

# **CHAPTER I**

## **INTRODUCTION**

### **1.1. Background of the study**

Nepal is a small country sandwiched between two densely populated countries India and China. Both countries have well-developed economic condition. Nepal is developing country. Development and expansion of financial institution are essential for the economic growth of the country. Financial institution or intermediaries are the organizations that channel the savings of government, business, and individuals into loans or investments. Thus financial intermediaries position themselves between providers and users of funds. The role of the financial intermediaries is to accumulate funds from various savers and lend those funds to borrowers and thus they actively participate in the money market and the capital market.

Capital can be defined as the fund raised to finance different assets and projects of long-term nature. Capital is a primary need for any business organizations to start their operation and function successfully in competitive environment. Capital is the lifeblood of any organization. It is to raise the capital that the companies and the Government Issue short-term securities such as treasury bills and long-term securities such as bond/debentures, preferred stock and common stock.

The capital market is the market for long-term and equity capital. Companies and the government can raise funds for long-term investments via the capital market. The capital market includes the stock market, the bond market, and the primary market. Securities trading on organized capital markets are authorities of financial supervision and monitored by participating banks. So, capital market is the market for securities where companies and government can raise long-term funds by issuing bond/debentures and equity securities. It is the type of security market where only long-term securities are traded. The long-term securities are bond/debenture, preferred stock or common stock. Long-term securities refer to the securities having the life-span of greater than one year. Capital markets which deal with securities such as stocks and bonds/debenture are

associated with financial reNoted from mobilizations on a long term basis. Capital market implies a structured market for trading of stocks and bond/debenture. For investors, they provide an effective vehicle for making investment choices which suit their own preferences of risk and returns based on available information. By raising capital directly from the public, they lower the cost of capital. Capital markets also allow for wider ownership among the public, thereby distributing risks and wealth among smaller investors.

The capital markets include primary market and secondary market. The primary market is where new stock and bonds/debentures issues are sold (underwritten) to investors. The secondary markets are where existing securities are sold bought from one investor or speculator to another. While stock exchanges are the easily visible examples of capital market, support organizations such as brokerage firms and Over-the-Counter (OTC) markets are also included within the working definition of capital market.

The history of securities market began with the flotation of shares by Biratnagar Jute Mills Ltd. and Nepal Bank Ltd. in 1937. Then government Nepal introduced the Company Act in 1964 and the first issue of government bonds made in the same year through Nepal Rastra Bank to collect the developmental expenditures. It carried 6 percent rate of interest and had the maturity period of five years. GovernmentNepal announced the Industrial Policy in 1974 and under this policy an institution named Securities Marketing Center (SMC) was established to deal in government securities development bonds and national savings bonds, and corporate securities of few companies. The government has the virtual monopoly over the security market. Then, Securities Exchange Center (SEC) was established in 1976 with an objective of facilitating and promoting the growth of capital market. It was the only capital market institution in Nepal. Securities Exchange Act came into force in 1984. Since then, SEC started to operate under this act. The purpose of this act was to provide systematic and favorable market environment for securities ensuring and protecting the interest of individuals and institutional investors as well as to increase the public participation in various firms and companies.

SEC had provided facilities to trade the government securities and few of corporate securities like shares and bonds/debentures. Only the shares of 10 companies were listed in SEC and there was involvement of no broker and dealer in the securities market. So, SEC itself was undertaking the job of brokering, underwriting, managing public issue, market making for government bonds and other financial services (NEPSE 1998). Apart from this, there was the absence of effective secondary market to ensure liquidity to the securities.

Then, due to the world of privatization and economic liberalization, the operation of SEC was felt to change to make it compatible with the changing economic system. As a result, government Nepal brought about change in the structure of SEC by dividing it into two distinct entities-Securities Board, Nepal (SEBON) and Nepal Stock Exchange Ltd. (NEPSE) at the policy level in 1993. Since then they are operating as the main constituents of securities market in Nepal. SEBON was established on June 7, 1993 with its mission to facilitate the orderly development of a dynamic and competitive capital market and maintain its credibility, fairness, efficiency, transparency and responsiveness under the Securities Exchange Act 1983 (SEBON, 2001). It is an apex regulator of the securities market in Nepal. It registers the securities and approves the public issues. Moreover, SEBON frames the policies and programs required to monitor the securities market, provides license to operate stock exchange business and stock brokers and supervises and monitors the stock exchange operations and securities businesspersons.

NEPSE is a non-profit organization, operating under Securities Exchange Act,2007 AD. 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 and market makers, etc. NEPSE opened its trading floor on January 13, 1994 through its licensed members and started with an "Open Out-Cry" system for the transaction of securities. The trading floor is restricted to listed corporate securities and government bonds with the market intermediaries in buying and selling of such securities. Now the exchanges is automated.

The first ever debenture issued in Nepal can be traced back to the fiscal year 1997/98 when Shreeram Sugar Mills Limited floated debentures worth of NRs. 93 million. No debentures were issued further until the fiscal year 2001/02, when Himalayan Bank Limited became the first commercial bank to issue its debenture worth of NRs. 360 million. It was named Himalayan Bank Rinpatra 2066 and carried an interest rate of 8.5%. Debentures were issued sporadically, but it took a major upturn during the fiscal years 2005/06 to 2007/08 where a total of 10 debentures were floated (Gurung,2017).

Mobilization of capital through the issue of corporate bonds by commercial banks has been in a rising trend for some time now. Predominantly, banks are backed with relatively short term deposits as capital, while they have to finance long gestation projects, leading to maturity mismatches and hence liquidity problem. This is exactly what happened in the Nepalese commercial banking industry. With the increase in paid-up capital, banks started expanding their business by lending out aggressively while their deposits could not grow in the same proportion. They risked their credit to core capital cum deposit (CCD) ratio to reach the upper limit of 80%. Then Nepal Rastra Bank (NRB), the central bank of Nepal, came with a provision in its Monetary Policy of fiscal year 2018/19 which allows for banks to consider debenture amount for calculating the CCD ratio. Furthermore, in the midterm monetary policy review, it was stated that banks will be mandated to issue debentures to check for the liquidity crisis that banks were facing. Moreover, the issuance of debenture will add to the bank's capital adequacy ratio, which needs to be maintained at a minimum 11%.

## **1.2.Statement of the problem**

The number of debentures being issued in the Nepal capital market is low compared to other instruments of capital financing. Debentures are debt instruments through which a company collects money from investors with the promise that they would be repaid within a fixed period. The coupon (interest) can be paid annually or semi-annually. However, in Nepal, almost all the debentures issued so far pay interest on a half-yearly basis. It is considered as a good Noted from of financing for the companies and usually and even investors also benefit from it well with relatively higher interest rate.

Debentures are debt instruments that companies listed on the Nepal Stock Exchange can issue to borrow money from the market. They issue these low-risk instruments that yield a fixed return for investors, mainly to manage working capital. Whereas the weighted coupon interest rate is compared with the weighted average lending rate, weighted average deposit rate, base rate and weighted average government securities. Which help us to know about the various relationships between them.

Some of the view points of researcher on the basis of debenture are as follows.

Lama (2016) conducted a study on debenture issue and stock market price. The main objectives of the study are to assess debenture issue practices and its trend progressed in the Nepalese capital market and to examine the association of debentures issue with profitability of commercial banks.

Bahadur (2017) studied on status of primary market of preference shares, debentures and mutual funds response in Nepal, when we go through all other indicators the primary market has still found unsystematic, vulnerable and even small in size. There are a very limited number of merchant bankers as financial intermediary in the primary market. The liberalization policy has brought major changes in regulatory and institutional framework but the primary market has yet to be improved and advanced so that the corporate houses can benefit by designing optimum capital structure and investors are also benefitted by developing appropriate investment portfolios.

Above mentioned studied had not incorporated the studies about the effect of the debenture issue and their trends in stock market price of commercial banks of Nepal. In Nepalese capital market, very few organization issuing debentures are witnessed. In fact only commercial banks have given continuation in debenture till date. In 40 years old history of stock market the number of companies issuing bond or debenture is very few. The reason for the least preference in the debt financing is due to the lack of knowledge among investors and issuing organizations. Further there are very few studies done in debt financing in Nepalese capital market. Therefore according to previous studies mentioned as above, this study has formulated the following research questions.

What are the factors that affected the interest rate in Nepal?

How is the trend of debentures issue in Nepalese stock market?

What are the relationship of debenture's coupon rate with weighted average lending and deposit rate, base rate and government securities?

What are the factors that affected the secondary market?

### **1.3 Objectives of the study**

The main objective of the study is to examine the corporate debenture issue by commercial bank of Nepal: assessing their impact on base rate growth of debentures issues and to find out the relationship between coupon rates debentures with other rates such as deposit rate, lending rate, base rates. The specific objectives of the study are as under.

To study the trend and features of debenture issues in Nepalese securities market.

To examine the trading of debentures in secondary market.

To analyze of debenture's coupon rate with weighted average lending rate, deposit rate and base rate of commercial banks and interest rates on government securities.

### **1.4 Significance of the study**

The bond itself represents a loan agreement between the issuer and the investor, and the terms of the bond obligate the issuer to repay the borrowed amount (the principal) by a specific date (the maturity). Some bond maturities are short-term (a year or less), others are intermediate-term (usually two to 10 years), and many are long-term (a period of 10 to 30 years or more). Bonds with maturities of less than 10 years are typically called notes. Some points of the significance are pointed out below.

This study analyzes the debentures issue in a primary and secondary market.

This study explains the development of debenture issue in the Nepalese market.

This study explains the trend of debentures issues in Nepalese stock market.

It compares the coupon rate with weighted average lending and deposit rate, base rate and government securities.

It shows the trading of debenture issue in secondary market.

### **1.5 Limitation of the study**

The sample of the study is limited only in commercial banks because of time and reNoted from constraints. Most of the analyses are descriptive in present study. This study is fully based on secondary data .Some of the various limitations of the study are as follows.

The study is based on the secondary data. Therefore, this study does not represent the individual investor's opinion and behavior on the stock.

This study has incorporated some sample commercial bank. Hence this study cannot generalize for the whole industry. Therefore, it cannot be represented for the other industries.

### **1.6. Organization of the study**

This study is organized into five chapters, each of which is meant to be the parts of a systematic presentation on financial signaling due to debenture issues.

#### Chapter I: Introduction

The chapter contains the introductory part of the study. This chapter describes the general background of the study, statement of the problem, objective of the study, significance of the study, limitation of the study and organization of the study.

#### Chapter II: Review of Literature

This chapter is assigned to the conceptual review of relevant theories and brief review of related and pertinent literature available. It includes a discussion on the conceptual framework and review of some of major studies done in past on the related field of study.

#### Chapter III: Research Methodology

This chapter describes the research methodology employed in the study. This deals with the nature and Noted from s of data, population and sample, analysis method, meaning and definition of statistical tools applied therein.

#### Chapter IV: Presentation and Analysis of Data

This chapter deals with the systematic presentation and analysis of data by using various statistical tools and it includes the major findings of study.

#### Chapter V: Summary, Conclusions and Recommendations

This chapter consists of summary, conclusions and recommendations of the study. The bibliography and annexes are incorporated at the end of the study.



## **CHAPTER II**

### **REVIEW OF LITERATURE**

The main purpose of literature review is to find out what works have been done in the area of the research problem under study and what has not been done in the field of the research study being undertaken. For review study, the researcher has used different books, reports, journals and studies published by various institutions, unpublished dissertations submitted by master level students have been reviewed.

This chapter includes review of literature of previous studies carried out on different aspects of debenture. The chapter attempts to give a conceptual review on debenture, determines the research gap that remains to be fulfilled in this study after analyzing some past research works carried out inside and outside the country.

#### **2.1 Conceptual Review**

The conceptual review comprises theoretical explanation of financial and securities market, corporate bonds and government securities.

##### **2.1.1 Financial Market**

Financial market refers to a marketplace, where creation and trading of financial assets, such as shares, debentures, bonds, derivatives, currencies, etc. take place. It plays a crucial role in allocating limited resources, in the country's economy. It acts as an intermediary between the savers and investors by mobilizing funds between them. The financial market provides a platform to the buyers and sellers, to meet, for trading assets at a price determined by the demand and supply forces. It helps in determining the price

of the securities. The frequent interaction between investors helps in fixing the price of securities, on the basis of their demand and supply in the market.

### **Functions of Financial Market**

1. It facilitates mobilization of savings and puts it to the most productive uses.
2. It helps in determining the price of the securities. The frequent interaction between investors helps in fixing the price of securities, on the basis of their demand and supply in the market.
3. It provides liquidity to tradable assets, by facilitating the exchange, as the investors can readily sell their securities and convert assets into cash.
4. It saves the time, money and efforts of the parties, as they don't have to waste reNoted from s to find probable buyers or sellers of securities. Further, it reduces cost by providing valuable information, regarding the securities traded in the financial market.

The financial market may or may not have a physical location, i.e. the exchange of asset between the parties can also take place over the internet or phone also.

### **Classification of Financial Market**

#### **) By Nature of Claim**

- **Debt Market:** The market where fixed claims or debt instruments, such as debentures or bonds are bought and sold between investors.
- **Equity Market:** Equity market is a market wherein the investors deal in equity instruments. It is the market for residual claims.
- **By Maturity of Claim**
  - **Money Market:** The market where monetary assets such as commercial paper, certificate of deposits, treasury bills, etc. which mature within a year, are traded is called money market. It is the market for short-term funds. No such market exists physically; the transactions are performed over a virtual network, i.e. fax, internet or phone.

- **Capital Market:** The market where medium and long term financial assets are traded is a capital market. It is divided into two types:
  - **Primary Market:** A financial market, wherein the company for the first time, issues new security or already listed company brings the fresh issue.
  - **Secondary Market:** A secondary market is an organized marketplace, wherein already issued securities are traded between investors, such as individuals, merchant bankers, stock brokers and mutual funds.
  
- **By Timing of Delivery**
  - **Cash Market:** The market where the transaction between buyers and sellers are settled in real time.
  - **Futures Market:** Futures market is one where the delivery or settlement of commodities takes place at a future specified date.
  
- **By Organizational Structure**
  - **Exchange Traded Market:** A financial market, which has a centralized organization with the standardized procedure.
  - **Over-the-Counter Market:** An OTC is characterized by a decentralized organization, having customized procedures.

Since last few year, the role of financial market has taken a drastic change, due to number of factors which are low cost of transactions, high liquidity, investor protection, transparency in pricing information, adequate legal procedures for settling disputes, etc.

### **2.1.2 Securities Market**

Securities market is a mechanism created to facilitate the exchange of financial securities or assets by bringing together buyers and sellers of securities. Securities markets provide an effective way of procuring long-term funds by issuing shares and debentures or bonds for corporate enterprises and government and at the same time provide an investment opportunity for individuals and institutions. Thus, the market place for these financial

securities is called securities market which is further subdivided into the primary and secondary market. The former market denotes the market for newly issued securities to the public whereas the latter market refers to the market for secondhand securities traded previously in the primary market. The securities market plays an important role in mobilizing savings, and channeling them into productive investment for the development of commerce and industry of the country.

Here are two levels of securities markets:

- **Primary Market** is the market for new securities issues and is facilitated by underwriting groups. The companies sell their securities to the public directly to the investors through the underwriters (normally investment banks for stock and bond issuance). When the firm is issuing shares for the very first time, it is called Initial Public Offering (IPO). New shares issued by firms whose shares are already trading in the market are called seasoned or secondary issues. Issuing company receives cash from the sale and uses it to expand or fund the operations. After the initial sale, the securities trading will be conducted on the secondary market.
- **Secondary market**, also known as the aftermarket, is the market where the trading of the previous issued securities is conducted. On a secondary market, an investor buys securities from another investor instead of the issuer. It is important that the secondary market provides liquidity and therefore provides continuous information about the market price of the securities. Secondary markets are mainly organized in two ways.

One is to form a centralized and organized exchange where all buyers and sellers (or their representative agents) meet and conduct trading. The more investors participate in a market, the greater the centralization of that market, and the more liquid the market. The other way is Over-the-counter (OTC) market which a secondary market where securities are traded directly between two parties. Trading occurs via dealers who carry inventories of securities and contact each other by computer, telephone or other electronic network instead of a physical trading floor. Over-the-counter dealers quote a bid price at which

they would buy, and an ask price at which they would sell. It basically assists the capital formation and economic growth of the country. In many developing countries like Nepal, the undeveloped capital market is still prevailing in the economy.

The Nepalese securities market still could not take its height. The further improvement of this market is very crucial. It helps in accumulating even small savings for development activities of the economy otherwise, which would have spent in unproductive Areas. But it is true that there is no presence even of organized money market in rural areas, which covers almost 90 percent of the total area of the country. Thus, the securities market is only confined to the very limited urban areas of Nepal. Despite these truths, an attempt has been made to analyze the growth trends and performance of Nepalese securities.

## **2.2Debt Securities**

Debt security refers to a debt instrument, such as a government bond, corporate bond, certificate of deposit (CD), municipal bond or preferred stock, that can be bought or sold between two parties and has basic terms defined, such as notional amount (amount borrowed), interest rate, and maturity and renewal date.

### **Government Securities**

Government Securities are financial instruments and securities issued by a government towards raising a loan from the public. The intention of raising government securities is to finance important projects and budget deficits. Government securities comprise of bearer bonds, promissory notes, bonds held in the bond ledger account, etc. These can be in the form of dated government securities or treasury bills. Under normal circumstances, every country's government finance is operations, infrastructure development, defense and public spending from revenues earned from direct and indirect taxation and levies imposed in income earned by individuals and businesses, the sale of goods and services, imports, etc. However, many times, the income generated by the government might not be sufficient to support its public expenditure and infrastructure investment requirement; as a result of this, the Government can fill this gap by raising funds from the public and

issuing them government securities in return. As a result of this, government securities are mainly issued to finance the portion of government expenditure and capital infrastructure requirement.

### **Common Features of Government Securities**

Some of the most common features of government securities are as follows:

- ) Government securities are issued at face value.
- ) Government securities carry a sovereign guarantee and hence have zero risks of default.
- ) Investors can sell these government securities in the secondary market.
- ) Payment of Interest on government securities is paid on its face value.
- ) The interest payment on these government securities does not attract TDS, or Tax Deducted at Noted from .
- ) Government securities can be held in dematerialized form.
- ) The interest rate of government securities is fixed for the entire tenor of the instrument and cannot be changed during its tenor.
- ) The government securities are redeemable at face value at the time of its maturity.
- ) The maturity period of government securities can range between 2 to 30 years.
- ) Most government securities qualify as SLR or Statutory Liquidity Ratio investments

### **Corporate Debt Securities**

There are mainly two types of corporate debt securities. They are as follows.

#### **Debentures**

A debenture is a long term debt instrument used by governments and large companies to obtain funds. It is similar to a bond except the securitization conditions are different. A debenture is unsecured in the sense that there are no liens or pledges on specific assets. It is however secured by all properties not otherwise pledged. In the case of bankruptcy debentures to the issuer is they have specific assets unencumbered and thereby leave them open for subsequent financing. In practice the distinction between bond and

debenture is not always maintained. Bonds are sometimes called debentures and vice versa.

### **Corporate Bond**

A corporate bond is a debt security issued by a corporation and sold to investors. The backing for the bond is usually the payment ability of the company, which is typically money to be earned from future operations. In some cases, the company's physical assets may be used as collateral for bonds.

### **Features of Corporate Bonds**

Some various features of corporate bond are as follows.

#### **Par value**

Corporate bonds are generally issued in units of Rs 1000 and income received is fully taxable to the investor.

#### **Registered bonds**

These securities are known as registered bonds because the owner of the instruments must register with the issuing company in order to collect interest.

#### **Bond indenture**

A bond indenture is legal contract that specifies the terms and conditions between a bond issuer and bondholders. An indenture typically includes repayment provisions, call or redemption terms, bond forms, collateral, sinking fund provisions, working capital and / or current ratio restrictions.

#### **Call provision**

A call provision gives the issuing corporation the right to call in the bond for redemption. The provision generally states that the company must pay an amount greater than the par value of the bond; this additional sum is defined as the call premium.

### **Sinking fund**

A sinking fund is a provision that facilitates the orderly retirement of a bond issue. It requires the firm to buy and retire a portion of the bond issue each year. Sometimes the stipulated sinking fund payment is tied to the current year's sales or earnings, but usually it is a mandatory fixed amount.

### **Yields and costs of corporate bonds**

Yields on corporate bonds tend to move in line with business conditions, Yields on the highest grade corporate issues tend to move closely with yields on government bonds. On the other hand, yield on lower grade corporate bonds are more closely tied to the conditions in the economy and to factors specially affecting the risk position of each borrowing firm.

### **2.3 Interest Rate**

The acts of savings and lending, borrowing and investing are intimately linked through the financial system. And one factor that significantly influences and ties all of them is the interest rate. The interest rate is the price a borrower must pay to secure scarce loanable funds from a lender for an agreed-upon period. It is the price of credit. Interest rate is the price of acquiring credit, usually expressed as a ratio of the cost securing credit to the total amount of credit obtained. Interest rate usually expressed on an annual percentage basis.

Interest rates send price signals to borrowers, lenders, savers, and investors. High interest rates generally bring forth a greater volume of savings and stimulate savings; but tend to reduce the volume of borrowing and capital investing. Lower interest rates, on the other hand, tend to dampen the flow of savings and reduce lending activity, and stimulate borrowing and investment spending.

### **Economic Forces that determine Interest Rates**

The following economic factors influence the interest rates.



### **Impacts of Economic Growth on Interest Rates**

Changes in economic conditions cause a shift in the demand schedule for loan able funds, which affects the equilibrium interest rate. When business anticipates that economic conditions will improve, they revise upward the cash flows expected for various projects under considerations. Consequently, business identifies more projects that are worth pursuing, and they are willing to borrow more funds.

### **Impact of Inflation on Interest Rates**

Changes in inflation can affect interest rates by affecting the amount of spending by households or businesses. Households that supply funds may reduce their savings at any interest rate level so that they can make more purchase now before prices rise. This shift in behavior is reflected by an inward shift in the supply curve of loan able funds. In addition, households and businesses may be willing to borrow more funds at any interest rate level so that they can purchase products before prices increase. This is reflected by an outward shift in the demand curve for loan able funds.

### **Impacts of monetary policy on interest Rates**

The central bank can affect the supply or loan able funds by increasing or reducing the total amount of deposits held at commercial banks or other depository institutions.

### **Impact of the budget deficit on interest rates**

When the central government enacts fiscal policies that result in more expenditure that result in more expenditures than tax revenue, the budget deficit would affect interest rates, increase in the central government deficit would affect interest rates, assuming no other changes in habits by consumers and firms occur.

### **Impact of the foreign flows of funds on interest rates**

The interest rate for a specific currency is determined by the demand for funds denominated in that currency and the supply of funds available in that currency.

## **2.4 Bond Rating in Nepal**

A rating agency is a company that assesses the financial strength of companies and government entities, especially their ability to meet principal and interest payments on their debt. A business takes on debt for several reasons, boosting production or marketing, expanding capacity, or acquiring new businesses. In Nepal, there are only two rating agency. They are as follows.

### **ICRA Nepal**

ICRA Nepal Limited (ICRA Nepal), the first Credit Rating Agency in Nepal, is a subsidiary of ICRA Limited (ICRA) of India. It was incorporated on November 11, 2011 and granted license by the Securities Board of Nepal (SEBON) on October 3, 2012. ICRA Nepal is supported by ICRA Limited through a Technical Support Services Agreement, which envisages ICRA helping ICRA Nepal in such areas as rating process & methodologies, analytical software, research, training, and technical & analytical skill augmentation.

ICRA Nepal's Issuer Ratings are not specific to any particular debt instrument issued by the rated entities. In an increasingly globalizing environment, issuer ratings can be of immense help to organizations in negotiating with prospective lenders, contractors, consultants, counter-parties, collaborators, vendors, creditors and other stakeholders who need to form an opinion about the overall credit quality of the company.

ICRA Nepal is also offering other products, including Bank Loan/Line of Credit Rating and Rating of Claims Paying Ability of Insurance Companies. The other services include Corporate Governance Rating, Stakeholder Value and Governance Rating, and Credit Risk Rating of Debt Mutual Funds.

### **Objectives**

- J Provide information and guidance to institutional and individual investors/creditors;

- J Enhance the ability of borrowers/issuers to access the money market and the capital market for tapping a larger volume of reNoted from s from a wider range of the investing public;
- J Assist the regulators in promoting transparency in the financial markets; and
- J Provide intermediaries with a tool to improve efficiency in the funds raising process.

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### **Rating Symbols for Corporate Debt Instruments**

The Rating for all Debentures (Non-Convertible), Bonds and other debt Instruments with originalmaturity exceeding one year by ICRA Nepal is assigned on an eight-point scale and ranges from '[ICRANP] LAAA' to '[ICRANP] LD'. ICRA Nepal Rating symbols for corporate debt instruments and their implications are as follows:

- [ICRANP] LAAA: Instruments with this Rating are considered to have the highest degree of safety regarding timely servicing of financial obligations. Such instruments carry lowest credit risk.
- [ICRANP] LAA: Instruments with this Rating are considered to have high degree of safety regarding timely servicing of financial obligations. Such instruments carry very low credit risk.
- [ICRANP] LA: Instruments with this Rating are considered to have adequate degree of safety regarding timely servicing of financial obligations. Such instruments carry low credit risk.
- [ICRANP] LBBB: Instruments with this Rating are considered to have moderate degree of safety regarding timely servicing of financial obligations. Such instruments carry moderate credit risk.
- [ICRANP] LBB: Instruments with this Rating are considered to have moderate risk of default regarding timely servicing of financial obligations.
- [ICRANP] LB: Instruments with this Rating are considered to have high risk of default regarding timely servicing of financial obligations.
- [ICRANP] LC: Instruments with this Rating are considered to have very high risk of default regarding timely servicing of financial obligations.

- [ICRANP] LD: Instruments with this Rating are in default or are expected to be in default soon.

### **Note**

For the Rating categories AA through to C, the sign of + (plus) or – (minus) may be appended to the Rating symbols to indicate their relative position within the Rating categories concerned. Thus, the Rating of AA+ is one notch higher than AA, while AA- is one notch lower than AA.

### **CARE Rating Nepal**

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CARE Ratings Nepal Limited (CRNL) is incorporated in Kathmandu, Nepal and is the second credit rating agency to be licensed by the Securities Board of Nepal November 16, 2017. CRNL will provide credit ratings and related services in the geography of Nepal.

As on December 01, 2017, CRNL's major shareholders are CARE Ratings Limited, India (CARE Ratings), Vishal Group Limited, Emerging Nepal Limited, Nepal Reinsurance Company Limited, Global IME Bank Limited, Prudential Insurance Company Ltd. and Life Insurance Corporation Nepal Ltd. The majority shareholding is with CARE Ratings.

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CRNL has constituted its Rating Committee with members comprising officials from CARE Ratings, India. In Nepal, CRNL will provide ratings for various instruments such as bonds, debentures, Commercial Paper, bank deposits, structured finance and other debt instruments besides grading to Initial Public Offer, Follow on Public Offer, Rights Issue and ratings for the bank facilities including term loans, working capital limits, non-funded exposures (guarantees / Letter of credits) etc. CRNL will also cover rating of issuers including insurance companies, Asset Management Companies and SMEs.

### **Mission**

- )] To offer a range of high-quality analytical services to the stakeholders in Nepal's financial markets

- ) To build a pre-eminent position for ourselves in Nepal in credit risk analysis, research and information services
- ) To earn customer satisfaction and investor confidence through fairness and professional excellence
- ) To remain deeply committed to our internal and external stakeholders
- ) To apply the best possible tools & techniques for risk analysis aimed to ensure efficiency and top quality
- ) To ensure globally comparable quality standards in our rating, research and information services

### **Rating Symbols for Debt Instruments**

The following are the rating symbols and its definition.

- ) CARE AAA: Instruments with this rating are considered to have the highest degree of safety regarding timely servicing of financial obligations. Such instruments carry lowest credit risk.
- ) CARE AA: Instruments with this rating are considered to have high degree of safety regarding timely servicing of financial obligations. Such instruments carry very low credit risk.
- ) CARE A: Instruments with this rating are considered to have adequate degree of safety regarding timely servicing of financial obligations. Such instruments carry low credit risk.
- ) CARE BBB: Instruments with this rating are considered to have moderate degree of safety regarding timely servicing of financial obligations. Such instruments carry moderate credit risk.
- ) CARE BB: Instruments with this rating are considered to have moderate degree of default regarding timely servicing of financial obligations.
- ) CARE B: Instruments with this rating are considered to have high degree of default regarding timely servicing of financial obligations.
- ) CARE C: Instruments with this rating are considered to have very high degree of default regarding timely servicing of financial obligations.

- ) CARE D: Instruments with this rating in default or are expected to be default soon.

## **2.5 Empirical Review**

Present section deals about concept or findings of earlier scholars on the concerned field of the study. It helps to develop the study as link in a chain of research that is developing and emerging the knowledge about the related field.

The effort has been made in this present section to examine and review the some related articles published in different economic journals, bulletins, magazines and newspapers and unpublished thesis.

### **2.5.1 Debenture Market**

Dahal (2010) had a researcher entitled “A Study on Nepalese Stock Market in the Light of its Growth, Problems and Prospects”. The main objective of the study were to examine the investors’ awareness, to examine the stock broker’s and other related institution performance, to analyze sector wise financial performance of NEPSE, and to observe the coordination among SEBON, NEPSE and Rastra Bank. In this study, Khanal concluded that the development of stock market in Nepal so far cannot be considered satisfactory. This is evident from the facts and figures available in the stock market performance. But there is enough long term liquidity in the market. Again he added that the stock market and economic activity move in similar direction. They influence each other. Nepal Stock Exchange is the only one institution in the country to regulate and control the financial system of a country. The official stock market in Nepal, NEPSE is ten years old. It means it is in infant stage thus equity market and related institutions are still in their infancy stage.

Thapa (2011) in the study called “Investment behavior of individual investors in the stock market of Nepal”. This study tries to understand the investment behavior of individual investors in Nepalese stock market. The study is entirely based on structured questionnaire survey among 138 respondents from Kathmandu. The study finds that increase in the size of investment leads to decrease in the confidence level of investors.

Size of investment has significantly positive impact on the level of involvement and negative effect on investors' optimism; higher professional experience of investors tends to increase risk taking capacity while investors with large investment have lower tendency to take risk. Similarly, investors having higher level of confidence, involvement, optimism and risk taking attitude tend to trade more frequently in the stock market. Thus, investment behavior of investors is highly influenced by their personal characteristics and psychology.

This study has two major implications. First, since majority of the investors are motivated for earning short term profit in their investment, which is not good sign for the development of stock market in Nepal. Listed companies, stock exchange and Security Board of Nepal are suggested to take necessary initiatives to make lucrative long term investment. Second, the behavior of individual investors is indeed to some extent irrational when considered from a standard finance point of view. It is found that individual investors have high level of involvement and overconfidence while they are not much optimistic about the future outlook of market. Rational investors should be optimistic about the future outlook when they have high level of involvement and overconfidence. Finally, to understand the decision making process of investors, future researchers is recommended to use Analytical Hierarchical Process (AHP).

Maharjan (2012) conducted a study on "Development of capital market and behavior of stock price in Nepal" this research was conducted to fill the gap by justifying Nepalese capital market had developed. Historical data from fiscal year 2006/07 to 2010/11 were studied and analyzed that used more than one tools like Karl Pearson's coefficient correlation, in terms of listed and traded companies, ratio analysis of market size and liquidity, and growth analysis of those indicator directly related to capital market.

Like many South Asian country Nepal's bond market had not been as active as it is in developed country. Bond market of Nepal just accounts thirteen percent of entire capital market and research had explicitly used Nepal Stock Exchange variables to justify capital market of Nepal had developed since 2006/07. The tools stated above to measure development had provided sufficient evidence to conclude capital market had developed.

Top of that the infrastructure, Central Depository System, Credit Rating Agency and additional of new mutual funds, were a core aspect of development of Nepalese capital market.

Another aspect of the research aim was to test whether in changed scenario; theory of share price behavior was applicable. For this purpose successive price changes of nine sample companies had been studied using daily (01/04/2012 – 13/09/2012) and monthly (Jun/Jul 2011 – Jul/Aug 2012) run test. These run test had rejected the null hypothesis to conclude that Nepalese capital hold an inefficient market. In simple word the future share price could be predicted with the past price movement.

Therefore, conclusion made was gradual development of capital market did not mean to define it as developed capital market and it should not follow the international norms of share price behavior theory. The objectives of the study are as follows:

- ) To analyze Nepalese capital market development / growth
- ) To examine sector wise overall movement of NEPSE Sensitive index to find out risky sector.
- ) To investigate if political and regulations are the factor that has effected NEPSE index.
- ) To investigate the predictability of future share price in Nepal

Pant (2013) conducted a study entitled “Bond market in Nepal: impediments to growth compared to bank financing (loans)”. This paper focuses on the current scenario of bond market in Nepal and the reasons behind preference of bank loans rather than debt instruments like bonds. Also, the challenges for the development of bond market are explored through the qualitative and quantitative analysis. The understanding of the hindrances have helped generate some suggestions for the various related sectors like regulatory bodies, issuers, investors and traders so that they can contribute to the growth of bond market in Nepal.

The study of Nepalese bond market has been conducted with the following objectives:



- ) To know the current situation of bond market and the steps taken for development.
- ) To understand the challenges for growth of Nepalese bond market.
- ) To analyze the bond market in comparison to the bank loans as well as well as the bond market in some South Asian nations.
- ) To get an overview of why Nepalese bond market is lagging behind by exploring perspective of players in Bond market.
- ) To make recommendations for the development of the bond market based on research findings and understanding of the Nepalese bond market.

From the study, some important lessons have been learnt:

- ) The development of economy can be brought through balance in the financing for real assets. For this a well diversified financial market is a must as it can help risk reduction posed from certain sectors.
- ) Bond market development is one of the major steps to be introduced in developing economies like Nepal where bank loans are the most practically implemented instruments. The concentration in a single sector can be very risky and this step can be useful in the situations of economic crisis like in the Asian markets during the global financial crisis during the late 2000s.
- ) The role of all related sectors like regulatory bodies, issuers, investors and traders need to be made active for the bond market development.
- ) Corporate bond is more lucrative in long run than government bond, whereas government bond more appropriate for short run. Hence investors can make buy and sell decision based on their preference of time horizon between these two types bonds.
- ) Development in bond market, especially secondary market is more inherent that directs the determination of interest rate and price in free market. This practice will benefit both investors and issuers to lower l.

Lama (2016) conducted a study entitled “Debenture issue and stock market price”. This study strives to identify the financial signals emitted to the capital market by debt-

financing (debenture issues) in the Nepalese context. The main objectives of the study are as under:

- ) To assess debenture issue practices and its trend progressed in the Nepalese capital market.
- ) To examines the association of debentures issue with profitability of commercial banks.

This study fills the gap of research work in this respect. Therefore, this study is believed to be useful to academics, financial institutions, and regulatory authorities. In addition to reviewing the trends of debenture issue practices, the study goes on to analyze the impacts these issues make on the MPS of the issuing companies, this study also attempts to ascertain the association of debenture issue with the profitability of the issuing firms. During the presentation, analysis and interpretation of data collected from secondary Noted from s, the study present a thorough analysis of corporate debenture issue practice and its trend with respect to issue of other securities in the capital market. On EPS analysis, the 3-year average EPS of 6 out of the 11 issue increased considerably after their respective debenture issue which is linked to higher profitably in future. On MPS analysis, 7 out of 9 sample companies MPS increased after their respective debenture issues. The increase in MPS after debenture issue is significant as proved by t-statistic of hypothesis test, which means that corporate debenture issue send positive signals to the capital market.

Bahadur(2017), in his dissertation titled' Status of Primary Market Response in Nepal", It attempts to analyze the status of primary market response in Nepal using secondary data collected from annual reports of various capital market institutions of 22 years starting from 1993/94 to 2014/15. This paper follows descriptive research design and analysis has been carried out throughout accordingly. The study concludes that the total capital mobilization has been increasing during the study period implying there is transfer of capital from surplus sectors to the productive investments gradually. Ordinary shares including rights offerings has found more active in the primary market than that of other alternative market mechanisms. It means preference shares, debentures, mutual funds and

citizen unit schemes have been found still unorganized in Nepal. Initial public offerings is mainly dominated by the ordinary shares has been highly oversubscribed during the study period except in few cases. This particular case shows the public response towards primary market is found good. However, when we go through all other indicators the primary market has still found unsystematic, vulnerable and even small in size. There are a very limited number of merchant bankers as financial intermediary in the primary market. The liberalization policy has brought major changes in regulatory and institutional framework but the primary market has yet to be improved and advanced so that the corporate houses can benefit by designing optimum capital structure and investors are also benefitted by developing appropriate investment portfolios. More specifically, the primary market more dynamic offers the introduction of federal republic system since 2006/07 in Nepal, though it is still unstable.

### **2.5.2 Interest Rate**

Manandar (2007) had a researcher entitled “Interest rates structure and its relation with deposit, lending and inflation in Nepal”. The study is based on the interest rate of RastriyaBanjiya Bank, Nepal Bank Ltd, Agricultural Development Bank/Nepal, Himalayan Bank Ltd and Nepal Bangladesh Bank. The interest rates on both deposit and lending of all sample banks are found to be in increasing trend. But, on the contrary to this, deposit amount and lending amount is increasing every year except on fixed deposit of RBB and NBL. The government run bank’s fixed deposit is found to be increasing every year. The saving deposit amount and saving interest rate have negative relationship. It means that they have highly inverse relationship, if one variable increases, other variable decreases and vice-versa. This case is against the theory of substitution effect. This may be due to the fact that, in last five FYs, people accumulated most of their funds on saving accounts though they don’t get appropriate interest on it. It may be just because of unavailability of other acceptable investment opportunity, in which a separate study can be made. Similarly, the convenience of using saving accounts provokes the investor to deposit more on saving account. Similarly, the excess supply of loan able fund (saving deposit) reduces the cost of fund (interest rate of saving account.) Analysis of fixed deposit amount and fixed interest rate shows negative relationship.

The calculated value of  $t$  is found to be less than the tabulated value of  $t$ , so  $t$ -test indicates that there is no significant relationship between those two variables. Thus the decrease in deposit is not due to the decrease in interest rate but due to other reasons. Therefore, it is concluded that for fixed deposit also, there is no substitution effect at all. One of the variables that affect the demand of fund (lending activity) is lending interest rate. Theoretically, there is negative relationship between lending interest rate and lending amount. The  $t$ -test for correlation coefficient of each sample banks for negative relationship between lending interest rate and lending amount shows that the  $t$  value for sampled banks are insignificant which means that though the correlation coefficient shows the moderate relationship but their relationship is not strong i.e. not significant relationship. So Increase in lending amount is not due to the decrease in lending interest rate but due to the other reason. The relationship between interest rate on deposit and inflation rate is negative. According to Fisher effect, there should be positive correlation between these two variables but the interest rate in Nepalese financial market is affected by inflation rate. In conclusion it can be said that, the Fisher effect is not properly applicable in Nepalese financial market. During the study period, it is found that, there exist the high spread between deposit interest rate and lending interest rate. It is also found that, lending interest rate of the productive sector loan such as commercial loan, industrial loan, trade credit, working capital loan were increased lesser in magnitude in comparison to the non productive sector loan.

Baral (2017) had a researcher entitled "Determinants of interest rate: study of Nepalese finance companies". In this study maturity period of loan seems not so significant factor to affect interest rate on lending but interest rate on deposit is influenced by the maturity period. Generally, institution do not prove long term loan rather they renew frequently according to the borrower's credit worthiness. In spite of different interest rate quoted by Finance Companies for different sector loan, it is not as significant in determining interest rate as the rate may be higher or lower than quoted through the negotiation. Political instability and violence in country has great and significant impact on amount of deposits lending as well as interest charged and offered by Nepalese Finance Companies. From the

questionnaire and direct interviews, it is concluded that frequently changing governments are affecting overall operation of Finance Companies including interest rate.

Similarly, violence is also reducing investments opportunities. Competition among the Financial Companies is most significant factor to determine interest charged and offered by such companies. Each Finance Company has targeted specific group of customers. Open border with India is not significant factor to affect the interest rate directly charged and offered by the Finance Companies. Seasonal impact has nothing to do with the interest rate charged and offered by Nepalese Finance Companies. Performance of the borrowing company, collateral base goodwill and reputation of borrower, loyalty, size of business, volume of loan bargaining power etc are some of the specific factors influencing interest rate on lending. Beside it reduction in lending opportunity due to terrorism, conflict insecurity etc. according to the respondent are some long term economic factors that affects interest rate. The study shows that there is over liquidity with the Financial Companies which is shown by increasing trend of deposit.

## CHAPTER III

### RESEARCH METHODOLOGY

#### 3.1 Introduction

Research is the systematic investigation into and study of materials and Noted from s in order to establish facts and reach new conclusions. Research is a systematic and objective analysis and recording of controlled observations that may lead to the development of generalizations, principles, theories and concepts, resulting in prediction for seeing and possibly ultimate control of events. Research is the systematic, formal, rigorous and precise process employed to gain solution to problem or to discover and interpret new facts and relationship.

The topic of the study has been selected as “a study on corporate debenture issued by commercial bank of Nepal: assessing their impact on base rate” In order to reach and accomplish the objectives of the study and to come up with conclusion, different research technique and tools have been carried out. For this purpose, the chapter aims to present and reflect the methods and techniques that are carried out and followed during the study period. The research methodology that is adopted for the present study is mentioned in this chapter.

Research methodology describes the methods and process applied in the entire aspect of the study. In other words, research methodology is a systematize way to solve the research problem. Research methodology refers to the various sequential steps (along with a rational, of each step) to be adopted by a researcher in studying a problem with certain object in view. It may be understood as a studying how research is done scientifically. It is necessary for the know and not only the research methods but also the methodology. When we talk about research methodology we not only talk of research methods but also consider the logic behind the methods we use in the context of our research study and explain why we are using a particular method or technique and why we are not using others so that research results are capable of being evaluated either by

the researcher himself or by the others. The study of research methodology gives the students the necessary training in gathering materials and arranging them, participating in the field work which required, and also training in techniques for collection of data appropriate to particular problems, in the use of statics questionnaires and controlled experimentation and in recording evidence, sorting it out and interpreting it.

Therefore, this chapter highlights the research methodology used for the study of “A Study on Corporate Debentures in Nepal”. This chapter consists of the research design, population, sampling procedure and Noted from s and analysis of data.

### **3.2 Research Design**

To achieve the objective of this study, descriptive and analytical research design has been used. It is the process which gives us an appropriative way to reach research goal. It includes definite produces and techniques which guide in sufficient way of analyzing and evaluating the study. This study is carried out by using both quantitative and qualitative analysis methods. Mostly, secondary data has been used for analysis, but the discussion and personal interview with the concerned employees of the selected topic is also used for qualitative analysis. Hence, research design of this study is based on descriptive and analytical method.

The objective of this research work is to analyze of debentures issue in a primary market, trade of debentures in a secondary market and compare of weighted average coupon rates with weighted average lending and deposit rate, weighted average interest rate of government securities and base rate.

### **3.3 Population and Sample**

In Nepalese capital market although the manufacturing industries such as Bottlers Nepal Ltd., Jyoti Spinning Mills and Shree Ram Sugar Mills Ltd. started the practice of debenture issue, commercial banks have given the continuance to the trend by choosing debt financing. In 2002 Himalayan Bank Ltd. emerged as the pioneer of debt financing in

commercial banking sector. After that numbers of companies have issued debentures. Till the fiscal year 2018/19, there have been 50 debenture issues. Among them 10 debentures are taken as sample debenture that were issued from 2013 to 2020.

Table 3.1

Names of Sample Companies Issuing Debentures

S.N.	Years	Companies name	Amount of issue (in million Rs)
1.	2012/01/23	Nepal SBI Bank Ltd.	400
2.	2013/01/08	Nepal SBI Bank Ltd.	400
3.	2013/06/30	Himalayan Bank Ltd.	750
4.	2013/09/18	Siddhartha Bank Ltd.	500
5.	2015/08/05	Anima Bank Ltd.	370
6.	2017/11/16	Anima Bank Ltd.	2000
7.	2018/08/03	Global IME Bank Ltd.	1500
8.	2018/09/06	NIC Asia Ltd.	1830
9.	2018/12/09	Siddhartha Bank Ltd.	2250
10.	2019/01/14	NIC Asia Ltd.	4000

*Noted from : Annual report of SEBON*

### 3.4 Noted from of Data

The study is based on secondary data. To collect the secondary data, published materials are used. Some of the major data Noted from s of secondary data are as follows.

- ,
- ) Annual Report of SEBON
- ) Annual Report of NEPSE
- ) Macro Economic Indicator of Nepal
- ) National Newspaper, Journals and Magazine
- ) Internet



### 3.5 Tools of Data Analysis

Required data for study is collected from secondary sources. To analyze the collected data simple statistical tools are used as follows:

#### 3.5.1 Arithmetic Mean

An arithmetic mean is the value, which represents the group of values and gives an idea about the concentration of values in the central part of the distribution. An average gives us a point, which is most representative of the data. It depicts the characteristic of the whole group. The value of arithmetic mean lies in between the two extreme observations of the entire data. It is an envoy of the mass of homogeneous data. An arithmetic mean of a set of observations is defined as the ratio of the sum of all the observations to the total number of observations. The value of the AM is obtained by adding together all the items and by dividing this total by the number of items.

Mathematically,

Arithmetic mean =  $\frac{\text{Sum of all items}}{\text{Number of items}}$

Number of items

Or

Arithmetic mean ( $\bar{X}$ ) =  $\frac{\Sigma X}{n}$

Where,

$\bar{X}$  = Arithmetic Mean

$\Sigma X$  = Sum of all the values of the variable X.

n = Number of observations

#### 3.5.2 Trend Analysis

A series formed from a set of statistical data arranged in accordance with their time of occurrence is said to be a time series. A time series shows the relation between two variables, one being the time. There are things in nature which show gradual increase or decrease over a period of time. The basic tendency of an enterprise to increase or decrease with the passage of time is known as simple trend. For example, the size of

population, the volume of production etc. Thus, this trend is a smooth, regular and long-term movement of statistical series. There are various methods with which the trend can measure. Among them least square method is widely and most commonly used to describe the trend. Under this method, a trend line is fitted to the data satisfying the following two conditions.

- i)  $(y - y_c) = 0$  and ii)  $(y - y_c)^2$  is least where  $y$  is the actual value and  $y_c$  the computed value of  $y$ . As  $(y - y_c)^2$  is least, hence the name method of least square. The line obtained by this method is known as the line of best fit. Let the trend line between the dependent variable  $y$  and the independent variable  $x$  (i.e. time) be represented by

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

Then for any given value of independent variable  $x$ , the estimate value of  $y$  denoted by  $y_c$  given by above equation is

$$Y_c = a + bx$$

$a = y$  intercept or value of  $y$  when  $x = 0$

$b =$  slope of the trend line or amount of change that comes in  $y$  for a unit change in  $x$ .

### 3.5.3 Comparatives Analysis

Comparatives analysis means comparison the financial relationships between variables over two or more reporting periods. Businesses use comparative analysis as a way to identify their competitive positions and operating results over a defined period. In this research work, average coupon rate of debenture is compared with weighted average lending and deposit rate, base rate and interest on government securities.

## CHAPTER IV

### DATA PRESENTATION AND ANALYSIS

#### 4.1 Introduction

This chapter presents and analyzes of data related to debenture issues in Nepal. For this purpose, efforts are made to present and analysis of collected data. Data are collected from various Noted from s as per requirement of the study. This chapter analyzes the relevant data and information regarding how debenture issue in primary and secondary market. Collected data are analyzed by using various statistical tools and techniques according to the research methodology as mentioned in third chapter in order to achieve the objectives, which are set in introduction chapter.

#### 4.2 Growth of Debentures Issue in Nepalese Market

The growth of debentures issues can be studied with the help of number of debenture issues and actual amount of issues. They have been analyzed for a period 19 years from 2000/01 to 2018/19. Forty-seven debentures were issued during that period. The following table shows the growth of debentures issues during the study period.

Table 4.1

#### Growth of Debentures Issue

Period	Number of debentures	Actual amount (Rs in millions)	5 Yearly average (Rs in millions)
2000/01-2004/05	3	960	320
2005/06-2009/10	12	4,800	400
2010/11-2014/15	19	9,400	495
2015/16-2019/20	13	32,980	2,537

*Noted from: Annex 1*

The above table shows the number of debenture issues, actual amount collected from the debenture issues and 5 yearly average amounts from 2000/01 to 2018/19. During 2000/01 to 2004/05, Rs. 960 million were raised from 3 issues. The number of issues and the

amount of issues both increased during 2005/06 to 2009/10. The numbers of debenture issues were 12 and the actual amount raised was Rs.4,800 million.

During 2010/11 to 2014/15, the number of debenture issues further increased to 19 with amount Rs. 9,400 million. Finally, during 2015/16 to 2019/20, the number of debenture issues was almost same (13) but the amount raised was significantly high Rs. 32,980 million. This shows that the debenture issues as noted from the financial statements have been growing over the study period.

Least square method has been used to fit the trend line of debenture issues in Nepal. The least squares method is a form of mathematical regression analysis that finds the line of best fit for a set of data, providing a visual demonstration of the relationship between the data points. Each point of data is representative of the relationship between a known independent variable and an unknown dependent variable. The least squares method provides the overall rationale for the placement of the line of best fit among the data points being studied. The trend line of debenture can be shown in the following table.

*Noted from: Annex 2*

*Fig.4.1 Growth of Debenture*

The equation of trend line is,

$$y = 2534 + 545t$$

The above figure shows the trend of debenture issues from 2000/01 to 2018/19. The trend is upward sloping through there is up and down in actual figures. From 2000/01 to 2006/07, the amount of debentures is very less. But from 2007/08, it crosses the Rs.2000 million. In 2015/16 and 2016/17, there is not any debenture issues in the market. Finally, in 2018/19, it increased above Rs. 25,000 million.

### 4.3 Features of Debenture Issues

As stated in methodology section, the detail analysis of debenture issues have been based on a sample of 10 debentures issued during 2012-2019. Based on these samples, an attempt has been made to study the features of debentures issued in Nepalese capital market. Some of the important features are as follows.

#### 4.3.1 Maturity

On the basis of maturity, the distribution of debentures is shown in the following table.

Table 4.2

#### Maturity Period

Year	5years	7years	10years
2013	-	-	1
2014	-	2	1
2015	-	-	-
2016	-	1	-
2017	-	-	-
2018	-	-	1
2019	1	2	-
2020	-	-	1

*Noted from: Annex3*

Among 10 sample debentures, one is issued for five years. Five are issued for seven years and at debentures are issued for four years. It shows that mostly debentures are issued for seven years and ten years.

### 4.3.2 Coupon Interest Rate

Table 4.3 shows the coupon interest rates of sample debentures along with their issue dates.

4.3 Coupon Interest Rate

Year	Coupon Rate (%)
2013	12.5
2014	8
	8
	7.5
2015	-
2016	7
2017	-
2018	10
2019	10
	11
	10.5
2020	10

*Noted from: Annex 3*

The above table shows the coupon interest rates of different debentures issued in different years. In 2013, the coupon interest is 12.5%. In 2014, there are three sample debentures which are issued with different coupon rates. Two debentures were issued at 8% and one was issued at 7.5%. In 2016, there is only one debenture which is issued with 7% coupon rate. In 2018, there is only one debenture with 10% coupon rate. In 2019, there are three sample debentures with 10%, 11% and 10.5% coupon rate. At last in 2020, there is only one sample debenture with 10% coupon rate. So, the highest coupon rate is 12.5% which is issued in 2013. Mostly 10% coupon rate is repeated in sample debentures.

### 4.3.3 Public Vs Private Issue of Debentures

According to the rule, out of the total issue amount, the company should issue minimum 20% to general public and the remaining 80% for private placement. The proportion between public and private issues are given in Table 4.4.

Table 4.4

#### Public Vs Private Issue

Year	Public Issue (in million Rs)	Private Issue (in million Rs)	Amount (in million Rs)	Share of Public Issue in Total Issue
2013	80	320	400	20
2014	330	1,320	1,650	20
2015	-	-	-	-
2016	74	296	370	20
2017	-	-	-	-
2018	400	1,600	2,000	20
2019	1,116	4,464	5,580	20
2020	800	3,200	4,000	20

*Noted from : Annex 3*

The above table shows the amount of debentures issue in primary market. In 2013, the issue amount of debenture is Rs. 400 million among them Rs. 80 million for public and Rs. 320 million for private placement. In 2014, the issues amount of debenture is Rs. 1,650 million and its public and private placement is Rs. 330 million and Rs. 1,320 million. In 2015, there is not any sample debentures. In 2016, the issue amount of debenture is Rs. 370 million. Out of the total Rs 74 million separates for public and Rs. 296 million for private placement. In 2017, there is not any sample debenture. In 2018, the issue amount is Rs. 2,000 million. Among them Rs. 400 million for public placement and Rs. 1,600 million for private placement. In 2019, the issue amount is Rs. 5,580 million. Out of the total amount Rs. 1116 million for public placement and Rs. 4,464 million for private placement. In 2020, the total issue amount of debenture is Rs. 4,000 million and its public and private placement is Rs. 800 million and Rs. 3,200 million. The last column shows that only 20%, a minimum requirement by the regulator has been issued to general public in all sample cases. It shows that companies prefer issuing debentures through private placement.

#### 4.3.4 Rating of Debentures

In an increasingly globalizing environment, Issuer Ratings can be of immense help to organizations in negotiating with prospective lenders, contractors, consultants, counter-parties, collaborators, vendors, creditors and other stakeholders who need to form an opinion about the overall credit quality of the company. There are various rating agencies. The following table shows the sample debenture's coupon rate and rating.

Table 4.5

Rating of Debentures by Agencies

S.N	Bank	Coupon Rate	Rating Agency	Rating
1.	Nepal SBI Bank Ltd 2078	12.5	ICRAN	LAA
2.	Nepal SBL Bank Ltd 2079	8	ICRAN	LAA
3.	HimalayanBank LTD 2077	8	ICRAN	A-
4.	Siddhartha Bank Ltd 2078	7.5	ICRAN	LBBB+
5.	Sanima Bank Ltd 2079	7	ICRAN	A-
6.	SANIMA Bank Ltd 2085	10	ICRAN	A-
7.	Global IME Bank Ltd 2080/81	10	ICRAN	LBBB+
8.	NIC Asia Ltd 2082/2083	11	ICRAN CARE	A- A
9.	Siddhartha Bank Ltd 2082	10.5	ICRAN	LBBB+
10.	NIC Asia 2085/86	10	ICRAN	A -

*Noted from : Annex 3*

The above data is rating of debentures by agencies. ICRA Nepal and CARE are rating agencies of debt instrument. Nepal SBI Bank's coupon rate is 12.5% and its rating is LAA. Again Nepal SBI Bank's coupon rate is 8% and its rating is LAA.



Likewise, Himalayan Bank's coupon rate is 8% and rating is A-. Siddhartha Bank has 7.5% coupon rate and its rating is LBBB+. Sanima Bank has 7% coupon rate and its rating is A-. Again Sanima Bank has 10% coupon rate with A-. Global IME Bank has 10% coupon rate and its rating is LBBB+. NIC Asia has 11% coupon rate with A- rating by ICRA and A rating by CARE. Siddhartha Bank has 10.5% coupon rate and its rating is LBBB+. At last NIC Asia has 10% coupon rate and its rating is A- by ICRA and A by CARE.

#### 4.4 Secondary Market Transaction of Corporate Bond

Secondary market is where investors buy and sell securities they already own. Here, the number of listed securities and their total value traded are as follows.

Table 4.6

#### Secondary Market Transaction

FY	No of debenture transacted	No of Listed debentures '000
2013/14	2	700
2014/15	6	1,600
2015/16	5	2,300
2016/17	2	1,250
2017/18	3	1,700
2018/19	-	-
2019/20	8	3,000

*Noted from : Annual report of NEPSE*

The above table shows the transaction of debentures in secondary market. It shows the number of debentures transacted and its number of listed debentures. The number of highest transacted is in 2019/20 and least transacted is in 2013/14 and 2016/17. In overall performance of secondary market, it is very weak and poor.

#### 4.5 Analysis of Coupon Rate

There are various companies which issue debenture on the basis of different coupon rate. The coupon is analyzed by comparing weighted coupon rate with various variable.

#### 4.5.1 Weighted Average Coupon rate and its Range

By the help of debentures amount of issue and coupon rate, the weighted average coupon rate is calculated which can show in Table 4.7.

Table 4.7  
Analysis of Coupon Rate

Fiscal Year	Range (%)	Weighted Average Coupon Rate (%)
2012/13	10-12.5	11.17
2013/14	8	8.00
2014/15	7.25-8	7.73
2015/16	7-8	7.41
2016/17	-	-
2017/18	-	-
2018/19	9	9.00
	10-10.5	10.15

*Noted from: Annex 4*

In the above figure, its shows the range and weighted average coupon rate. The highest weighted average coupon rate is in 2011213. In this year, there is also higher range of coupon rate compare with others years. In 2016/17 and 2017/18, there is not any range and weighted average coupon rate.

#### 4.5.2 Weighted Average Coupon Rate and Deposit Rate

There are various relationships between weighted average coupon rate and weighed average deposit rate which can be shown in the Table 4.8.

Table 4.8

## Comparison of Weighted Average Coupon Rate and Deposit Rate

Fiscal Year	Weighted Average Coupon Rate (%)	Weighted Average Deposit Rate (%)	Differences (%)
2012/13	11.17	6.17	5.00
2013/14	8.00	5.25	2.75
2014/15	7.73	4.09	3.64
2015/16	7.41	3.94	3.47
2016/17	-	3.28	-3.28
2017/18	-	6.15	-6.15
2018/19	9.00	6.49	2.51
2019/20	10.15	6.72*	3.43

*Noted from : Macro economic indicator of Nepal and Annual report of SEBON*

\*Weighted average deposit rate is on Jan 2019/20

In the above table, there is comparison of weighted average coupon rate and deposit rate. In 2012/123, the weighted average coupon rate is 11.17% and weighted average deposit rate is 6.17%. In 2013/14, the weighted average coupon rate is 8% and weighted average deposit rate 5.25%. In 2014/15, weighted average coupon rate is 7.73% and weighted average deposit rate is 4.09%. In 2015/16, the weighted average coupon rate is 7.41% and weighted average deposit rate is 3.94%. Again in 2016/17 there is no any weighted average coupon rate but weighted average deposit rate is 3.28%. In 2017/18, again there is no any weighted average coupon rate but weighted average deposit rate is 6.15%. In 2018/19, the weighted average coupon rate is 9% and weighted average deposit rate is 6.49%. At last in 2019/20, the weighted average coupon rate is 10.15% and weighted average deposit rate is 6.72%. In the above study, there is clear that weighted average

coupon rate is always higher than weighted average deposit rate. The highest weighted average coupon rate is in 2013/14 and highest weighed average deposit rate is in 2019/20.

The following figure shows the comparison of weighted average coupon rate and deposit rate from 2012/13 to 2019/20 till January.

*Fig 4.2 Comparison of Weighted Average Coupon Rate and Deposit Rate*

Above figure shows the relationship between weighted average coupon rate and weighted average deposit rate. In 2016/17 and 2017/18, there is no any weighted average coupon rate. The highest weighted average coupon rate is in 2012/13 and the highest weighed average deposit rate is in 2019/20.

#### **4.5.3 Weighted Average Coupon Rate and Lending Rate**

There are various relationships between weighted average coupon rate and weighted average lending rate which can be shown in the Table 4.9.

Table 4.9

Comparison of Weighted Average Coupon Rate and Lending Rate

Fiscal Year	Weighted Average Coupon Rate (%)	Weighted Average Lending Rate (%)	Differences (%)
2012/13	11.17	12.40	-1.23

2013/14	8.00	12.09	-4.09
2014/15	7.73	10.55	-2.82
2015/16	7.41	9.62	-2.21
2016/17	-	8.86	-8.86
2017/18	-	11.33	-11.33
2018/19	9.00	12.47	-3.47
2019/20	10.15	12.29*	-2.14

*Noted from : Macro economic indicator of Nepal and Annual report of SEBON*

\*Weighted average lending rate is on Jan 2019/20

In the above table, there is comparison of weighted average coupon rate and lending rate. In 2012/13, the weighted average coupon rate is 11.17% and weighted average lending rate is 12.40%. In 2013/14, the weighted average coupon rate is 8% and weighted average lending rate is 12.09%. In 2014/15, weighted average coupon rate is 7.727% and weighted average lending rate is 10.55%. In 2015/16, the weighted average coupon rate is 7.41% and weighted average lending rate is 9.62%. In 2016/17, there is no any weighted average coupon rate but weighted average lending rate is 8.86%. In 2017/18, again there is no any weighted average coupon rate but weighted average lending rate is 11.33%. In 2018/19, the weighted average coupon rate is 9% and weighted average lending rate is 12.47%. At last in 2019/20, the weighted average coupon rate is 10.15% and weighted average lending rate is 12.29%. In the above study, there is clear that weighted average lending rate is always higher than weighted average coupon rate. The highest weighted average coupon rate is in 2013/14 and highest weighed average lending rate is in 2018/19.

The relationship between weighted average coupon rate and lending rate can be shown in the graph which is as follows.

*Fig: 4.3 Comparisons of Weighted Average Coupon Rate and Lending Rate*

In the above figure, it shows the relationship between weighted average coupon rate and weighted average lending rate. In every year, weighted average lending rate is higher than weighted average coupon rate. In 2016/17 and 2017/18, there is no any weighted average coupon rate. The highest weighted average coupon rate is in 2012/13 and the highest weighed average lending rate is in 2018/19.

#### **4.5.4 Weighted Average Coupon Rate and Base Rate**

Table 4.10 shows the comparison of weighted average coupon rate and weighted average base rate.

Table 4.10

Comparison of Weighted Average Coupon Rate and Base Rate

Fiscal Year	Weighted Average Coupon Rate (%)	Base Rate \$	Differences (%)
2012/13	11.17	-	-
2013/14	8	9.83	-1.83
2014/15	7.73	8.36	-0.63
2015/16	7.41	7.88	-0.47

2016/17	-	6.54	-6.54
2017/18	-	9.89	-9.89
2018/19	9	10.47	-1.47
2019/20	10.15	9.80	0.35

---

*Noted from : Macro economic indicator of Nepal and Annual report of SEBON*

\*Base rate is on Jan 2018/19

\$ Base rate has been compiled since January 2015

In the above table, there is comparison of weighted average coupon rate and base rate. In 2012/13, the weighted average coupon rate is 11.17% and base rate is null. In 2013/14, the weighted average coupon rate is 8% and base rate is 9.83%. In 2014/15, weighted average coupon rate is 7.727% and base rate is 8.36%. In 2015/16, the weighted average coupon rate is 7.4138% and base rate 7.88%. In 2016/17, there is no weighted average coupon rate but base rate is 6.54%. In 2017/18, there is no any weighted average coupon rate but base rate is 9.89%. In 2018/19, the weighted average coupon rate is 9% and base rate is 10.47%. At last in 2019/20, the weighted average coupon rate is 10.14625% and base rate is 9.80%. In the above study, there is clear that base rate is always higher than weighted average coupon rate. The highest weighted average coupon rate is in 2013/14 and highest base rate is in 2018/19.

There are various relationships between weighted average coupon rate and base rate. The comparison of weighted average coupon rate and base rate can be also shown in graph which is as follows.

*Fig 4.4* Comparison of Weighted Average Coupon Rate and Base Rate

In the above figure, it shows the relationship between weighted average coupon rate and base rate. In 2016/17 and 2017/18, there is no any weighted average coupon rate. The highest weighted average coupon rate is in 2012/13 and the highest base rate is in 2018/19. In 2012/13, there is no any base rate because it is complied since January 2014.

#### **4.5.5 Weighted Average Coupon Rate and Government Securities**

Table 4.11 shows the comparison of weighted coupon rate and government securities.

Table 4.11

Comparison of Weighted Average Coupon Rate and Government Securities

Fiscal Year	Weighted Average Coupon Rate (%)	Government Securities (T-bills)			
		28 days*	90 days*	182 days*	364 days*
2012/13	11.17	0.10	1.15	1.96	2.72
2013/14	8	0.55	1.19	1.60	2.71
2014/15	7.727	0.01	0.02	0.42	0.72
2015/16	7.4138	-	0.17	0.56	0.76



2016/17	-	-	0.05	0.33	0.72
2017/18	-	-	0.71	1.71	-
2018/19	9	3.07	3.74	4.39	-
2019/20	10.14625	1.77	6.86	1.67	2.00

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*Noted from: Macro economic indicator of Nepal and Annual report of SEBON*

\*Weighted average interest rate

\*\*It is on Jan 2019/20

In the above table, the government securities of treasuries bills are seen in 28 days, 90 days, 182 days and 364 days. The weighted coupon rate is constantly decreased and in 2017/18 and 2018/19, there is no any weighted average coupon rate. And the highest weighted average coupon rate is in 2019 /20.

The treasury bills of 28 days are constantly decreased. But in 2019/20, it rises up in 3.07 % which is highest among all. In 2016/17, 2017/18 and 2018/19, there is no any government securities. The treasury bills of 90 days is also decreased and again increased in 2018/19 to 2019/20. The highest treasury bills of 90 days are in 2019/20 which is 6.86%.The treasury bills of 182 days is also decreased. But in 2016/17 and 2017/18, it is increased. The treasury bills of 364 days are also decreased. And there are no any 364 treasury bills in 2016/17 and 2017/18.

There are various government securities t- bills. Among them for comparison in graph 182 days are taken. Because it has various transaction in each and every year from 2012/13 and 2018/19.The below graph shows the comparison of weighted average coupon rate and government securities of t- bills 182 days.

*Fig 4.5* Comparison of Weighted Average Coupon Rate and Government Securities (T-bills 182 days)

In the above figure shows the comparison of weighted average coupon rate and t-bills of 182 days because by the compare with other treasury 182 days treasury bills are completed. In 2016/17 and 2017/18, there is no any weighted average coupon rate. The highest treasury bills are in 2012/13 and least is in 2015/16.

## **4.6 Major Finding**

Major findings are drawn from data analysis and presented below.

1. The issue of debentures in primary market has increased over the study period. The increase is significant in recent years. The trend value is 545 for every year.

2. The secondary market transaction of debentures is very poor. Very few transactions of debentures took place during the study period
3. Based on 10 sample debentures, it is found that all issues have par value of Rs 1,000, and most of the debentures are issued for 7 and 10 years. The highest coupon rate is 12.5%, but most issues have 10% coupon rate.
4. Among the samples, none have issued more than 20% percent of the total issue (minimum requirement as per the regulation) to general public.
5. ICRA and CARE Nepal are only two rating agencies for bond rating in Nepalese financial market. Based on their ratings, most debentures have secured either LA- or LBBB ratings by ICRA. It means debentures issued are considered to have adequate degree (moderate degree for LBBB) of safety regarding timely servicing of financial obligations. Such instruments carry low credit risk.
6. Weighted coupon interest rate is compared with weighted average deposit, weighted average lending, base rate and government securities. Weighted average deposit rate is always less than weighted average coupon rate. It means that raising funds from debenture issues is costlier than raising from deposits. But weighted average lending rate is higher than weighted average coupon rate.

## **CHAPTER V**

### **SUMMARY, CONCLUSION, AND RECOMMENDATION**

#### **5.1. Summary**

Capital is the fund raised to finance different assets and projects of short-term as well as long-term nature. Capital market is the type of security market where long-term securities

such as bond, preferred stock and common stock are traded. When a firm expands it needs capital. Capital can come from debt or equity. This study focused on only one aspect – debt through debenture issue. The main objective of the study was to examine the growth of debentures issues and to find out the relationship between coupon rates debentures with other rates such as deposit rate, lending rate, base rates. The specific objectives of the study are as under. It specifically aimed at to (i) study the trend and features of debenture issues in Nepalese securities market; (ii) examine the trading of debentures in secondary market; (iii) compare of debenture's coupon rate with weighted average lending rate, deposit rate and base rate of commercial banks and interest rates on government securities.

The study covers 19 years (from 2001- 2019) period the study of growth of debentures issues. But for other aspects the study is based on a sample of only 10 debentures issues between 2013 to 2020.

In the conceptual framework and review of literature studies carried out on financial and securities market. Among the different types of bonds, here corporate bonds (debentures) are studied. Corporate debenture shave various types and features. They have been reviewed in review of literature chapter.

While in the description and presentation of methods used to analyze and interpret the collected data to achieve the objective of the research work, the researcher used different tools of data analysis.. A total of 10 debenture-issuing companies are taken as sample for analyzing debenture issue in a market. The study covers the time period between 2000/01 to 2019/20.

In the data presentation and analysis section, the study presents a though analysis of corporate debenture issue practice and its trend in Nepalese market. It also analyzes the trading of debenture issue in secondary market. Further an attempt was made to compare weighted average coupon rate with weighted average lending and deposit rate, base rate and weighted average interest rate of government securities.

As reported in the major finding sections in the previous chapter, the study found that debenture is gaining popularly as a means of raising capital through primary market in

recent years. However, the trading of debentures in the secondary market is very thin. Further, companies have preference for private placement that for going public for debenture sale. Most of the issues are either for 7 years or for 10 years. The weighted average coupon rate of debentures is fairly higher than deposit rate, but as expected it is lower than lending rate.

## **5.2 Conclusion**

Despite the small size of market and under-developed state of operation, Nepal's market for debenture has remarkable growth in primary markets particularly in recent years. It has witnessed significant changes and expansion over the last couple of years. The continued expansion has shown a potentiality of the capital market to thrive further, thereby lead in positive impacts in the promotion and development of corporate debt market. .However, the trend of debenture issue in Nepal's capital market is not consistent. It is only the commercial banks which seem to be increasingly comfortable with debt-financing. The absence of companies belonging to manufacturing and other sectors in the debt-financing scenario is conspicuous. Besides, the thin secondary market of debentures is not good for healthy debt market. The reasons for such situation must be looked at the earliest.

## **5.3 Recommendation**

Based on the findings during the course of this research work, the researcher has following practicable recommendations to incorporate here under.

Debentures are mostly issued by banks. Other companies also should start raising debt capital from debt market by issuing debentures.

The government must look into seriously why there is so thin trading of debentures in the secondary market and come up with policies that encourages trading of debentures in the market.

It is recommended to the future researchers to do research on debentures taking more samples and covering long period.

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## Annex 1

### Issue of Debenture

Fiscal Year	Amount (Rs in millions)	Listed Company	Name of company
2001/02	2001/02	-	
2002/03	2002/03	1	Himalayan Bank Ltd
2003/04	2003/04	-	-
2004/05	2004/05	1	Nepal Investment Bank Ltd.
2005/06	2005/06	1	Everest Bank Ltd.
2006/07	2006/07	4	Bank of Kathmandu Ltd. Nepal Investment Bank Ltd. Nepal Industrial & Commercial Bank Ltd. Nepal SBI Bank Ltd.
2007/08	2007/08	1	Nepal Investment Bank Ltd.
2008/09	2008/09	5	Nepal Electricity Corporation. Kumar Bank Ltd. Himalayan Bank Ltd. Nepal Investment Bank Ltd. Nabil Bank Ltd.
2009/10	2009/10	2	Laxmi Bank Ltd. Siddhartha Bank Ltd
2010/11	2010/11	-	-

2011/12	2011/12	1	Nepal Investment Bank Ltd.
2012/13	2012/13	3	Nepal SBI Bank Ltd. Siddhartha Bank Ltd. Global Bank Ltd.
2013/14	2013/14	7	Nepal SBI Bank Ltd Laxmi Bank Ltd Siddhartha Bank Ltd Bank of Kathmandu Ltd Everest Bank Ltd Nepal Investment Bank Ltd Himalaya Bank Ltd
2014/15	2014/15	3	Nepal SBI Bank Ltd. NIC Asia Bank Ltd. Nepal Investment Bank Ltd.
2015/16	2015/16	5	NMB Capital Ltd Siddhartha Bank Ltd Sanima Bank Ltd Bank Of Kathmandu Ltd Everest Bank Ltd
2016/17	2016/17	-	-
2017/18	2017/18	-	-
2018/19	2018/19	1	NIC Asia Bank Ltd.

2019/20		12	NIC Asia Bank Ltd Sanima Bank Ltd. Siddhartha Bank Ltd. Global IME Bank Ltd NIC Asia Bank Ltd NMB Bank Ltd Sunrise Bank Ltd Nepal Bangladesh Bank Nepal Investment Bank Ltd. Machhapuchhre Bank Ltd. Himalayan Bank Ltd. Nic Asia Bank Ltd.

*Source: Annual reports of SEBON*

## Annex 2

### Estimation of Trend Value by Least Square Method

Fiscal Year	Number of debenture	Total Amount (Rs in millions) (Y)	Mid Year (X)	$x = X - 2009.5$	$x^2$	xy
2001/02	-	-	2000.5	-9	81	0
2002/03	1	360	2001.5	-8	64	-2,880
2003/04	-	-	2002.5	-7	49	0
2004/05	1	300	2003.5	-6	36	-1800
2005/06	1	300	2004.5	-5	25	-1,500
2006/07	4	850	2005.5	-4	16	-3,400
2007/08	1	250	2006.5	-3	9	-750
2008/09	5	2,950	2007.5	-2	4	-5,900
2009/10	2	750	2008.5	-1	1	-750
2010/11	-	-	2009.5	0	0	0
2011/12	1	300	2010.5	1	1	300
2012/13	3	1,200	2011.5	2	4	2,400
2013/14	7	3,550	2012.5	3	9	10,650
2014/15	3	1,450	2013.5	4	16	5,800
2015/16	5	2,900	2014.5	5	25	14,500
2016/17	-	-	2015.5	6	36	0
2017/18		-	2016.5	7	49	0
2018/19	1	3,000	2017.5	8	64	24,000

2019/20	12	29,980	2018.5	9	81	269,820
		y=48,140		x=0	x <sup>2</sup> = 570	xy=310,490

Source: Annual reports of SEBON

Since Let the straight line trend be  $y = a + bx$  ..... (i)

$$x = 0,$$

$$a = y/n$$

$$= 48,140/19$$

$$= 2,534$$

$$b = xy/x^2$$

$$= 310,490/570$$

$$= 545$$

Substituting the values of a and b in (i), the equation of the trend line is

$$y = 2534 + 545t$$

### Annex 3

#### Comparison of Debenture Issues in Various Dimensions

S.N	Bank	Year	Coupon Rate (%)	Amount (in million Rs)	Rating Agency	Issue Date	Public Issue	Private Issue	Par Value	Rating	Payment	Features
1.	Nepal SBI Bank Ltd 2078	10	12.5	400	ICRAN	2068/10/9	80	320	1,000	LAA	Semi annually	Unsecured debt Subscribed debt No specific charge
2.	Nepal SBL Bank Ltd 2079	10	8	400	ICRAN	2069/9/24	80	320	1,000	LAA	Semi annually	Unsecured debt Subscribed debt No specific charge
3.	HimalayanBank LTD 2077	7	8	750	ICRAN	2070/3/16	150	600	1,000	A-	Semi annually	Debenture redemption reserve Unsecured debt Subordinate debt No specific charge
4.	Siddhartha Bank Ltd 2078	7	7.5	500	ICRAN	2070/6/2	100	400	1,000	LBBB+	Annually	RE affirm Moderate credit risk

5.	Sanima Bank Ltd 2079	7	7	370	ICRAN	2072/04/20	74	296	1,000	A-	Annually	Bond Redemption reserve Supplementary capital
6.	SANIMA Bank Ltd 2085	10	10	2,000	ICRAN	2074/7/30	400	1,600	1,000	A-	Semi annually	Unsecured Debt Subordinated debt No specific charge
7.	Global Bank IME Ltd 2080/81	5	10	1,500	ICRAN	2075/4/18	300	1,200	1,000	LBBB+	annually	Unsecured debt Subordinate debt No specific charge
8.	NIC Asia Ltd 2082/2083	7	11	1,830	ICRANP CARE-NP	2075/5/21	366	1,464	1,000	A-A	Semi annually	Unsecured debt Subscribed debt No specific charge
9.	Siddhartha Bank Ltd 2082	7	10.5	2,250	ICRAN	2075/8/23	450	1,800	1,000	LBBB+	Semi annually	Due diligence certificate Moderate credit Risk Unsecured debt Subordinate debt No specific charge

10.	NIC 2085/86	Asia		10	4,000	CARE-NP ICRANP –	2075/09/30	800	3,200	1,000	A A -	Semi annually	Unsecured Debt Subordinated debt No specific charge
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*Source: report of SEBON*



## Annex 4

### Estimation of Weighted Average Coupon Rate

FY.	Issuing Company	Amount (Rs in millions)	Weight	Coupon Rate	Weighted Average Coupon Rate
2012/13	NSBL	400	0.3333	12.5%	11.17%
	SBL	400	0.3333	11%	
	GBL	400	0.3333	10%	
2013/14	NSBL	400	0.1127	8%	8.00%
	LBL	400	0.1127	8%	
	SBL	400	0.1127	8%	
	BOK	400	0.1127	8%	
	EBL	700	0.1972	8%	
	NIBL	500	0.1408	8%	
	HBL	750	0.2113	8%	
2014/15	NSBL	200	0.1379	7.9%	7.73%
	NIC ASIA	500	0.3448	7.25%	
	NIBL	750	0.5172	8%	
2015/16	NMB	500	0.1724	7%	7.41%
	SBL	500	0.1724	7%	
	SANIMA	700	0.2414	7%	
	BOK	600	0.2069	8%	
	EBL	600	0.2069	8%	
2016/17	-	-	-	-	-
2017/18	-	-	-	-	-
2018/19	NIC ASIA	300	1	9%	9.00%
2019/20	NIC ASIA	1,830	0.0610	10%	
	SANIMA	2,000	0.0667	10%	

	SBL	2250	0.0750	10.5%	10.15%
	GBL	1500	0.0500	10%	
	NIC ASIA	4000	0.1334	10%	
	NMB	3000	0.1001	10%	
	SUNRISE	1000	0.0331	10%	
	NBL	2000	0.0667	10.25%	
	NIBL	2000	0.0667	10.5%	
	MBL	3000	0.1001	10.25%	
	HBL.	3000	0.1001	10%	
	NIC ASIA	4400	0.1468	10.25%	

*Source: Annual Report of SEBON*