is paid. This means that every market transaction with a security should necessarily involve the issuer of that security and/or its agent. The

primary issue of government securities is managed by NRB and its sales are done through market makers in the Kathmandu valley and through NBR branch offices and commercial banks out of the valley.

Primary market is basically used for the financing of the issuer, although, it can be used for monetary policy also. In this case, due to lack of flexibility it should only be used for longer term monetary targeting. An important role played by this market is to establish interest rate parameters through auctions.

2.1.6.2 Secondary Market

The concept of secondary market includes all other transactions with the securities that are carried out between their issuing and redemption. These transactions do not usually involve the issuer be in the markets trading with self issued securities for monetary policy reasons.

Operation of secondary market makes the security market active and attractive. Nepal Rastra Banks started to operate secondary market for treasury bills and NRB bonds since the FY 1995/95. All commercial banks and one development banks have been actively participating in the secondary market. Daily auction is held in such a market. The operation of secondary market has not only helped optimum liquidity management of financial institutions but also created room for more active open market operations of the NRB.

As there are no standardized maturities, securities can be traded in this market until their redemption is due. This feature grants the market participants a great deal of flexibility for their active participation in these markets to improve their short term liquidity management.

2.1.7 Ownership, Marketability and Term Structure of Government Bonds

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

❖ **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 has divided its owners into 3 categories, according to debt held report from 1951 to 1976, the largest portions 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 social and highway trust funds and the reserves or 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. treasury 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 an 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 principle 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 (Gardner, 1978:161).

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 these bonds do not reflect genuine borrowing in the sense of voluntary transaction between the buyer and the seller.

❖ **Marketability**

The government in a country issues bonds that are normally marketable which means that a person who owns a bond may sell on mutual agreement. Therefore, the market value of these bonds can fluctuate depending upon the interaction of demand and supply, In U.S. some U.S. government bonds are marketable.

❖ **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 matures 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 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 from 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.

- 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 governments, corporations, special purpose trusts or even non-profit organizations.

❖ **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. The coupon is paid on quarterly, semi-annual or annual basis.

• **Par Value**

It is the apparent worth i.e. the nominal value of bond, which appears on the face of the debt instruments. The amount of par value is repaid at maturity. It is also known as face value.

• **Price**

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

- **Yield**

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

2.2 Review of Related Studies

2.2.1 Review of Journals & Books

According to James Stuart, "Public borrowing must be adjusted to conditions of trade at the particular time. It would only raise the rate of interest and have undesirable consequences for commerce. On the other hand, when circulation is stagnating in one part of the economy and there is unemployment and a slackening of trade industry. The state should absorb this excess and through its expenditures throw it into new channels of circulation. Thus the use of public credit is convinced as the balance wheel in the economy. It keeps resources full employed and prevents stagnation in any part of the economy from having an adverse effect elsewhere. In addition public credit is a necessary instrument of war finance." (James Stuart, 1950:116)

Bhargava Viewed that government borrowing is also useful to combat against inflation because in this situation effective demand is more than the available supply of goods and services and here the government transfer the extra purchasing power from the hands of the people. Thus, a sensible debt policy can be used to check a depression or a boom. (Bhargava, 1956:191)

Similarly K. Barman says that Public debt is denoted as a kind of tax through which public enjoys the advantage of public expenditure since it becomes grater than current revenue collection, it refers to these obligations of state promises to pay the amount borrowed by the lender with the interest after a given period of time" (Braman, 1986)

Public debt is the legal obligation on the part of government to make interest of amortization of payment to holder of designated claims in accordance with a defined

temporal schedule. It is created through the government borrowing from individual, co-operations, institutions and other government. It refers to raise by government within the country or outside the country. Every government like individual has to borrow when its expenditure exceeds its revenue. The receipts from the sale of financial instruments by the government to individual or firm, in the private sector to induce the private sector to release manpower and real resources and to finance the purpose of these resources or to make welfare payment or subsidies. (The new Palgrave, A dictionary of Economics, 1988)

Mrs. Rameshwori Pant has clearly emphasized about internal debt and economic stability. In her article title "Management of Internal Debt and Economic Stability", she has concluded the private industrialists and traders would be hesitant and discouraged if the state is also to conduct simultaneously the business and industries. This may create the unhealthy competition between the government and private sector. She also explains that in order to ensure private imitative government should not interfere the liquidity position existing in the market. In conclusion, she recommends the government not to borrow the capital from the public so that private investors will not lack the capital. (Samachar, 1997, The Annual Economic Publication of Nepal Rastra Bank).

Public Dabt plays an important part in the development of the capital market. Edward Naving observed that in the early states of stock exchange market the public debt and government operation play fundamental role for the support and adequate flows of capital to the productive enterprises of the country. In the first instance, this likely to be done to a large degree through the medium of the public debt, with the development of trading facilities in securities the possibility of the issues of private securities directly to local institutional investors becomes a responsible one and the flow of capital will be stimulated and expanded.

Shiva Raj Shrestha (2061) on his article “Effective Domestic Debt Management in Nepal” stated that the government domestic debt is the debt that a government incurs through borrowing in its own currency from the residents of its country. The internal borrowing does not increase the real resources of the country. It is simply a transfer of purchasing power within the country over the same stock of real resources. An excessive government borrowing could have a number of bad effects.

- Excess borrowings can also increase interest.
- Excess borrowing from central bank to finance the deficit, stokes-up inflation.
- Excessive debt entails higher servicing costs on future generations who suffer higher taxation.
- Excessive debt can affect credit ratings, which increase the cost of its future borrowing etc.

He also explained that the domestic debt management in Nepal involves interrelated functions; planning of financing requirement; policy formulation and preparation of issue calendar, issue management, managing secondary market delivery and reduction management, administration and accounting payment and settlement system & publicity. The debt manager should have an interest in developing market for government debt securities. The issuance of scrip less securities, inflation of auctioning of long term government debt securities, implementation of market based pricing mechanism and issuance of varied securities like insurance bonds, pension bonds, provident fund bonds, municipalities bonds and other special bonds would be the major achievements for strengthening the debt market in Nepal.

Nara Bahadur Thapa in his article ‘Some Issues in Domestic Debt Management in Nepal’ has stated that level and rate of growth in domestic debt is important especially in developing country like Nepal. The reason is that governments in developing countries tend to spend more than their revenue. They find less resistance in bridging the gap between their total spending and revenue through domestic borrowing

regardless of productive or unproductive use of public debt. (Rastra Reen Khabar Patra, 2007, April)

2.2.1 Review from Thesis and Dissertation

Virju Prasad Sharma (1998) in his dissertation paper titled ‘Public Debt in Nepal’ in 1998 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 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.

Mr. Daya Ram Sharma (2001) in his thesis “Public Debt System and Practice in Nepal” studies the specific objectives are: (i) To overview the system and practice of public debt in Nepal (ii) to analyze the trend and structure of public debt in Nepal (iii) To understand the attitude of the investors towards the government securities (iv) To examine impacts of the public debt (v) To suggest the measures for reform in the debt financing economy of Nepal. The study founds that the interest of investors on government securities and their educational background is completely independent each other. Both educated and uneducated people are equally interested on government securities. The study also concluded that both poor and rich people are interested to government securities. These mean that government is efficacious to draw the attention of rich and poor, educated and uneducated people when the government sells its securities which are means of borrowing the loan internally. The study verifies the general statement that the people in urban area are more aware to the government securities.

Gyawali and Bajracharya (2061) on their article "Public Debt Management in Nepal" explains that the government borrows for financing the budgetary deficit. Deficit

budget is estimated as a gap between expected revenue plus foreign grant minus expected government expenditure. Thus, $\text{Deficit} = \text{Expenditure} - (\text{Revenue} + \text{Foreign Grant})$. He further explains that public borrowing is increasing in an alarming scale. It is high time that some more concerned efforts are taken and institutions be developed for managing the debt which can now extend to private sector borrowing from abroad.

Mr. Ram Prasad Paudel (2002) in his thesis “A study on government security practice in Nepal” studies the specific objectives are: (i) to analyze the trend and structure of government bond in Nepal (ii) to examine the attitude of the investors towards the government securities (iii) To overview NG bonds issue system and practices (iv) To suggest the policy and procedures to reform debt management of Nepal. He concluded that Nepalese investors are attracted towards government securities in comparison to other investment sectors. Most of the investors of Nepal are risk averter and they seek less risky investment. Different people are participating in government securities such as rich, poor, educated, uneducated etc.

Mr. Indra Tribicram Pahari (2003) in his study finds that Market interest rate is significantly influenced by coupon rate of national saving certificate and development bond & market interest rate is adversely influenced by rate of treasury bill, there is positive relationship between inflation rate and government borrowing, there is positive relationship between government securities market and GDP, there is positive relationship between nominal interest with inflation rate, and with risk premium. Lastly he stated that government securities are unable to create as corporate debt securities.

Mr. Sandip Mohan Bhattarai (2003) in his study explains that Nepalese Debt Securities market is still at under-developed stage. Government debt securities' market is slightly at maturing stage as compared with corporate debt securities' market. Lack of public awareness, limited supply of quality bonds, investors increasing attraction towards common stock and also towards the banking sector's securities, difficult process of issuing debenture, insufficiency of legal provision and the infra-structure of

capital market, dominant by credit oriented transactions, feeling of non-existence of debt market, lack of large business organization and a narrow area of government securities market are the specific problems. He further explains the prospectus of debt market are as investor's attraction towards liquid assets like debt securities, desire to invest on debenture of an potential issuance, attraction towards convertible debenture, declining interest rate on deposit of commercial banks, increasing trend of amount of government securities and the increasing trend of issuance of corporate debenture.

Mr. Narayan Prasad Panthi (2004) in his study suggested that to reduce the dedicatory budget the government should have a control on inflation, finance development expenditure and mobilize the internal resources in productive sector, public debt plays very significant role. There was also substantial increase in the internal debt over the years, which led to increase heavy dependency on internal loan. The total debt and debt serving obligation are increasing rapidly in each years but debt servicing capacity and revenue is not increasing in the required rate.

Mr. Debendra Rana (2005) in his thesis "A study on government securities and its secondary market" studies the specific objectives are: (i) to determine the nature and size of government securities over the study period (ii) to analyze the ownership pattern of government securities (iii) to examine the interest rate of government securities (iv) to overview the trading system of secondary market of government securities (v) to find out problem of secondary market for government securities. In his study, he concluded that the market of government securities are in increasing trend but secondary market is not developed smoothly as primary market and major portion of G.B. are held by individual in recent year. Trend amount of marketable securities (i.e. special bonds) are decreasing. Similarly market interest rate is decreasing while the coupon rate of government securities are not decreasing as decreased of market interest rate.

2.3 Research Gap

The review of above relevant literature has contributed to enhance the fundamental understanding and knowledge, which is required to make study meaningful and purposive. There have been lots of articles published related to internal borrowing of government. Most of the researches focused only on trend analysis and remaining others conducted only on secondary market of government securities but it has been found that no such research has been made in the ownership pattern of government securities and its term structure of interest rate. Without analyzing ownership pattern and term structure of interest rate, trend analysis and analysis of secondary market can't provide the real practices of government securities. So this study had attempted to fill this research gap by analyzing ownership pattern of different types of government securities and their 16 years trend analysis.

CHAPTER - 3

RESEARCH METHODOLOGY

3.1 Introduction

The government debt of Nepal has been analysed based on the secondary data published by the Nepal Rastra Bank, Research Department, Baluwatar and the Ministry of Finance. The study specially has focused the term and structure of Government bond in Nepal. This study has taken data period of fiscal year 1992-2007.

3.2 Research Design

This study is primarily based on secondary data and descriptive, analytical as well as quantitative approaches are deployed to examine the issues. The primary data has been collected to examine the investors' attitude toward government securities. The study is an examination and evaluation of the deficit budgetary policies as incorporated in the budget documents. The government has been borrowing huge money to recover deficit budgetary system of Nepal. Therefore, the study is also related with the various budget speeches. The data, information and policies extracted from the budget documents and economic bulletin from NRB have been presented in meaningful order. Different statistical models such as Curvilinear Model and other models have been applied to interpret the data and to come into conclusion. Among them, trend analysis has been made extensively. Besides these quantitative data presentation, this study also possesses qualitative aspects of the Government debt, their systems and practices, investors' attitude regarding government securities and their implementation and actual outcomes.

3.3 Population and Sampling

Samples are used for primary data collection from different backgrounds; a group of educated people, a group of people with different annual income, positions on

various jobs, a group of people from different locations, related group of institutions. The study also covers the area of some government bodies, concerned staff or experts and investors.

3.4 Sources of Data and Information

This study is based on primary and secondary data. Primary data are mainly collected from questionnaire methods. A set of questionnaire is developed for various respondents. The main sources of the primary data are as follows:

Service Holders	-	35 persons
University Students	-	40 persons
Business Man	-	25 persons
Brokers	-	5 persons
Others	-	<u>20 persons</u>
Total		120 persons

Secondary data are used to examine the trend & ownership pattern of government securities. So the main sources of this study are secondary data which are collected from different sources as follows:

- Nepal Rastra Bank (Various issued of Quarterly Economic Bulletin)
- Economic Report
- Government Finance Statistics and other publications
- Various issued of Economic Surveys of NRB
- Different years Budget Speeches
- National Planning Commission (Various issued of plans)
- Central Bureau of Statistics (Various issues of Statistical Yearbook, Statistical pocket book and other publications)
- Center for Economic Development and Administration (CEDA) (Various published research reports of CEDA specially the reports pertaining the fiscal affairs.)

- Other government and non government publication, journals, previous research studies, dissertations, websites and articles

3.5 Presentation and Analysis of Data

Gathered from primary and secondary sources are first coded, tabulated and presented in a meaningful manner. For the sake of effectiveness, the data collected from various sources have been presented in the form of table and chart as per the need of the study. The result obtained from the analysis has been clearly interpreted so as to depict the exact findings of the study. Details of useful information have been presented in the appendix at the end of the study.

3.6 Method of Analysis

Statistical and financial tools are the key for the analysis of numerical data in most of the researches in the study, only analytical tool has been used i.e. statistical tool.

❖ Hypothesis Testing

The primary data has been collected by questionnaire. Processing of these data has been done by using computers application programs especially MS-Excel. The chi-square test of hypothesis is useful to examine the problems faced by government securities. The samples are taken to find out the problems from various related sector's persons and organizations. From the test of hypothesis, it may not be proved absolutely but in practice it is accepted if it has stood with a critical testing.

While examine the hypothesis by the chi-square test, the expected frequencies are calculated by applying the formula: $E = \frac{RT \times CT}{N}$

Where, RT = Row total; and the χ^2 calculated values of were calculated by the

following formula: $\chi^2 = \sum \frac{(O - E)^2}{E}$

Where, O = Observed frequency

E = Expected frequency

❖ **Curvilinear Model**

To examine the trend of government securities by using the data of the total amount of issued on previous years, curvilinear model is used. With the help of this model, the forecasted amount of total amount of government securities issuing by government in coming years are calculated. The equations of curvilinear model are as below:

$$y = a + bx$$

$$\sum y = na + b \sum x$$

$$\sum xy = a \sum x + b \sum x^2$$

By solving the above equation the value of a and b are calculated. The forecasted value can be calculated by using the following equation.

$$y = a + bx$$

- ❖ Some relevant statistical, accounting, mathematical and financial tools as per requirement have been applied in analysis and interpretation. Presentations have been made in the form of tables, graphs, charts and figures etc.

CHAPTER - 4

PRESENTATION AND ANALYSIS OF DATA

This chapter deals with the main body of this research i.e. the presentation and analysis of the performance of the loan raised by government. Data are analyzed based on two type primary data and secondary data. By using secondary data, the study analyzes the ownership pattern, past trend and interest rate of government securities. While, using primary data by conducting field survey, the study analyzes the problems of government securities.

4.1 Presentation and Analysis of Secondary Data:

4.1.1 Ownership Pattern of Government Securities

The ownership pattern of bond & treasury bills deals with the proportion of total government bonds and treasury bills purchase by different financial institutions and individuals. In Nepal, the main owner of the permanent markets of government securities is the banks and financial institutions. A substantial amount of government securities are held by them. At the initial age of government borrowing, a large amount of debt was provided by Nepal Rastra Bank. It means to say that the main holder of the government securities is NRB. Now the situation has been improved many organizations including individuals have been attracted towards government securities.

4.1.1.1 Ownership Pattern of Treasury Bills:

Table No. 4.1
Ownership Pattern of Treasury Bills

(Rs. in Million)

Year	NRB		Commercial Banks		Others		Total
	Amount	%	Amount	%	Amount	%	
1998	0	0.0	8127.5	88.51	1055	11.49	9182.5
1999	4696.7	26.7	10059	57.20	2831.2	16.10	17586.9
2000	2794.9	13.3	15686	74.60	2546	12.11	21026.9
2001	3050.5	11.0	22267	80.65	2293.3	8.31	27610.8
2002	15263.9	37.1	23029.9	56.02	2812.8	6.84	41106.6
2003	16550.5	35.3	27835.2	59.42	2459.2	5.25	46844.9
2004	9804.4	19.8	36154.3	73.14	3470.9	7.02	49429.6
2005	10923.8	21.3	39501.6	76.88	957.7	1.86	51383.1
2006	9209.3	14.6	51645.8	82.02	2115.2	3.36	62970.3
2007	13768.8	18.5	58611.5	78.73	2065	2.77	74445.3

Source: Quarterly Economic Bulletin, Mid-April 2008, Vol. 42, Nepal Rastra Bank

In the above table, ownership pattern of treasury bills are presented in rupees and proportion of treasury bills in percentage. In average, around 74% ownership of treasury bills is held by commercial bank over 10 yrs. In the year 1998, the proportion of commercial banks is 88.51%. Among the total treasury bills, share of commercial banks is higher than NRB and others. It shows that Marketability of Commercial banks is also higher than others. In the year 2002 and 2003 the portion of treasury bills purchased by commercial banks decrease to 56.02 and 59.42 but there after its portion is more than 75%. This table clearly reflects that the major portion of treasury bills is purchased by commercial banks and they purchase those treasury bills to get benefit from the short term public deposit.

4.1.1.2 Ownership Pattern of Government Bonds:

Table No. 4.2

Rs. Million

Ownership Pattern of Government Bonds

Institutions \ Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Nepal Rastra Bank	15965	17419.1	18113.9	14899.2	10240.3	10275.3	9334.3	6533.6	1839.9	1860.8
	50.40	50.59	51.43	43.20	29.56	28.20	23.67	17.08	6.15	6.51
Commercial Banks	2153.1	2600.1	2490.6	3125.9	6331.4	8048.2	7642	9049.1	7215.6	7224.9
	6.80	7.55	7.07	9.06	18.28	22.09	19.38	23.65	24.10	25.27
Govt. Business Enterprises	823.9	973.4	805.8	573.9	725.9	705.9	380.8	300.3	230	0
	2.60	2.83	2.29	1.66	2.10	1.94	0.97	0.78	0.77	0.00
Financial Institutions	1482.2	1244.7	1172.3	1527	2012.8	2324.4	4115.4	4565.7	4339.3	4636.5
	4.68	3.61	3.33	4.43	5.81	6.38	10.44	11.93	14.50	16.22
Pvt. Business Enterprises	412.7	430.8	439.9	353.8	353.2	319.4	444.1	358.4	418.5	342.5
	1.30	1.25	1.25	1.03	1.02	0.88	1.13	0.94	1.40	1.20
Non-Profit Orgs.	1245.8	1483.6	994.4	1496.5	1262.6	1213	1198.4	487.1	1153.3	1735.9
	3.93	4.31	2.82	4.34	3.64	3.33	3.04	1.27	3.85	6.07
Provident Funds	2813.2	2858.1	2562.8	2189.3	2743.9	2481.3	3386.5	4035.8	3075.8	4056.4
	8.88	8.30	7.28	6.35	7.92	6.81	8.59	10.55	10.27	14.19
Individuals	2854.7	3499.5	5101.9	6618.9	6865.4	6749.6	7768.4	8320.4	6173.8	3153.6
	9.01	10.16	14.49	19.19	19.82	18.53	19.70	21.75	20.62	11.03
Others	1925.9	1925.9	1538.9	1701.9	2106.8	2314.2	3156.3	2602.1	3483.7	3571.4
	6.08	5.59	4.37	4.93	6.08	6.35	8.00	6.80	11.64	12.49
Total Gov. Bonds	31674.5	34434.2	35220.5	34487.4	34644.3	36434.3	39430.2	38257.5	29935.9	28589

Source: Quarterly Economic Bulletin, Mid-April 2008, Vol. 42, Nepal Rastra Bank

Ownership pattern of government bonds are presented in Rupees (i.e. in million) as well as proportion in percentage. Investors are classified into nine categories. From the table, we can analysis that first 3 years i.e. 1992, 2000 & 2001 the proportion of ownership is more than 50% with Nepal Rastra Bank. But later, the ratio of ownership with NRB is continuously in decreasing. In the year 1998, the ownership of government bonds with NRB is 50.40% (in Rs. 15965million) but in the year

2007 it is 6.51% (in amount Rs.1860.8 million). This means the marketability of government bonds is being broad now a days. Except NRB others institutions and individuals are purchasing governments bonds in large scale.

The portion of commercial banks to purchase the government bonds is in large scale except NRB. Ownership portion of commercial banks is in increasing trend. In the year 1998, the portion of commercial banks is Rs. 2153.1million (i.e. 6.80% of total issued) and in the year 2007, it is Rs. 7224.9 million (i.e. 25.27% of total issued). It shows that interest of commercial banks to invest in government bonds is too high. Like this financial institutions & Provident fund investment in government bonds is also in increasing trend. But private business organizations & nonprofit organization contribution to purchase government bonds is in constant ratio. In the year 1998 the portion of private business organizations is Rs. 412.7 million i.e. 1.30% of total issued which is reached to Rs. 342.5 million i.e. 1.20% of total issue.

Government bond enterprises has no contribution in the last year 2007 which portion is zero i.e. 0%. But the trend of purchasing government bonds by individuals is fruitful. In average more than 15% of total government bonds are purchasing by individuals. Recent years, the trend of purchasing governments is also in increasing by others.

4.1.2 Trend and amount of Government securities issued in Nepal

The government of Nepal has been issuing five types of securities as short term and long term securities. Therefore, the government issued various bonds to recover the deficit budget of Nepal. Every year, the government has adopted a deficit budgetary system in the name of development function. They are Treasury Bills, Development Bonds, National Saving Bonds, Public Saving Card, Special bonds and Overdraft. They are debt-borrowing instruments in Nepal. Types and amount of government securities under the review period 1992-2007 in tabulated in the given table below:

Table No. 4.3
Trend and amount of Government securities issued in Nepal
(Data from 1992-2007)

(Amount in Millions)

Year	Treasury Bills	Growth Rate (%)	Development Bonds		National Saving Bonds		Public Saving Bonds		Special Bonds		Total Internal Debt	
	Amt. (Rs.)		Amt. (Rs.)	Growth Rate (%)	Amt. (Rs.)	Growth Rate (%)	Amt. (Rs.)	Growth Rate (%)	Amt. (Rs.)	Growth Rate (%)	Amt. (Rs.)	Growth Rate (%)
1992	3483.2		5132.2		4546.3		0		10073.2		23234.9	
1993	4403.2	26.41	5132.2	0.00	4901.5	7.81	0		11019.1	9.39	25456	9.56
1994	5216.3	18.47	4732.2	-7.79	5691.5	16.12	0		14991.2	36.05	30631.2	20.33
1995	6392.5	22.55	4122.2	-12.89	6076.4	6.76	0		15466.8	3.17	32057.9	4.66
1996	7142.5	11.73	3672.2	-10.92	7376.4	21.39	0		16050.6	3.77	34241.8	6.81
1997	8092.5	13.30	3042.2	-17.16	8736.5	18.44	0		16019.6	-0.19	35890.8	4.82
1998	9182.5	13.47	3302.2	8.55	9886.4	13.16	0		16035.5	0.10	38406.6	7.01
1999	17586.9	91.53	3872.2	17.26	10426.4	5.46	0		17784.2	10.91	49669.7	29.33
2000	21026.9	19.56	4262.2	10.07	11526.5	10.55	0		17541.4	-1.37	54357	9.44
2001	27610.8	31.31	5962.3	39.89	12476.4	8.24	0		13994.3	-20.22	60043.8	10.46
2002	41106.6	48.88	11090.7	86.01	11536.3	-7.54	628.1		9259.4	-33.83	73620.7	22.61
2003	46844.9	13.96	13090.7	18.03	10659.9	-7.60	931.1	48.24	9621.7	3.91	81148.3	10.22
2004	49429.6	5.52	17549.2	34.06	9029.8	-15.29	1178.9	26.61	8946.2	-7.02	86133.7	6.14
2005	51383.1	3.95	19999.2	13.96	6576.8	-27.17	1428.9	21.21	8176.3	-8.61	87564.3	1.66
2006	62970.3	22.55	17959.2	-10.20	3876.8	-41.05	1678.9	17.50	3469.8	-57.56	89954.9	2.73
2007	74445.3	18.22	17177.1	-4.35	1516.9	-60.87	1391	-17.15	2773.5	-20.07	99303.8	10.39
Total	436317.1		140098.2		124840.8		7236.9		191222.8		901715.4	

Source: Quarterly Economic Bulletin, Nepal Rastra Bank

Figure No: 4.1

Trend of Government Securities from 1992 - 2007

Source: Quarterly Economic Bulletin, NRB, Mid April 2008

In the above table, the net outstanding public debt has been presented in terms of its types as Treasury Bills, Development Bonds, National Saving Bonds, Public Saving Bonds and Special Bonds.

4.1.2.1 Trend Analysis of T-Bills:

Government issues Treasury Bills to collect the scattered fund for short period. From the above table, we can analyze the trend of T-Bills during the past 16 yrs. In this period, growth rate is in increasing trend. In the year 1999, the growth rate is increased to 91.53% as comparative to previous year 1998 which is the maximum growth rate in figure of T-Bills. Trend of T-Bills in the above trend line graph, clearly shows that it has been increasing trend till now and in the year 1999 shows the maximum increased in growth rate. In the year 2004 & 2005, growth rate of T-Bills shows comparatively less than other remaining years.

4.1.2.2 Trend Analysis of Development Bonds:

Over the period of 15 yrs., the value of development bond has been increasing. Above table shows that growth rate of years 1993 is zero. Then, the amount of development bond issued has been decreasing and reaches to Rs. 3042.2 million in the year 1997. After the period of 1998, amount of development bond has been increasing till 2005 and in the year 2002 shows the maximum increased in growth rate by 86.01% as compared with previous year. Last two years, amount of development bonds has been decreased, as a result, growth rate also in decreasing trend.

In the above line graph shows that it is constant in the year 1993 and then decreased after year 1991 till year 1997. After the year 1998, it has been increasing trend in the year 2005 and in the year 2002 it shows the maximum increment. In the last two years 2006 and 2007, growth rate of Development Bond's has been decreasing which we can clearly see in development bond's trend line graph.

4.1.2.3 Trend Analysis of National Saving Bonds:

From the table, it shows that beginning of 9 yrs value of National Saving bonds is increasing trend. In growth rate, we can see fluctuating trend. Last six years, trend of growth rate in National Saving Bonds is decreasing because it is somewhat issuing of public saving cards. We can observe that in the year 1996 shows the maximum growth rate of 21.39% where as in the yr. 2007 maximum negative growth rate of 60.87% is seen. It is also clearly seen in the above National Saving Bond's trend line, till the year 2001 it is in increasing trend and in the year 1996 shows the maximum increment. But after the year 2002, it is continuously in decreasing trend and at last year in 2007 shows the maximum decrease in growth.

4.1.2.4 Trend Analysis of Public Saving Card:

Before the year 2002, Public Saving Card was not used to collect the government debt. The government initiated it from the second quarter of 2001. The main investors of its, is individual. The initiation of public saving card has initiated the new step in the growth of government bond which is also helped to grow the ownership proportion of individual in total issued government bond. From the year 2003 to 2006, amount of Public Saving card is in increasing trend where as the last year in 2007 growth rate if Public Saving Card is in negative. In the PSC trend line graph, we can show that it is in increasing trend except than last year 2007.

4.1.2.5 Trend Analysis of Special Bonds:

From the year 1992 – 1996, growth rate of special bonds is in increasing trend. In the year 1997 it is decreased by 0.19% as compare to the previous year. It is again increased in the year 1998 and 1999 and then there after decreased till now. Last two year growth rate is decreased by 57.56% and 20.07%. It shows that being the non marketable securities is the cause of declining trend of special bonds.

4.1.2.6 Analysis of total internal debt

In the above table, shows the structure of total internal debt with its annual growth rate. Total internal debt consist the total amount of T-Bill, Development Bonds, Special Bonds, National Saving Certificates and Public Saving Certificates of internal debt was Rs. 23234.9 million in the initial year of the study 1992 which is increased to Rs. 99303.8 million in the year 2007 which shows the positive increment. However the growth rate shows the fluctuating trend. In the growth rate column, maximum growth rate is 29.33% in the year 1999 which is Rs. 11,263.1 million higher than previous year. It is somewhat affected by increased value of T-Bills which is also shows in the table. After the year 1999, growth rate gradually because of increased in T-Bills & public saving card. Last year 2006 & 2007, growth rate of development bonds, national saving bonds, public saving card & Special Bonds is in decreasing trend. Thus the increment in growth rate of internal debt in the year 2005, 2006 & 2007 is nominal.

Ongoing peace process and not expending the allocated budget perfectly are the major causes of decreasing growth rate of internal trend which we can clearly analyze in the above table and chart.

4.1.2 Curvilinear Model

The trend is clearly curvilinear model after observing and fitting the data in the figure. It shows that the debt collection policy is gradually increasing. The curve is upward sloping.

Table No. 4.4
Data Fitted in Linear Curvilinear Model

Year	Total Internal Debt (Y)	X	X ²	XY
		1 year = 1992		
1992	23857.2	1	1	23857.2
1993	28730.3	2	4	57460.6
1994	31315.9	3	9	93947.7
1995	32800.9	4	16	131203.6
1996	36530.1	5	25	182650.5
1997	35890.8	6	36	215344.8
1998	41406.6	7	49	289846.2
1999	49669.7	8	64	397357.6
2000	54357	9	81	489213
2001	60043.8	10	100	600438
2002	73621.1	11	121	809832.1
2003	84645.3	12	144	1015743.6
2004	86133.7	13	169	1119738.1
2005	87564.3	14	196	1225900.2
2006	89954.9	15	225	1349323.5
2007	99303.8	16	256	1588860.8
Total	ΣY = 915825.4	ΣX = 136	ΣX² = 1496	ΣXY = 9590717.5

Let the total internal debt be y and X represent the year where 1 year = 1992. The equation based on curvilinear model is fitted on below.

$$y = a + bx \dots\dots\dots (i)$$

Form the above equation we can get two simple equations.

$$\sum y = na + b \sum x \dots\dots\dots (ii)$$

$$\sum xy = a \sum x + b \sum x^2 \dots\dots\dots (iii)$$

where,

$$\sum y = 915825.4, \sum X = 136$$

$$\sum X^2 = 1496$$

$$\sum XY = 9590717.5$$

Substituting the value of $\sum Y$, n and $\sum X$ in equation (ii) and (iii), we can get following

$$915825.4 = 16a + 136b \dots\dots\dots (iv)$$

$$9590717.5 = 136a + 1496b \dots\dots\dots (v)$$

By solving the above equation,

The value of

$$a = 56,127.54$$

$$b = 130.77$$

Now substituting the value of a & b in equation (i), the curvilinear model will be,

$$Y = 56,127.54 + 130.77 x$$

Forecasted of Total government Securities:

The above equation is used to forecast the amount of government bonds and Treasury Bills for the year 2009 - 2013. Here the amount of securities issued by Government in 5 years has been estimated below using curvilinear model.

- Where for the year 2009, $X = 17$
- 2010, $X = 18$
- 2011, $X = 19$
- 2012, $X = 20$
- 2013, $X = 21$

$$\text{The forecasted debt for 2009} = 56,127.54 + 130.77 \times 17 = 58350.63$$

$$\text{The forecasted debt for 2010} = 56,127.54 + 130.77 \times 18 = 58481.4$$

$$\text{The forecasted debt for 2011} = 56,127.54 + 130.77 \times 19 = 58612.17$$

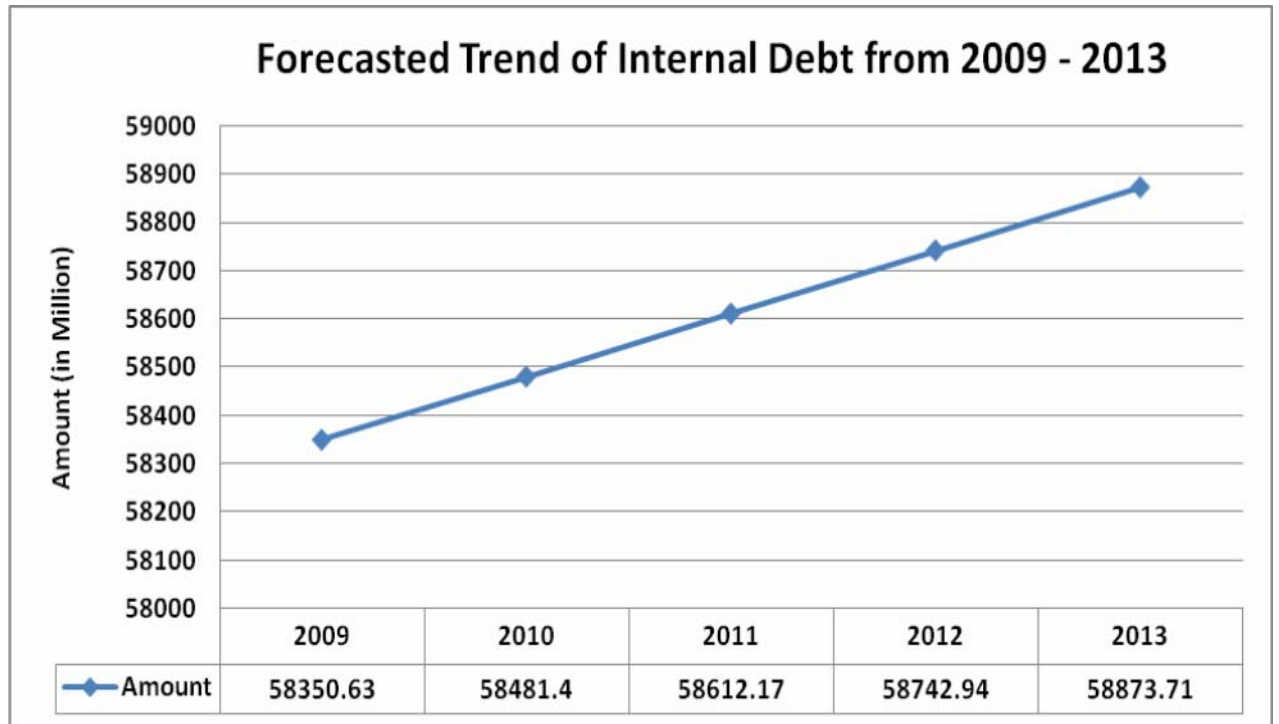
$$\text{The forecasted debt for 2012} = 56,127.54 + 130.77 \times 20 = 58742.94$$

$$\text{The forecasted debt for 2013} = 56,127.54 + 130.77 \times 21 = 58873.71$$

The estimated debt for the year 2009 is Rs. 58350.63 million. It is the estimated total internal debt for year 2009 using curvilinear model. The total internal debt for the 2010, 2011, 2012 and 2013 is Rs. 58481.4 million, Rs. 58612.17million, Rs. 58742.94 million,

Rs. 58873.71 million respectively. The total internal debt has been increasing in every year. The projected value can be fitted in the diagram below.

Figure No. 4.2



Source: Table No 4.4

The forecasted trend of internal debt is gradually increasing, which is fitted by curvilinear model. We can clearly analyze from the above figure, the government borrowing should increase at slow pace.

4.1.3 Analysis of Term Structure of Interest Rate and Yield

The structure of yields that is observed for bonds with different terms to maturity is called the term structure of interest rates. This study analyzed yield of treasury bills, Development Bonds, National Saving Certificates and two years and above time deposit interest rate of the commercial banks. All of this interest rate is taken as the midpoint of the range given by Nepal Rastra Bank Quarterly Economic Bulletin.

Table No. 4.5
Term Structure of Interest Rate and Yield

(In Percentage)

Year	2 year & above Time Deposit	Annulized T.B. Rate (91 days)	NSCr	DBs
1998/99	8.75	2.33	10.87	7.5
1999/00	7.12	4.66	10.87	6.75
2000/01	6.37	4.96	10.57	6.75
2001/02	5.66	4.71	10.63	5.5
2002/03	5.37	3.48	10	5.5
2003/04	5.37	2.98	10	5.5
2004/05	4.50	1.47	9.75	5.5
2005/06	4.28	3.94	9.75	5.5
2006/07	4.45	3.25	9.75	4.88
2007/08	4.00	2.77	9.75	4.88

Source: Quarterly Economic Bulletin, NRB, Mid April 2008

In the above table shows that the market interest rate (time deposit rate) represents 8.75% in 1998/99 and 4.00 percentages in 2007/08. It means market interest is in decreasing rate. Likewise, initial year of study, rate of National Saving Cards is 10.87% and 9.75% in the year 2007/08. Rate of Development bonds is 7.50 and 4.88 in the year 1998/99 and 2007/08 respectively. Trend of National Saving Card's return is not more fluctuate. But Development Bonds return is continuously in decreasing rate. The difference between market interest rate and return of National Saving Cards and Development Bonds was 2.12% and 1.25% respectively at the beginning of the fiscal year 1998/99. However, at the end of tenth year (2007/08) these differences were 5.75% and 0.88%. This study shows that government securities coupon rates are unable to match with market interest rate. If this interest determinant system is not change such misfortune may recur in the future also. Nevertheless government debt securities in its present form are definitely more attractive than corporate debt securities both in term of default and price risk. Such situations discourage the issuance of securities from corporate sectors.

4.2 Analysis of Primary Data

4.2.1 Introduction

The analyst has attempted to deal with the study of the opinions of respondents to find out the major problems of government securities in Nepal. This study is based on the questionnaire survey among the security holders and concerned other requiring their respective interest, comments, grievances and awareness on government securities. 120 sample sizes were taken among the various categories of people in regards to their income, residence, profession, awareness etc.

There were 15 questionnaires, requested to fill up to test the investor's attitude towards government securities. The classification of respondents into different groups has been made to analyze the difference in their opinions with respect to major aspects of government securities in Nepal. These aspects include assessing priority for major problem of government securities, reason for investment in government securities, reasons to sell government securities & so on.

In order to assess whether the difference in the opinions of different respondents as to major aspects of government securities in Nepal is significant, chi-square values are computed.

4.2.2 Analysis of questionnaire survey

A questionnaire was prepared to evaluate the attitude of investors on government securities in Nepal. There were 15 questions (see on appendix) and 120 respondents responded to the questionnaire. The respondents were service holders, university students, businessman, brokers and others. The attitudes of investors are explained below on the basis of collected sample.

I. Time to know about Government Securities

In response to the question of time since they have known about the Government Securities, a majority of 61% respondents felt that they knew about the Government Securities only a few years before, 16.7% respondents replied that they knew about it after the restoration of democracy in 1990, 17.5% knew about

it recently and 3% knew about it at the time of the first budget speech in Nepal while 1.8% knew at other times.

II. Source to know about Government Securities

When 120 respondents responded on how they came to know about the Government Securities; 43.5% felt that they came to know about government securities through the newspapers and government notices, 32% knew from friends, 13.3% knew as they were banks staff and rest 11.2% knew from books, media, magazines etc.

III. Subscription of Government Securities

In response to the question of the type of Government Securities that are highly subscribed in the market, a very high majority of 76 respondents i.e. 63.33% felt that it was Treasury Bills, 23.5% responded to the Development Bonds, 4.7% respondents the special Bonds and rest responded to National Saving Certificate were the types of Government securities that are subscribed in the market.

IV. Condition to induce on Government Securities

In responses to the question of the conditions that induce the investors to invest in Government Securities, 57.3% responded that tax-free and collateral securities induce the investors to invest in Government Securities. 28.5% respondents were of the opinion that only tax-free conditions would be enough for the investors, while 8.2% thought only the collateral conditions would perform the task. The rest 6% respondents thought that there are other conditions that induce the investors to invest.

V. About the income group of the investors

One of the questions asked to respondents about in which income group you fit in. Out of 120 respondents, most of 42% respondents opined in the group Rs. 1,00,000 to 2,00,000. While 33% reported in the group Rs. 2,00,000 - 3,00,000, 25% respondents up to Rs. 1,00,00 and rest were above Rs. 3,00,000.

VI. Reason for investing in Government Securities

Out of total 120 respondents, majority of respondents 58% give their opinion that because of risk less investment; are influenced to in government securities. 23.3% respondents stated that because of zero liquidity risk i.e. highly marketable securities. Some respondents 8.5 agree on decline interest rate in other investment sector (i.e. interest rate on saving account). While only 10.2% of them agree that due to lack of corporate debt securities are influenced to investment in government securities.

VII. Risk on Interest and Principal at maturity

The sense of security about the investment in Government Securities is very important. All the respondents felt secure in Government Securities. The study showed that most of the investors were very much secured about such an investment. 80% respondents reported that they were 100 % secured to get the interest and principal. 12.6% reported that they were 100 % secured to the principal only and remaining felt unsecured.

VIII. Possibility of default risk on the investment of Government Securities

The respondents responded about the possibility of default risk on the investment on Government Securities in terms of annual interest payment and principal at maturity. 69.2% felt there was no risk and 31.7% responded that there was some risk while only 5% percent reported that there was high risk. 2.1% people had no idea.

IX. Security on Interest and Principal

Collecting the interest and principal of the investment should be an easy process. All the respondents responded about the difficulties in collecting interest and principal of the investment. A majority of 57% respondents reported that it was difficult because of the behavior of the officials, 24.14% reported that there was no difficulty and 12.5% respondents reported that it was difficult due to the

lengthy process of collecting the interest and the principal. There were 6.36% respondents who had no idea about this.

X. Buyers on Government Securities

Out of the total 120 respondents, 33.3% reported that the buyers of securities were financial institutions, 27% were service holders, 21.7% were business firms and 13.3% responded were the retired people and the rest 5% had no idea.

XI. Uncertainty on investment in Government Securities

In response to the question about when did the respondents felt uncertain about the investment on Government Securities, a majority of 44% respondents reported that lack of consideration of time value of money made they feel uncertain and 26.34% felt that the complex rules and regulations to be followed at the time of making investment made them feel uncertain. The other 27.42% felt uncertain due to the lower annual rate of return and 2.24% were of no idea.

XII. Entry of Foreign investor in long-term Government Securities

With regard to suggestion to allow investing in long term government securities by foreign investors, majority of the respondents are on the view that the foreign investors should not be allowed to invest in long term government securities. 52% respondents reported that foreign investors should not be allowed to invest in long term government security. They stated that sovereignty problem may occur, exchange rate risk may exits while 41% respondents agreed that foreign investors should be allowed to invest in long term and rest 5% had no idea opined that Government of Nepal should make some conditions before, inviting to foreign investors. They viewed that foreign investors can invest in long term government securities in term of Nepalese currency and they will return it in future but not the currency of their country.

XIII. Source of Income to invest in Government Securities

The responded about the income source they used to purchase the Government Securities. A large 68% percent respondent reported that they used idle cash, 13% percent used residual amount, 6.5% used profit from business, 5.2% used sale of fixed assets and the remaining 7.3% took loan in order to purchase the Government Securities.

XIV. Reason to sell the Government Securities

With respect to make investors to sell the government securities, out of total 120 respondents, majority of 38% respondents have opined that investor sell Government Securities to benefit from investment in real estate (Tangible assets). 32% respondents have opined that investors sell government securities to meet household requirement. While 30% respondents have opined that investors sell government securities to grab alternative investment opportunities (i.e. to invest on shave issued by the reputed private company). Other respondents stated that investors sell government securities to grab the lucrative investment opportunity.

XV. Use of Government Borrowing

The Government of Nepal has been collecting huge amount of money from people. The respondents answered about their opinion about the productive used of the collected amount. 36% respondents were of the opinion that the collected money was productively used. It was found that most of these respondents were service holders. 32% respondents reported that the amount had been unproductively used and 18.2% thought that it was misused. It was found that most of these respondents were students who thought that the money collected was either misused or unproductively used. The remaining 13.8% reported that they do not have any idea in this matter. Rather they were of the opinions that the collected money had to be used in some productive sector.

4.2.3 Test of Hypothesis

The Chi-Square test of hypothesis, based on the various categories of samples (investors) is used to find out the interest and awareness of investors on Government Securities.

Test –I

The randomly selected investors are classified according to their annual income. Does the evidence support the statement that “Only the rich people are interested to the Government Securities”?

Table No. 4.6

Attitude	Nepalese People with Annual Income			Total
	≤ 75,000	75,000 ≤ 2,00,000	≥ 2,00,000	
Less Interested	10	41	23	74
More Interested	15	20	11	46
Total	25	61	34	120

Source: Field Survey - 2065

Setting of Hypothesis

Null Hypothesis (H₀): investors' attitude to invest on Government Securities is independent on their income level.

Alternative Hypothesis (H₁): The investors' attitude to invest on Government Securities is dependent on their income level.

Level of Significance: The level of significance is 5 %.

Test of statistics:

$$\chi^2 \text{ calculated} = \sum [(O-E)^2 / E]$$

Where, O = Observed frequency

E = Expected frequency

Calculation of expected frequencies:

$$\text{Expected frequencies of } R_1C_1 = \frac{\text{RowTotal} \times \text{ColumnTotal}}{\text{GrandTotal}} = \frac{74 \times 25}{120} = 15.42$$

Similarly, $R_1C_2 = 37.62$, $R_1C_3 = 20.97$, $R_2C_1 = 9.58$, $R_2C_2 = 23.38$, $R_2C_3 = 13.03$

Calculation of Chi-square (χ^2)

Observed Frequency (O)	Expected Frequency (E)	(O- E)	(O – E) ²	$\frac{(O - E)^2}{E}$
10	15.42	-5.42	29.38	1.91
41	37.62	3.38	11.42	0.30
23	20.97	2.03	4.12	0.20
15	9.58	5.42	29.38	3.07
20	23.38	-3.38	11.42	0.49
11	13.03	-2.03	4.12	0.32
Total				6.29

$$\text{Chi- Square } (\chi^2) = \left[\frac{(O - E)^2}{E} \right] = 6.29$$

χ^2 **tabulated** value at 5 % level of significance for [(R-1) (C-1)] degree of freedom (d.f.)

$$= [(2-1) (3-1)] \text{ d.f.}$$

$$= 2 \text{ d.f.}$$

$$= 5.99$$

Decision:

Since the calculated value of χ^2 is greater than the tabulated value at 5% level of significance for two degree for freedom. Hence, the Null Hypothesis (H_0) is rejected and the Alternative Hypothesis (H_1) is accepted. The investors' attitude to invest on Government Securities is dependent on their income level.

Test –II

In 120 random samples of Nepalese people, it contains the following distribution, which was noted on the basis of their education. The test is to draw the association of interest and education of Nepalese people.

Table No. 7

Attitude	Nepalese People with Different Education Level				Total
	UP to S.L.C.	Intermediate Degree	Bachelor Degree	Master Degree or Above	
More Interested	9	18	28	11	66
Less Interested	3	22	20	9	54
Total	12	40	48	20	120

Source: Field Survey - 2065

Setting of Hypothesis

Null Hypothesis (H₀): The interest of Nepalese people and their education are independent each other.

Alternative Hypothesis (H₁): The interest of Nepalese people and their education are dependent each other.

Level of Significance: The level of significance is **5 %**.

Test of statistics:

$$\chi^2 \text{ calculated} = \sum [(O-E)]^2 / E$$

Where, O = Observed frequency

E = Expected frequency

Calculation of expected frequencies:

$$\text{Expected frequencies of } R_1C_1 = \frac{\text{RowTotal} \times \text{ColumnTotal}}{\text{GrandTotal}} = \frac{66 \times 12}{120} = 6.6$$

Similarly, $R_1C_2 = 22$, $R_1C_3 = 26.4$, $R_1C_4 = 11$, $R_2C_1 = 5.4$, $R_2C_2 = 18$, $R_2C_3 = 21.6$, $R_2C_4 = 9$

Calculation of Chi-square (χ^2)

Observed Frequency (O)	Expected Frequency (E)	(O- E)	(O – E) ²	$\frac{(O - E)^2}{E}$
9	6.6	2.4	5.76	0.8727
18	22	-4	16	0.7273
28	26.4	1.6	2.56	0.0970
11	11	0	0	0
3	5.4	-2.4	5.76	1.0667
22	18	4	16	0.889
20	21.6	-1.6	2.56	0.1185
9	9	0	0	0
Total				3.7711

$$\text{Chi- Square } (\chi^2) = \left[\frac{(O - E)^2}{E} \right] = 3.7711$$

χ^2 **tabulated** value at 5 % level of significance for [(R-1) (C-1)] degree of freedom (d.f.)

$$= [(2-1) (4-1)] \text{ d.f.}$$

$$= 3 \text{ d.f.}$$

$$= 7.82$$

Decision:

Since, the calculated value of χ^2 is lower than the tabulated value at 5% level of significance for three degree for freedom. Hence, the Null Hypothesis (H_0) is accepted and the Alternative Hypothesis (H_1) is rejected, i.e. the interest of Nepalese people and their education are independent each other.

Test – III

It is said that the interest of people will be affected their occupation, i.e. who have not enough time to seek the beneficial stock and haven't time to take the opportunities of market are more interested to purchase the government securities, and who have enough time to seek the beneficial stock, are less interested to purchase the government securities i.e. the employee of NRB/NG and other organization have no time to seek the beneficial stock and to take the opportunities of the market. So, they are less interested to purchase the government securities.

The randomly selected 120 samples of people are classified according to their occupation. Here it is tested that whether the occupation affects their interest towards the government securities or not.

Table No. 4.8

Attitude	Employees of Govt. Organizations including retired persons	Business	Others	Total
More Interested	45	10	8	63
Less Interested	20	27	10	57
Total	65	37	18	120

Source: Field Survey - 2065

Formulation of Hypothesis:

Null Hypothesis (H₀): There is no any association between the interest of Nepalese people and their occupation in the government securities.

Alternative Hypothesis (H₁): There is association between the interest of Nepalese people and their occupation in the government securities.

Level of Significance: The level of significance is 5 %.

Test of statistics:

$$\chi^2 \text{ calculated} = \sum [(O-E)]^2 / E$$

Where, O = Observed frequency

E = Expected frequency

Calculation of expected frequencies:

$$\text{Expected frequencies of } R_1C_1 = \frac{\text{RowTotal} \times \text{ColumnTotal}}{\text{GrandTotal}} = \frac{63 \times 65}{120} = 34.125$$

Similarly, $R_1C_2 = 19.425$, $R_1C_3 = 9.45$, $R_2C_1 = 30.875$, $R_2C_2 = 17.575$, $R_2C_3 = 8.55$

Calculation of Chi-square (χ^2)

Observed Frequency (O)	Expected Frequency (E)	(O- E)	(O – E) ²	$\frac{(O - E)^2}{E}$
45	34.125	1.875	118.2656	3.4657
10	19.425	-9.425	88.8303	4.5730
8	9.45	-1.45	2.1025	0.2225
20	30.875	-10.875	118.2656	3.8305
27	17.575	9.425	88.8306	5.0544
10	8.55	1.45	2.1025	0.2459
Total				17.392

$$\chi^2 \text{ calculated} = \sum [(O-E)]^2 / E = 17.392$$

χ^2 tabulated at 5 % level of significance for [(R-1) (C-1)] degree of freedom (d.f.)

$$= [(2-1) (3-1)] \text{ d.f.}$$

$$= 2 \text{ d.f.}$$

$$= 5.99$$

Decision:

Since the calculated value of χ^2 at 5 % level of significance for 2 d.f. is greater than the tabulated value (i.e. $17.392 > 5.99$), thus the Null Hypothesis (H_0) is rejected and the Alternative Hypothesis (H_1) is accepted. It means that the investors' attitude to invest on Government Securities is dependent on their occupation. Occupation also plays a major role while making decision about investing in Government Securities.

Test – IV

It is generally understood that awareness depends on the academic background of the people. That is, people with the academic background of economics, finance, management and commerce are more aware to the government security than the people from other background because this subject are related to the securities where as other are not.

It is tested that the people with the academic background of economics and management are more aware towards the government securities than the people of other academic background or not.

Table No. 4.9

Attitude	Academic background of Economics and Management	Others	Total
More aware	48	32	80
Less aware	16	24	40
Total	64	56	120

Source: Field Survey - 2065

Formulation of Hypothesis:

Null Hypothesis (H_0): The academic background and the awareness are independent each other.

Alternative Hypothesis (H_1): The academic background and the awareness are dependent each other. That is, the people whose academic background is

economics & management are more aware towards the government securities than the people of others background.

Level of Significance: The level of significance is 5 %.

Test of statistics:

$$\chi^2 \text{ calculated} = \sum [(O-E)]^2 / E$$

Where, O = Observed frequency

E = Expected frequency

Calculation of expected frequencies:

$$\text{Expected frequencies of } R_1C_1 = \frac{\text{RowTotal} \times \text{ColumnTotal}}{\text{GrandTotal}} = \frac{80 \times 64}{120} = 42.67$$

Similarly, $R_1C_2=37.33$, $R_2C_1=21.33$, $R_2C_2=18.67$

Calculation of Chi-square (χ^2)

Observed Frequency (O)	Expected Frequency (E)	(O- E)	(O – E) ²	$\frac{(O - E)^2}{E}$
48	42.67	5.33	28.41	0.67
32	37.33	-5.33	28.41	1.31
16	21.33	-5.33	28.41	1.33
24	18.67	5.33	28.41	1.52
Total				4.8317

$$\chi^2 \text{ calculated} = \sum [(O-E)]^2 / E = 4.8317$$

χ^2 tabulated at 5 % level of significance for [(R-1) (C-1)] degree of freedom (d.f.)

$$= [(2-1) (2-1)] \text{ d.f.}$$

$$= 1 \text{ d.f.}$$

=3.84

Decision:

Since the calculated value is greater than the tabulated value at 5 % level of significance for 1 d.f., the Null Hypothesis (H_0) is rejected and the Alternative Hypothesis (H_1) is accepted. That means; there exists relationship between academic background of investors and their awareness about Government Securities. Thus what we can conclude that the persons with the academic background of Economics and Management are more aware about the Government Securities.

Test –IV

It is generally understood that the investors in the urban areas are more aware about the Government Securities than the investors in rural areas because they can get the information about the economic condition and the utilities of debt in time. Does the experimental result support the understanding?

Table No. 4.10

Attitude	Investors of Urban Areas	Investors of Rural Areas	Total
Less aware	48	27	75
More aware	15	30	45
Total	63	57	120

Source: Field Survey - 2065

Formulation of Hypothesis:

Null Hypothesis (H_0): Nepalese people of both areas are equally aware to the government security i.e. the residence and awareness of Nepalese people are independent.

Alternative Hypothesis (H₁): Nepalese people of urban area are more aware to government securities than the people of rural area i.e. the residence and awareness of Nepalese people are not independent.

Level of Significance: The level of significance is 5 %.

Test of statistics:

$$\chi^2 \text{ calculated} = \sum [(O-E)^2 / E]$$

Where, O = Observed frequency

E = Expected frequency

Calculation of expected frequencies:

$$\text{Expected frequencies of } R_1C_1 = \frac{\text{RowTotal} \times \text{ColumnTotal}}{\text{GrandTotal}} = \frac{75 \times 73}{120} = 39.375$$

Similarly, $R_1C_2=35.625$, $R_2C_1=23.625$, $R_2C_2=21.375$

Calculation of Chi-square (χ^2)

Observed Frequency (O)	Expected Frequency (E)	(O- E)	(O – E) ²	$\frac{(O - E)^2}{E}$
48	39.375	8.625	74.3906	1.8893
27	35.625	-8.625	74.3906	2.0882
15	23.625	-8.625	74.3906	3.1488
30	21.375	8.625	74.3906	3.4803
Total				10.6066

$$\chi^2 \text{ calculated} = \sum [(O-E)^2 / E] = 10.6066$$

χ^2 tabulated at 5 % level of significance for [(R-1) (C-1)] degree of freedom (d.f.)

= [(R-1) (C-1)] d.f.

$$= [(2-1) (2-1)] \text{ d.f.}$$

$$= 1 \text{ d.f.}=3.84$$

Decision:

Since the calculated value is greater than the tabulated value, the Null Hypothesis (H0) is rejected and the Alternative Hypothesis (H1) is accepted for one degree of freedom. The empirical attest accepts the relation between the general understanding i.e. the investors of urban areas are more aware about the Government Securities than the investors of rural areas. In other words, the residence and awareness of investors are dependent.

4.3 Government Security in Nepal

4.3.1 Pricing of Debt Securities

The values of bonds are determined by coupon rate and maturity period of debt securities. It is directly related to coupon rate whereas it is inversely related to the maturity period and the market rate or interest. The higher the coupon rates, the higher the value of the bond. The present value of the bond is calculated by summing all discounted coupons and principal payments with the discount rate being the market rate of interest of corresponding years as modeled below:

$$B_0 = \frac{C_1}{1+K_1} + \frac{C_2}{1+K_2} + \frac{C_3}{1+K_3} + \dots + \frac{C_n}{1+K_n}$$

Where, B₀ is the present value of the bond. Similarly K₁, K₂, K₃, K_n and C₁, C₂, C₃, C_n are market interest rates or going interest rates or discounted rates and coupon rates respectively. When market rate of interest goes down, the price of previously issued bonds at higher coupon rate goes up investors receive capital gains.

A financial repression is a common phenomenon where economics are not liberalized. The government directed system in such repressed market fails to

competitively determine interest rate on deposit and lending. While government borrows at rate lower than market rate of interest, the government coupon rates sometimes provide real return on government debt security in negative at a time when the coupon rate is lower than inflation rate. Risk associated with bond investment reduces the value of the bond. The longer the period of maturity, the higher would be the default risk. Though, the default risk of government bonds is assumed zero, changes in inflation rate, tax rate, market rate of interest and depreciation of domestic currency affect the value of government bond. Thus, pricing of bonds is determined by the relevant macroeconomic variables as well.

Treasury Bills, National Saving Certificates, Development Bonds and Special Bonds are the government debt securities; they are issued to recover the deficit budget. Treasury Bills are short- term money market instruments having low return and low risk. Commercial Banks mainly hold Treasury Bills to manage their balances. National Saving Certificates and Development Bonds are two long-term marketable securities, both are contributing one third of total internal debt. Special Bonds are specially sold to NRB and Commercial Banks. Coupon payments fixed on Special Bonds are below the market rate. Special Bonds constitute 40% of the total internal debt; have the longest maturity period of about 20-25 years and highest risks associated with uncertainty of the longer term.

National Saving Certificates and Development Bonds are the long-term marketable securities available in the exchange market. Market makers facilitate the secondary market transactions of marketable government securities. Settlements of payments are made through NRB. Nepal Stock Exchange Limited has not yet started transacting government securities in the floor. Buying and selling orders cannot be placed through electronic means and exchange of government securities.

Government loan has the all-financial obligations of the nation including its currency or as government borrowing. In many cases, the currency is not

included in government debt. Moreover, some of them do not include even the overdraft amount from NRB, which must be refunded by the government to the bank within a time limitation.

Government Securities are classified as two types in terms of internal public debt. They are explained below:

❖ **Short- term Government Debt**

Short- term loan is collected by issuing the short- term government securities such as Treasury Bills. They mature in less than one year. In Nepal, Treasury Bills are sold at discount and pay no interest with the appreciation in value to maturity, which represent investors' return. The NRB (on behalf of government) offers various parties for the sale of Government Securities, for example Commercial Banks, Development Banks, Government and non-government financial institutions, group of investors, etc. Treasury Bills normally matures after 91 days. Sometimes they are issued with the maturity period of 182 and 364 days. Such Government Securities are issued through the auction system. The party who submits the higher amount of cash can purchase the Treasury Bills floated by the NRB.

❖ **Long- term Government Debt**

The floating government debts are divided into the *Bonds* and *Notes*. They are issued to provide the funds for sustainable development of the nations, to make the people contemplative to the pride of participation in nation's development and welfare, to draw the liquidity from the market for a long-run. Government issues Development Bonds and National Saving Bonds with a long-term maturity period. These bonds are issued for a long- period. The government also issues Special Bonds, which are in practice today.

4.3.2 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's budgets were very small. The government 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 take keen interest in the economic development of their respective countries".

The objectives of Government Securities are summarized below:

➤ **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 they cannot 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 criticism of people in regard of levying the tax but it may lead the nation to grim predicament in long run.

➤ **To maintain economic growth**

The state should conduct the general administrative functions and development programs simultaneously. The government should implement the construction of public works like roads, railway lines, irrigations, powerhouses, etc. for accelerating its economic and social progress. Underdeveloped countries on one hand cannot use their natural resources due to the various constraints and on the other hand these cannot levy heavy taxation upon their people due to the low rate of real saving of their people. In this situation, borrowing from the people and abroad would be the main and only device of getting financial resources to the nation.

➤ **To meet the 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 natural 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 the one hand adopts the progressive tax system and on the other hand 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, to finance public enterprises for public welfare to create the infrastructure, 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.

4.3.3 System of Government Debt

With the inclination and intention of mobilizing the available capital resources the government has maintained some sort of approach in relation to public debt initially by promulgating Financial Act and Nepal Rastra Bank Act 1955. The act at section 20.2 sanctioning the responsibility and authority of raising the internal debt to NRB further clears that "the entire responsibility in relation to the management of public debt shall be entrusted to the bank (NRB) on such terms as may be agreed upon between GON and the bank". After 5 years the government issued the Public Debt Act 1960 with the main objective to encourage the saving for economic development of the nation.

Similarly Public Debt Regulation 1963 has been formulated by GON, which sets the details of systematic process and procedure for borrowing, servicing and redemption of public debt. Apart from this; the regulation includes the system for transference or ownership of bonds, conversion of type and form of securities, provision of losing the bills and certificates and so on.

In Nepal, the task of co-ordination in all these aspects is achieved through NRB and or the agencies of NRB. NRB advises the agencies as per necessities, regarding the timing, terms and the amount of loan that can be raised in market without undue difficulties.

4.3.4 Theoretical Aspects of Issuing the Government Securities

There is not a debate on the necessity of public debt for sound economic development and stabilization. No one violates the power and authority of government for borrowing for public purpose. But it is not expected to borrow for indulging in 'wasteful' expenditure of any kind of or to suit the personal whims of individuals (particularly of PM and FM) running the loan from the market on which the government should conceive thoroughly before floating its securities.

- No one should be imposed for lending the loan to the government.
- The management should keep its interest cost to the minimum possible. The government, therefore, should issue the securities with minimum interest rate as far as possible and practicable.
- It should not impact adversely upon the target of sustainable economic development of the nation. Rather the all practice regarding to public borrowing should assist the state's economic welfare as a whole.
- The securities should not be floated at the time of deflation as well as increasing the rate in the market. And the state ought to be able to raise the loan at the period of decreasing or stagnating the interest rate in the market.
- The state should pay the proper attention towards the legal and ethical restrictions on public borrowing.

However the government may change the terms and conditions of payment of debt at any time it likes for public welfare, but it is expected everywhere that the government would abide by a self imposed and indulged limitations so that it does not lose the confidence of people in regarding to refunding the loan in or on time set previously.

4.4 Major Findings

Findings from the analysis of ownership pattern of government securities:

- Analysis of 10 years period of treasury bills from 1998 to 2007, it is found that the major holder of T-bills is commercial banks which are 74% in average.
- The proportion of ownership of treasury bills by NRB is in fluctuating trend; this may be the reason of increment in number of commercial banks and other financial institutions.
- Ownership of others in purchasing the Treasury bills is still nominal. In the year 1998, 1999 and 2000, portion of treasury bills by others is 13% in average but last years its average is only 3%.
- After the analysis of ownership pattern of governments bond, it is found that the major holder of government bonds in first 3 years i.e. 1992, 2000 & 2001 is Nepal Rastra Bank (more than 50%). But thereafter the proportion of NRB is continuously in decreasing trend. It may be the reason of issuing public saving cards and individuals are the main investors of public saving card. Similarly increment of commercial banks, financial institutions and others institutions may also the reason of decreasing NRB's ownership in Government bonds.

Findings from the trend analysis of Government Securities:

- History of government securities is started with the issuance of treasury bills in 1961. Since than volume and kind securities have been growing over the period. But now a days government issues five type of securities these are treasury bills, development bonds, national saving certificates, public saving cards and special bonds.
- The trend of Treasury bills as a whole is seems to be increasing trend. Its trend in previous year was slightly increased. In the year between 1999 – 2002, it increased rapidly but after 2003 its growth is in decreasing trend.

- The trend of developing bonds was in decreasing trend in beginning period of this study, increased in the middle period. Again after year 2006, is in decreasing trend. To collect the long term fund, developing bonds are the main tools of government securities.
- The government of Nepal has started to collect fund thorough public saving cards from the year 2002. It helps to grow the ownership proportion of individual in total issued of government bond. First four years, the trend of public saving cards is increasing but at last year 2007, it is decreased by 17.15%.
- The trend of special bonds were increased trend in previous year but slightly decreased in middle period. But recent years; trend of declining is too high. Being non marketable securities may be the reason of declining of its trend.
- As a whole, by observing the trend of government securities, the amount government securities are increased every year. By using curvilinear model, the forecasted amount in the coming years also show the increasing trend of amount which is the positive sign of development of securities market as well as financial market.

Findings thorough the analysis of term structure of Interest Rate & questionnaire survey:

- The trend of market interest rate is decreasing while the coupon rate of government securities are not decreasing as decreased of market interest rate. Government securities have higher rate than market rate.
- The securities with lower maturity period have lower interest rate and the bonds with long maturity period have higher interest rate.
- The majority of respondents have known about government securities a few years before, after the restoration of democracy and some were at the time of the first budget speech.

- With respect to recommendation on entry of foreign investors in long term government securities, majority of the respondents suggest that foreign investor should not be allowed to invest. They stated that sovereignty problem may occur, exchange rate risk and BOP crisis may exist.
- The Treasury Bills are highly subscribed in the market in comparisons to other securities. High majority of respondents 63.33% felt that for government securities is Treasury Bills.
- About reason to sell government securities, majority of respondents have opined that investors sell government securities to benefit from investment in real estate (tangible assets). To meet household requirement' and to grab alternative investment opportunities got second and third priority respectively. It indicates the non financial habit of investors.
- Large investors though to invest idle cash in government securities and only few of them used loan in order to purchase the government securities.
- The study showed that most of the investors were very much secured about such an investment as 80 percent respondents reported that they were 100 percent secured to get the interest and principal by government securities.
- The respondents responded about the difficulties in collecting interest and principal of the investment. A majority of respondents reported that it was difficulty due to the behaviors of the official staffs.
- By using chi-square test, it was found that the investors' attitude to invest on Government Securities is dependent on their income level and occupation. Similarly, it was found that the interest of Nepalese people and their education are independent to invest on government securities.

CHAPTER-5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary:

Securities which are issued by the government assures to pay a certain percentage of interest with principal at a certain period are government securities. Government issues different types of securities to collect reserve fund from financial institutions, non-financial institutions, industries and individual etc. under the NRB act 2058 and public debt act 2058 through NRB and its market maker. Government issues two types of securities. As a short-term securities; T-Bills are issued and as the long term securities; developing bond, national saving certificates, public saving card & special bond are issued. The history of government securities is started after issuing of T-Bill in 1961 under the public debt act 1960.

The Domestic resources are not sufficient to promote the rapid development of the Nepalese economy. For this, the internal debt has played a significant role in the financial resources for development expenditures as well as in the growth of capital market. In contrast to this beneficial measure the obvious practice of borrowing even to conduct the general administration is being build up gradually. The government has been borrowing overdraw from NRB as well. The government must pay the amount of overdraft with its interest within the stipulated period. This way it is also considered as a kind of internal debt.

This research mainly aims to study on government securities practices and its trend in Nepal. Its specific objectives are (i) to analyze the trend and ownership pattern of government securities in different years (ii) to examine the attitude of the investors towards the government securities (iii) to overview Nepal Government bonds issue system and practices (iv) to examine the interest rate of government securities (v) to analyze the views & opinion on the policy and procedures to reform debt management of Nepal. The study is based on secondary

as well as primary sources of information. The study on ownership pattern of government securities is accomplished on Treasury Bills and Bond separately by using secondary data for the period of 1998 to 2007. Similarly, trend of issuing government securities are analyzed on the bases of secondary data for the period of 1998 to 2007. The study also analyzed the interest rate and yield of government securities on the basis of last 10 years data. A source of primary data includes questionnaire and personal interviews. The questionnaire containing 15 different variables form seeking problems of government securities. The results of these respondents are also analyzed to as certain the difference in their responses. For this purpose, mainly curvilinear model and chi square statistic has been applied and the results of chi square are tested at 5% level of significance.

The debt raised by Government has been in increasing trend in last few years. Government issues various types of securities both internally and externally to fulfill the deficit budget. Many economists suggest that borrowing from internally is better than externally. The internal investors of the government are the people of the country. Amount of large public debt may create problems in the economy of the country in future.

5.2 Conclusion

From the above findings, this study concludes that Nepalese investors are attracted to government securities in comparison to other investment sectors. Most of investors in Nepal are risk averter and they search less risky investment. Residence and awareness of investors are affecting to participate in government securities. To access the countryside people on government securities, the government should conduct the awareness programs in rural areas and have to be used collected finance in productive sectors.

Likewise another conclusion is that the market interest rate is decreasing while the coupon rate of government securities are not decreasing as decreased of market interest rate. Trend amount of marketable securities are in growing trend while non marketable securities i.e. special bonds are decreasing.

One of the reasons of borrowing the loan internally is also to make the people participate in development programs launched by the nation. The study clears that rich, poor, educated and uneducated investors are equally interested to government securities and who have not the sufficient time and are unskilled to run the private enterprise competitively are more interested to government security.

Similarly, it concluded that entry of foreign investors in long term government securities should not be allowed. It may raise the problem of balance of payment and sovereignty problem also may occur.

5.4 Recommendation

For the further improvement and development of government securities, following recommendations are proposed.

- **Develop a well functioning financing strategy:**

A well-defined strategy for issuing domestic debt needs to be developed to provide a stable and sustainable source of domestic financing of Government requirements and minimize interest costs and risks associated with public domestic debt. The strategy should also support the development of a well functioning market for Government securities.

- **Minimize the unproductive expenditure**

The government should attempt to reduce the unproductive expenditure which helps to control immensely increment of budgetary expenses. It presses on mobilizing internal revenue in order to reduce dependency on loans for financing development expenditure.

- **Encouragement of financial institutions, business enterprises and individuals:**

The major ownership of treasury bills is held by commercial banks. So government should encourage financial institution, business enterprises and

individual investors to invest on Treasury bills. Government should introduce zero coupon bonds as alternative of T-bills.

- **Conduct awareness program in rural area:**

Government should try to inform about the government securities in rural area and the subject about the government securities so that people of rural area or other academic background will be equally aware to the government securities.

- **Help to NRB to tackle the fiscal and monetary problem:**

The government should help to NRB to tackle the fiscal and monetary problem in the nation rather than unnecessarily interfere on it.

- **Well direction to commercial banks:**

NRB should strongly direct all the commercial banks that they must pay the interest of government bond of their respective customers timely and thereby claim the amount with NRB.

- **Specified particular locality to use special bonds:**

It is essential that some special bonds might be issued for development work for a particular locality to attract people towards government securities. When such development work as bridge, road, communication and irrigation etc would be built with the funds from the special bonds at a place, people of other locality might be encouraged to purchase such bonds.

- **Management of securities issue of time:**

The amount and date of issue of government securities has to be published at the beginning of the fiscal year. Such arrangement helps investors to manage their investment portfolio appropriately.

- **Utilization of borrowing on productive programmes:**

Government should finance the public borrowing on productive programmes, which can provide the return most efficiently at short. If this can be done the

national revenue will increase faster and inevitably that debt-servicing ability will also increase in the same pace.

- **Initiation of policies to attract non banking sector:**

Excessive dependency upon foreign assistance for development expenditure is due to poor mobilization of internal resources both revenue and borrowing. Government should initiate policies to attract maximum borrowing from non banking sector. It is most non-inflationary source of internal borrowing since it is simple transfer of idle saving from people to the government for development purpose.

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Appendix **Questionnaire**

Dear Sir/Madam

It's the golden opportunity on meeting you during the research study on "**Ownership Pattern of Government Securities & Its Practices in Nepal**". I have selected you as a respondent hoping that you will share valuable ideas and provide information with suggestion to me filling the given questionnaire format.

I would like to make you that the information filled by you will be kept confidential and will not be published.

Full Name:

Occupation:

Sex:

Age:

- (a) Recently (b) After restoration of Democracy
(c) Few years before (d) _____

2. How did you come to know about Government securities?

- (a) Papers/Government Notices (b) Being Government employee
(c) Friends (d) Being a staff of a bank employee
(e) _____

3. What types of Government securities are highly subscribed in the market?

- (a) Treasury Bills (b) Development Bonds
(c) National Saving Cards (d) Special Bonds
(e) _____

4. Which of the following conditions induce the investors to invest in Government Securities?

- (a) Only tax free (b) Only collateral
(c) Tax free and collateral securities (d) Others _____

5. In which of the following income group you fit in

- (a) Up to Rs. 1,00,000 (b) Rs. 1,00,000 – Rs.2,00,000
(c) Rs.2,00,000 – Rs.3,00,000 (d) Above Rs. 3,00,000
(e) _____

6. What is the main reason for investment in Government securities?
- (a) Riskless investment (b) Zero liquidity risk
(c) Lack of corporate securities (d) Declining interest rate in
7. How secured do you feel about your investment in Government Securities?
- (a) 100% secured to get interest and principal
(b) 100% secured to get interest only
(c) 100% secured to get interest and principle
(d) Unsecured (e) _____
8. Do you know any possibility of default risk on the investment on Government Securities in terms of annual interest payment and principle at maturity?
- (a) High risk (b) Low risk
(c) No risk (d) _____
9. Have you felt any difficulty in collecting interest and principle of your investment?
- (a) Difficult due to long process (b) No difficulty at all
(c) Difficult due to behavior of officials (d) _____
10. Who are the major buyers?
- (a) Service holders (b) Business institutions
(c) Retired people (d) _____
11. When do you feel uncertain about investment on Government Securities?
- (a) Lower annual rate of returns
(b) Complex rules and regulations to be followed at the time of making investment
(c) No consideration of time value of money
(d) _____
12. Do you agree, foreign investors should be allowed to invest in long term government security in Nepal?
- (a) Yes (b) No
(c) Others _____

13. Out of your total income, which income source you use to purchase Government Securities?
- (a) Residual amount
 - (b) Profit from business
 - (c) Loan
 - (d) Idle cash
 - (e) Sale of fixed assets
14. Which of the following makes you sell the government securities?
- (a) To grab alternative investment opportunity (i.e. to invest on shares issued by the reputed private company)
 - (b) To meet household requirement
 - (c) To benefit from investment in real estate
 - (d) When stock is overpriced
15. The government of Nepal has amount of money from people. What is your opinion about the productive use of the collected amount?
- (a) Productivity used
 - (b) Misuse
 - (c) Unproductive use
 - (d) _____