

CHAPTER - 1

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

The history of Commercial banking in Nepal started with the establishment of Nepal Bank limited in 1994 B.S with 51% government and 49% general public ownership. Later on, Rastriya Banijya Bank was established in 2022 B.S. with 100% government ownership. Nepalese Commercial Banking took yet another turn from 2041 B.S. onwards with the establishment of series of joint venture banks. Till date there are 32 Commercial banks operating in Nepal. Commercial banks are the main key players of Nepalese financial system in current days. Commercial banks provide different facility to people who are engaged in trade, commerce and industry. Accepting deposits, granting loan, exchanging the foreign currencies, and providing facility to business and commercial sector are the main functions of the commercial banks. In addition to that, the commercial banks should also maintain the required level of capital adequacy ratio fixed by the regulator bank i.e. Nepal Rastra Bank.

With the increase in the national economic activities, need of the financial institutions to perform the various financial activities were felt. Financial institutions are those organizations with or without profit motive, established under the act of the host country to perform various financial transactions under the rules and regulations of regulatory body (i.e. Central Bank). The apex of national financial institutions, central bank, regarding the creation of a friendly environment for a sound development of financial institutions, has hardly been effective because it has ever remained weak in monitoring and supervision. The mushrooming of financial firms – commercial banks, development banks, and finance companies is cosmetic rather than any substance; and their population raises the concern for efficiency and innovation.

The performance of the three dominant commercial banks – the Nepal Bank, The Rastriya Banijya Bank, and the Agriculture Development Bank – has improved in recent years. Other private commercial banks are operating so far. There is no liquidity problem to them. Their operating costs are moderate. However, investing in non-government sectors has been the challenge because of the political uncertainty. The commercial banks are concentrated in urban areas, and the political environment, especially the insurgency, has narrowed down their reach to rural areas. Also, the excess government intervention, especially in the Nepal Bank, has distributed their smooth functioning.

In the Nonbanking sector, major challenge lies in maintaining financial stability. The effort should be oriented toward developing financial infrastructure, avoiding deceiving competitive policies, strengthening regulation of the NRB supervision, and widening the access of the financial services. At present, most of the nonbank financial institutions are concentrating their

services in the Kathmandu valley. Despite of the government policy to give permission to open nonbank financial institutions at Kathmandu Valley only after opening two branches outside the Valley (one in rural area), the growth of nonbank financial institutions during the last two decades has not witnessed any remarkable progress in terms of their numbers in rural areas. The overall performance of the nonbanking institutions could be judged by considering the sources and uses of funds. In Nepal, large scale of development lending is required to support the development of agricultural and industrial sector. The entire nonbanks are aimed to improve socioeconomic status of the rural poor residing in most of the inaccessible areas. The deposit of nonbanking financial institutions grew significantly over the years even through the country needs to do a lot of homework to set up a strong foundation for making a healthy financial system.

More than two decades has passed since the Basel Committee on Banking Supervision (the committee) introduced on 1988 Capital accord (the accord). The business of banking, risk management practices, supervisory approaches, and financial markets each have undergone significant transformation since then. In June 1999 the committee released a proposal to replace the 1988 Accord with a more risk-sensitive framework, on which more than 200 comments were received. Reflecting those comments and the results of ongoing dialogue with the industry and supervisors worldwide, the committee is now presenting a more concrete proposal, seeking comments from interested parties by 31 May 2001. The committee had expected the final version of the new accord to be published around the end of 2001 and to be implemented in 2004.

The major impetus for the 1988 Basel capital accord was the concern of the Governors of the G10 central banks that the capital of the world's major banks had become dangerously low after persistent erosion through competition. Capital is necessary for banks as a cushion against losses and it provides as incentive for the owners of the business to manage it in a prudent manner. The 1988 accord requires internationally active banks in the G10 countries to hold capital equal to at least 8% of the basket of assets measured in different ways according to their riskiness. The definition of capital is set (broadly) in tiers, Tier 1 being shareholders' equity and retained earnings and Tier 2 being additional internal and external resources available to the bank. The bank has to hold at least half of its measured capital in Tier 1 form. A portfolio approach is taken to the measure of the risk, with assets classified into four buckets (0%, 20%, 50% and 100%) according to the debtor category. This means that some assets (essentially bank holdings of government assets such as Treasury Bills and bonds) have no capital requirement, while claims on banks have a 20% weight, which translates into a capital charge of 1.6% of the value of the claim. However, virtually all claims on the non-bank private sector receive the standard 8% capital requirement. There is also a scale of charges for off-balance sheet exposures through guarantees, commitments, forward claims, etc. This is the only complex section of the 1988 accord and requires two-step approach whereby banks convert their off-balance-sheet positions into a credit equivalent amount through a scale of conversion factors, which then are weighted according to the counterparty's risk weighting. The 1988 accord has been supplemented a

number of times, with most changes dealing with the treatment of off-balance-sheet activities. A significant amendment was enacted in 1996, when the committee introduced a measure whereby trading positions in bonds, equities, foreign exchange and commodities were removed from the credit risk framework and given explicit capital charges related to bank's open position in each instrument.

The two principal purposes of the accord were to ensure an adequate level of capital in the international banking system and to create a "more level playing field" in competitive terms so that banks could no longer build business volume without adequate capital backing. These two objectives have been achieved. The merits of the accord were widely recognized and during the 1990s the accord became an accepted world standard, with well over 100 countries applying the Basel framework to their banking system. However, there also have been some less positive features. The regulatory capital requirement has been in conflict with increasingly sophisticated internal measures of economic capital. The simple bucket 12 approach with a flat 8% charge for claims on the private sector has given banks an incentive to move high quality assets off the balance sheet, thus reducing the quality of bank loan portfolios. In addition, the 1988 accord did not sufficiently recognize credit risk mitigation techniques, such as collateral and guarantees. These are the principal reasons why the Basel Committee decided to propose more risk-sensitive framework in June 1999.

The initial consultative proposal had a strong conceptual content and was deliberately rather vague on some details in order to solicit comment at a relatively early stage of the Basel Committee's thinking. It contained three fundamental innovations, each designed to introduce greater risk sensitivity into the accord. One was to supplement the current quantitative standard with two additional "Pillars" dealing with supervisory review and market discipline. These were intended to reduce the stress on the quantitative Pillar 1 by providing a more balanced approach to the capital assessment process. The second innovation was that banks with advanced risk management capabilities would be permitted to use their own internal systems for evaluating credit risk, known as "internal ratings", instead of standardization risk weights for each class of asset. The third principal innovation was to allow banks to use the grading provided by approved external credit assessment institutions (in most cases private rating agencies) to classify their sovereign claims into five risk buckets and their claims on corporate and banks into three risk buckets. In addition, there were a number of other proposals to refine the risk weightings and introduce a capital charge for other risks. The basic definition of capital stayed the same. The comments on June 1999 paper were numerous and can be said to reflect the important impact the 1988 accord has had. Nearly all commenters welcomed the intention to refine the accord and supported the three Pillar approach, but there were many comments on the details of the proposal. Intensive work has taken place in the eighteen months since June 1999. Much of this has leveraged off work undertaken in parallel with industry representatives, whose cooperation has been greatly appreciated by the Basel committee and its Secretariat.

Upon various research and study a comprehensive International Convergence of Capital Measurement and Capital standards was developed in 2006 providing broad vision and wisely accepted standards for capital measurement of financial institutions. In developing the revised framework, the committee has sought to arrive at significantly more risk-sensitive capital requirements that are conceptually sound and at the same time pay due regard to particular features of the present supervisory and accounting systems in individual member countries. It believes that this objective has been achieved. The Committee is also retaining key elements of the 1988 capital adequacy framework, including the general requirement for banks to hold total capital equivalent to at least 8% of their risk-weighted assets; the basic structure of the 1996 market risk amendment regarding the treatment of market risk; and the definition of eligible capital.

In July 2005, the committee published additional guidance in the document “The application of Basel II to trading activities and the treatment of double default effects”. That guidance was developed jointly with the International Organization of Securities Commissions (IOSCO) and demonstrates the capacity of the revised framework to evolve with time. It refined the treatments of counterparty credit risks, double default effects, short term maturity adjustments and failed transactions, and improved the trading book regime.

1.2 INTRODUCTION

This report is based on the international capital standards for financial institutions prescribed by Basel Committee report. Financial institutions are broadly divided into banking institutions and non-bank institutions performing different functions. So far as the concern of the financial activities with the capital adequacy of the financial institutions, various international accords and rules were enacted, however its impact in the economy of the underdeveloped country like Nepal is still unsatisfactory. Large amount of money that is needed at the time of establishment of financial institution is the capital for such institutions. There are broadly two sets of reasons often given for capital regulation in financial institutions broadly and banks in particular. One is the protection of consumers from exploitation by opaque and better-informed financial institutions; for banking the objective would be depositor protection. The second is systematic risk. Banks are often thought to be a source of systematic risk because of their central role in the payment system and in the allocation of financial resources, combined with the fragility of their financial structure. Banks are highly leveraged with relatively short-term liabilities, typically in the form of deposits, and relatively liquid assets, usually loans to firms or households. In that sense banks are said to be “special” and hence subject to special regulatory oversight.

This study attempts to examine the overall effects of the capital adequacy of financial institutions for effective operations. It provides an overview of the regulation enacted for the guidance of the activities of financial institutions by discussing the current international capital regulations for the financial institutions and its implementation in the context of Nepal.

In 1975, the Basel committee on Banking Supervision (BCBS) was established by the central bank governors of the Group of Ten countries. It consists of senior representatives of bank supervisory authorities and central banks from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, Netherlands, Spain, Sweden, Switzerland, United Kingdom, and United States. It usually meets at the Bank for International Settlements in Basel, Switzerland where its permanent Secretariat is located. In 1988, the BCBS developed the Capital Accord, which is known as Basel I, to align the capital adequacy requirements applicable especially to banks in G-10 countries, Basel I introduced two key concepts. First, it defined what banks could hold as capital, as well as designating capital as Tier 1 or Tier 2 according to its loss-absorbing or creditor-protecting characteristics. The second key concept introduced in Basel I was that capital should be held by banks in relation to the risks that they face. The major risks faced by bank relate to the assets held on balance sheet. Thus, Basel I calculated banks' minimum capital requirements as a percentage of assets, which are adjusted in accordance to their riskiness and assigning risk weights to assets. Higher weights are assigned to riskier assets as corporate loans, and lower weights are assigned to less risky assets, such as exposures to government.

The BCBS released the "International Convergence of Capital Measurements and Capital Standards: Revised Framework", popularly known as Basel II, on June 26, 2004. This framework was updated in November 2005 and a comprehensive version of the framework was issued in June 2006. Basel II builds significantly on Basel I by increasing the sensitivity of capital to key bank risks. In addition, Basel II recognizes that banks can face a multitude of risks, ranging from the traditional risks associated with financial intermediation to the day-to-day risks of operating a business as well as the risks associated with the ups and downs of the local and international economies. As a result, the new framework more explicitly associates capital requirements with the particular categories of major risks that banks face.

The new capital framework also recognizes that large, usually internationally active banks have already put in place sophisticated approaches to risk measurement and management based on statistical inference rather than judgment alone. Thus, the framework allows banks, under certain conditions, to use their own 'internal' models and techniques to measure the key risks that they face, the probability of loss, and the capital required to meet those losses. In developing the new framework, the Basel Committee wanted to incorporate many elements that help promote a sound and efficient financial system over and above the setting of minimum capital requirements. With this in mind, The Basel II framework incorporates three complementary 'pillars' that draw on the range of approaches to help ensure that banks are adequately capitalized in commensurate with risk profile.

The Basel Committees on Banking Supervision's (BCBS) recommendations on capital accord are important guiding framework for the regulatory capital requirement to the banking industry all over the world and Nepal is no exception. Realizing the significance of capital for ensuring the safety and soundness of the banks and the banking system, at large, Nepal Rastra Bank (NRB) has developed and enforced capital adequacy requirement based on domestic state of

market developments. The existing regulatory capital is largely based on the Basel committee's 1988 recommendations.

With a view of adopting the international best practices, NRB has already expressed its intention to adopt the Basel II framework, in a simplified form. In line with the international development and thorough discussion with the stakeholders, evaluation and assessment of impact studies at various phases, this framework has been drafted. This framework provides the guidelines for the implementation of Basel II framework in Nepal. Reminiscent of the International convergence of capital measurements and capital standards, this framework also builds around three mutually reinforcing pillars, viz. minimum capital requirements, supervisory review process and disclosure requirements.

1.3 STATEMENT OF THE PROBLEM

Commercial banks are very important for the economic development of a country. They channelize funds from saving units to productive units and increase in the productivity of the country. At present, there are altogether 32 commercial banks operating in the country with heavy competitions. The banks of today are introducing various new technologies and schemes to lure the customers. Today, all the banks have provided the facilities of internet banking, SMS banking, debit cards and credit cards as well. The study of Capital Adequacy for banking business is very essential since they play with outsider's funds. The capital adequacy ratio must be maintained by every commercial bank for long run profitability and to prevent the bank from all sort of financial crises as well. The Financial manager must be able to maintain adequate level of capital to ensure the depositors that their deposits are totally secure and safe in their bank. The banks accumulate deposits from various unit groups paying certain percent interest and mobilize in productive sector and earn high return. The banks are considered as mechanism to canalize the funds from the smaller saver to the productive sector. The study of Capital adequacy in case of banking business is very important as liquidation of one bank creates contagion effect over the economy of the country.

Complex financial system can be attained only by the combination of effective bank-level management, market discipline, and supervision. The Basel accord has focused on the total amount of bank capital, which is vital in reducing the risk of bank insolvency and the potential cost of a bank's failure for depositors. Although the new framework's focus is primarily on internationally active banks, its underlying principles are intended to be suitable for application to banks of varying levels of complexity and sophistication. For the success of the financial institutions, adequate capital with the reasonable cost according to the risk exposure is essential which can assure the safety of funds of the depositors and smooth operation of the organization.

In Nepal various financial organizations lack the investment and analysis of the capital adequacy of the firm to ensure the efficient utilization of the capital. Among the various reasons of the unsuccessful financial institutions of Nepal, inefficient utilization of the capital is one of the

major issues to cause such unsuccessfulness. So, disclosure of efficient capital measurement tool in Nepalese perspective which can lead the common thought of the experts of the financial sector is the demand of Nepalese economy which is just practicing the republic system with liberalized and global thought. Moreover, Basel-II capital standard is under the implementation phase in Nepalese banking economy effective from 2065 B.S. However, it is also observed that whether they are being able to maintain risk weighted capital ratio as prescribed by NRB based on Basel-II. Among so many factors affecting the efficient operation of the financial institutions, capital adequacy analysis and response to the various risks associated with the varying nature of capital are also regarded as the important factors to be considered. Considering the same facts, this study also focuses on exploring the current phenomenon of the Nepalese commercial banks in terms of Basel-II implementation.

NRB has also tightens minimum reserve rules for all the commercial banks. Under new policy of commercial banks, NRB has directed every bank to maintain at all times, the capital requirement set out as below.

-) A Tier 1 (core) capital of not less than 6 percent of total risk weighted exposure.
-) A total capital fund of not less than 10 percent of its total risk weighted exposure.

The central bank has said that it will prevent the concerned banks and financial institutions from declaring dividends and bonus shares if their minimum capital ratios are found to be up to two percentage points less than the required ratio. Similarly, if the capital reserves are found to be between 2 to 4 percentage points less than specified limit, the central bank would impose a cap on the amount of loans to be issued by those banks and financial institutions. For those banks and financial institutions whose minimum capital adequacy ratios are less by 4 to 6 percentage points than the level fixed by the regulator, then they will be restricted from opening new deposit accounts and issuing additional loans.

Likewise, NRB could bar the concerned banks and financial institutions from increasing the salaries and benefits of the employees, recruiting additional workforce as well as promoting staff in case the capital reserves maintained by them are found to be 6 to 8 percentage points less than the minimum capital reserve ratio. NRB will also declare the banks and financial institutions troubled, if their capital reserve is found to be 8 percentage points of more, less than the capital reserve ratio fixed by NRB. The central bank will initiate the process of revoking licenses and liquidation of those banks and financial institutions if they fail to increase the capital reserves to the required level within six months of the date they are declared troubled.

So the researcher has mainly made his attempt to find out the answer of following research questions?

-) What are the major issues of capital regulation in Nepal?
-) What are the risks associated with the capital adequacy of the financial institutions?

-) Is the level of capital maintained by sample bank sufficient to protect its depositors?
-) What are the NRB regulations related to capital standard of the financial institutions of Nepal?
-) Are the sample banks able to maintain the required level of capital adequacy as directed by Central Bank?
-) What may be the role of the government as well as higher level executives of the financial institutions to ensure the safe regulatory framework?

1.4 RESEARCH OBJECTIVES

Capital is the life-blood of every organization. NRB has developed and enforced capital adequacy requirement for the commercial banks based on international practices. The main objective of this framework is to develop safe and sound financial system by way of sufficient amount of qualitative capital and risk management practices. It also tries to explore the overall framework followed by international as well as national financial institutions and basically commercial banks. Moreover, this study focuses on disclosure of unanimous facts and difficulties of Nepalese financial institutions and banks to follow international capital standard. Including the above mentioned objectives, the study would also consider the following general and specific objectives.

1) General Objectives:

The general objectives of the study are:

-) To fulfill the partial fulfillment of the requirement of Masters of Business Studies.
-) To be acquainted with the real business environment.

2) Specific Objectives:

The specific objective of the study is to ensure that each commercial bank maintain a level of capital

-) To ensure that every commercial bank maintain a level of capital this is adequate to protect its depositors and creditors.
-) To ensure that every commercial bank maintain a level of capital that promotes public confidence in the banking system.
-) To disclose the NRB regulations and directives related to capital standard of the Nepalese commercial banks.
-) To explore the relevancy of Basel accord in Nepalese perspective.

1.5 SCOPE OF THE STUDY

This framework shall be applicable to all “A” Class financial institutions licensed to conduct banking business in Nepal under the Bank and Financial Institution Act, 2063.

This capital adequacy framework shall be applicable uniformly to all “A” class financial institutions on a stand-alone basis and as well as on a consolidated basis, where the bank is member of a consolidated banking group. For the purpose of capital adequacy, the consolidated bank is a subsidiary. All banking and other relevant financial activities (both regulated and unregulated) conducted within a group including a bank shall be captured through consolidation. Thus, majority owned or controlled financial entities should be fully consolidated. If any majority owned subsidiaries institutions are not consolidated for capital purposes, all equity and other regulatory capital investments in those entities attributable to the group will be deducted and the assets and liabilities, as well as third party capital investments in the subsidiary will be removed from the bank’s balance sheet for capital adequacy purposes.

1.6 METHODOLOGY

As per the objective of the proposed research, it is an exploratory as well as descriptive type of research, and thus, main focus will be given to explore the various regulatory activities of Nepal followed by statistical analysis of capital maintained by selected commercial banks.

The commercial banks of Nepal are regarded as the population of the research and few commercial banks of the Kathmandu will be taken as sample followed by random sampling procedure to select the sample size. Till date, there are 32 Commercial Banks being operated in the country and 6 commercial banks are taken as a sample for the study.

So far as concern with the methods and techniques to collect and analyze the data, for the accuracy of the data, focus will be given for primary data collection techniques. Since the study requires crud information about the assets and liabilities of institution, personal visit of respondent (banks) to collect latest information will be focused. Available information on internet also used as the primary data. However, if it becomes possible to collect the relevant and recent data from the secondary source, they are also considered as the important source of secondary data. Diagrammatical representation, tabulation, and various statistical techniques prescribed by NRB to calculate the various risks associated with the capital will be used to calculate the minimum capital standard of selected commercial banks.

1.7 SIGNIFICANCE OF THE STUDY

For the effective and smooth operation of the financial system of the country, every financial institution needed to be regulated by the authorized body of the country backed by various suggestions prescribed by international regulatory bodies. Among the various regulation, capital regulation to them seems very important in terms of managing the liquidity as well as to

minimize the various risks associated with the investment of the financial institutions. These risks are commonly known as credit risk, market risk and operational risk. Capital should be managed in accordance with the security and provision required for all types of risks mentioned above so that protection to the depositors and appropriate return on the investment can be ensured.

Identification and exploration of factors associated with the capital standards will obviously help to spread out the seed of idea about the management of the capital in financial institutions. Very few researches have been made on the area because of low awareness towards capital standards, which has not been able to fulfill the need of current Nepalese financial system where NRB has already prescribed to maintain the capital standard in parlor basis. It seems very difficult to be clear about the capital regulation of financial institutions as being new and contemporary issue. These all factors are the rays which reflect the significance of the proposed study.

1.8 LIMITATIONS OF THE STUDY

Research is a never ending process. This means a single research work is never sufficient. It is the continuous process of upgrading the knowledge with present scenario. Similarly this research also contains some shortcomings which are as follows:

-) Only five years data have been considered, more reliable result can be expected with longer time horizon.
-) The study is short and complex too, however it will be lemmatized as the small weight which does not well motivate the researchers to complete the research report in a full-forced manner.
-) Only commercial banks have been considered as total population of the study.
-) Primary data have been collected exclusively from within the Kathmandu Valley.
-) The conclusions drawn in the report are based on the data provided, the reliability of which is source dependent and verification of which may not be possible
-) Since there are so many financial institutions with differentiation in capital, mission, geography, objective etc., only few commercial banks of a particular sector will be taken as sample which may increase the sampling error and thus subject to limitation.

1.9 ORGANIZATION OF THE STUDY

The study is organized into five chapters following with bibliography and appendix.

First chapter provides a general introduction to the study named “Capital Adequacy of Selected Commercial Banks of Nepal.” It contains general background, statement of problem, objectives of the study, scope of the study, limitations of the study and organization of the study.

Chapter two is all about review of literature. The first part of this chapter deals with the underlying conceptual reviews of the relevant topic. The other part of this chapter deals with the related studies in the topic, ranging from international to national studies.

Chapter three describes the methodology employed in conducting this study. It deals with research design, population and sample, source of the data for the study, data collection techniques, and finally data presentation and analysis tools.

Chapter four deals the presentation analysis of data. It accompanies presentation of secondary data and also primary data. For this several parametric and non-parametric statistics have been used to answer the relevant research questions.

Last chapter of this thesis presents summary, conclusion and recommendations of the study. The major findings are also reported in this chapter. This section ends with a sub-chapter dealing with avenues for future research. Finally bibliography, appendices and curriculum vitae of the researcher are included at the end of the thesis.

Chapter 2

LITERATURE REVIEW

The ability of financial institutions to fulfill its mission and objectives largely depends upon the capital structure of the firm. Large amount of money that is needed at the time of establishment of the institution as the starting capital in normally assumed as the capital. In fact, sound banking and other financial institutions improve resource allocation and thus stimulate economic growth. Also, prudent regulatory mechanisms promote healthy financial development.

The one and only international capital regulatory body which provides the overall framework for the capital requirement of the financial institutions is Basel Committee consulting of senior representatives of bank supervisory authorities and central banks from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom, and the United States. In 1998, Basel committee decided to develop capital measurement system commonly referred to as the Basel Capital Accord. This system provided with the implementation of a credit risk measurement framework with the minimum capital standard by 8% by the end of 1992, which is also known as 'Basel-I' since 1988. This framework has been progressively introduced not only to the member countries but also virtually in all the country. Basel-II is also the capital adequacy related standard framed by Basel Committee. After the successful implementation of first accord in 100 countries, Basel committee in banking supervision reached an agreement upon various issues for the promotion of best and uniform banking practice as well as setting standards and guidelines for supervisory functions. For the industry group and supervisory authorities, who is not the member of the committee, the revised framework was issued on 26 June 2004. Later it was again revised on November 2005. Basel-II was introduced with the aim to replace the Basel-I accord with the more risk sensitive capital framework.

Basel-II has been designed to provide options for banks and banking systems world-wide. Basel II attempts to provide the overall capital framework for the three types of the risk associated with the banking practices. For Credit, Operation and Market risk; there are different approaches of risk sensitivity to allow banks and supervisors to select the approaches of their choice which they think most appropriate for stage of their banking practice and financial market infrastructure. It was designed to capture the risk through its three pillars; Minimum capital requirement, Supervisory review process and marked discipline. For the purpose of developing capital-risk framework, Basel-II divided the total capital into two parts; Tier-I and Tier-II capital. Capital that is fully paid up and having no fixed servicing and dividend costs attached to it and freely available to absorb losses is qualified as Tier-I capital. This capital also needs to have very high degree of permanency and also subject to special deductions on it. Likewise Tier-II capital consist of general loan loss provision, revaluation reserve, exchange equalization reserve,

investment adjustment reserves, other reserves, redeemable preference shares and subordinated term debts. It has some limitations and restrictions too. So summation of tier-I and tier-II capital equals the total capital of the financial institutions specially banks.

According to Basel-II accord, Tier-I capital should not be less than 6% of the total risk weighted exposure and total capital (Tier I + Tier II) should not be less than 10% of the total risk weighted exposure, where risk weighted exposure is the maximum amount of risk attached with the portfolio of assets. In other words, total risk exposure is the sum of credit risk, market risk and operational risk. However the Basel Accord has prescribed the international standards for the capital regulation of financial institutions. Nepalese financial institutions seem to be less caring about the international standards. In the context of Nepal, due to very low articles and publications published in this matter, NRB directives for the banking supervision (Updated July-2008) and Basel-II report are assumed to be more valuable literature which illustrate and prescribes important rules to be followed by commercial banks of Nepal in terms of their capital adequacy. It has suggested various methods to calculate risk exposure and risk weighted assets as well as minimum capital requirements for the institution based on their risk exposure.

Basel I introduced two key concepts. First, it defined what banks could hold as capital, as well as designating capital as Tier I or Tier II according to its loss absorbing or creditor-protecting characteristics. The second key concept introduced in Basel I was that capital should be held by banks in relation to the risks that they face. The major risks faced by the banks relate to the assets held on balance sheet. Thus, Basel I calculated banks' minimum capital requirements as a percentage of assets, which are adjusted in accordance to their riskiness and assigning risk weights to assets. Later it was updated in November, 2005 and a comprehensive version of the framework was issued in June 2006. Basel II builds significantly on Basel I by increasing the sensitivity of capital to key bank risks. This framework allows banks, under certain conditions, to use their own, internal models and techniques to measure the risks that they face, the probability of loss, and the capital required to meet those losses. In developing the new framework the Basel Committee wanted to incorporate many elements that help promote a sound and efficient financial system over and above the setting of minimum capital requirements.

The Basel committee on Banking Supervision's (BCBS) recommendations on capital accord is important guiding framework for the regulatory capital requirement to the banking industry all over the world and Nepal is no exception. Nepal Rastra Bank (NRB) has developed and enforced capital adequacy requirement based on international practices with appropriate level of customization based on domestic state of market developments (Nepal Rastra bank: 2008: capital adequacy framework). The existing regulatory capital is largely based on the Basel committee's 1988 recommendations.

With a view of adopting the international best practices, NRB has already expressed its intention to adopt the Basel II framework, albeit in a simplified form. In line with the international development and thorough discussion with the stakeholders, evaluation and assessment of impact studies at various phases, this framework has been drafted. This framework provides the guidelines for the implementation of Basel II framework in Nepal. Reminiscent of the International convergence of capital measurements and capital standards, this framework also builds around three mutually reinforcing pillars, viz. Minimum capital requirements, supervisory review process and disclosure requirements.

According to capital adequacy framework 2007 (updated on July 2008) the board of directors of the each bank shall be responsible for establishing and maintaining, at all times, an adequate level of capital. The capital standards herein are the minimum that is acceptable for banks that are fundamentally sound, well managed, and which have no material financial or operational weaknesses. Thus, the banks are generally expected to operate above the limits prescribed by this framework. This framework shall be applicable to all “A” class financial institutions licensed to conduct banking business in Nepal under the Bank and Financial Institution Act, 2063 on a standalone basis as well on consolidated basis (NRB directive: 2008's issue) where the bank is the member of a consolidated banking group. For the purpose of capital adequacy, the consolidated bank means a group of all financial entities, parent or holding company of which a bank is a subsidiary. If any majority owned subsidiaries institutions are not consolidated for capital purposed, all equity and other regulatory capital investments in those entities attributable to the will be deducted and the assets and liabilities, as well as third party capital investments in the subsidiary will be removed from the bank’s balance sheet for capital adequacy purposes (System, 2002).

The major innovation of the proposed Basel II is the introduction of distinct options for the calculation of three types of risk. For credit, operational and market risk, there are different approaches of increasing of increasing risk sensitivity to allow banks and supervisors to select the approach of approaches that they believe are most appropriate to the stage of development of banks operations and of the financial market infrastructure.

2.1 Eligible Capital and their Components

Qualifying capital in the context of financial institutions normally banks consists of Tier 1 (core) capital and Tier 2 (Supplementary) capital elements, net of required deduction in capital. Thus, for the purpose of calculation of regulatory capital, banks are required to classify their capital into two parts (Basel report-2004). For the purpose of calculating minimum capital requirements of the banks, first of all, all capital components should be segregated into these two parts before calculating various risks associated with the capital components which affect the calculation of capital.

2.1.1 Core Capital (Tier-1)

The key element of capital on which the main emphasis should be placed is Tier 1 (core) capital, which comprises of equity capital and disclosed reserves. This key element of capital is the basis on which most market judgments of capital adequacy are made; and it has a crucial bearing on profit margins and a bank's ability to complete.

The BCBS has therefore concluded that capital, for supervisory purposes, should be defined in two tiers in a way, which will have the effect of requiring at least 50% of a bank's capital base to consist of a core element comprised of equity capital and published reserves from post-tax retained earnings. In order to rank as Tier 1, capital must be fully paid up, have no fixed servicing or dividend costs attached to it and be freely available to absorb losses ahead of general creditors. Capital also needs to have a very high degree of permanence if it is to be treated as Tier 1.

2.1.1.1 Elements of Tier-1 Capital

- a) Paid up Equity Capital
- b) Irredeemable non-cumulative preference shares which are fully paid-up and with the capacity to absorb unexpected losses. These instruments should not contain any clauses whatsoever, which permit redemption by the holder or issuer upon fulfillment of certain condition. Banks should obtain prior approval of NRB for this kind of instruments to qualify as a component of core capital.
- c) Eligible Capital Funds
- d) Share Premium
- e) Proposed Bonus Equity Share
- f) Statutory General Reserve
- g) Retained Earnings available for distribution to shareholders.

- h) Un-audited current year cumulative profit, after all provisions including staff bonus and taxes. Where such provisions are not made, this amount shall not qualify as Tier 1 capital.
- i) Capital Redemption Reserves created in lieu of redeemable instruments.
- j) Capital Adjustment reserves created in respect of increasing the capital base of the bank
- k) Dividend Equalization Reserves.
- l) Any other type of reserves notified by NRB from time to time for inclusion in Tier 1 capital

2.1.1.2 Eligible deductions from Core Capital (Tier-1):

For Capital adequacy purpose banks can deduct some items from the capital components as being fully risk free and thus subject to no capital requirements. The claims that have been deducted from core capital shall be exempt from risk weights for the measurement of credit risk.

- a) Book value of goodwill.
- b) Miscellaneous expenditure to the extent not written off. E.g VRS expense, preliminary expense, share issue expense, deferred revenue expenditure etc. However, software expenditure of software development expenditure, research and development expenditure, patents, copyrights, trademarks and lease hold development booked as deferred revenue expenditure are subject to 100% risk weight and may not be deducted from Tier 1 capital.
- c) Investment in equity of financial institutions licensed by Nepal Rastra Bank.
- d) All investments in equity of institutions with financial interest.
- e) Investments in equity of institutions in excess of the prescribed limits.
- f) Investments arising out of underwriting commitments that have not been disposed within a year from the date of commitment.
- g) Reciprocal crossholdings of the bank capital artificially designed to inflate the capital position of the bank.
- h) Any other items as stipulated by Nepal Rastra Bank, from time to time.

2.1.2 Supplementary Capital (Tier-2):

The Supplementary (Tier 2) Capital includes reserves which, though unpublished, have been passed through the profit and loss account and all other capital instruments eligible and acceptable for capital purposes. Elements of the Tier 2 capital will be reckoned as capital funds up to a maximum of 100 percent of Tier 1 capital arrived at, after making adjustment of eligible deductions from same (shown in 2.1.1.2). In case, where the Tier 1 capital of a bank is negative, the Tier 2 capital for regulatory purpose shall be considered as zero and hence the capital fund, in such cases, shall be equal to the core capital.

2.1.2.1 Elements of Tier-2 capital (NRB capital adequacy framework:2007)

- a) Cumulative and/or redeemable preference shares with maturity of 5 years and above.
- b) Subordinated term debt fully paid up with a maturity of more than 5 years, unsecured and subordinated to the claim of other creditors, free of restrictive clauses and not redeemable before maturity. Since, subordinated term debt is not normally available to participate in the losses; the amount eligible for inclusion in the capital adequacy calculations is limited to 50% of core capital. Moreover, to reflect the diminishing value of these instruments as a continuing source of strength, a cumulative discount (amortization) factor of 20% per annum shall be applied for capital adequacy computations, during the last 5 years to maturity. The banks should obtain written approval of NRB for including any subordinated debt instruments (like Debenture/Bonds) in supplementary (Tier-2) capital.
- c) Hybrid capital instruments: Those instruments which combine certain characteristics of debt and certain characteristics of equity. Each such instrument has a particular feature, which can be considered to affect its quality as capital. Where these instruments have close similarities to equity, in particular when they are able to support losses on an ongoing basis without triggering liquidation, they may be included in Tier 2 capital with approval from Nepal Rastra Bank.

General loan loss provision limited to a maximum of 1.25% of total Risk Weighted Exposures. General loan loss provision refers to the provisions created in respect of Pass Loans only and it does not include provisions of rescheduled/restructured and classified loans. The additional loan loss provisions created in respect of Personal Guarantee loans and loans in excess of Single Obligor Limits are specific provisions and hence cannot be included under this category. Such provisions however can be deducted from the gross exposures while including risk weighted exposures for credit risk.

However, provisions created in excess of the regulatory requirements provisions which is not attributable to identifiable losses in any specific loans shall be allowed to be included in the General Loan Loss Provision and shall be eligible for Tier II capital subject to a maximum of 1.25% of total risk weighted exposures.

- d) Exchange equalization reserves created by banks as a cushion for unexpected losses arising out of adverse movements in foreign currencies.
- e) Investment adjustment reserves created as a cushion for adverse price movements in bank's investments falling under "Available for Sale" category.
- f) Revaluation reserves often serve as a cushion against unexpected losses but may not be fully available to absorb unexpected losses due to the subsequent deterioration in market values and tax consequences of revaluation. Therefore, evaluation reserves will be eligible up to 50% for treatment as Tier 2 capital and limited to a maximum of 2% of total Tier 2 capital subject to the condition that the reasonableness of the revalued amount is duly certified by the internal auditor of the bank.
- g) Any other type of reserves notified by NRB from time to time for inclusion in Tier 2 capital.

As supplementary capital contains all the quasi capital components which are subject to risk, there is no provision of eligible deductions from such capital. Moreover amount of Tier-2 capital is limited up to the 100% of the sum total of the Tier-1 capital net of deductions.

2.2 Capital Funds:

The capital fund is the summation of Tier 1 and Tier 2 capital. The sum total of the different components of the Tier 2 capital will be limited to the sum total of the various components of the Tier 1 capital net of deductions as specified in 2.4. In case the Tier 1 capital is negative, the Tier 2 capital shall be considered to be "Nil" for regulatory capital adequacy purposes and hence, in such a situation, the capital fund shall be equal to the Tier 1 capital (NRB Accord Implementation: 2008: page18):.

2.3 Minimum Capital Requirements:

Unless a higher minimum ratio has been set by Nepal Rastra Bank for an individual bank through a review process, every bank shall maintain at all times, the capital requirement set out below.

- a) A Tier 1 (core) capital of not less than 6 per cent of total risk weighted exposure
- b) A total capital fund of not less than 10 per cent of its total risk weighted exposure.

The Capital Adequacy Ratio (CAR) is calculated by dividing eligible regulatory capital by total risk weighted exposure. The total risk weighted exposure shall comprise of risk weights calculated in respect of bank's credit, operational and market risks. There are various methodologies available to calculate the Risk weighted assets valuation. Available methodologies to calculate risk weight exposure for each of these risk categories are tabulated below.

S.N.	Credit Risk	Operational Risk	Market Risk
1	Standardized Approach	Basic Indicator Approach	Standardized Approach
2	Foundation IRB Approach	Standardized Approach	Internal Model Approach
3	Advanced IRB Approach	Advanced Measurement Approach (AMA)	

2.4 Credit Risk

Risk that a borrower will not pay a loan called for in the original loan agreement, and may eventually Default on the obligation. Credit risk is one of the primary risks in bank lending, in addition to interest Rate Risk (Banking dictionary). Most lenders employ their own models (Credit Scorecards) to rank potential and existing customers according to risk, and then apply appropriate strategies. With products such as unsecured personal loans or mortgages, lenders charge a higher price for higher risk customers and vice versa. With revolving products such as

credit cards and overdrafts, risk is controlled through careful setting of credit limits. Some products also require security, most commonly in the form of property.

Consumers may face credit risk in a direct form as depositors at banks or as investors/lenders. They may also face credit risk when entering into standard commercial transactions by providing a deposit to their counterparty, e.g. for a large purchase or a real estate rental. Employees of any firm also depend on the firm's ability to pay wages, and are exposed to the credit risk of their employer. Credit risk is the major risk that banks are exposed to during the normal course of lending and credit underwriting. Within Basel II, there are two approaches for credit risk measurement: the standardized approach and the internal ratings bases (IRB) approach. Due to various inherent constraints of the Nepalese banking system and lack of international standard rating agencies, the standardized approach in its simplified form. Simplified Standardized Approach (SSA) has been prescribed in the initial phase (Report to commercial banks by NRB-2008).

2.4.1 Simplified Standardized Approach (SSA)

In comparison to Basel I, SSA aligns regulatory capital requirements more closely with the key elements of banking risk by introducing a wider differentiation of risk weights and a wider recognition of credit risk mitigation techniques. The advantage of implementing this approach is twofold. This approach allows transitional advantage for countries like us by avoiding excessive complexities associated with the advanced approaches of Base II while at the same time it will produce capital ratios more in line with the actual economic risks that banks are facing, compared to the present Accord (NRB accord implementation: 2007)

Under this approach commercial banks are required to assign a risk weight to their balance sheet and off-balance sheet exposures. These risk weights are based on a fixed weight that is broadly aligned with the likelihood of a counterparty default. As a general rule, the claims that have

already been deducted from the core capital shall be exempt from risk weights for the measurement of credit risk.

Claims on foreign government, their central banks as well as foreign corporate shall be generally risk-weighted on the consensus country risk scores of Expert Credit Agencies ECA- (<http://www.oecd.org>). Wherever there are claims to unrated countries, they shall generally be risk weighted at 100 percent. However, these claims shall be subject to supervisory review and higher risk weight shall be assigned where the review process deems appropriate.

All kinds of claims including loans & advances as well as investments shall risk weighted net of specific provisions. Generally provision related to any receivable or investment is not defined as general or specific. In such situation, the total provision against any claim/exposure (other than the loans and advances) shall be considered as specific provision. However, provisions eligible for the supplementary capital shall not be allowed for netting while calculating risk weighted exposures.

In case of loans, advances and bills purchased the provisions created in lieu of Pass loans only are classified as General loan loss provision. All other provisions are components of specific loan loss provision. Hence, general loan loss provision doesn't comprise provisions created in respect of rescheduled/restructured and not performing loans. It also doesn't include additional provisions created for personal guarantee loans or lending in excess of Single Obligor Limits. However, provisions created in excess of the regulatory requirements and not attributable to identifiable losses in any specific loans shall be allowed to be included in the General Loan Loss Provision.

In order to be consistent with the Base-II framework, the credit risk for the regulatory capital purpose shall be computed by segregating the exposure in the following 11 categories.

- a) Claims on government & central bank.

- b) Claims on other official entities
- c) Claims on banks
- d) Claims on corporate & securities firms
- e) Claims on regulatory retail portfolio
- f) Claims secured by residential properties
- g) Claims secured by commercial real state
- h) Past due claims
- i) High risk claims
- j) Other claims
- k) Off balance sheet items

2.4.1.1 Risk Measurement and Risk Wight Under SSA

a) **Claims on Government and Central Bank**

) All claims on government of Nepal and Nepal Rastra Bank shall risk weighted at 0%.

) Claims on foreign government and their central banks shall be risk-weighted on the basis of the consensus country risk scores as follows:

ECA risk scores	0-1	2	3	4-6	7
Risk Weights	0%	20%	50%	100%	15%

b) **Claims on other official entities:**

) Claims on the Bank for International Settlements, the International Monetary Fund, the European Central Bank and the European Community will receive a 0% risk weight.

) Following Multilateral Development Banks (MDBs) will be eligible for a 0% risk weight.

) World Bank Group, comprised of the International Bank for Reconstruction and Development (IBRD) and the International Finance Corporation (IFC),

) Asian Development Bank (ADB),

) African Development Bank (ADB),

-) European Bank for Reconstruction and Development (EBRD),
-) Inter-American Development Bank (IADB),
-) European Investment Bank (EIB),
-) European Investment Fund (EIF),
-) Nordic Investment Bank (NIB),
-) Caribbean Development Bank (CDB),
-) Islamic Development Bank (IDB), and
-) Council of Europe Development Bank (CEDB).
-) The standard risk weight or claims on other Multinational Development Banks will be 100%.
-) Claims on Public Sector Entity (PSEs) will be risk-weighted as per the ECA country risk scores.

ECA risk scores	0-1	2	3-6	7
Risk Weights	20%	50%	100%	150%

c) Claims on Banks

-) All claims, irrespective of currency, excluding investment in equity shares and other instruments eligible for capital funds, on domestic banks/financial institutions that fulfill Capital Adequacy Requirements will be risk weighted at 20% while for the rest, it will be 100%.
-) Claims on a foreign bank excluding investment in equity shares and other instrument

Eligible for capital funds shall be risk weighted as per the ECA Country risk score subject to the floor of 20%. The primary basis for applying the ECA Country Risk score shall be the country of incorporation of the bank. Where the bank is a branch office, the ECA score of the country where the corporate office is located shall be used while in the case of a subsidiary the basis shall be the country where the subsidiary is incorporated.

ECA risk scores	0-1	2	3 to 6	7
Risk Weights	20%	50%	100%	150%

However, the claims on foreign banks incorporated in the SAARC region and which operate with a buffer of 1% above their respective regulatory minimum capital requirements may be risk weighted at 20%. The banks shall be responsible to submit the latest capital adequacy position of such banks and demonstrate that they fulfill the eligibility requirements. Such capital adequacy position submitted by the banks should not be prior to more than one financial year. Moreover, such claims shall be subject to a supervisory review and supervisors may require the bank to risk weigh the claims on ECA country risk scores where the review process deems necessary.

d) Claims on corporate security firm

-) The risk weight for claims on domestic corporate, including claims on insurance corporate and securities firm will be 100%. The domestic corporate includes all firms and companies incorporated in Nepal as per prevailing Acts and regulations.
-) The claims on foreign corporate shall be risk weighted as per the ECA Country risk score subject to the floor of 20% as follows:

ECA risk scores	0-1	2	3	4 to 6	7
Risk Weights	20%	50%	100%	100%	150%

e) **Claims on regulatory retail portfolio**

Claims that qualify all criteria listed below may be considered as regulatory retail portfolio and risk weighed at 75%, except for past due loans. Such claims however, have to be in strict compliance with the product paper developed by the bank and approved by their respective board of directors. Banks should submit a copy of these papers to NRB for notification.

Criteria:

- **Orientation Criteria:** exposure is to an individual person or persons or to a small business. Bank should obtain written declaration from the borrower to the effect that their indebtedness is within the threshold across all banks and financial institutions.
- **Product criteria:-** The exposure takes the form of any of the following:
 -) Revolving credits and lines of credit, (including overdraft, hypothecation etc.)
 -) Term loans and leases (e.g. hire purchase, auto loans and leases, student and educational loans).
 -) Small business facilities and commitments and,
 -) Deprived sector loans up to a threshold of Rs.10 million (Ten Million only).
- **Granularity criteria:** NRB must be satisfied that the regulatory retail portfolio is sufficiently diversified to a degree that reduces the risks in the portfolio, warranting the 75% risk weight. No aggregate exposure (not taking any credit risk mitigation into account) to one counterpart can exceed 0.5% of the overall regulatory retail portfolio.

- **Low value individual criteria:** - The total aggregated exposure to one counterpart cannot exceed an absolute threshold of up to Rs. 10 million (Nepalese Rupees Ten Million only).

Banks which have claims that fulfill all criterion except for granularity may risk weigh those claims at 100%.

f) Claims secured by residential property

-) Lending to individuals meant for acquiring or developing residential property which are fully secured by mortgages on residential property, that is or will be occupied by the borrower or that is rented will be risk-weighted at 60%. However, banks should ensure the existence of adequate margin or security over the amount of loan based on strict valuation rules.

Banks have to develop product paper and get it approved from the board of directors to regulate this kind of lending. Banks should submit a copy of these papers to NRB for notification. The claims in order to be eligible for this category have to be in strict compliance with this product paper.

-) Where the loan is not fully secured by residential properties, such claims have to risk weighted at 150%.
-) When claims secured by residential properties are or have been past due at any point of time during the last two years, they shall be risk-weighted at 100%, net of specific provisions.

g) Claims secured by commercial real estate

-) Claims secured by mortgages on commercial real estate, except past due, shall be risk-weighted at 100%. Commercial real estate hereby refers to mortgage of office buildings, retail space, multi-purpose commercial premises, multi-family residential building, multi-tenanted commercial premises, industrial or warehouse space, hotels, land acquisition, development and construction, etc.

h) Past due claims

-)] Any loan, except for claim secured by residential property, which is or has been past due at any point of time during the last two

i) High Risk Claims

-)] 150% risk weight shall be applied for venture capital and private equity investments.
-)] Exposures on personal loan in excess of the threshold of regulatory retail portfolio and lending against securities (bonds and shares) shall attract a risk weight of 150%. Similarly, exposures on credit card shall also warrant a risk weight of 150%.
-)] Investments in the equity and other capital instruments of institutions, which are not listed in the stock exchange and have not been deducted from Tier 1 capital, shall be risk weighed at 150% net of provisions.
-)] Investments in the equity and other capital instruments of institutions, which are listed in the stock exchange and have not been deducted from Tier 1 capital, shall be risk weighed at 100% net of provisions.
-)] The claims which are not fully secured or are only backed up by personal guarantee shall attract 150% weight.
-)] Where loan cannot be segregated/or identified as regulatory retail portfolio or qualifying residential mortgage loan or under other categories, it shall be risk weighed at 150%.

j) Other assets

-)] With regard to other assets, following provisions have been made:
 - Interest receivable/claim on government securities will be risk-weighted at 0%.
 - Investments in equity or regulatory capital instruments issued by securities firms will be risk-weighted at 100%.
 - Cash in transit and other cash items in the process of collection will be risk-weighted at 20%. For this purpose, cash items shall include Cheque, Draft, and Travelers' Cheques.
 - Fictitious assets that have not been deducted from Tier 1 capital shall be risk weighed at 100%.
 - All other assets will be risk weighted at 100% net of specific provision.

k) Off Balance Sheet items

) Off-balance sheet items under the simplified standardized approach will be converted into equivalent risk weight exposure using risk weight as follows:

Off Balance Sheet Exposure	Risk Weight
Any commitments those are unconditionally cancelable at any time by the 0% bank without prior notice, or that effectively provide for automatic cancellation due to deterioration in a borrower's creditworthiness	0%
Forward exchange contracts	10%
Short Term Trade-related contingencies: Contingent liabilities arising from trade-related obligations, which are secured against an underlying shipment of goods for both issuing and confirming bank and are short term in nature. This includes documentary letters of credit, shipping guarantees issued and any other Trade-related contingencies with an original maturity up to six months.	20%
Undertaking to provide a commitment on an off-balance sheet items	20%
Unsettled securities and foreign exchange transactions between bank to bank and between bank and customer	20%
Long Term Trade-related contingencies: Contingent liabilities arising from trade-related obligations, which are secured against an underlying shipment of goods for both issuing and confirming bank and are long term in nature. This includes documentary letters of credit, shipping guarantees issued and any other trade-related contingencies with an original maturity of over six months.	50%
Performance – related contingencies:	50%

<p>Contingent liabilities, which involve an irrevocable obligation to pay a third party in the event that counterparty fails to fulfill or perform a contractual non-monetary obligation, such as delivery of goods by a specified date etc. This includes issue of performance bonds, bid bonds, warranties, indemnities, underwriting commitments and standby letters of credit in relation to a non-monetary obligation of counterparty under a particular transaction.</p>	
<p>Long term Irrevocable Credit Commitments :</p> <p>Any un-drawn portion of committed credit lines sanctioned for a period of more than 1 year. This shall include all unutilized limits in respect of revolving working capital loans except for trade finance exposures.</p>	50%
<p>Short term Irrevocable Credit Commitments :</p> <p>Any un-drawn portion of committed lines sanctioned for a period of up to 1 year. This shall include all unutilized limits in respect of revolving working capital loans except of trade finance exposures.</p>	20%
<p>Repurchase agreements, securities lending, securities borrowing, reverse repurchase agreements and equivalent transactions :</p> <p>This includes sale and repurchase agreements and asset sales with recourse, where the credit risk remains with the purchasing bank.</p>	100%
<p>Direct credit substitutes :</p> <p>Any irrevocable off-balance sheet obligations which carry the same credit risk a direct extension of credit, such as an undertaking to make a payment to a third party in the event that a counterparty fails to meet a financial obligation or an undertaking to a counterparty to acquire a potential claim on another party in the event of default by that party, constitutes a direct credit substitute. This includes potential credit exposures arising from the issue of financial guarantees and credit derivatives, confirmation of letters of credit (acceptance and endorsements), issue of standby letters of credit serving as financial</p>	100%

guarantees for loans, securities and any other financial liabilities, and bills endorsed under bill endorsement lines (but which are not accepted by, or have the prior endorsement of, another bank).	
Unpaid portion of partly paid shares and securities	100%
Other Contingent Liabilities	100%

2.4.2 Credit Risk Mitigation

Banks may use a number of techniques to mitigate the risks to which they are exposed. The prime objective of this provision is to encourage the banks to manage credit risk in a prudent and effective manner. As such, credit risks exposures may be collateralized in whole or in part with cash or securities, or a loan exposure may be guaranteed by a third party. Where these various techniques meet the minimum conditions mentioned below, banks which take eligible financial collateral are allowed to reduce their credit exposure to counterparty when calculating their capital requirements to take account of the risk mitigating effect of the collateral. However, credit risk mitigation is allowed only on an account by account basis, even within regulatory retail portfolio.

As a general rule, no secured claim should receive a higher capital requirement than an otherwise identical claim on which there is no collateral. Similarly, the effects of the CRM shall not be double counted and capital requirement will be applied to banks on either side of the collateral transaction, for example, both repos and reverse repos will be subject to capital requirements.

Those portions of claims collateralized by the market value of recognized collateral receive the risk weight applicable to the collateral instrument. The remainder of the claim should be assigned the risk weight appropriate to the counter party.

Where the same security has been pledged for both the funded and non funded facilities, banks should clearly demarcate the value of security held for funded and non funded facility. In cases where the banks has obtained same security for various forms of facilities, banks are eligible to claim the DRM benefit across all such exposures up to the eligible value of CRM.

2.4.2.1 Minimum Condition for Eligibility

To obtain capital relief towards credit risk mitigation there are certain basic condition that needs to be fulfilled supervisions will monitor the extent to which banks satisfy these conditions, both at the outset of a collateralized transaction and on an on-going basis. Following conditions are prescribed by NRB in the context of Nepal.

1. Legal certainty: -

Collateral is effective only if the legal mechanism by which collateral is given is robust and ensures that the lender has clear rights over the collateral to liquidate or retain it in the event of default. Thus, banks must take all necessary steps to fulfill local contractual requirements in respect of the enforceability of security interest. The collateral arrangements must be properly documented, with a clear and robust procedure for the timely liquidation of collateral for declaring the default of the customer and liquidating the collateral are observed. Where the collateral is held by a custodian, the bank must seek to ensure that the custodian ensures adequate segregation of the collateral instruments and the custodian's own assets. Besides that, banks must obtain legal opinions confirming the enforceability of the collateral arrangements in all relevant jurisdictions.

2. Low correlation with exposure:-

In other for collateral to provide protection, the credit quality of the obligor and the value of the collateral must not have a material positive correlation. For example, securities issued by the collateral provider – or by any related group entity – would provide bills protection and so would be ineligible.

3. Maturity Mismatch: -

The maturity of the underlying exposure and the maturity of the hedge should both be defined conservatively. The effective maturity of the underlying should be gauged as the longest possible remaining time before the obligor is scheduled to fulfill its obligation. The collateral must be pledged for at least the life of the exposure. In case of mismatches in the maturity of the underlying exposure and the collateral, it shall not be eligible for CRM benefits.

4. Currency Mismatch:-

Ideally the currency of the underlying exposure and the collateral should be the same. Where the credit exposure is denominated in a currency that differs from that in which the underlying exposure is denominated, there is a currency mismatch. Where mismatches occur, it shall be subject to supervisory haircut of 10%.

5. Risk Management:-

While CRM reduces credit risk, it simultaneously may increase other risks to which a bank is exposed, such as legal, operational, liquidity and market risks. Therefore, it is imperative that banks employ robust procedures and processes to control these risks, including strategy, consideration of the underlying credit; valuation; policies and procedures; systems; control of roll-off risks, and management of concentration risk arising from the bank's use of CRM techniques and its effect with the bank's overall credit profile. In case where these requirements are not fulfilled, NRB may not recognize the benefit of CRM techniques.

6. Qualifying criteria for guarantee: -

A guarantee (counter guarantee) to be eligible must represent a direct claim on the protection provider and must be explicitly referenced to specific exposures or a pool of exposures, so that the extent of the cover is clearly defined and irrefutable. Other than non-payment by a protection purchaser of money due in respect of the credit protection contract it must be irrevocable in that there must be no clause in the contract that would increase the effective cost of cover as a result of deteriorating credit quality in the hedged exposure. It must also be unconditional in that there should be no clause in the protection contract outside the control of the bank that could prevent the protection provider from being obliged to pay out in a timely manner in the event that the original counter party fails to make the payments due.

On the qualifying default or non-payment of the counter party, the bank may in a timely manner pursue the guarantor for any monies outstanding under the documentation governing the transaction. The guarantee may make one lump sum payment of all monies under such documentation to the bank, or the guarantor may assume the future payment obligations of the counterparty covered by the guarantee. The bank must have the right to receive any such

payments from the guarantor without first having to take legal actions in order to pursue the counter party payment.

2.4.2.1 Eligible Collaterals

- a. Cash deposit (as well as certificates of deposit or fixed deposits or other deposits) with the bank. The banks may only claim these as CRM only if it has specific authority to recover the amount from this source in case of default.
- b. Fixed Deposit Receipts/Certificates of deposits/other deposits of other Banks and Financial Institutions, who fulfill the capital adequacy requirements, subject to a 20% supervisory haircut.
- c. Gold
- d. Securities issues by the Government of Nepal and Nepal Rastra Bank.
- e. Guarantee of the Government of Nepal.
- f. Financial guarantee/counter guarantee of domestic banks and FIs who meet the minimum capital adequacy requirements subject to a haircut of 20%.¹
- g. Securities/Financial guarantee/Counter guarantee issued by sovereigns.
- h. Securities/Financial guarantee/Counter guarantee issued by MDBs.
- i. Securities/Financial guarantee/Counter guarantee issued by banks with ECA rating 2 or better. The supervisory haircut shall be 20% and 50% for the banks with ECA rating of 0-1 and 2 respectively.

2.4.2.3 Methodology for Using CRM

Step 1: Identify the accounts eligible for capital relief under credit risk mitigation.

Step 2: Assets the value of the exposure and the eligible collateral. The value of the eligible collateral is the lower of the face value of the instrument of the outstanding amount of exposure.

Step 3: Adjust the value of the eligible collateral in respect of the supervisory haircut in terms of currency mismatch and other eligibility requirements.

Step 4: Corporate the adjusted value of the collateral with the outstanding exposure.

Step 5: The value of the eligible CRM is the lower of the adjusted value of the collateral and the outstanding exposure.

Step 6: Plot the eligible CRM in the appropriate category of credit risk.

2.5 Operational Risk

According to & 644 of International Convergence of Capital Measurement and Capital Standards, known as Basel II, operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events. Although the risks apply to any organization in business it is of particular relevance to the banking regime where regulators are responsible for establishing safeguards to protect against systematic failure of the banking system and the economy. The Basel II definition includes legal risk, but excludes strategic risk: i.e. the risk of a loss arising from a poor strategic business decision. This definition also excludes reputational risk (damage to an organization through loss of its reputation or standing) although it is understood that a significant but non-catastrophic operational loss could still affect its reputation possibly leading to a further collapse of its business and organizational failure.

Operational risk was initially defined in the negative as any form of risk that is not marked or credit risk. This negative definition is rather vague as it does not tell us much about the exact types of operational risks faced by banks today, nor does it provide banks with a proper basis for measuring risk and calculating capital requirements.

A better definition is provided by the Basel Committee, who defines operational risk as.

“The risk of loss resulting is from inadequate or failed internal processes, people and systems or from external events.”

This definition includes legal risk, but excludes strategic and reputational risk. However, the Basel Committee recognizes that operational risk is a term that has a variety of meanings and therefore, for internal purposes, banks are permitted to adopt their own definitions of operational risk, provided the minimum elements in the Committee's definition are included.

Although the definition has gained some acceptability in the banking industry, there are also some analysts who believe it to be flawed, describing it as opaque, open-ended and leaving many unanswered questions regarding the exact type of events that can be attributed to operational losses.

In particular, the somewhat abrupt manner in which legal risk is incorporated into the definition and then left undeveloped has been the subject of criticism, as has the decision to exclude certain risks (reputational and strategic).

Basel II and various Supervisory bodies of the countries have prescribed various soundness standards for Operational Risk Management for Banks and similar Financial Institutions. To complement these standards, Basel II has given guidance to 3 broad methods of Capital Calculation for Operational Risk.

-) Basic Indicator Approach – based on annual revenue of the Financial Institution
-) Standardized Approach – based on annual revenue of each of the broad business lines of the Financial Institution
-) Advanced Measurement Approaches – based on the internally developed risk measurement framework of the bank adhering to the standards prescribed (methods include IMA, LDA, Scenario-based, Scorecard etc.)

NRB accord implementation group defines Operational risk as the risk of loss resulting from inadequate internal processes, people, and systems, or from external events. Operational risk itself is not a new concept, and well run banks have been addressing it in their internal controls and corporate governance structures. However, applying an explicit regulatory capital charge against operational risk is a relatively new and evolving idea. Basel II requires banks to hold capital against the risk of unexpected loss that could arise from the failure of operational systems.

The most important types of operational risk involve breakdowns in internal controls and corporate governance. Such breakdowns can lead to financial losses through error, fraud, or failure to perform in a timely manner or cause the interests of the bank to be compromised in some other way, for example, by its dealers, lending officers or other staff exceeding their authority or conducting business in an unethical or risky manner. Out of various methods available for the computation of operational risk, NRB accord implementation group has suggested the Basic Indicator Approach (BIA) for the computation of operational risk exposure which is described as under.

2.5.1 Basic Indicator Approach

Under the basic indicator approach, banks must hold capital for operational risk equal to the average over the previous three years of a fixed percentage (deposited alpha) of positive annual gross income.

The capital charge for operational risk may be expressed as follows:

$$K_{BIA} = \frac{[\phi (GI_{1..n} \times a)]}{N}$$

Where:

K_{BIA} = Capital charged under the basic indicator approach

GI = Annual gross income, where positive, over the previous three years

N = Number of the previous three years for which gross income is positive

a = 15 percent

NRB shall review the capital requirement produced by this approach for general credibility, especially in relation to a bank's peers and in the event that credibility is lacking, appropriate supervisory action under Review Process shall be considered.

Figures for the year, in which annual gross income is negative or zero, should be excluded from both the numerator and denominator while calculating the average. In case where the gross income for all of the last three years is negative, 5% of total credit and investments net of specific provisions shall be considered as the capital charge for operational risk. For this purpose investments shall comprise of money at call, placements, investment in government securities and other investments irrespective of currency.

Similarly, in case of new banks who have not completed a year of operation and hence whose average gross income cannot be measured reliably, they shall also be required to compute their capital charge for operational risk vide the same approach as prescribed for banks with negative gross income. These banks may use the gross income approach from second year onwards. But based on the reasonableness of the so computed capital charge for Operation Risk, during the first three years of operation, review process may require additional proportion of capital charge if deemed necessary.

2.5.1 Components of Gross Income

Gross income is defined as “net interest income” plus “non interest income”. It is intended that this measure should (i) be gross of any provisions (e.g. for unpaid interest), (ii) be gross of operating expenses, including fees paid to outstanding service providers, (iii) exclude realized profits/losses from the sale of securities in the banking book; and (iv) exclude extraordinary or irregular items as well as income derived from insurance (Basel committee on banking supervision: 2004: page 138)

According to the NRB directory of Basel implementation group, Gross Income measure should:

-) be gross of any provisions (e.g. for unpaid interest) and write-offs made during the year;

-) be gross of operating expenses, exclude reversal during the year in respect of provisions and write-off made during the provisions year(s);
-) exclude income/gain recognized from the disposal of items of movable and immovable property;
-) exclude other extraordinary or irregular items income and expenditure.

Thus, Gross Income, for the purpose of calculation of Capital Requirement, is the summation of following items.

-) Net interest income
-) Commission and Discount Income
-) Other Operating Income
-) Exchange Fluctuation Income
-) Addition/Deduction in the Interest Suspense during the period.

Banks shall use the annual audited financials of the last three years for the computation of gross income under this approach. Hence, the capital requirement for operational risk for a whole financial year shall remain constant. Until the accounts are finalized for the financial year, banks shall use the provisional figures for the period, which should be validated by the internal auditor of the bank.

2.5.1.2. Computation of Operational Risk Weight

Operational risk-weighted assets are determined by multiplying the operational risk capital charge by 10(i.e., the reciprocal of the minimum capital ratio of 10%) and adding together with the risk weighted exposures for credit risk.

2.6 Market Risk

Market risk is defined as the risk of losses in on-balance sheet and off-balance sheet positions arising from adverse movements in market prices. The major constituents of market risks are:

-) The risk pertaining to interest rate related instruments;
-) Foreign exchange risk (including gold positions) throughout the bank; and
-) The risks pertaining to investment inequities and commodities.

Hirtle (2003) finds that reported market risk capital is useful for predicting changes in market risk exposure over time for individual banks. Basel – II reports that the capital charges for interest rate related instruments and equities and the capital charges for foreign risk and for commodities risk are the main components of the Market Risk exposure.

For the time being, the Committee does not believe that it is necessary to allow any exemptions from the capital requirements for market risk, except for those for foreign exchange risk because this Framework applies only to internationally active banks, and then essentially on a consolidated basis; all of these banks are likely to be involved in trading to some extent. (Basel Committee Report 2004 & 683)

In the same way as for credit risk, the capital equipments for market risk are to apply on a worldwide consolidated basis. Where appropriate, national authorities may permit banking and financial entities in a group which is running a global consolidated book and whose capital is being assessed on a global basis to report short and long positions in exactly the same instrument (e.g. currencies, commodities, equities of bonds), on a net basis, no matter where they are booked. Moreover, the offsetting rules as set out in this section may also be applied on a consolidated basis.

According to NRB directives, measurement of market risk should be done after segregating the market risk into three different headings which are described below.

2.6.1 Segregation of Market Portfolio

a) Held For Trading

An investment that is made for the purpose of generating a profit from short term fluctuations in price should be classified under this category. An asset should be classified as held for trading even if it is a part of a portfolio of similar assets for which there is a pattern of trading for the purpose of generating a profit from short term fluctuations in price. These investments should be marked to market on a daily basis and differences reflected in the profit and loss account.

b) Held to Maturity

The investments made with positive intent and ability of the bank to hold till maturity should be classified as held to maturity investments. The bank does not have the positive intent to hold an investment to maturity, if any of the following conditions are met:

-) Bank has intent and the ability to hold the asset for only an undefined period; or
-) Bank stands ready to sell the asset (other than if a situation arises that is non-recurring and could not have been reasonably anticipated) in response to changes in market interest rates or risks, liquidity needs, changes in the availability of and the yield on alternative investments, changes in financing sources and terms, or changes in foreign currency risk.

The held to maturity investments should be valued at amortized cost i.e. the cost price less any impairments (if applicable). The impairments should be included in the profit and loss accounts for the period.

c) Available for Sale

All other investments that are neither “held for trading” nor “held to maturity” should be classified under this category. These investments should be marked to market on a regular basis and the difference to be adjusted through reserves. Banks are required to maintain Investment Adjustment Reserve (eligible as Tier 2 capital) to the extent of 2% of available for sale portfolio.

2.6.2 Net Open Position Approach

Out of the various components of market risk, foreign exchange risk is the predominant risk in our country. The effects of other forms of market risk are minimal. Thus, a net open position approach has been devised to measure the capital requirement for market risk. As evidenced by its name, the approach only addresses the risk of loss arising out of adverse movements in exchange rates. This approach will be consolidated over time to incorporate other forms of market risks as they start to gain prominence.

The designated Net Open Position approach requires banks to allocate a fixed proportion of capital in terms of its net open position. The banks should allocate 5 percentages of their net open positions as capital charge for market risk.

This section sets out a minimum capital standard to cover the risk of holding or taking positions in foreign currencies, including gold (basel II report: 2007: page 179). Two processes are needed to calculate the capital requirement for foreign exchange risk. The first is to measure the exposure in a single currency position. The second is to measure the risks inherent in a bank's mix of long and short positions indifferent currencies.

Net open position is the differences between the assets and the liability in a currency. In other words, it is the uncovered volume of asset or liability which is exposed to the changes in the exchange rates of currencies. For capital adequacy requirements the net open position includes both net spot positions as well as net forward positions.

1) Measuring the exposure in single currency: In this step Net Open Position of all currencies are calculated individually denominated in the same currency. Banks net open position in each policy is first calculated by summing up the following items:

- Ñ The net spot position (i.e. all asset items less all liability items, including accrued interest, denominated in the currency in question)

- Ñ Guarantees (and similar instruments) that are certain to be called and are likely to be irrevocable;
- Ñ Net future income/expenses not yet accrued but already fully hedged (at the discretion of the reporting bank);
- Ñ Depending on particular accounting conventions in different countries, any other item representing a profit or loss in foreign currencies;

While calculating Net open position Interest accrued (i.e. earned but not yet received) should be included as a position. Accrued expenses should also be included. Unearned but expected future interest and anticipated expenses may be excluded unless the amounts are certain and banks have taken the opportunity to hedge them. Furthermore, Forward currency and gold positions will normally be valued at current spot market exchange rates.

- 2) Convert the net open position in each currency to NPR as per prevalent exchange rates. Here calculated net open position of all the market risk components are converted in to the national currency (i.e. Rs.) using prevailing currency exchange rates with all foreign investment.
- 3) Aggregate the converted net open positions of all currencies: after converting the net open position of all the foreign investment and other market risk exposure, these figures are added together without considering the life of instruments (i.e. long term or short term).
- 4) This aggregated amount is treated as the “Net Open Position” of the Bank.

2.6.3 Computation of Risk Weight

Risk-weighted assets in respect of market risk are determined by multiplying the capital charges by 10 (i.e., the reciprocal of the minimum capital ratio of 10%) and adding together with the risk weighted exposures for credit risk.

2.7 Review Process

This section discusses the key principles of supervisory review, risk management guidance and supervisory transparency and accountability produced by the Committee with respect to banking risks, including guidance relating to, among other things, the treatment of interest rate risk in the banking book, credit risk (stress testing, definition of default, residual risk, and credit concentration risk), operational risk, enhanced cross-border communication and cooperation, and securitization (Base – II committee report, pg. 204).

The supervisory review process of the Framework is intended not only to ensure that banks have adequate capital to support all the risks in their business, but also to encourage banks to develop and use better risk management techniques in monitoring and managing their risks. The supervisory review process recognizes the responsibility of bank management in developing an internal capital assessment process and setting capital targets that are commensurate with the bank's risk profile and control environment. In the Framework, bank management continues to bear responsibility for ensuring that the bank has adequate capital to support its risks beyond the core minimum requirements. Supervisors are expected to evaluate how well banks are assessing their capital needs relative to their risks and to intervene, where appropriate. This interaction is intended to foster an active dialogue between banks and supervisors such that when deficiencies are identified, prompt and decisive action can be taken to reduce risk or restore capital. Accordingly, supervisions may wish to adopt an approach to focus more intensely on those banks with risk profiles or operational experience that warrants such attention.

Nepal Rastra Bank recognizes the significance of the relationship between the amount of capital held by the bank against its risks and the strength and effectiveness of the bank's risk management and internal control processes. However, increased capital should not be viewed as the only option for addressing increased risks confronting the bank. Other means for addressing risk, such as strengthening risk management, applying internal limits, strengthening the level of provisions and reserves, and improving internal controls, must also be considered. Furthermore, capital should not be regarded as a substitute for addressing fundamentally inadequate control or risk management processes.

There are three main areas that are particularly suited to treatment under this process: risks considered under minimum capital requirement which are not fully captured it (e.g. credit concentration risk); those factors not taken into account by the minimum capital requirements (e.g. business and strategic risk); and factors external to the bank (e.g. business cycle effects).

In order to achieve the objectives of the supervisory review process, this process has been broadly divided into three parts:

- a. Internal Capital Adequacy Assessment Process (ICAAP)
- b. Supervisory Review
- c. Supervisory Response

2.7.1 Internal Capital Adequacy Assessment Process

The internal capital adequacy assessment process (ICAAP) is a comprehensive process which requires board and senior management oversight, monitoring, reporting and internal requirement reviews at regular intervals to ensure the alignment of regulatory capital requirement with the true risk profile of the bank and thus ensure long-term safety and soundness of the bank. The key components of an effective ICAAP are discussed below:

a) Board and senior management oversight

Bank management is responsible for understanding the nature and level of risk being taken by the bank and how risk relates to adequate capital levels. It is also responsible for ensuring that the formality and sophistication of the risk management processes is commensurate with the complexity of its operations. A sound risk management process, thus, is the foundation for an effective assessment of the adequacy of a bank's capital position. The board of directors of the bank is responsible for setting the bank's tolerance for risks. The board should also ensure that management establishes a mechanism for assessing various risks; develops a system to relate

these risks to the bank's capital level and sets up a method for monitoring compliance with internal policies. It is equally important that the board instills strong internal controls and thereby an effective control environment through adoption of written policies and procedures and throughout the bank.

The analysis of a bank's current and future capital requirements in relation to its strategic objectives is a vital element of the strategic planning process. The strategic plan should clearly outline the bank's capital needs, anticipated capital expenditures, desirable capital level, and external capital sources. Senior management and the board should view capital planning as a crucial element in being able to achieve its desired strategic objectives.

b) Sound capital assessment

Another crucial component of an effective ICAAP is the assessment of capital. In order to be able to make a sound capital assessment the bank should, at minimum, have the following:

-) Policies and procedures designed to ensure that the bank identifies, measures, and reports all material risks;
-) A process that relates capital to the level of risk;
-) A process that states capital adequacy goals with respect to risk, taking account of the bank's strategic focus and business plan; and
-) A process of internal control, review and audit to ensure the integrity of the overall management process.

c) Comprehensive assessment of risks

All material risks faced by the bank should be addressed in the capital assessment process. Nepal Rastra Bank recognizes that not all risks can be measured precisely. However, bank should develop a process to estimate risks with reasonable certainties. In order to make a comprehensive assessment of risks, the process should, at minimum, address the following forms of risk.

-) **Credit risk:** Banks should have methodologies that enable them to assess the credit risk involved in exposures to individual borrowers or counterparties as well as at the portfolio

level. The credit review assessment of capital adequacy, at a minimum, should cover risk rating systems, portfolio analysis/aggregation, large exposures and risk concentrations.

-) **Credit concentration:** Risk concentrations are arguably the single most important cause of major problems in banks. A risk concentration is any single exposure or group of exposures with the potential to produce losses large enough (relative to a bank's capital, total assets, or overall risk level) to threaten a bank's health or ability to maintain its core operations.
-) **Operational risk:** The failure to properly manage operational risk can result in a misstatement of an institution's risk/return profile and expose the institution to significant losses. Gross income, used in the Basic Indicator Approach is only a proxy for the scale of operational risk exposure of a bank should develop a framework for managing operational risk and evaluate the adequacy of capital as prescribed by this framework. The framework should cover the bank's appetite and tolerance for operational risk, as specified through the policies for managing this risk, including the extent and manner in which operational risk is transferred outside the bank. It should also include policies outlining the bank's approach to identifying, assessing, monitoring and controlling/mitigating the risk.
-) **Market risk:** The prescribed approach for the computation of capital charge for market risk is very simple and thus may not be directly aligned with the magnitude of risk. Likewise, the approach only incorporates risks arising out of adverse movements in exchange rates while ignoring other forms of risks like interest rate risk and equity risks. Thus, banks should develop a framework that addresses these various forms of risk and at the same time perform stress tests to evaluate the adequacy of capital.
-) **Liquidity risk:** Liquidity is crucial to the ongoing viability of any financial institution. The capital positions can have a telling effect on institution's ability to obtain liquidity, especially in a crisis. Each bank must have adequate systems for measuring, monitoring and controlling liquidity risk. Banks should evaluate the adequacy of capital given their own liquidity profile and the liquidity of the markets in which they operate. Banks are also encouraged to make use of stress testing to determine their liquidity needs and the adequacy of capital.

-)] **Other risks:** Although the ‘other’ risks, such as reputational and strategic risk, are not easily measurable, banks are expected to take these into consideration as well while deciding on the level of capital.

d) Monitoring and reporting

The bank should establish an adequate system for monitoring and reporting risk exposures and assessing how the bank’s changing risk profile affects the need for capital. The bank’s senior management or board of directors should, on a regular basis, receive reports on the bank’s risk profile and capital needs. These reports should allow senior management to:

-)] Evaluate the level and trend of material risks and their effect on capital levels;
-)] Evaluate the sensitivity and reasonableness of key assumptions used in the capital assessment measurement system;
-)] Determine that the bank holds sufficient capital against the various risks and is in compliance with established capital adequacy goals; and
-)] Assess its future capital requirements based on the bank’s reported risk profile and make necessary adjustments to the bank’s strategic plan accordingly.

e) Internal control review

The bank’s internal control structure is essential to a sound capital assessment process. Effective control of the capital assessment process includes an independent review and, where appropriate, the involvement of internal or external audits. The bank’s board of directors has a responsibility to ensure that management establishes a system for assessing the various risks, develops a system to relate risk to the bank’s capital level, and establishes a method for monitoring compliance with internal policies. The board should regularly verify whether its system of internal control is adequate to ensure well-ordered and prudent conduct of business. The bank should conduct periodic reviews of its risk management process to ensure its integrity, accuracy, and reasonableness. Key areas that should be reviewed include:

-)] Appropriateness of the bank’s capital assessment process given the nature, scope and complexity of its activities;

-) Accuracy and completeness of data inputs into the bank’s assessment process;
-) Reasonableness and validity of scenarios used in the assessment process; and
-) Stress testing and analysis of assumptions and inputs

2.7.2 Supervisory Review

Nepal Rastra Bank shall regularly review the process by which a bank assesses its capital adequacy, risk positions, resulting capital levels, and quality of capital held by a bank. Supervisors shall also evaluate the degree to which a bank has in place a sound internal process to assess capital adequacy. The emphasis of the review should be on the quality of the bank’s management and controls and should not result in supervisors functioning as bank management. The periodic review can involve any or a combination of.

-) On-site examinations or inspections;
-) Off-site review;
-) Review of work done by external auditors (provided it is adequately focused on the necessary capital issues); and
-) Periodic reporting.

Some of the key areas which will be reviewed during the supervisory review process are discussed hereunder:

Review of adequacy of risk assessment

NRB shall assess the degree to which internal targets and processes incorporate the full range of material risks faced by the bank. Supervisors shall also review the adequacy of risk measures used in assessing internal capital adequacy and the extent to which these risk measures are also used operationally in setting limits, evaluating business line performance, and evaluating and controlling risks more generally. Supervisors shall consider the results of sensitivity analyses and stress tests conducted by the institution and how these results relate to capital plans.

a) Assessment of capital adequacy

NRB shall review the bank's processes to determine that:

-) Target levels of capital chosen are comprehensive and relevant to the current operating environment;
-) These levels are properly monitored and reviewed by senior management; and
-) The composition of capital is appropriate for the nature and scale of the bank's business.

NRB shall also consider the extent to which the bank has provided for unexpected events in setting its capital levels. These analyses should cover a wide range of external conditions and scenarios, and the sophistication of techniques and stress tests used should be commensurate with the bank's activities.

b) Assessment of the control environment

NRB shall consider the quality of the bank's management information reporting and systems, the manner in which business risks and activities are aggregated, and management's record in responding to emerging or changing risks. In all instances, the capital level at an individual bank should be determined according to the bank's risk profile and adequacy of its risk management process and internal controls. External factors such as business cycle effects and the macroeconomic environment should also be considered.

c) Supervisory review of compliance with minimum standards

In order to obtain relief as per this framework banks are required to observe number of requirement, including risk management standards and disclosures. In particular, banks will be required to disclose features of their internal methodologies used in calculating minimum capital requirements. As part of the supervisory review process, supervisors must ensure that these conditions are being met on an ongoing basis. Likewise, the supervisors must ensure that qualifying criteria as specified in the framework are continuously being met as these criteria are developed as benchmarks that are aligned with bank management expectations for effective risk management and capital allocation.

d) Significances of risk transfer

Securitization or credit sale agreements with recourse may be carried out for purposes other than credit risk transfer (e.g. funding). Where this is the case, there might still be a limited transfer of credit risk. However, for an originating bank to achieve reductions in capital requirement, the risk transfer arising from a securitization or credit sale has to be deemed significant by the NRB. The NRB can require the application of a higher capital requirement or, alternatively, may deny a bank from obtaining any capital relief from the securitization or transfer agreements. Therefore, the capital relief that can be achieved will correspond to the amount of credit risk that is effectively transferred.

Credit Risk Mitigates

In case when the eligibility requirements are not fulfilled, NRB will not consider Credit Risk Mitigates in allocating capital. Similarly, CRM may give rise to residual risks, which may render the overall risk reduction less effective. Where, these risks are not adequately controlled by the bank, NRB may impose additional capital charges or take other appropriate supervisory actions.

e) Operational Risk and Market Risk

The framework prescribes simple approaches for allocating capital for operational and market risk which may not be directly aligned with the volume and complexity of risk. Thus, the supervisor shall consider whether the capital requirements generated by the prescribed approaches give a consistent picture of the individual bank's risk exposure in comparison with the peer group and the banking industry at large. Where NRB is convinced such is not the case, appropriate supervisory response is warranted.

f) Market Discipline

The framework requires banks to disclose various key information of their business on a periodic basis. It is imperative that the banks discharge their obligations under the disclosure requirements in order to be eligible to claim benefits of CRM. In line with the utmost significance of this requirement, the supervisor shall review the adequacy of the disclosures. As a part of this process itself, the supervisor shall regularly review the website of the banks and

review the contents of the site. Wherever the review process identifies any shortcomings or non-compliances, appropriate supervisory response shall be initiated.

2.7.3 Supervisory Response

According to the directives of Nepal Rastra Bank for Basel implementation in Nepal, banks should operate above the minimum regulatory capital ratios. Wherever, NRB is not convinced about the risk management practices and the control environment, it has the authority to require banks to hold capital in excess of the minimum.

a) Supervisory adjustments in risk weighted assets and capital:

Having carried out the review process as described above, supervisors should take appropriate action if they are not satisfied with the results of the bank's own risk assessment and capital allocation. In such a scenario, NRB shall be empowered to undertake any or combination of the following adjustments in the bank's risk weighted assets and regulatory capital computations.

1. Shortfall in provisions made by the bank against adversely classified assets shall be deducted from the Tier 1 capital.
2. The loans and facilities extended to Directors, Employees (other than loans given under Employee rules), Shareholders holding more than 1% shares and related parties as well as loans, advances and facilities restricted by the prevailing rules and regulations shall be deducted from Tier 1 capital.
3. In case the bank has provided loans and facilities in excess of its Single Obligor Limits, 10% of all such excess exposures shall be added to the risk weighted exposure for credit risk.
4. Where the bank has been involved in the sale of credit with recourse facility, 1% of the contract (sale) value shall be added to the risk weight for credit risk.
5. Where the banks do not have satisfactory Assets Liability Management policies and practices to effectively manage the market risks, an additional risk weight of 1% of Net Interest Income shall be added to the risk weight for market risk.

6. Where the bank's liquid asset (inclusive of investment in government securities) to total deposit ratio is less than 20%, a risk weight of 0.5% of total deposit is added.

b) Corrective Actions for Non-Compliances:

The failure on part of the banks to meet the provisions of this framework shall be considered as a violation of the NRB directives and shall attract stipulated actions. The nature of the enforcement action largely depends on degree of the capital adequacy of the bank. The trigger points and the prescribed action in case of non-compliances shall be as per the provisions of Prompt Corrective Action Byelaw 2064 propounded by Nepal Rastra Bank.

2.8 Review of Related Articles and Journals

NRB has taken action against some commercial banks under its supervisory function as per the provision of NRB act 2058 on the basis of their financial statement and reports for fiscal year 2006/07. As some bank couldn't maintain required minimum level of capital, distribution of any kind of dividend or bonus share restricted for those banks which couldn't fulfill their minimum capital requirements. (NRB Annual Report, 2006.07.7)

Under the new directives of NRB, Commercial banks must maintain paid up capital equivalent to Rs. 2 billion and Rs.25 million at the national and regional levels respectively. This provision stipulates on compulsory requirement of joint investment on foreign commercial bank or financial institutions and Nepali company etc. for the operation of such commercial bank.

2.9 Review of Previous Studies

Regarding the subject matter, only few previous studies have been found in the area of Capital Adequacy framework. Moreover the studies done are linked with various other aspects like Loan loss provision, NRB regulations, investment policies etc. However some of the related studies and their findings are shortly explained below.

One of the relevant studies, done by **Mr. Dhruva Prasad Acharya** on 2006 entitled "A study of NRB Directives with Special Reference to Capital Adequacy and loan Loss Provision" has revealed the following findings and conclusions.

NRB directives related to capital adequacy are implemented by the selected commercial banks. Capital adequacy ratios of the all selected banks are above the requirements of the NRB in all year of the study period 2059/060 to 2063/064 except NIBL in 2059/060 B.S. All the sampled banks have paid more attention to core capital rather than supplementary capital although 50% of the total capital fund requirement can be fulfilled by the supplementary capital. All the banks have issued right share, bonus shares to increase capital funds.

Capital adequacy norms are set by the NRB in order to protect the depositors. Depositors are the prime beneficiary of the capital adequacy norm. Little bit liberal capital adequacy norms should be set where bank may feel free to exercise. Only increment in paid up capital does not works as barrier for new entry of commercial banks.

This proposal has recommended about the attention in supplementary capital as well. Commercial banks are only focusing on core capital although they can fulfill the capital adequacy requirements by using supplementary capital up to the 50% of total capital fund. Commercial banks should also pay the attention toward raising the supplementary capital so that the excess of core capital can be cushioned for the hard period.

Capital Adequacy of EBL was in decreasing trend and paid up capital is also low. So, EBLO should take initiatives to increase its capital base to meet the requirements in coming future. Risk of shortfall of capital could be seen for EBL.

A study had done by **Mr. Manoj Dumar Shrestha** (2006) entitled “NRB capital Adequacy Norms for the Commercial Banks and its Impacts-Case study of Bank of Kathmandu and Himalayan Bank Ltd.” concluded the following findings and recommendations. This thesis found out that raising and utilization of funds are the primary functions of commercial banks. Commercial banks collected a large amount of deposits from general public and invest it to needy people and organizations. In order to protect the deposit of general people, capital must be sufficient. Otherwise, the banks will use all the deposits in their own interest and general people’s deposit will be in danger. Due to this general depositors may need to suffer financial loss. NRB, being the central bank has to be responsible to give special attention of the interest of depositors. Capital adequacy norms are required to safeguard the money of the depositors as the banks are playing with the money they collected from the depositors.

He also added that depositors are not aware of the fact of the necessity of adequate capital fund to safeguard their deposits. They deposit their money to any banks regardless of adequate capital fund, which may endanger to their money. Therefore, NRB should initiate awareness programs to make the depositors aware of such fact and think before depositing money in any commercial banks.

He further stated that NRB should consult to the various bank officials before setting or resetting standards on capital adequacy norms. The complaints and criticism of bank officials should be considered accordingly; consequently an optional standard will ensure which will satisfy almost everyone.

According to the study made by Mr. Mahesh Bhattarai (2004), there was a significant impact of the directives on the various aspects of the commercial banks. Also, it was found that banks would fall short I supplementary capital but can maintain its total capital according to the new directives relating to capital adequacy norms. All the changes in NRB directives made impact on the bank and results were the increase in the operational procedures of the bank increased the operational cost of the bank. Short term decreases in profitability, which results to lesser dividends to shareholders and lesser bonus to the employees. Reduction in loan exposure of the bank decrease in interest income but increase the protection to the depositors' money. Increased protection to the money of the depositors through increased capital adequacy ratios adds more stringent loan related directives and increase in demand for shareholder's contribution in the banks by foregoing dividends for loan loss provision and various other reserves to increase the core capital.

Chapter 3

RESEARCH METHODOLOGY

Research methodology refers to the various sequential steps to be adopted by the researcher in studying a problem with certain objectives in view. This chapter deals with the following aspects of methodology.

3.1 Research Design

Design is the overall plan of any proposed activity. The design of the research projects guides how to conduct the study. The research design implies procedures, techniques and tasks which guide to evaluate the objective of the study and propounds ways for research viability. It is the overall plan of a proposed study to specify the appropriate research methods and procedures for obtaining specific findings validity, objectivity, and accuracy and economically as possible. The research design followed in this study is exploratory and analytical research design which intends to explore the present condition of capital adequacy of selected commercial banks of Nepal in terms of directives and prescription lay down by Nepal Rastra Bank. It is based on analytical case study of commercial banks of Nepal.

3.2 Population and Sample

Among the existing and operating financial institutions of Nepal, commercial bank industry is taken as the population of the study. Out of total 32 commercial banks in the economy, on the basis of stratified random sampling method, only six commercial banks are taken as sample which represents more than 19% of the commercial bank. This study is focused on the capital adequacy framework prescribed by Basel-II and amendments made by NRB. However commercial banking industry is scattered throughout the nation, they all are imposed with equal capital regulations so, sample banks has been chosen using stratified random sampling method irrespective of sampling error.

3.3 Nature and Sources of Data

To fulfill the objectives of the study, primary as well as secondary data are used. The data used in this study is basically secondary in nature because data required by the study are only the financial statements of the banks so, statements published by authorized publisher and statements and reports published by Nepal Rastra Bank are the main sources of data. Main source of literature review are the Basel Committee Report on Banking Supervision and Directives issued by Nepal Rastra Bank to regulate the capital adequacy framework of Nepalese financial institutions. Secondary data are taken mainly from NRB's publication, annual reports, economic survey etc. Beside this, the required data are collected from internet websites, relevant books and publication of World Banks publications and Central Bureau of Statistics as well.

3.4 Means of Presentation and Demonstration of the Data

Collected data are presented in the tabular form prescribed by Nepal Rastra Bank, Accord-Implementation group. Outcomes of the research are also prescribed in the diagrammatical way as well as comparative bar diagrams. Various formats of diagrams and lines are drawn as per the requirements of the study so that outcome could be easily understood by all.

3.5 Tools for Analysis

To analyze the collected data, various statistical tools are used as per requirements. Normally tools required by the study to calculate various risk weights are prescribed by Basel-II which is used in this study too. Average, percentage, trend analysis, time series etc. statistical tools are also used according to the need of the presentation of data.

Chapter 4

Presentation and Analysis of Data

In this chapter, an attempt has been made to show the various dimension of capital adequacy framework of selected commercial banks individually. The chapter devotes to show the various risks associated with assets of commercial banks, their composition, required capital for each types of risks, and comparison of capital adequacy with one other. An attempt also has been made to outline the basic problems of maintaining capital adequacy as prescribed by NRB directives. In order to highlight the formulated objectives, related data have been collected from different sources and demonstrated by the use of different tools and techniques.

Table 1: Standard Capital Ratios to be maintained

Capital	Ratio with total risk weighted exposure
Tier - 1 (Core capital)	Net less than 6 %
Tier - 1 & Tier – 2 Capital (Total eligible capital funds)	Net less than 10 %

4.1 Capital Standard of Nabil Bank Limited

Nabil Bank Limited (NABIL) regards Basel II as an instrument that helps banks constantly improve its risk management system. Accordingly, it has revised its structure with the provision of Chief Risk Officer looking after all risks that a bank run in an integrated manner. Head of Credit Risk, Operational Risk, Market Risk, Corporate Governance and Compliance report to Chief Risk Officer. Risk measurement units are manned as per requirement. These units review policies, product papers, systems, procedures, limits etc. on a regular basis to ensure the risks are effectively managed. They work in close coordination with Bank's audit department which report directly to Board's Audit Committee.

4.1.1 On Balance Sheet and Off Balance Sheet Exposure of NABIL

Nabil Bank Limited has significantly increased its risk weighted exposures on both on balance sheet and off balance sheet exposures. Its condition of balance sheet risk weighted exposure and off balance sheet risk weighted exposures are presented as under.

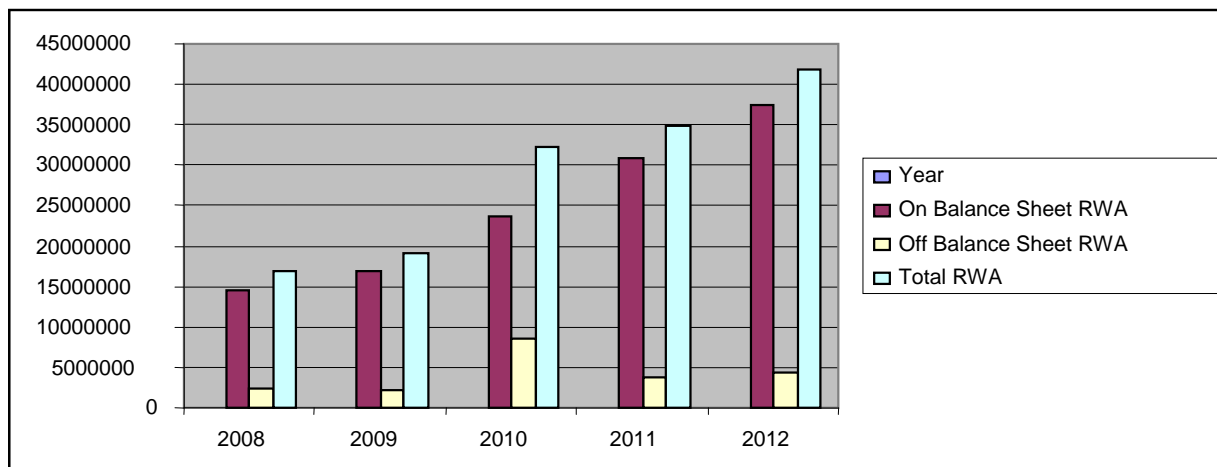
Table 2: On Balance Sheet and Off Balance Sheet Exposure of NABIL*in Rs. '000'*

Year	2008	2009	2010	2011	2012
On Balance Sheet RWA	14,532,045	16,946,257	23,724,198	30,956,718	37,456,149
Off Balance Sheet RWA	2,444,322	2,220,508	8,605,745	3,859,782	4,366,511
Total RWA	16,976,367	19,166,765	32,329,943	34,816,500	41,822,660

Source: Annual Reports of NABIL from 2007 to 2012

Total amount of on balance sheet and off balance sheet exposure of Nabil Bank Limited has been presented in above table. In on balance sheet components, high risk assets held by the bank in significant amount comes from the investment in equities of corporations, claims on corporations, regulatory retail portfolios, claims not fully secured by residential properties and past due claims. In the other hand, off balance sheet exposure of the bank is composed of about fifteen components among which large portion comes from the items like, bills collection, forward foreign exchange contract, commitments with original maturities above six months, preference bond. In recent five years on balance sheet exposures has significantly increased. However, off balance sheet RWA has been decreased in the year 2011 with comparison to year 2010. Above explanation of on balance sheet exposure and off balance sheet exposures can also be clarified from the following diagrammatical presentation.

Figure 1: Risk Weighted Exposure of Nabil Bank Ltd



4.1.2 Risk Weighted Exposure for Credit Risk, Operational Risk and Market Risk

As to Credit Risk management, the Bank has drawn a clear demarcation between business generation and risk management unit. Without approval of risk management unit, no loan is sanctioned. Credit Policy of the Bank guides all the lending officials from credit screening to settlement. In order to lessen concentration risk, the bank monitors lending portfolio periodically and takes appropriate decision with regard to the exposure in a borrower and in a sector. Similarly, Investment Policy of the Bank guides the concerned officials for management of credit risks in investment portfolio. The Bank takes deposits, government securities, and guarantee etc. as measure to mitigate credit risk.

With regard to market risk and liquidity risk management, the Bank has a very active ALCO which needs periodically to discuss and manage these risks as per the AML Policy/Investment Policy/Forex Policy approved by the board. Similarly, there is a front office and back office concept to ensure compliance of policies/limits on a transaction level. As the credit risk is the main component of risk composition of every bank affecting its overall operation, following table represents the existing condition of credit risk exposure of NABIL.

Table 3: Credit Risk Weighted Exposure of NABIL in 2012

S.N.	Categories	Risk Weighted Exposure
1	Claims on Government and Central Bank	-
2	Claims on Other Financial Entities	-

3	Claims on Banks	3,840,742,104
4	Claims on Domestic, Corporate and Securities Firms	18,256,351,185
5	Claims on Regulatory Retail Portfolio	2,663,884,069
6	Claims secured by Residential Properties	1,798,791,340
7	Claims secured by Commercial Real Estate	6,188,425,716
8	Past Due claims	86,432,912
9	High Risk claims	249,296,525
10	Other Assets	1,565,770,426
11	Off Balance Sheet	4,366,511,745
TOTAL		39,016,206,023

Source: Annual Reports of NABIL

For effective management of operational risk, the Bank has Standard Instruction Manual for all areas of work which incorporate international practices and Bank's own experience. According to the table no. 3, NABIL holds large amount of claims against the domestic corporations and securities firms in the form of loan and advances including investment on them. Claims on government and central bank as well with other financial entities are subject of no risk categories, so their risk weighted exposure is equal to nil.

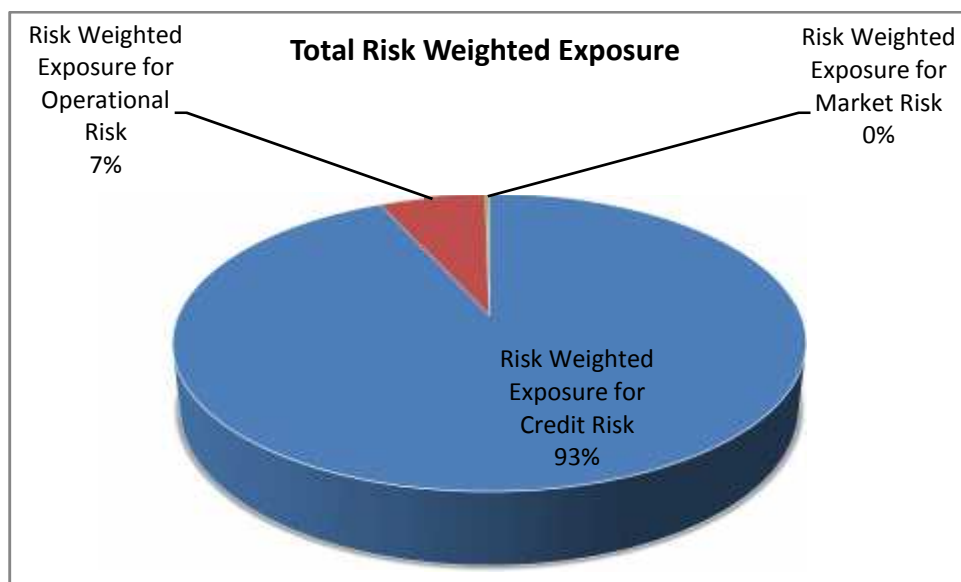
Risk weighted exposure of other two risks and total risk weighted exposure is presented below:

Table 4: Total Risk Weighted Exposure of NABIL in 2012

Particulars	Amount
Risk Weighted Exposure for Credit Risk	39,016,206,023
Risk Weighted Exposure for Operational Risk	2,706,731,407
Risk Weighted Exposure for Market Risk	99,722,645
Total Risk Weighted Exposure	41,822,660,075

NABIL's total risk weighted assets composed all three categories of risk. Credit risk exposure constitute large portion in total RWA which equal to 93.28% of total risk exposure. Other two risks, operational and market risk constitute 6.47% and 0.25% of total RWA respectively. A pie chart of the total RWA of NABIL has been shown in following figure.

Figure 2: Total RWA of NABIL in 2012



4.1.3 Core Capital of Nabil Bank Ltd

Nabil Bank Limited has maintained following balance on core capital of its capital fund at the end of 2012.

Table 5: Core Capital of NABIL from 2008 to 2012

Core Capital		2012	2011	2010	2009	2008
1	Paid up Capital	1,449,124,000	689,216,000	491,654,400	491,654,400	491,654,400
2	Irredeemable Preference Share	-	-	-	-	-
3	Share Premium	74,000.00	74,000	74,000	74,000	74,000
4	Proposed Bonus Equity Share	579,649,600	275,686,400	196,661,760	-	-
5	Statutory General Reserve	1,568,500,000	1,133,500,000	983,500,000	975,000,000	847,000,000
6	Retained Earnings	2,534,825	162,544,589	113,321,555	33,438,017	29,981,908
7	Capital Redemption Reserve	-	-	-	-	-
8	Capital Adjustment Reserve	-	-	105,000,000	300,300,000	228,300,000
9	Dividend Equalization Reserve	100,000,000	100,000,000	100,000,000	20,000,000	13,500,000
10	Deferred Tax Reserve	35,394,100				
11	Debenture Redemption Reserve	-	-	-	-	-

12	Other Free Reserves	2,578,000	2,578,000	2,578,000	2,578,000	-
Eligible Deductions:						
1	Goodwill	-	-	-	-	-
2	Investment more than limit	-	-	-	-	-
3	Fictitious Assets	-	-	-	-	-
4	Investment in equity of institutions having financial interests	(70,000,000)	-	-	-	-
Total of Core Capital		3,667,854,525	3,044,340,637	2,363,598,989	1,992,789,715	1,823,044,417

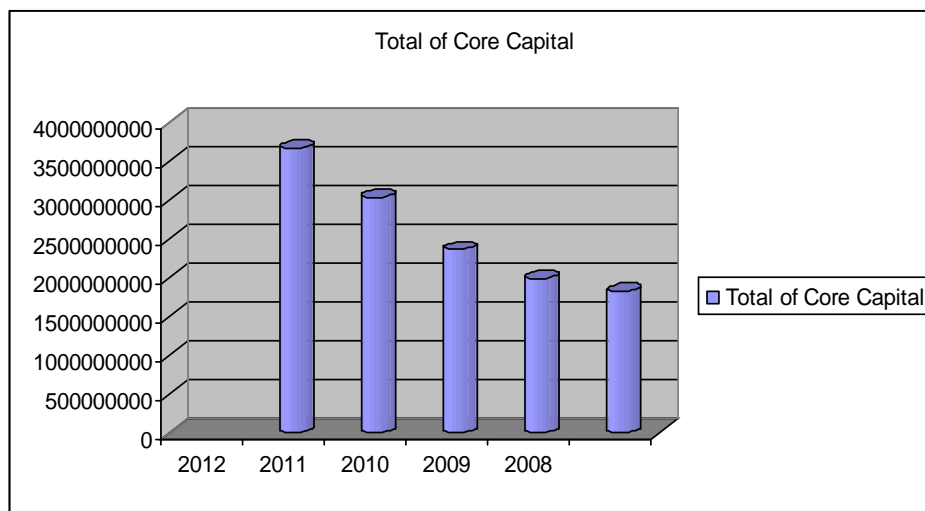
Source: Annual Reports of NABIL

In regards to the core capital of the NABIL it can be seen that it has provided no value for the Goodwill as well as other fictitious assets. The bank has invested in equity of institutions having financial interest in the year 2012 which is deducted from the core capital. It has not invested the fund over the prescribed limit in share and debentures of the other companies which are also the subjects to be deducted from the core capital.

Nabil Bank had added proposed bonus equity share as core capital components from 2009. Statutory general reserve and equity capital are the main components increasing the size of core capital. It core capital has significantly increased in recent five years. Total core capital fund has been increasing with the annual compound growth rate of approximately 10.47%. In the year 2010, however it has totally reduced capital adjustment reserves. Instead, it has issued additional equity capital during 2010 which increased its core capital fund for the year. As compare to the previous year NABIL has become able to increase its core capital in amounts significantly. It has increased its core capital by Rs. 623,513,888 in 2012 which is 20.48% higher than its value on 2010. It has increased paid up equity share significantly in the year 2012 in comparison to year 2011, which constitute a large portion of increased core capital to maintain standards maintained by NRB in accordance with the BASEL-II accord. However retained earning has been decreased by Rs. 160,009,764 in the year 2012, which is 98.44% less than its value on 2011. The value of core capital has been increased every year. Along with such increments in core capital it has also reduced its capital adjustment reserve entirely.

Composition of Core Capital fund of Nabil Bank for the last five years has been illustrated in the following figure.

Figure 3: Core Capital of NABIL from 2008 to 2012



Source: Annual Reports of NABIL

Referring to above figure, it can be disclosed that the core capital fund of NABIL has a trend of increment which is reasonable. On an average, the growth in core capital fund is 19.30% annually.

4.1.4 Supplementary Capital of Nabil Bank Ltd

After the evaluation of core capital an attempt has been made here to disclose about the condition of supplementary capital of NABIL in past five years. Supplementary capital of Nabil bank is composed of only five components in 2010. It has no balance of assets revaluation reserve, hybrid capital instrument like preferred stock and investment reserve. Further the supplementary capital of NABIL has been presented below.

Table 6: Supplementary Capital of NABIL from 2008 to 2012

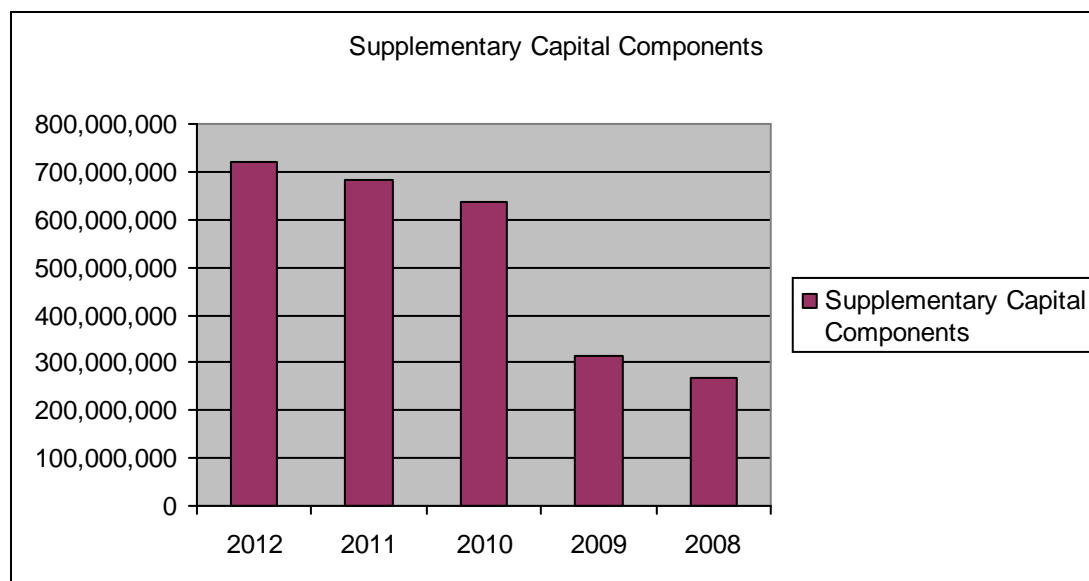
S.N	Supplementary Capital Components	2012	2011	2010	2009	2008
1	Cumulative and or Redeemable Preference Share	-	-	-	-	-
2	Subordinated term Debt	300,000,000	300,000,000	240,000,000	-	-
3	Hybrid Capital Instruments	-	-	-	-	-
4	General Loan Loss	325,474,082	296,842,150	291,714,142	175,502,575	130,343,145

	provision					
5	Exchange Equalization Reserve	81,400,000	75,400,000	64,100,000	55,700,000	44,200,000
6	Investment Adjustment Reserve	4,000,000	-	-	-	-
7	Assets Revaluation Reserve	-	-	-	-	-
8	Additional Loan Loss Provision	-	-	3,026,253	64,082,000	81,861,460
9	Interest Spread Reserves	-	-	-	-	-
10	Provision For Loss on Investment	-	-	26,790,780	10,998,105	2,125,000
11	Contingent/Other Reserve	11,500,000	10,500,000	9,500,000	8,500,000	7,750,000
	TOTAL	722,374,082	682,742,150	635,131,176	314,782,680	266,279,605

Above table explains the composition of tier two capital of Nabil Bank Limited over last five years, it has started introducing additional loan loss provision as tier-II capital since 2010 which constitute significant level of supplementary capital. On the other hand, reserve for interest spread has been stopped since 2008. In total average compounding growth rate for the tier II capital is approximately 33.32% annually ignoring seasonal variations in particular years, as we can see in above table, NABIL has improved the amount in the year 2010 to follow the NRB directions to meet minimum capital requirement. As compare to Tier-1 capital Supplementary Capital was only 15.80% of core capital in 2009 which is significantly increased in 2010 to 26.87% and decreased to 22.43% in the year 2011. And as compare to previous year supplementary capital is increased by Rs. 39,631,932 which is about 5.80% more than last year. The major components increased in supplementary capital are unsecured term debt which was entirely increased in 2010 and Investment adjustment reserve in 2012; general loan loss provision has also been increased significantly despite of reduction in additional loan loss provision and investment loss provision is also increased.

The condition of tier-II capital of Nabil Bank Ltd. can be further explained through the following chart.

Figure 4: Supplementary Capital of Nabil Bank Ltd from 2008 to 2012



Looking after the trend increment in the supplementary capital of NABIL it can be disclosed that in recent year Nabil has increased its leverage ratios significantly to meet the required capital adequacy framework. Rate of increase in supplementary capital fund in 2011 is cent percent which was only about annual 17 percent in previous years.

As the summary of the above analysis, its position of core capital and supplementary capital on over the last five years along with capital adequacy ratio has been presented under following table as follows:

4.1.5 Capital Adequacy of NABIL

Upon analysis it has been disclosed that Nabil Bank Limited has maintained the required capital fund prescribed by the NRB Capital Adequacy Regulation as per July-2008. It also has become able to meet the international standard of capital regulation. Its overall condition of capital fund in terms of risk weighted exposure for past five years has been highlighted in table no. 7.

Table 7: Capital Adequacy of NABIL during the study period

Year	Tier-1 Capital	Tier-II Capital	Total Capital	Tier-I Ratio	Capital Ratio
2008	1,823,044,417	266,279,605	2,089,324,022	10.74%	12.31%
2009	1,992,849,715	314,782,680	2,307,632,395	10.40%	12.04%
2010	2,363,598,989	635,131,175	2,998,730,164	7.31%	9.28%

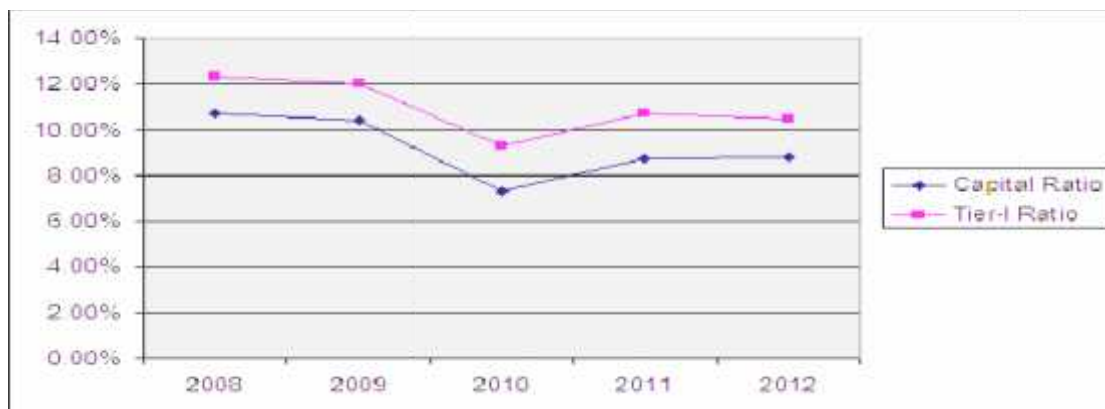
2011	3,044,340,637	682,742,150	3,727,082,787	8.74%	10.70%
2012	3,667,854,525	722,374,082	4,390,228,607	8.77%	10.50%

Source: Annual Reports of NABIL from 2008 to 2012

Table no. 7 explains the capital position of Nabil Bank Ltd. for last five years, through the analysis of table, it seems clear that capital ratio was highest of 12.31 percent and Tier-I ratio 10.74 % in the year 2008. It has increased its core capital fund by about 9.31% in 2008, and supplementary capital was increased by 18.22% in the year 2008. Up to 2008 capital adequacy ratio of the bank was above 12% which is enough to meet the requirement of Basel as well as NRB. Beside the standard maintained by bank it is clear that it has not gave significant importance on supplementary capital. More the bank reduces the risk; more will be the capital adequacy ratio. In the sense, it can be concluded that, bank has become successful to minimize its risks to maintain capital as adequate as required by regulations. It can be further clarified from following figures. According to the NRB directives, total capital fund should not be less than the 10% of the total risk weighted exposure but Nabil has only 9.28% of total capital fund in 2010. So it has not been able to maintain the total capital fund as required by the directives despite the adequate level of core capital.

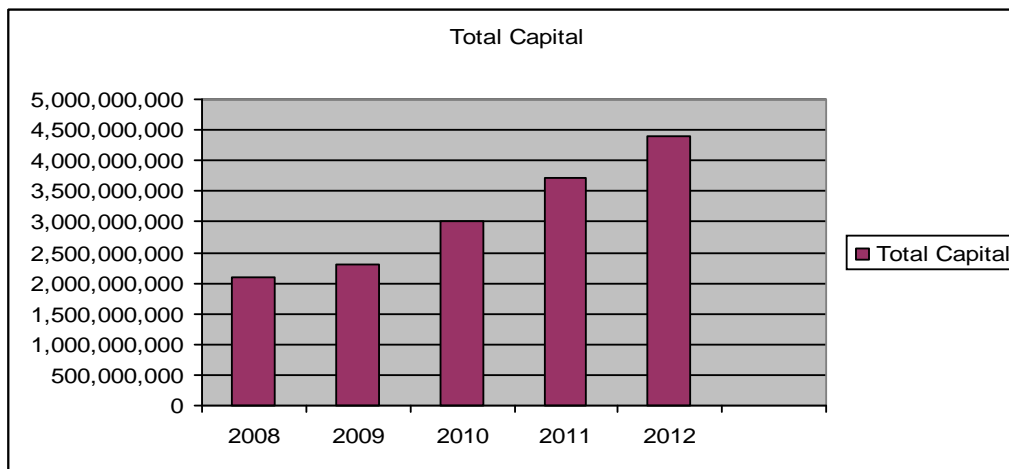
It can be further illustrated with the help of graphical line showing the percentage increase in tier-I and tier-II capital during the study period.

Figure 5: Percentage Increase in Capital Fund during study Period



Above figure explains the proportionate increment in the capital fund from 2008 to 2012. As we can see, total capital has increased by less than 15% over its previous year's value in 2007 to 2009 but in 2010 it has been increased by more than 25% with the large increment in supplementary capital. Supplementary capital shows large variations over the period. It was increased by about 18.22% in 2009 as compared to 2008 but it has increased by about 101.78% during 2010 over 2009 value following by 7.49% increase in 2011 and 5.80% increase in 2012.

Figure 6: Capital Composition of Nabil Bank from 2008 to 2012



Source: Annual Reports of NABIL from 2008 to 2012

NABIL has significantly increased the capital fund in 2009 as compared to last year. In 2009 Core capital constituted 86.36% of total capital which is reduced to 78.81% in 2010 by increasing supplementary capital. It has increased 81.68% and 83.55% in the year 2011 and 2012 respectively. Likewise percentage of Tier-2 capital in 2009 to its capital fund was only 13.64% which is increased to 21.18% up to July 2010. The bank has decreased its percentage of Tier-II capital to 18.32% and 16.45% in the year 2011 and 2012 respectively. According to above table it can be seen that NABIL has become able to maintain at least 6% tier one capital ratio. Core capital to total RWA is maintained to be 8.77% which is above the requirement of NRB directives. But as compared to total capital to total RWA; total capital is not as mentioned by NRB as it requires at least 10% total capital to RWA which comes only 9.28% in the year 2009. It means it can be concluded that Tier-II capital of NABIL is seems to be shorting in the year 2009. However the bank has increased its total capital to RWA by 10.70% and 10.50% in the

year 2011 and 2012 respectively. It seems that the bank has maintained Tier-II capital ratio as directed by NRB.

4.2 Capital standard of Bank of Kathmandu (BOK)

Bank of Kathmandu Limited has become a prominent name in the Nepalese banking sector. It has started its operation with the slogan, “We make your life easier”. Bank of Kathmandu is committed to delivering quality services to customers and generating good return to shareholders. Bank of Kathmandu (BOK) has today become a landmark in the Nepalese banking sector by being among the few commercial banks which is entirely managed by Nepalese professionals and owned by the general public. BOK started its operation in March 1995 with the objective to stimulate the Nepalese economy and take it to newer heights. BOK also aims to facilitate the nation’s economy and to become more competitive globally. To achieve these, BOK has been focusing on its set objectives right from the beginning.

4.2.1 On Balance Sheet and Off Balance Sheet Exposure of BOK

BOK has become able to accumulate total eligible capital fund of Rs. 2,330,073,365 in 2012 which is composed of 13.26% Tier-2 or supplementary capital and remaining with core capital. Same was about Rs. 1,277,715,817 in 2008 consisting of 71.51% of core capital and remaining as supplementary capital.

Its core capital components during the study period of 2008 to 2012 have been shown in following table as under.

Table 8: on Balance sheet and off Balance Sheet Exposure of BOK

Year	2008	2009	2010	2011	2012
On Balance Sheet RWA	6,938,771,524	9,324,393,731	12,219,960,195	14,981,020,13	18,224,394,176
Off Balance Sheet RWA	644,881,513	901,800,244	1,482,409,471	2,186,496,629	3,247,270,535
Total RWA	7,583,653,037	10,226,193,97	13,702,369,666	17,167,516,76	21,471,664,711

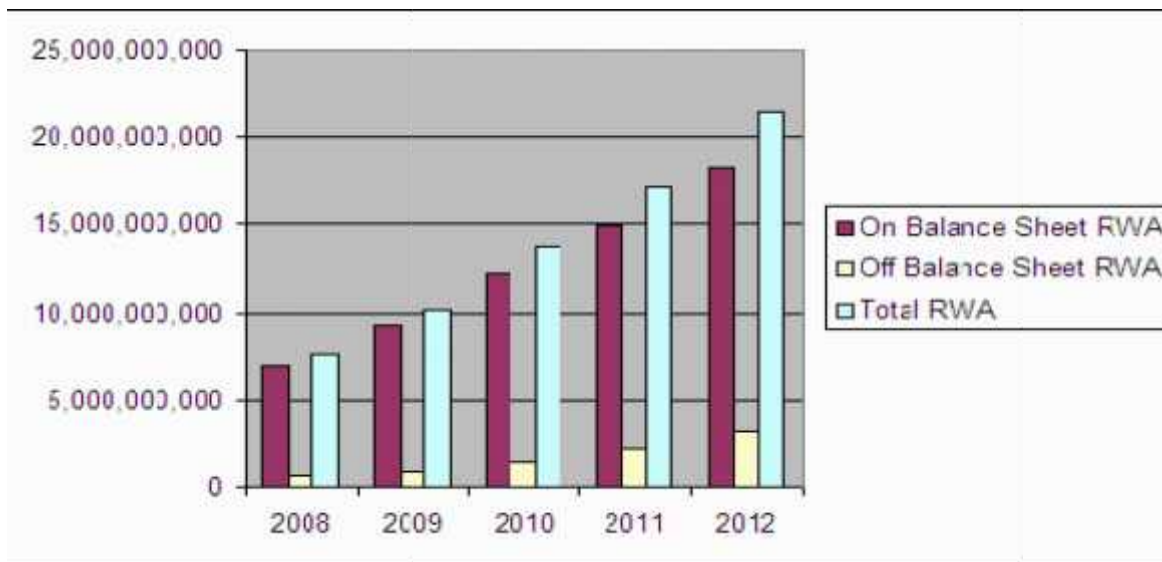
Source: Annual Reports of BOK from 2008 to 2012

Analyzing the above components of the bank’s books of account it has been known that, total amount of on balance sheet and off balance sheet exposure of BOK has been in increasing trend.

With the increase in capital, bank has increased its total risk weighted exposure by about 184% in recent five years which is the indicator of increasing transactions of the bank. On an average the bank has average 89% of total risk weighted exposure from the Balance sheet exposure and remaining 11% from off balance sheet exposure. Its total risk weighted exposure has increased in average annual growth rate of 30% approximately during the study period. Likewise annual average growth rate in on balance sheet exposure and off balance sheet exposure comes to 27.42% and 50.06% respectively. In on balance sheet components high risk assets held by the bank in significant amount comes from the investment in equities of corporations, claims on corporations, regulatory retail portfolios, claims not fully secured by residential properties and past due claims. In the other hand, off balance sheet exposure of the bank is composed of about fifteen components among which large portion comes from the items like, bills collection, forward foreign exchange contract, commitments with original maturities above six months, preference bond and acceptances. In recent five years it has significantly increased both on balance sheet and off balance sheet exposure. Its off balance sheet RWA has been increasing which is the indicator of increasing transactions on LC, acceptances and other off balance sheet exposure. Likewise, on balance sheet exposure are also significantly increased with the average annual growth rate of 27.42% in last five years.

Its amount risk weighted exposure and its breakdown under the categories of on balance exposure and off balance sheet exposure has been presented in following figure. It visualizes the amount of on balance sheet and off balance sheet exposure of the bank during the past five years of study period.

Figure 7: RWA of BOK from 2008 to 2012



BOK has significantly increased its total risk weighted exposure in 2009 and 2010. During the study period RWA has been increasing continuously. It implies that BOK has become able to increase its balance sheet items in recent year. It shows the strength of BOK in its high profitability and assets expansion.

4.2.2 RWA for Credit Risk, Operational Risk and Market Risk of BOK

For the purpose of Credit Risk management, the Bank has drawn a clear demarcation between business generation and risk management unit. Without approval of risk management unit, no loan is sanctioned. In order to lessen concentration risk, the Bank monitors lending portfolio periodically and takes appropriate decision with regard to the exposure in a borrower and in a sector. The Bank takes deposits, government securities, and guarantees etc. as measures to mitigate credit risk. As to Credit Risk management, the BOK has well coordinated the demarcation between business transaction and risk management unit formed inside the bank with the view to manage risk. Approval of risk management unit has been made compulsory to pass any kind of loan. Credit Policy of the Bank guides all the lending officials from credit screening to settlement. As the credit risk is the main component of risk composition of every bank affecting its overall operation, following table no.9 represents the existing condition of credit risk exposure of BOK.

Table 9: Credit Risk Exposure of BOK in 2012

S.N.	Categories	Risk Weighted Exposure
1	Claims on Government and Central Bank	-
2	Claims on Other Financial Entities	677,376,940
3	Claims on Banks	441,574,646
4	Claims on Domestic, Corporate and Securities Firms	8,727,281,771

5	Claims on Regulatory Retail Portfolio	2,768,502,659
6	Claims secured by Residential Properties	927,673,870
7	Claims secured by Commercial Real Estate	1,737,881,696
8	Past Due claims	71,732,939
9	High Risk claims	568,865,853
10	Other Assets	923,249,730
11	Off Balance Sheet	3,247,270,535
TOTAL		20,091,410,639

Source: Annual report of Bank of Kathmandu

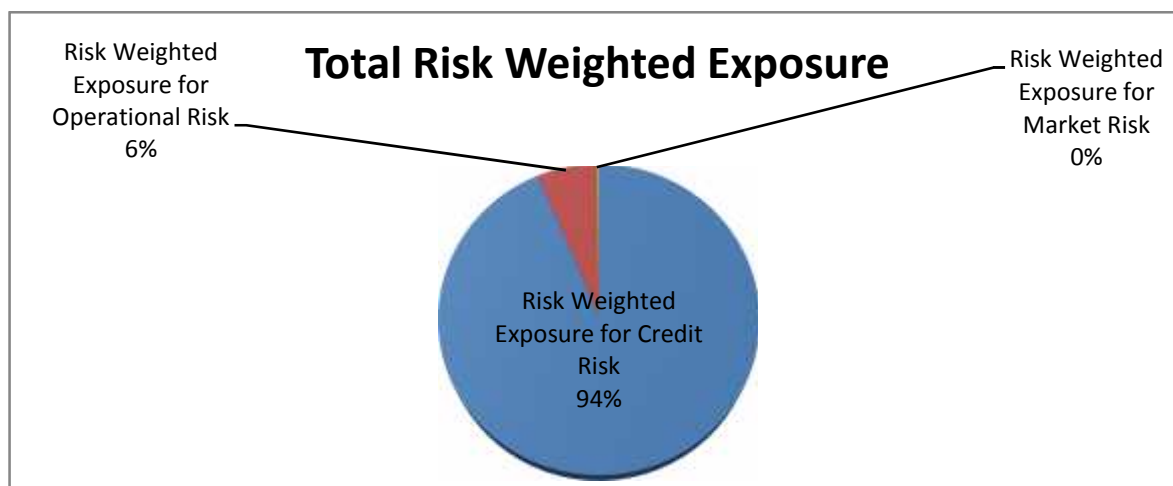
BOK has total risk weighted exposure of Credit risk equal to Rs. 20,091.41 million. Largest portion of credit risk exposure comes from claims on domestic, corporate and securities firms which constitute 40.65% of total risk weighted exposure. It carries no claims against government and central bank.

Table 10: Total RWA of BOK in 2012

Particulars	Amount
Risk Weighted Exposure for Credit Risk	20,091,410,639
Risk Weighted Exposure for Operational Risk	1,326,763,979
Risk Weighted Exposure for Market Risk	53,490,097
Total Risk Weighted Exposure	21,471,664,711

Out total risk weighted exposure of Rs. **21,471.665** million, BOK shows risk exposure of Rs. 20,091.41 million against credit risk. Moreover it shows risk exposure of operational risk equal to Rs. 1,326.764 million. Similarly, it shows total risk exposure of Rs. 53.49 million against market risk. Following figure shows the composition of total risk weighted exposure of BOK

Figure 8: Total RWA of BOK in 2012



Above Pie-chart represents the composition of RWE of BOK. More than ninety percent of RWE comes against credit risk and remaining with operational and market risk. Market risk constitutes very low amount in risk weighted exposure.

4.2.3 Core Capital of BOK

As like other commercial banks, Core Capital of BOK has been classified under eight categories. The composition of core capital fund for the purpose of capital adequacy measurement has been presented in table no. 11.

Table 11: Core Capital of BOK from 2008 to 2012

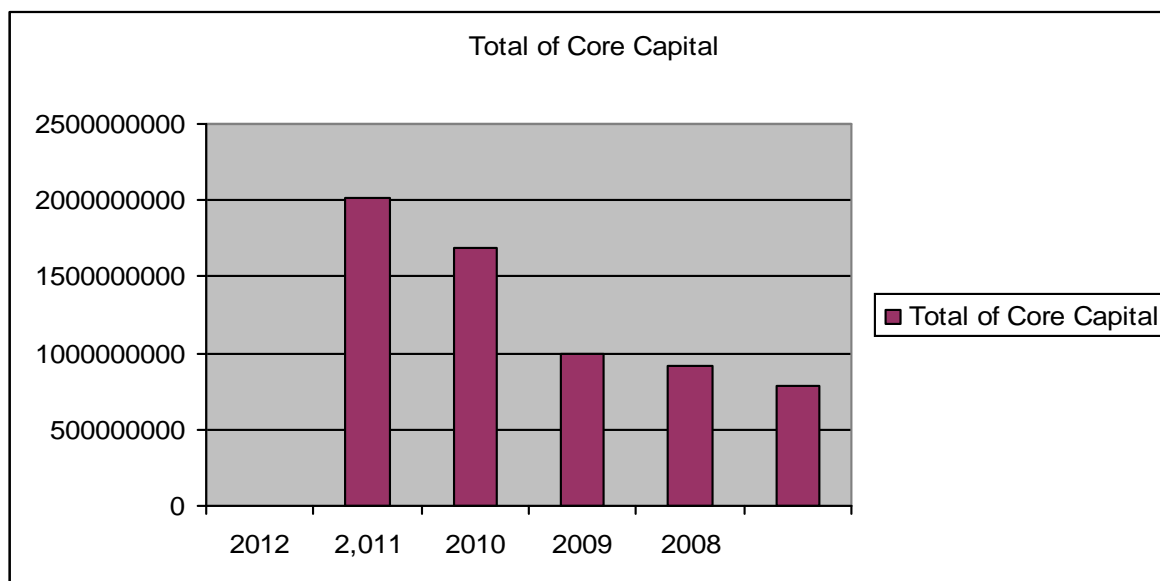
Core Capital		2012	2,011	2010	2009	2008
1	Paid up Capital	1,182,157,100	603,141,300	603,141,300	463,580,900	463,580,900
2	Irredeemable Preference Share	-	-	-	-	-
3	Share Premium	-	-	-	-	-
4	Proposed Bonus Equity Share	177,323,600	-	-	-	-
5	Statutory General Reserve	464,281,405	270,081,795	197,782,419	145,305,023	104,816,898
6	Retained Earnings	52,806,795	22,156,186	17,991,266	8,312,349	988,740
7	Capital Redemption Reserve	-	-	-	-	-
8	Capital Adjustment Reserve	-	106672220	106,672,220	185,432,360	139,074,270

9	Dividend Equalization Reserve	-	-	-	-	-
10	Deferred Tax Reserve	9,776,473	-	-	-	-
11	Bond Redemption Reserve	136,594,913	-	-	-	-
12	Other Free Reserves	164,075	164,075	164,075	164,075	164,075
Eligible Deductions:						
1	Goodwill	-	-	-	-	-
2	Investment more than limit	-	-	-	-	-
3	Fictitious Assets	-	-	-	-1114101	-859427
4	Investment in debt of Corporations	-	-12072600	-12072600	-12072600	-13414000
Total of Core Capital		2,021,092,627	1,683,588,123	990,142,976	913,678,680	789,608,006

Source: Annual reports of Bank of Kathmandu

Bank of Kathmandu has increased its core capital fund to meet the changing requirement of capital adequacy framework. It has significantly increased its core capital fund in span of five year period. It has touched the level of 990 million in core capital fund in 2010 which is about 24.40% higher than its value on 2008. Analyzing the ratio of increment the core capital fund has increased by the average annual rate of 28.54%. It has increased its eligible Tier-1 capital by 20.05% last year. Main component of increment is capital adjustment reserve and general reserve fund. It has increased its paid up capital by 96% in the year 2012 as compared 2011, it shows that it is the effect of capital regulation to increase capital tremendously. Likewise it has increased its general reserve fund by 71.90% than previous year.

Figure 9: Total Core Capital of BOK from 2008 to 2012



4.2.4 Supplementary Capital of BOK

Supplementary capital of BOK has been classified into eleven categories, but only five components are filled with the figures because these are the only figures that the bank holds as supplementary capital. The composition of supplementary capital of BOK has been presented in Table No. 12.

Table 12: Supplementary Capital of BOK from 2008 to 2012

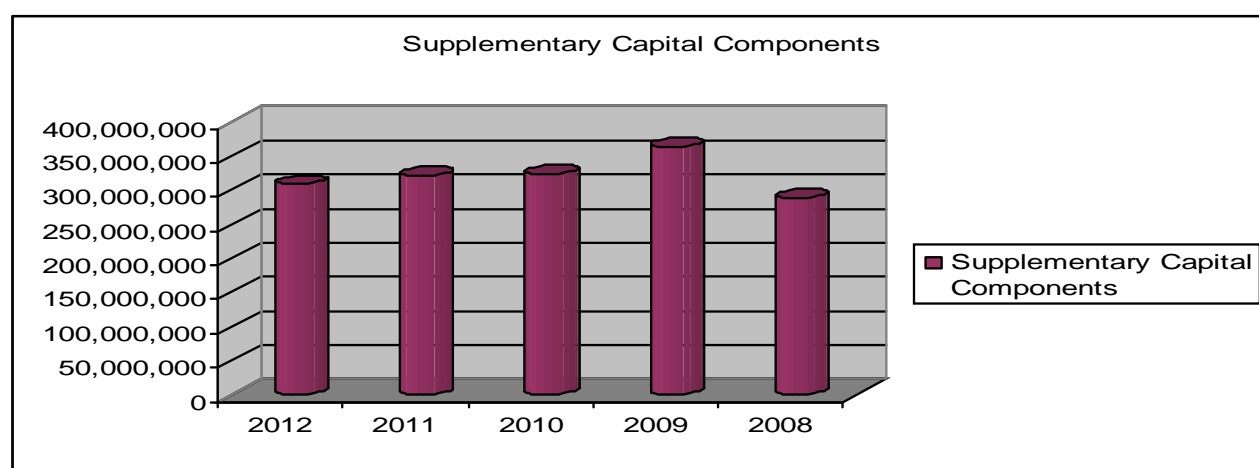
S.N	Supplementary Capital Components	2012	2011	2010	2009	2008
1	Cumulative or Redeemable Preference Share	-	-	-	-	-
2	Subordinated term Debt	200,000,000	128,986,301	168,986,301	200,000,000	200,000,000
3	Hybrid Capital Instruments	-	-	-	-	-
4	General Loan Loss provision	167,666,914	147,191,664	124,039,462	131,635,906	70,834,087
5	Exchange Equalization Reserve	31,974,010	25,929,440	19,149,636	16,642,963	14,629,976
6	Investment Adjustment Reserve	463,102	-	-	-	-
7	Assets Revaluation	-	-	-	-	-

	Reserve					
8	Additional Loan Loss Provision	-	-	9,449,810	12,999,812	
9	Interest Spread Reserves	-	-	-	-	-
10	Provision For Loss on Investment	-	-	2,758,456	2,758,456	3,416,200
11	Contingent/Other Reserve	20,000,000	20,000,000			
Eligible Deductions:						
1.	Discounted for lesser tenure	(111,123,288)	-	-	-	-
	TOTAL	308,980,738	322,107,40	324,383,665	364,037,137	288,880,263

Source: Annual reports of Bank of Kathmandu

Above table explains the compositions of Tier-II capital of BOK. Referring to above table it states that bank has decreased its supplementary capital significantly in past five years. In the year 2007 the bank has decreased its supplementary capital by 14 million approximately with comparison to 2011. In the year 2008, 26.02% supplementary capital increased in comparison to 2007. Annual rate of growth in supplementary capital is about 2.59%. However in recent year its supplementary capital has been decreasing trend. It has increased its general loan loss provision by about 13.91% in 2012 and increased amount of unsecured subordinated term debt in the year 2012 with comparison 2011. It has started apportioning some amount as Investment adjustment reserve since 2012. Small changes can be seen in exchange equalization fund.

Figure 10: Total Supplementary Capital of BOK from 2008 to 2012



4.2.5 Capital Adequacy of BOK

Table 13: Capital Adequacy of BOK from 2008 to 2012

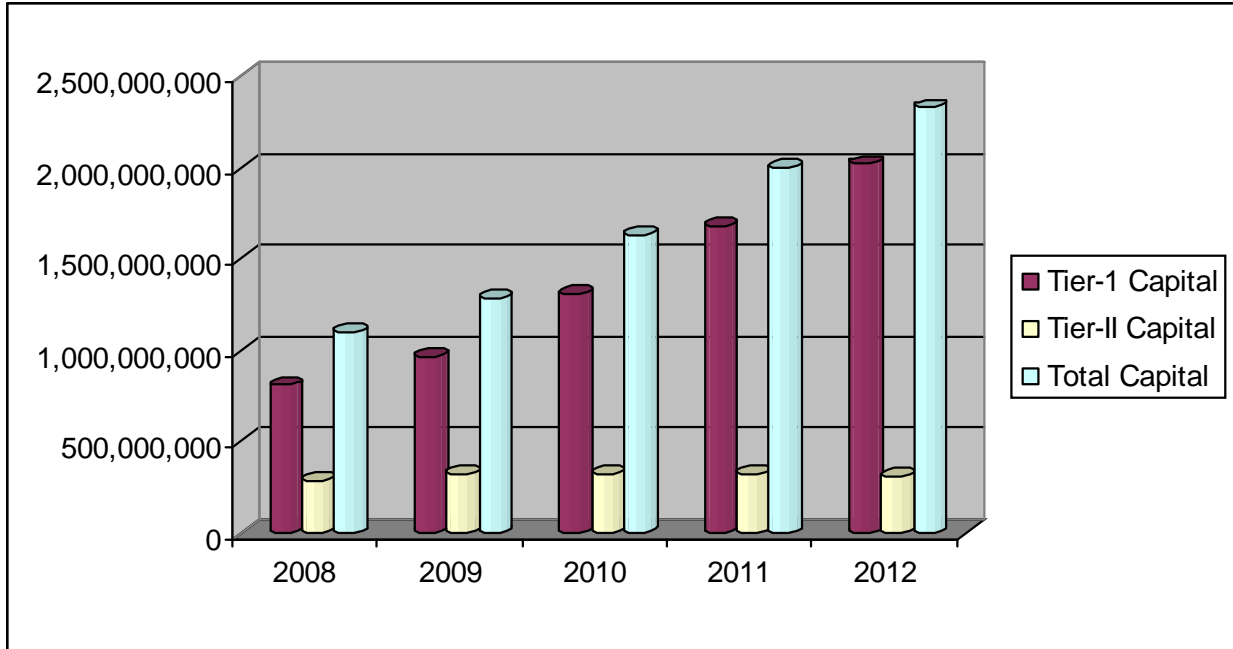
Year	Tier-1 Capital	Tier-II Capital	Total Capital	Tier-I Ratio	Capital Ratio
2008	811,917,204	288,880,263	1,100,797,467	10.71%	14.52%
2009	964,559,308	325,564,795	1,290,124,103	9.43%	12.62%
2010	1,310,851,562	324,383,665	1,635,235,217	9.57%	11.93%
2011	1,683,588,123	322,107,405	2,005,695,528	9.81%	11.68%
2012	2,021,092,627	308,980,738	2,330,073,365	9.41%	10.85%

Source: Annual reports of Bank of Kathmandu

Above table explains the condition of BOK about the capital adequacy for last 5 years. In all the subsequent years, BOK seems to be maintaining its capital ratio above the prescribed limit. It has maintained highest of 14.52% capital with 10.71% contributed by Tier-I capital. This seems possible due to comparatively low amount of risk weighted exposure in response to capital components. In all the subsequent year it seems clear that very amount from supplementary capital. In other years also it has maintained satisfactory level of capital to secure the depositors and lenders from various kinds of risk.

Composition of capital of BOK under two categories of Tier-I and Tier-II capital for last five year as mentioned in above table has also been presented as following figure.

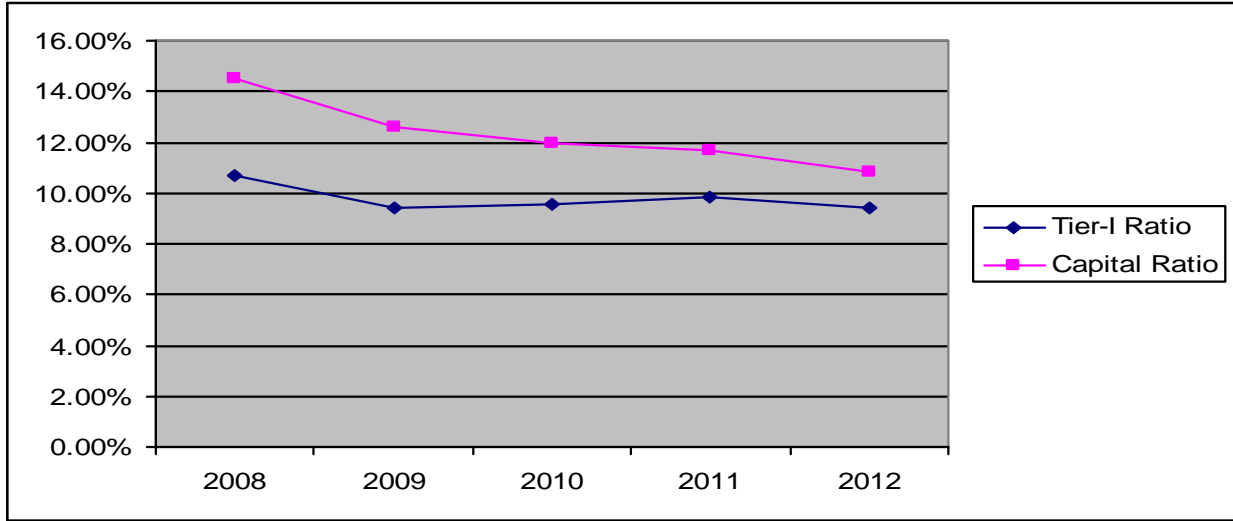
Figure 11: Capital Composition of BOK from 2008 to 2012



So far as concerned with core and supplementary capital of BOK, initially very low amount of supplementary capital has found to be maintained however allowable supplementary capital is up to 100% of tier one capital. In 2006, 73.75% of total capital was from Tier-I capital and remaining only 26.25% we from supplementary capital. Likewise in the year 2009 and 2010 core capital was 74.76% and 80.16% respectively. In 2009 and 2010 BOK has maintained large portion of supplementary capital which is slightly decreased by 4.08% in 2012.

As per above analysis BOK, has maintained of Tier-I capital with its Risk Weighted Exposure which is above the standard of 6% during the study period. So, it has maintained enough capital funds as core capital but if we consider total capital as percentage of total RWA, it is only 10.69% which is slightly higher than standard of 10% prescribed by Basel-II. Hence, it seems clear that BOK has maintained its total capital ratio directed by NRB.

Figure 12: Percentage Increase in Capital Fund during study Period



Above figure explains the proportionate increment in the capital fund from 2008 to 2012. As we can see, Tier-I capital has been increasing in slow motion. In the year 2011, Tier-I capital has decreased. However, it has increased to 10.71% in the year 2012. The bank has maintained capital ratio as per NRB guidelines. Above figure shows, the bank is able to maintained consistency in capital ratio.

4.3 Capital Standard of Himalayan Bank Limited (HBL)

Himalayan Bank was established in 1993 in joint venture with Habib Bank Limited of Pakistan. Despite the cut-throat competition in the Nepalese Banking sector, Himalayan Bank has been able to maintain a lead in the primary banking activities- Loans and Deposits. Himalayan Bank Limited holds of a vision to become a **Leading Bank of the country** by providing premium products and services to the customers, thus ensuring attractive and substantial returns to the stakeholders of the Bank. The Bank’s mission is to become preferred provider of quality financial services in the country. There are two components in the mission of the Bank; **Preferred Provider and Quality Financial Services**; therefore HBL believes that the mission will be accomplished only by satisfying these two important components with the Customer at focus. The Bank always strives positioning itself in the hearts and minds of the customers. To become the Bank of first choice is the main objective of the Bank.

4.3.1 On Balance Sheet & Off Balance Sheet Exposure of HBL

On balance sheet and off balance sheet exposure of risk for last five years of Himalayan bank limited has been presented in form of following tabular presentation.

Table 14: On Balance Sheet & Off Balance Sheet Exposure of HBL

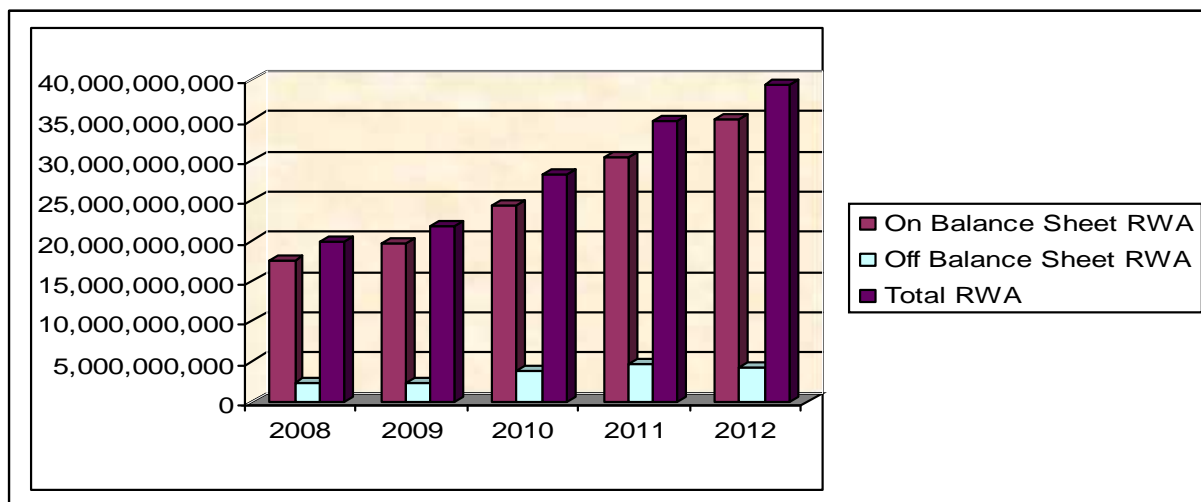
Year	2008	2009	2010	2011	2012
On Balance Sheet RWA	17,550,270,946	19,616,597,586	24,385,920,433	30,297,098,764	35,092,374,205
Off Balance Sheet RWA	2,368,054,376	2,273,115,542	3,766,983,490	4,608,791,078	4,264,681,046
Total RWA	19,918,325,322	21,889,713,128	28,152,903,923	34,905,889,842	39,357,055,251

Source: Annual report of Himalayan Bank Ltd from 2008 to 2012

Total amount of on balance sheet and off balance sheet exposure of Himalayan Bank Limited has been presented in above table. With the increase in capital bank has increased its total risk weighted exposure by 97.60% in recent five years which is the indicator of increasing transactions of the bank. In on balance sheet components high risk assets held by the bank in significant amount comes from the investment in equities of corporations, claims on corporations, regulatory retail portfolios, claims not fully secured by residential properties and past due claims. In other hand, off balance sheet exposure of the bank is composed of about fifteen components among which large portion comes from the items like, bills collection, forward foreign exchange contract, commitments with original maturities above six months, preference bond and acceptances. Its RWA is increasing on approximate annual average rate of 18.81% over last year's exposures.

Figure 13: Risk Weighted Exposure of HBL

On the basis of above table, On Balance Sheet RWA and Off Balance Sheet RWA can be presented as following figure.



Himalayan bank has significantly increased its total risk weighted exposure in 2011 and 2012. During the study period RWA has been increasing continuously. It implies that HBL has become able to increase its balance sheet items in recent year. It shows the strength of HBL in its high profitability and assets expansion.

4.3.2 RWA for Credit Risk, Operational Risk and Market Risk

Credit risk is the important type of risk concerned with the banking operation. So, to highlight the main components of credit risk of HBL, Composition of the credit risk weighted exposure for the year 2012 has been presented in table no. 15.

Table 15: Risk Weighted Exposure of HBL for Credit Risk in 2012

S.N.	Categories	Risk Weighted Exposure
1	Claims on Government and Central Bank	-
2	Claims on Other Financial Entities	568,252,385
3	Claims on Banks	1,046,065,641
4	Claims on Domestic, Corporate and Securities Firms	17,861,631,214
5	Claims on Regulatory Retail Portfolio	1,887,706,584
6	Claims secured by Residential Properties	573,033,812
7	Claims secured by Commercial Real Estate	1,557,198,360
8	Past Due claims	647,354,108
9	High Risk claims	5,503,799,226
10	Other Assets	2,139,592,577
11	Off Balance Sheet	4,264,681,046
TOTAL		36,049,314,954

Source: Annual report of Himalayan Bank Ltd as on July 2012.

As on July-2012 Himalayan Bank Ltd has total risk weighted exposure for credit risk equal to Rs.36,049 million. Large portion of risk weighted claim is on domestic corporations followed by other high risk claims and other assets.

Table 16: Total Risk Weighted Exposure of HBL in 2012

Particulars	Amount
Risk Weighted Exposure for Credit Risk	36,049,314,954
Risk Weighted Exposure for Operational Risk	2,434,296,290
Risk Weighted Exposure for Market Risk	56,451,697
Add: As per operational risk, 2% of total income	431,591,682
Add: As per total risk, 1% of total RWA	385,400,629
Total Risk Weighted Exposure	39,357,055,251

As per above table, the bank has risk weighted exposure for operational risk of Rs. 2,434.296 million and Risk weighted exposure for market risk of Rs.56.452 million. From this, it seems clear that risk weighted exposure for market risk is very low. An attempt has been made here to show its composition of total risk weighted exposure in the following pie chart.

Figure 14: Total RWA of HBL in 2012



Above figure explains the condition of risk weighted exposure of Himalyan Bank Ltd. in 2012. It has negligible portion of RWE contributed from the market risk which constitutes only 0.14% of total risk weighted exposure. About 6.17% of RWE comes from operational risk and remaining with credit risk. From these values it can be concluded that it has mitigated the operational and market risk but stills holds large portion of risk for credit risk against which it should maintain large amount of capital.

4.3.3 Core Capital of Himalayan Bank Ltd

The Bank has only four eight items as the components of core capital and no any deduction from core capital fund in the year 2012. Paid up capital and general reserves do only the components constitute large portion in the formation of core capital of the bank. Its composition of core capital from 2008 to 2012 has been presented in the following table.

Table 17: Core Capital of HBL from 2008 to 2012

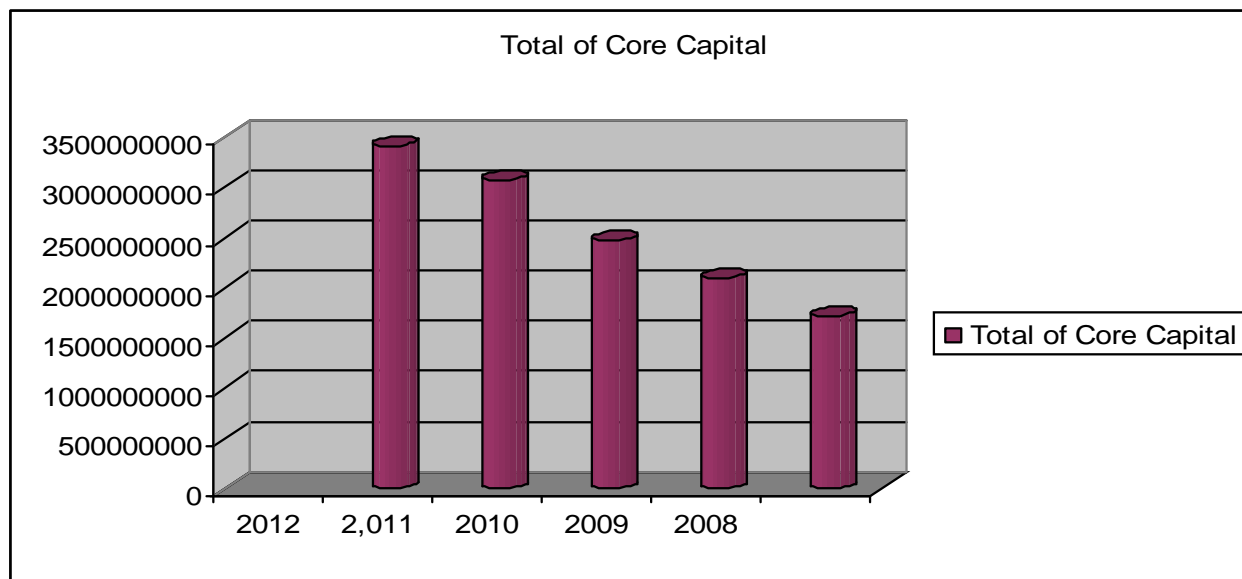
Core Capital		2012	2,011	2010	2009	2008
1	Paid up Capital	1,600,000,000	1,013,512,500	810,810,000	772,200,000	643,500,000
2	Irredeemable Preference Share	-	-	-	-	-
3	Share Premium	-	-	-	-	-
4	Proposed Bonus Equity Share	400,000,000	-	-	-	-
5	Statutory General Reserve	1,012,800,410	760,473,824	633,300,120	534,935,540	443,444,000
6	Retained Earnings	136,587,269	96,842,268	184,386,121	156,557,735	286,874,836
7	Capital Redemption Reserve	-	-	257,142,857	205714285	154285714
8	Capital Adjustment Reserve	38,610,000	-	241,312,500	77,220,000	-
9	Dividend Equalization Reserve	-	-	-	-	-
10	Deferred Tax Reserve	8,355,221	-	-	-	-
11	Bond Redemption Reserve	214,285,714	-	-	-	-
12	Other Free Reserves	4,000,000	621,312,500	-	-	-
Eligible Deductions:		-	-	-	-	-
1	Goodwill	-	-	-	-	-
2	Investment more than limit	-	-	-	-2331160	-2331160
3	Fictitious Assets	-	-	-	-	-

4	Underwriting Share of Himalayan Dist. Ltd	-	-22356000	-22356000	-22356000	-
5	Investment in debt of Corporations	-	-	-	-	-
Total of Core Capital		3,414,638,614	3,074,436,960	2,469,785,092	2,104,595,598	1,721,940,400

Source: Annual report of Himalayan Bank Ltd. from 2008 to 2012

Above table effects the position of core capital of Himalayan Bank Ltd. for last five years. Its core capital has been significantly increased for 2008 to 2012 as a result of increasing requirement of NRB regulations and Basel requirements. As compared to 2008 it has increased core capital by 22.22% in 2009, where large portion comes from issue of new shares to public. Likewise, in 2012 it has again increased it's paid up capital level to 1,600 million which is about 57.87% greater than the capital of 2011. At last it has significantly increased the level of core capital as required by Basel-II in 2012, which comes to 3,414 million and it is again 98.30% higher than the core capital of the year 2008. Its core capital has been increased with the appropriate average annual growth rate of 18.78% in the study period of five years.

Figure 15: Core Capital of HBL



Its condition of core capital for last five years is presented in the figure no.15. To maintain capital for increasing risk over the year caused by increasing transactions and business dealings, bank has significantly increased its core capital composition over its five year of study period. It has increased its core capital by about 98.30% in past five years. The bank has made provision for bond redemption reserve by Rs.214 million in the year 2012 and it has Rs.400 million proposed bonus equity share which is the main cause of increasing core capital in the year 2012. For the purpose it has issued additional share capital in every year. It has just started to apportion amount for retained earnings.

4.3.4 Supplementary Capital of Himalayan Bank Ltd

So far as concerned to its supplementary capital, it has about 113 million as Tier-II capital in 2010. Its main component, constituting large proportion in supplementary capital is loan loss provision followed by exchange rate equalization fund but it has maintained for loss investment equal to 15 million in 2010 which is also a component of Tier-II capital.

Composition of Tier-II capital of Himalayan Bank Ltd. from the year 2008 to 2012 has been presented as under.

Table 18: Supplementary capital of HBL from 2008 to 2012

S.N	Supplementary Capital Components	2012	2011	2010	2009	2008
1	Cumulative or Redeemable Preference Share	-	-	-	-	-
2	Subordinated term Debt	500,000,000	500,000,000	572,000,000	360,000,000	360,000,000
3	Hybrid Capital Instruments	-	-	-	-	-
4	General Loan Loss provision	279,156,371	247,686,763	190,880,379	167,225,322	141,354,553
5	Exchange Equalization Reserve	23,087,577	23,087,577	20,850,510	19,548,056	19,548,056
6	Investment Adjustment Reserve	1,478,939	-	-	-	-
7	Assets Revaluation Reserve	-	-	-	-	-
8	Additional Loan Loss Provision	-	-	-	-	-

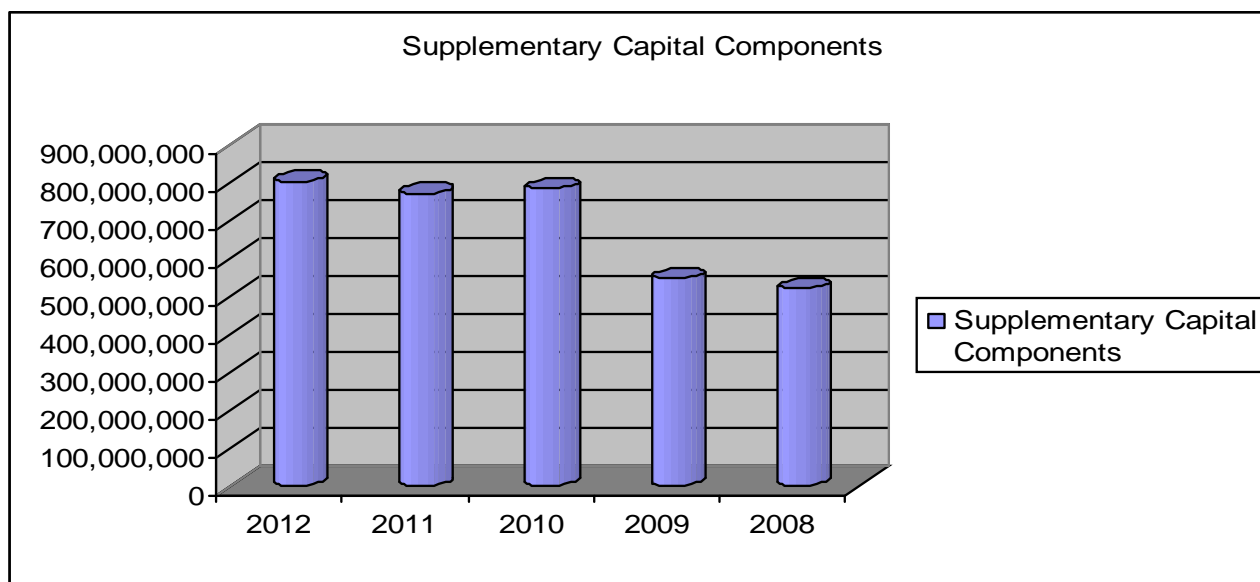
9	Interest Spread Reserves	-	-	-	-	-
10	Provision For Loss on Investment	-	-	-	-	-
11	Contingent/Other Reserve	-	-	-	-	-
	TOTAL	803,722,886	770,774,340	783,730,889	546,773,378	520,902,609

Source: Annual report of Himalayan Bank Ltd. from 2008 to 2012

Above table explains about the composition of supplementary capital of Himalayan Bank Ltd. since 2008. It has very few components under the supplementary capital fund where more than 62% of capital fund comes from subordinate term debt, 35% from General loan loss provision and remaining from exchange rate equalization fund and Investment equalization fund in the year 2011. In 2009 it has added provision for loss in corporate investment as the component of supplementary capital which is 24.36% of total supplementary capital in 2010.

Following diagram clarifies the composition of core and supplementary capital of the bank for last five years.

Figure 16: Supplementary Capital of HBL from 2008 to 2012



4.3.5 Capital Adequacy of Himalayan Bank Ltd

Himalayan Bank Ltd. has maintained adequate capital for all three kinds of risk in all five years of study period. In every year it has maintained core capital far more than minimum limit of 5.5% prescribed by Basel-II and NRB directives but it has maintained very low amount as supplementary capital in each year which comes to less than 2% on an average.

Its capital adequacy has been presented as follows in table no. 19

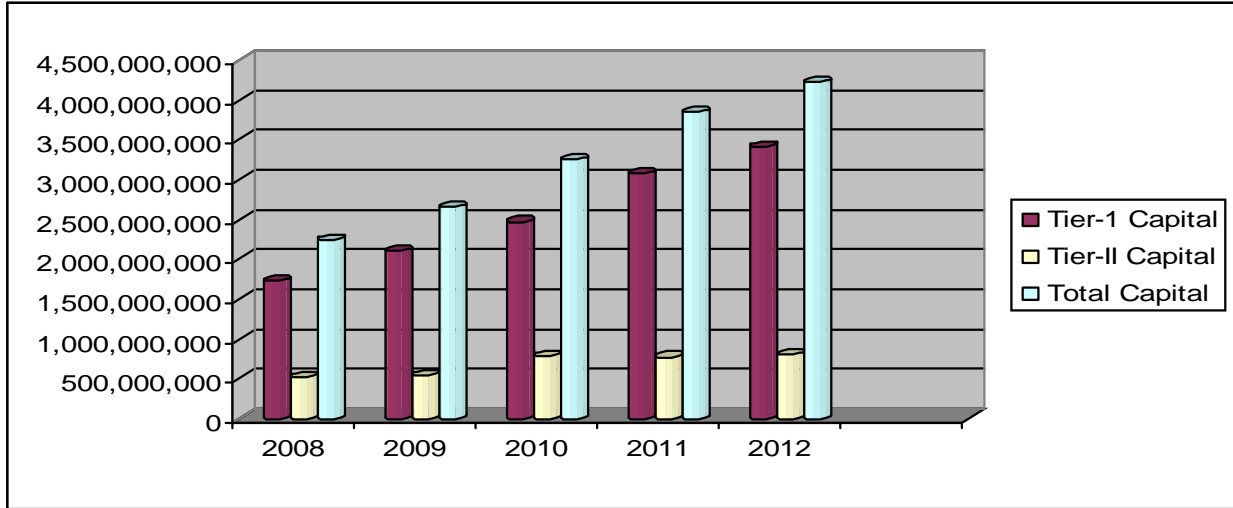
Table 19: Capital Adequacy of Himalayan Bank Ltd from 2008 to 2012

Year	Tier-1 Capital	Tier-II Capital	Total Capital	Tier-I Ratio	Capital Ratio
2008	1,721,940,400	520,902,609	2,242,843,009	8.65%	11.26%
2009	2,104,595,598	546,773,378	2,651,368,976	9.61%	12.11%
2010	2,469,785,092	783,730,889	3,253,515,981	8.77%	11.56%
2011	3,074,436,960	770,774,340	3,845,211,300	8.81%	11.02%
2012	3,414,638,614	803,722,886	4,218,361,500	8.68%	10.72%

Source: Annual report of Himalayan Bank Ltd. from 2008 to 2012

Above table shows the detail about the capital adequacy of Himalayan Bank Limited. It has maintained Tier-I capital ratio of 9.61% in 2009, which is about 11% lower than it had maintained in 2009 but still it is above the standard of 5.5%. From 2008 bank has changed its capital composition which helped it to reduce its capital of the bank is also in satisfactory position as it has maintained lowest 10.63% as proportion of total capital in the year 2010. It had highest capital ratio of 12.11% in 2009. With the increase in Risk weighted exposure of the bank it has become able to update the position of capital as well which has helped the bank to maintain capital standards.

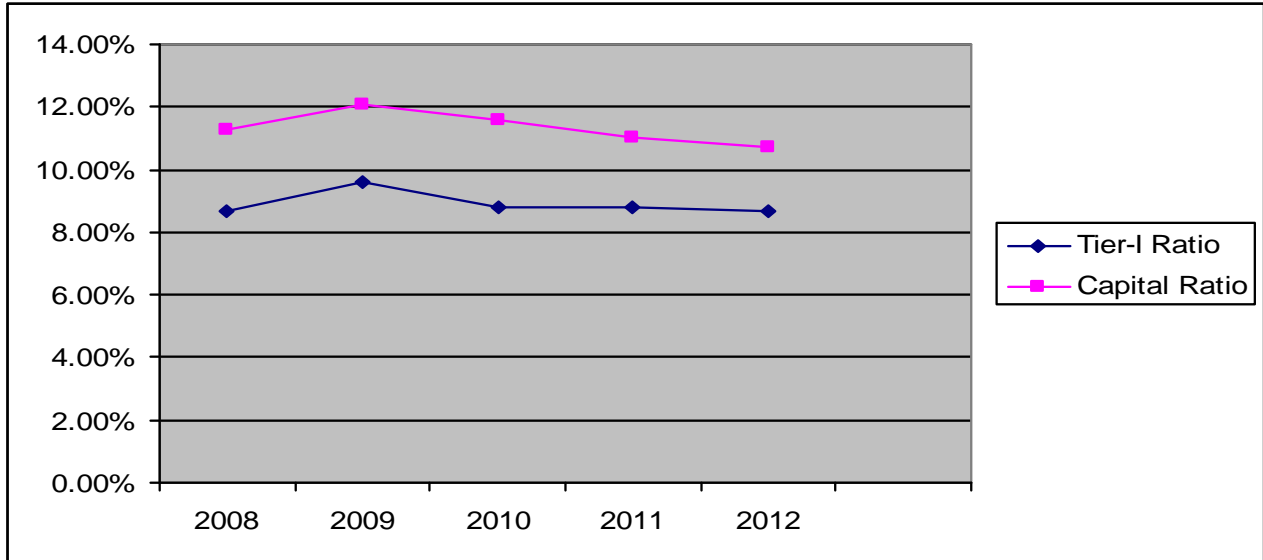
Figure 17: Capital Composition of Himalayan Bank limited from 2008 to 2012



So far as concerned with core and supplementary capital of HBL, initially very low amount of supplementary capital has found to be maintained. In 2008, 76.77% of total capital was from Tier-I capital and remaining only from supplementary capital. Likewise in the year 2009 and 2010 core capital was 79.38% and 75.91% respectively. In 2010 HBL has maintained large portion of supplementary capital which is slightly increasing up to last year.

As per above analysis HBL, has maintained of Tier-I capital with its Risk Weighted Exposure which is above the standard of 6% during the study period. So, it has maintained enough capital funds as core capital but if we consider total capital as percentage of total RWA, it is only 10.72% in the year 2012 which is slightly higher than standard of 10% prescribed by Basel-II. Hence, it seems clear that HBL has maintained its total capital ratio directed by NRB.

Figure 18: Percentage Increase in Capital Fund during study Period



Above figure explains the proportionate increment in the capital fund from 2008 to 2012. As we can see, Tier-I ratio has increased by less than 15% over its previous year's value in 2008 to 2009 but in 2009 it has been increased up to 9.61% with the large increment in supplementary capital. Supplementary capital shows large variations over the period. It was increased by about 18.22% in the year 2009. However, it has decreased to 8.77% during 2010 over 2009 value followed to 8.81% in 2011 and finally it comes to 8.68% in 2012.

4.4 Capital standard of Everest Bank Limited (EBL)

Everest Bank Limited (EBL) started its operations in 1994 with a view and objective of extending professionalized and efficient banking services to various segments of the society. Punjab National Bank (PNB) is the joint venture partner of EBL which holds 20% equity of this bank. All the branches of the bank are connected through Any Branch Banking System (ABBS), which enables customers for operational transactions from any branches.

With an aim to help Nepalese citizens working abroad, the bank has entered into arrangements with banks and finance companies in different countries, which enable quick remittance of funds by the Nepalese citizens in countries like UAE, Kuwait, Bahrain, Qatar, Saudi Arabia, Malaysia, Singapore and U K. Bank has set up its representative offices at New Delhi (India) to support Nepalese citizen remitting money and advising banking related services. The bank has been conferred with "Bank of the Year 2006, Nepal" by the banker. The bank was also bestowed with the "NICCI Excellence award" by Nepal India chamber of commerce for its spectacular performance under finance sector.

4.4.1 On Balance Sheet and Off Balance Sheet Exposure of EBL

The on balance sheet and off balance sheet exposure of risk for last five years of Everest Bank Limited has been presented in form of following tabular presentation.

Table 20: On Balance Sheet and Off Balance Sheet Exposure of EBL *in Rs. '000'*

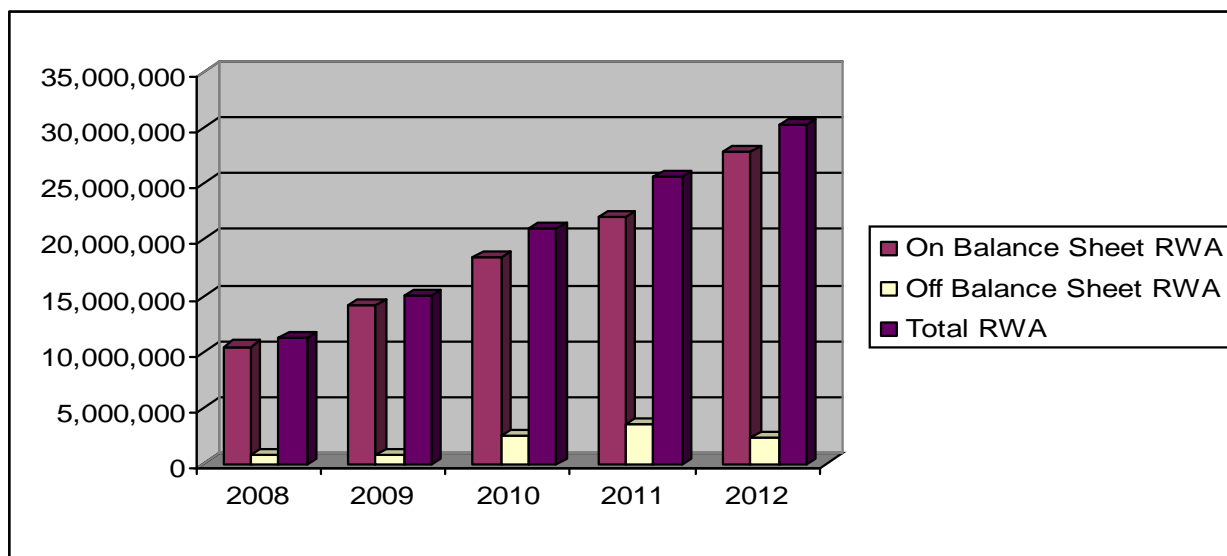
Year	2008	2009	2010	2011	2012
On Balance Sheet RWA	10,476,979	14,099,274	18,442,990	22,003,843	27,828,052
Off Balance Sheet RWA	814,158	877,463	2,596,889	3,615,910	2,412,376
Total RWA	11,291,137	14,976,737	21,039,879	25,619,753	30,240,428

Source: Annual Reports of Everest from 2008 to 2012

With the increase in capital, bank has increased its total risk weighted exposure by about 168% in recent five years which is the indicator of increasing transactions of the bank. In on balance sheet components, high risk assets held by the bank in significant amount comes from the Claims on Domestic, Corporate and Securities Firms, claims secured by Commercial Real Estate, claims on corporations, regulatory retail portfolios, and past due claims. In the other hand, off balance sheet exposure of the bank is composed of about fifteen components among which large portion comes from the items like, bills collection, forward foreign exchange contract, commitments with original maturities above six months, preference bond and acceptances its RWA is increasing in approximate rate of 18% over last year's exposures. In recent five years on balance sheet and off balance sheet exposures have significantly increased. Above explanation of on balance sheet exposure and off balance sheet exposures can also be clarified from the following diagrammatical presentation.

Figure 19: Risk Weighted Exposure of Everest Bank Ltd during study period

On the basis of above table, On Balance Sheet RWA and Off Balance Sheet RWA can be presented as following figure.



4.4.2 Risk Weighted Exposure for Credit Risk, Operational Risk and Market Risk

As to Credit Risk management, the Bank has a separate and dedication unit to assess the risk related with the loan. Without approval of risk management unit, no loan is sanctioned. Credit Policy of the Bank guides all the lending officials from credit screening to settlement. In order to lessen concentration risk, the bank monitors lending portfolio periodically and takes appropriate decision with regard to the exposure in a borrower and in a sector. The Bank takes deposits, government securities, and guarantee etc. as measure to mitigate credit risk.

With regard to market risk and liquidity risk management, the Bank has a front office and back office concept to ensure compliance of policies/limits on a transaction level. As the credit risk is the main component of risk composition of every bank affecting its overall operation, following table represents the existing condition of credit risk exposure of EBL.

Table 21: Credit Risk Weighted Exposure of Everest Bank Limited in 2012

S.N.	Categories	Risk Weighted Exposure
1	Claims on Government and Central Bank	-
2	Claims on Other Financial Entities	-
3	Claims on Banks	421,263,000
4	Claims on Domestic, Corporate and Securities Firms	10,352,920,000
5	Claims on Regulatory Retail Portfolio	7,993,274,000

6	Claims secured by Residential Properties	2,343,284,000
7	Claims secured by Commercial Real Estate	1,053,930,000
8	Past Due claims	182,384,000
9	High Risk claims	1,674,799,000
10	Other Assets	1,065,707,000
11	Off Balance Sheet	2,412,376,000
TOTAL		

Source: Annual Reports of Everest Bank

As mentioned in the table above, EBL holds large amount of claims against the domestic corporations and securities firms in the form of loan and advances including investment on them. Claims on government and central bank as well with other financial entities are subject of no risk categories, so their risk weighted exposure is equal to nil.

Among three risk categories of the total risk weighted exposure, credit risk is the most extensive risk of the commercial banks against which large amount of capital is required to be maintained in order to gain the sense of security against the probable future loss by the stakeholders concerned directly or indirectly through the credit extensive of the bank.

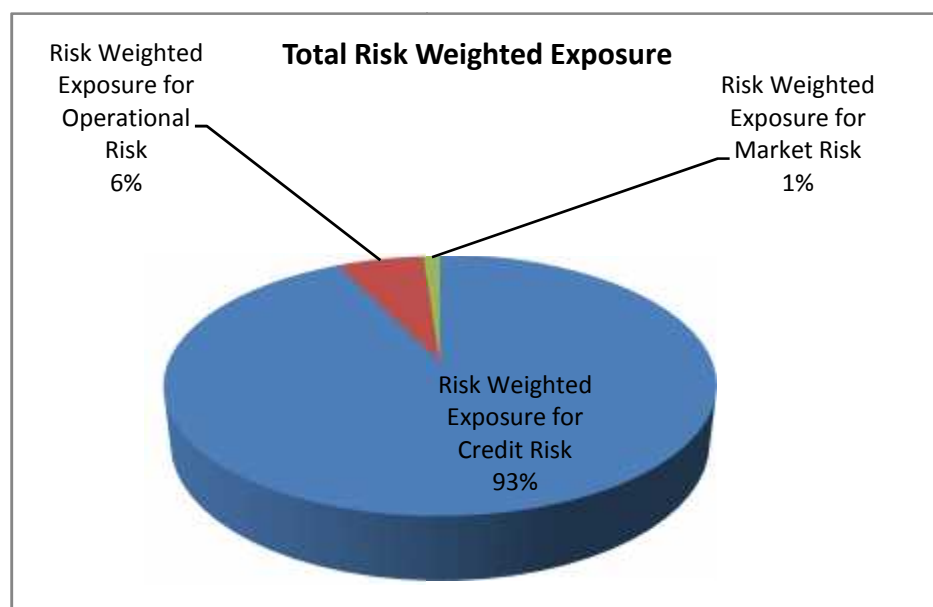
Risk weighted exposure of other two risks and total risk weighted exposure is presented in the following table:

Table 22: Total Risk Weighted Exposure of Everest Bank Limited in 2012

Particulars	Amount
Risk Weighted Exposure for Credit Risk	27,499,899,000
Risk Weighted Exposure for Operational Risk	1,804,243,000
Risk Weighted Exposure for Market Risk	343,337,000
Adjustment under pillar-II	592,950,000
Total Risk Weighted Exposure	30,240,428,000

EBL's total risk weighted assets composed all three categories of risk. Credit risk exposure constitute large portion in total RWA which equal to 90.94% of total risk exposure. Other two risks, operational and market risk constitute 5.97% and 1.13% of total RWA respectively. A pie chart of the total RWA of EBL has been shown in following figure.

Figure 20: Total RWA of EBL in 2012



4.4.3 Core Capital of Everest Bank Ltd

Everest Bank Limited has maintained following balance on core capital of its capital fund at the end of 2012.

Table 23: Core Capital of Everest Bank Limited from 2008 to 2012

Core Capital		2012	2011	2010	2009	2008
1	Paid up Capital	830,467,000	638,821,000	491,400,000	378,000,000	378,000,000
2	Irredeemable Preference Share	-	-	-	140,000,000	140,000,000
3	Share Premium	14,780,000	14,780,000	206,427,000	6,427,000	6,427,000
4	Proposed Bonus Equity Share	249,140,000	191,646,000	147,420,000	113,400,000	-
5	Statutory General Reserve	617,193,000	450,839,000	323,091,000	232,848,000	173,566,000
6	Retained Earnings	72,621,000	82,444,000	83,750,000	130,547,000	108,640,000
7	Capital Redemption Reserve	140,000,000	284,100,000	60,000,000	-	-

8	Capital Adjustment Reserve	367,147,000	-	220,100,000	170,100,000	132,300,000
9	Dividend Equalization Reserve	-	-	-	-	-
10	Deferred Tax Reserve	34,518,000	33,723,000	-	-	-
11	Debenture Redemption Reserve	180,000,000	120,000,000	-	-	-
12	Other Free Reserves	31,226,000	25,226,000	19,226,000	13,226,000	1,226,000
Eligible Deductions:						
1	Goodwill	-	-	-	-	-
2	Investment more than limit	-	-	-	-	-
3	Fictitious Assets	-	-	-	-	-
4	Investment in shares under Underwriting Arrangement	-	-	-	(13,414,000)	(12,609,000)
Total of Core Capital		2,537,092,000	1,981,579,000	1,560,859,000	1,171,133,000	927,550,000

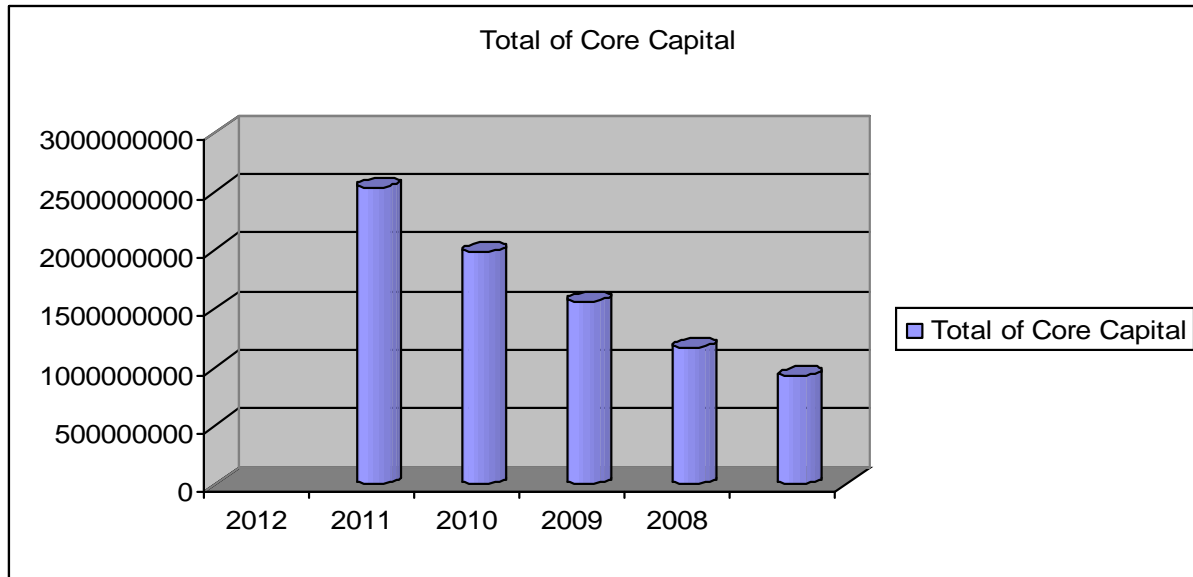
Source: Annual Reports of Everest Bank

In regard to the core capital of the EBL, it can be seen that it has provided no value for the Goodwill as well as other fictitious assets. It has not invested the fund over the prescribed limit in share and debentures of the other companies which are also the subjects to be deducted from the core capital.

EBL had added proposed bonus equity share as core capital components from 2009. Statutory general reserve and equity capital are the main components increasing the size of core capital. It core capital has significantly increased in recent five years. Total core capital fund has been increasing every year. In the year 2011, however it has totally reduced capital adjustment reserves. Instead, it has issued additional equity capital during 2010, 2011 and 2012 which increased its core capital fund for the respective years. As compare to the previous year, EBL has become able to increase its core capital significantly. It has increased its core capital by Rs. 555,513,000 in 2012 whereas the increment value of core capital in 2011 was Rs. 420,720,000. It has increased paid up equity share significantly in the year 2010, 2011 and 2012, which constitute a large portion of increased core capital to maintain standards maintained by NRB in accordance with the BASEL-II accord. Along with such increments in core capital it has also increased its capital adjustment reserve which was nil in 2012.

Composition of Core Capital fund of Everest Bank for the last five years has been illustrated in the following figure.

Figure 21: Core Capital of EBL from 2008 to 2012



Referring to above figure, it can be disclosed that the core capital fund of EBL has a trend of increment which is reasonable. If it continues to increase reserve and surpluses as the components of core capital it can easily attain the new capital regulations that can be expected from the regulatory body or NRB.

4.4.4 Supplementary Capital of Everest Bank Ltd

After the evaluation of core capital an attempt has been made here to disclose about the condition of supplementary capital of EBL in past five years. Supplementary capital of Everest bank is composed of only five components in 2012. It has no balance of assets revaluation reserve, hybrid capital instrument, investment adjustment reserve; interest spread reserve and contingent reserve. The total of supplementary core capital of 2012 is reduced in comparison to 2011 which is because of the decrease in Subordinated term Debt and General Loan Loss Provision. Further condition of supplementary capital of EBL has been presented below.

Table 24: Supplementary Capital of Everest Bank Limited in from 2008 to 2012

S.N	Supplementary Capital Components	2012	2011	2010	2009	2008
1	Cumulative and or Redeemable Preference Share	200,000,000	200,000,000	340,000,000	-	-

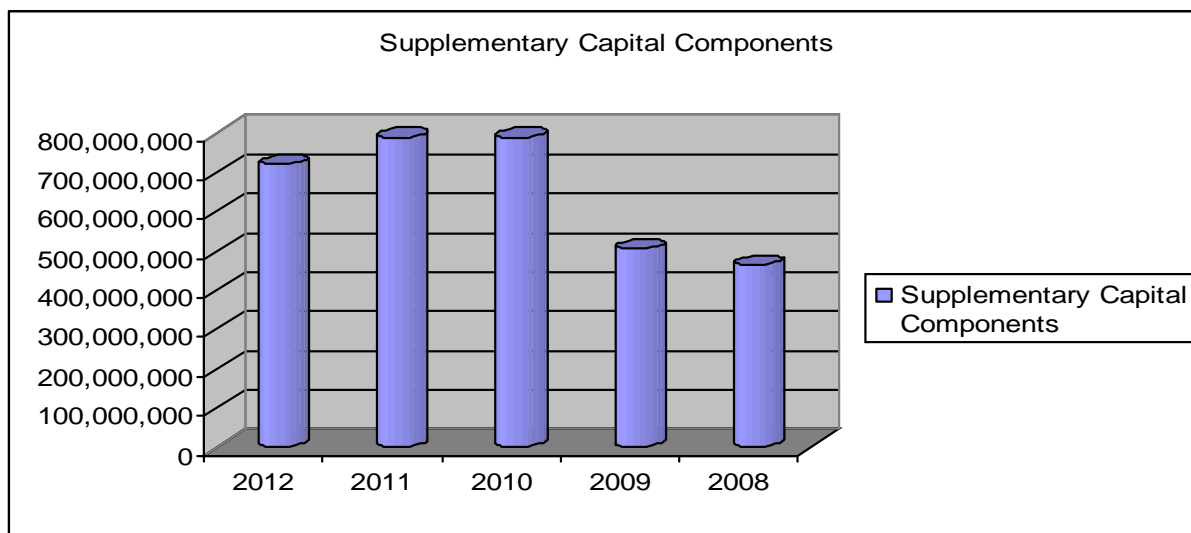
2	Subordinated term Debt	120,000,000	180,000,000	240,000,000	300,000,000	300,000,000
3	Hybrid Capital Instruments	-	-	-	-	-
4	General Loan Loss provision	280,308,000	282,486,000	185,553,000	137,506,000	97,572,000
5	Exchange Equalization Reserve	22,044,000	22,044,000	20,378,000	16,968,000	16,650,000
6	Investment Adjustment Reserve	-	-	-	-	-
7	Assets Revaluation Reserve	-	-	-	-	-
8	Additional Loan Loss Provision	97,697,000	77,761,000	-	49,703,000	43,567,000
9	Interest Spread Reserves	-	-	-	-	-
10	Provision For Loss on Investment	-	-	-	805,000	-
11	Contingent/Other Reserve	-	-	-	-	6,000,000
	TOTAL	720,049,000	787,531,000	787,531,000	504,982,000	463,789,000

Source: Annual Reports of Everest Bank

Above table explains the composition of tier two capital of Everest Bank Limited over last five years. The growth rate in supplementary capital is not constant. The above table shows that the total supplementary capital in 2010 and 2009 has been increased by 55.95% and 8.88% in comparison to its previous years whereas there is no any change in the total supplementary capital in Year 2010 and 2011. The total Supplementary capital in 2012 has been decreased by 8.57% in comparison to 2011. The only one component increased in supplementary capital of 2012 is additional loan loss provision despite of reduction in Subordinated term Debt and General Loan Loss provision.

The condition of tier-II capital of Everest Bank Ltd. can be further explained through the following chart.

Figure 22: Supplementary Capital of Everest Bank Ltd during the study period



As the summary of the above analysis, its position of core capital and supplementary capital on over the last five years along with capital adequacy ratio has been presented under following table as follows:

4.4.5 Capital Adequacy of Everest Bank Limited

Upon analysis it has been disclosed that Everest Bank Limited has maintained the required capital fund prescribed by the NRB Capital Adequacy Regulation as per 2010. It also has become able to meet the international standard of capital regulation. Its overall condition of capital fund in terms of risk weighted exposure for past five years has been highlighted in table no. 25

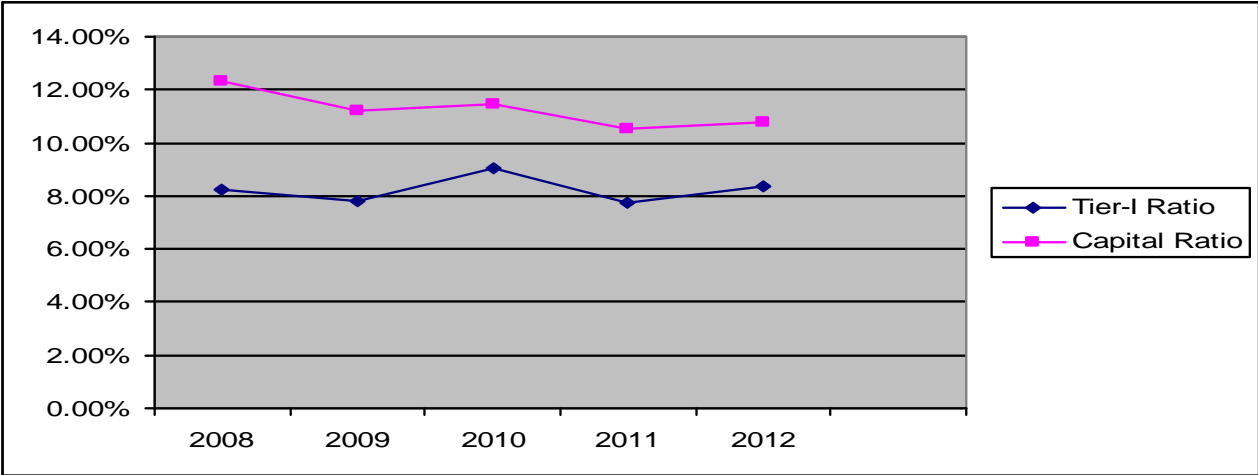
Table 25: Capital Adequacy of EBL from 2008 to 2012

Year	Tier-1 Capital	Tier-II Capital	Total Capital	Tier-I Ratio	Capital Ratio
2008	927,550,000	463,789,000	1,391,339,000	8.21%	12.32%
2009	1,171,133,000	504,982,000	1,676,115,000	7.82%	11.20%
2010	1,560,859,000	787,531,000	2,348,390,000	9.04%	11.44%
2011	1,981,579,000	787,531,000	2,769,110,000	7.73%	10.55%
2012	2,537,092,000	720,049,000	3,257,141,000	8.39%	10.77%

Source: Annual Reports of Everest Bank from 2008 to 2012

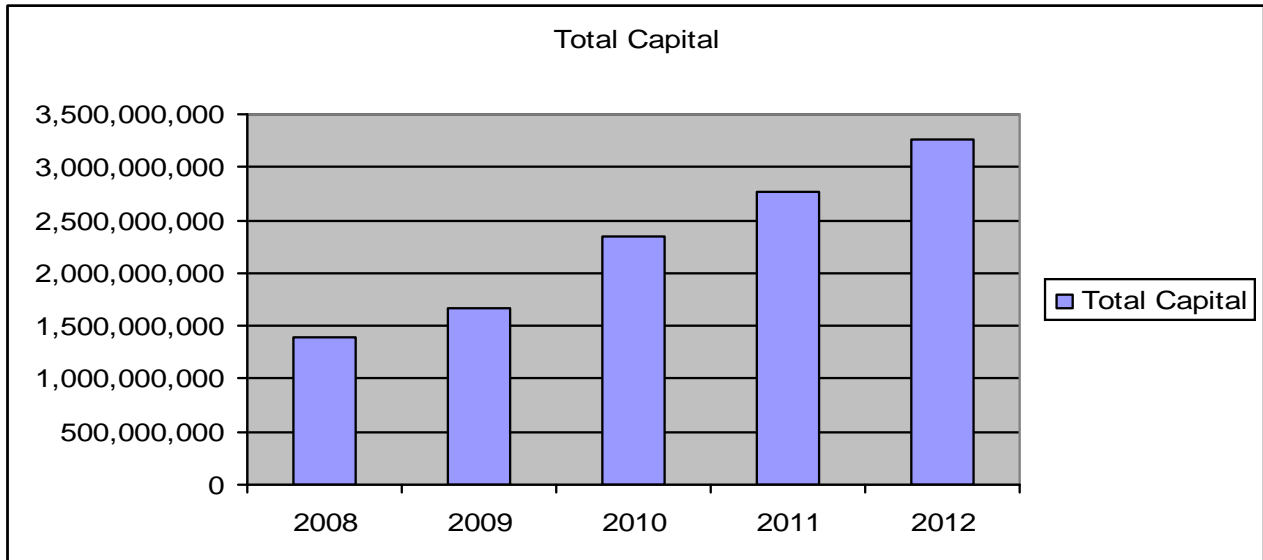
The above table explains the capital position of Everest Bank Ltd. for last five years. Through the analysis of table, it seems clear that capital ratio was highest of 12.32 percent in the year 2008. According to the NRB directives, total capital fund should not be less than the 10% of the total risk weighted exposure. It has been able to meet the requirement of Capital Adequacy in all the five years as per the requirement of Basel-II and NRB. Beside the standard maintained by bank, it is clear that it has not given significant importance on supplementary capital. In the sense, it can be concluded that, bank has become successful to minimize its risks to maintain capital as adequate as required by regulations. It can be further illustrated with the help of graphical line showing the percentage increase in tier-I and tier-II capital during the study period.

Figure 23: Percentage Increase in Capital Fund during study Period



Above figure explains that there is no any constant change in the capital fund from 2008 to 2012. As we can see, total capital has decreased by 9.09% over its previous year’s value in 2008 to 2009 but in 2010 it has been increased by 2.1% in comparison to 2009. Similarly the Capital ratio in 2012 is increased by 2.09% in comparison to year 2011. Tier - I ratio also shows large variations over the period. It was decreased by about 4.75 in 2009 as compared to 2008 but it has increased by about 15.60% during 2010 over 2009 value following by 14.49% decrease in 2011 and 8.54% increase in 2012.

Figure 24: Capital Composition of Everest Bank from 2008 to 2012



Everest Bank Limited has significantly increased the capital fund in during the five years. According to above table it can be seen that EBL has become able to maintain at least 6% tier one capital ratio at least 10 % Capital Adequacy in all the years which is above the requirement of NRB directives. It seems that the bank has maintained Tier-II capital ratio as directed by NRB.

4.5 Capital standard of Standard Chartered Bank Nepal Limited (SCBNL):

Standard Chartered Bank Nepal Limited is an integral part of Standard Chartered Group having an ownership of 75% in the company with 25% shares owned by the Nepalese public. The Bank enjoys the status of the largest international bank currently operating in Nepal.

With 18 points of representation, 23 ATMs across the country and with more than 350 local staff, Standard Chartered Bank Nepal Ltd. is in a position to serve its customers through an extensive domestic network Standard Chartered Bank Nepal Limited offers a full range of banking products and services in Consumer banking, Wholesale and SME Banking catering to a wide range of customers encompassing individuals, mid-market local corporate, multinationals, large public sector companies, government corporations, airlines, hotels as well as the DO segment comprising of embassies, aid agencies, NGOs and INGOs.

The Bank has been the pioneer in introducing 'customer focused' products and services in the country and aspires to continue to be a leader in introducing new products in delivering

superior services. It is the first Bank in Nepal that has implemented the Anti-Money Laundering policy and applied the 'Know Your Customer' procedure on all the customer accounts.

4.5.1 On Balance Sheet and Off Balance Sheet Exposure of SCBNL:

The on balance sheet and off balance sheet exposure of risk for last five years of Standard Chartered Bank Nepal Limited has been presented in form of following tabular presentation.

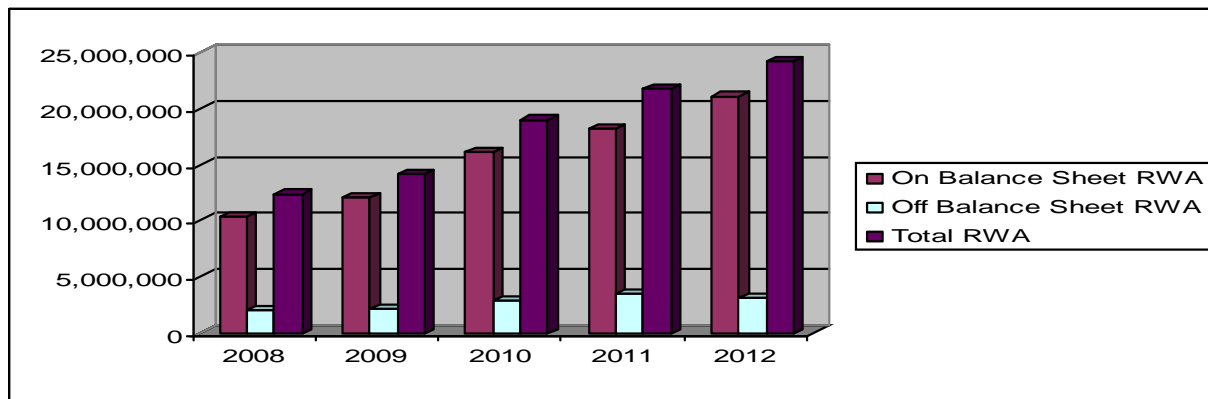
Table 26: On Balance Sheet and Off Balance Sheet Exposure of SCBNL In “000”

Year	2008	2009	2010	2011	2012
On Balance Sheet RWA	10,321,958	12,028,796	16,087,997	18,230,217	21,058,857
Off Balance Sheet RWA	2,047,530	2,139,623	2,881,856	3,472,947	3,125,728
Total RWA	12,369,488	14,168,420	18,969,853	21,703,164	24,184,585

Source: Annual Reports of SCBNL from 2008 to 2012

Analyzing the above components of the bank’s books of account it has been known that the total amount of on balance sheet and off balance sheet exposure of SCBNL has been in increasing trend. With the increase in capital, bank has increased its total risk weighted exposure by about 96% in recent five years which is the indicator of increasing transactions of the bank. Its total risk weighted exposure has increased in average annual growth rate of 14% approximately during the study period. In on balance sheet components, high risk assets held by the bank in significant amount comes from the claims on regulatory retail portfolio, claims secured by residential properties, claims on other banks, Claims on domestic, Corporate and securities firms, past due claims and high risk claims. In recent five years on balance sheet exposures has significantly increased. However, off balance sheet RWA has been decreased in the year 2012 with comparison to year 2011. Above explanation of on balance sheet exposure and off balance sheet exposures can also be clarified from the following diagrammatical presentation.

Figure 25: Risk Weighted Exposure of SCBNL from 2008 to 2012



4.5.2 Risk Weighted Exposure for Credit Risk, Operational Risk and Market Risk

In order to ensure the sound capital assessment process, all three risks that have direct impact on the capital adequacy level are managed in structured manner with clear roles and responsibilities. For managing the credit risk the country underwriting standards, Country credit policy, Credit policy manual, and product development documents have been prepared and implemented. Any exception to the standard get escalated to and approved by the appropriate authorities as stipulated in the standards, policy, and manual with audit trail.

Operational risk Management & Assurance Framework (ORMAF) has been implemented for managing operational risks. In line with ORMAF, the 3 lines with defense ensure effective management of all risks including the credit, operational and market risk. In the three lines of defense, business is put in the first line which is primarily responsible for the risk. Similarly compliance and assurance are in the second and third line of defense which provides the independent assurance to the Board and Senior Management on the effectiveness of the risk management. The market risks are managed in line with the Liquidity, Market Risk and the Credit policy of the bank. As the credit risk is the main component of risk composition of every bank affecting its overall operation, following table represents the existing condition of credit risk exposure of SCBNL.

Table 27: Credit Risk Weighted Exposure of SCBNL Bank in 2012

S.N.	Categories	Risk Weighted Exposure
1	Claims on Government and Central Bank	-
2	Claims on Other Financial Entities	151,639,500
3	Claims on Banks	3,790,895,316
4	Claims on Domestic, Corporate and Securities Firms	2,433,750,130

5	Claims on Regulatory Retail Portfolio	4,175,840,295
6	Claims secured by Residential Properties	2,159,154,066
7	Claims secured by Commercial Real Estate	2,568,183,031
8	Past Due claims	263,312,055
9	High Risk claims	1,514,512,572
10	Other Assets	596,867,589
11	Off Balance Sheet	3,125,728,239
TOTAL		20,779,882,793

Source: Annual Report of SCBNL.

The bank management is responsible for understanding the nature and level of risk taken by the bank and relating the risk to the capital adequacy level. The Credit risk committee reviews the credit risk, analyze the trend, assess the exposure impact on capital and provide the summary report to Management Committee.

In respect of operational risk, the Consumer Banking, Wholesale Banking and each support function Business Operational Risk Manager provide operational loss data to Country Operational Risk Assurance Manger who in turn analyze the trend and provide a summary report to Management Committee. Finance and Strategic planning checks the capital charge on operational risk.

With regard to market risk, the financial markets Operation maintains net open position of all currency on daily basis and provides data to Head Financial market who reviews and analyze the trend, assess the exposure impact on capital and provide a summary report to Management Committee. The net open position report is also discussed at ALCO.

According to the table no. 27, SCBNL holds large amount of claims on regulatory retail portfolio and claim on other banks. Claims on government and central bank are subject of no risk categories, so their risk weighted exposure is equal to nil.

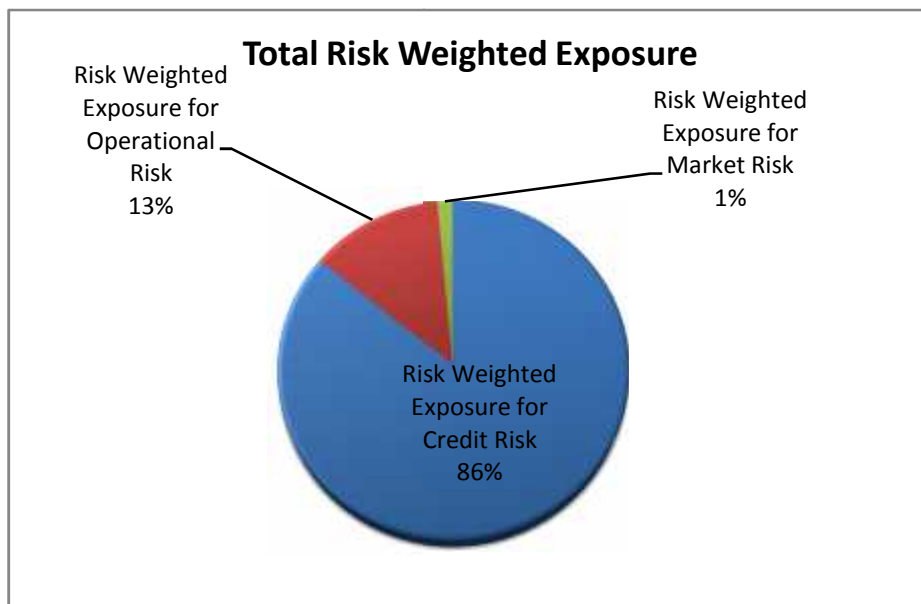
Risk weighted exposure of other two risks and total risk weighted exposure is presented in the following table:

Table 28: Total Risk Weighted Exposure of SCBNL in 2012

Particulars	Amount
Risk Weighted Exposure for Credit Risk	20,779,883,000
Risk Weighted Exposure for Operational Risk	3,058,847,000
Risk Weighted Exposure for Market Risk	345,855,000
Total Risk Weighted Exposure	24,184,585,000

SCBNL’s total risk weighted assets composed all three categories of risk. Credit risk exposure constitute large portion in total RWA which equal to 85.92% of total risk exposure. Other two risks, operational and market risk constitute 12.65% and 1.43% of total RWA respectively. A pie chart of the total RWA of NABIL has been shown in following figure.

Figure 26: Total RWA of SCBNL in 2012



4.5.3 Core Capital of Standard Chartered Bank Nepal Limited

Standard Chartered Bank Nepal Limited has maintained following balance on core capital of its capital fund at the end of 2012.

Table 29: Core Capital of SCBNL from 2008 to 2012

Core Capital		2012	2011	2010	2009	2008
1	Paid up Capital	1,398,484,000	931,966,000	620,784,000	413,255,000	374,640,000
2	Irredeemable Preference Share	-	--	-	-	-
3	Share Premium	-	-	-	-	-
4	Proposed Bonus Equity Share	209,772,000	465,983,000	-	-	-
5	Statutory General Reserve	1,412,491,000	1,195,317,000	990,294,000	826,510,000	749,281,000
6	Retained Earnings	29,965,000	239,495,000	383,288,000	504,725,000	370,585,000
7	Capital Redemption Reserve	-	-	-	-	-
8	Capital Adjustment Reserve	-	-	-	-	74,928,000
9	Dividend Equalization Reserve	-	-	-	-	-
10	Deferred Tax Reserve	-	-	-	-	-
11	Debenture Redemption Reserve	-	-	-	-	-
12	Other Free Reserves	-	-	310,392,000	206,627,000	37,434,000
Eligible Deductions:						
1	Goodwill	-	-	-	-	-
2	Investment more than limit	-	-	-	-	-
3	Fictitious Assets	-	-	-	-	-
4	Investment in shares under Underwriting Arrangement	-	-	-	-	-
Total of Core Capital		3,050,712,000	2,832,761,000	2,304,758,000	1,951,117,000	1,606,898,000

Source: Annual Reports of SCBNL

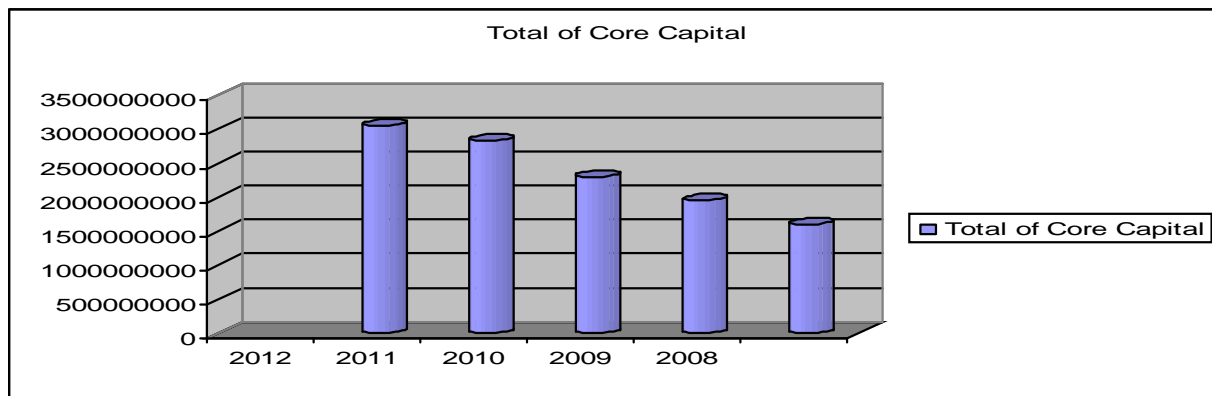
In regards to the core capital of the SCBNL it can be seen that it has provided no value for the Goodwill as well as other fictitious assets. It has not invested the fund over the prescribed limit in share and debentures of the other companies which are the subjects to be deducted from the core capital.

SCBNL had added proposed bonus equity share as core capital components from 2011. Statutory general reserve and equity capital are the main components increasing the size of core capital. It

core capital has significantly increased in recent five years. Total core capital fund has been increasing with the annual compound growth rate of approximately 12.47%. In the year 2009, it has totally reduced capital adjustment reserves. Instead, it has issued additional equity capital in almost every year which increased its core capital fund for the year. As compare to the previous year SCBNL has become able to increase its core capital in amounts significantly. It has increased its core capital by Rs. 217,951,000 in 2012 which is 7.69% higher than its value on 2011. It has increased paid up equity share significantly in the year 2012 in comparison to year 2011, which constitute a large portion of increased core capital to maintain standards maintained by NRB in accordance with the BASEL-II accord. However retained earning has been decreased by Rs. 209,530,000 in the year 2012, which is 87.49% less than its value on 2011. The value of core capital has been increased every year. Along with such increments in core capital it has also reduced its capital adjustment reserve entirely.

Composition of Core Capital fund of SCBNL for the last five years has been illustrated in the following figure.

Figure 27: Core Capital of SCBNL during the study period



Source: Annual Reports of SCBNL

Referring to above figure, it can be disclosed that the core capital fund of SCBNL has a trend of increment which is reasonable. If it continues to increase reserve and surpluses as the components of core capital it can easily attain the new capital regulations that can be expected from the regulatory body or NRB.

4.5.4 Supplementary Capital of SCBNL:

After the evaluation of core capital an attempt has been made here to disclose about the condition of supplementary capital of SCBNL in past five years. Supplementary capital of SCBNL is

composed of only four components in 2012. It has no balance of assets revaluation reserve, Interest Spread Reserve, hybrid capital instrument like preferred stock and investment reserve. Further condition of supplementary capital of SCBNL has been presented below.

Table 30: Supplementary Capital of SCBNL from 2008 to 2012:

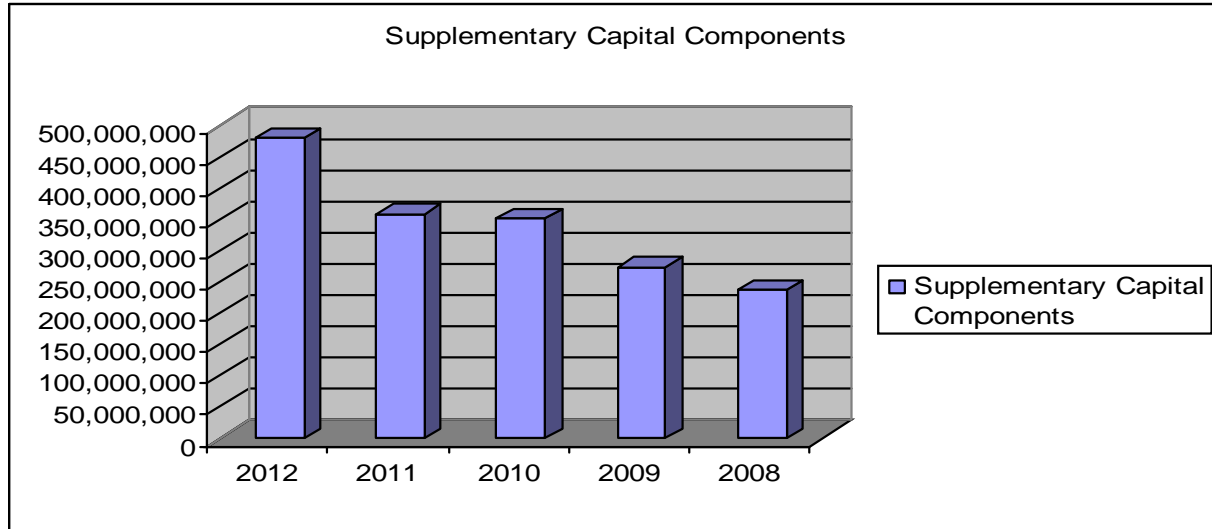
S.N	Supplementary Capital Components	2012	2011	2010	2009	2008
1	Cumulative and or Redeemable Preference Share	-	-	-	-	-
2	Subordinated term Debt	-	-	-	-	-
3	Hybrid Capital Instruments	-	-	-	-	-
4	General Loan Loss provision	160,784,000	137,897,000	138,353,000	105,931,000	90,103,000
5	Exchange Equalization Reserve	241,090,000	219,709,000	187,791,000	165,236,000	147,241,000
6	Investment Adjustment Reserve	1,626,000	-	-	-	-
7	Assets Revaluation Reserve	-	-	-	-	-
8	Additional Loan Loss Provision		-	-	-	-
9	Interest Spread Reserves		-	-	-	-
10	Provision For Loss on Investment		-	24,375,000	3,000,000	-
11	Contingent/Other Reserve	76,281,000	-		-	-
	TOTAL	479,781,000	357,606,000	350,519,000	274,167,000	237,344,000

Source: Annual Reports of SCBNL Bank

Above table explains the composition of tier two capital of SCBNL over last five years, it has introduced provision for loss on investment in year 2009 and 2010. On the other hand, Contingent/Other Reserve is also maintained in 2012. In total average compounding growth rate for the tier II capital is approximately 34.16% annually ignoring seasonal variations in particular years, as we can see in above table, the major components increased in supplementary capital are Exchange Equalization Reserve and General Loan Loss provision.

The condition of tier-II capital of SCBNL can be further explained through the following chart.

Figure 28: Supplementary Capital of SCBNL from 2008 to 2012:



Looking after the trend increment in the supplementary capital of SCBNL it can be disclosed that in recent year SCBNL has increased its leverage ratios significantly to meet the required capital adequacy framework.

As the summary of the above analysis, its position of core capital and supplementary capital on over the last five years along with capital adequacy ratio has been presented under following table.

4.5.5 Capital Adequacy of SCBNL

Upon analysis it has been disclosed that SCBNL has maintained the required capital fund prescribed by the NRB Capital Adequacy Regulation as per 2012. It also has become able to meet the international standard of capital regulation. Its overall condition of capital fund in terms of risk weighted exposure for past five years has been highlighted in table below:

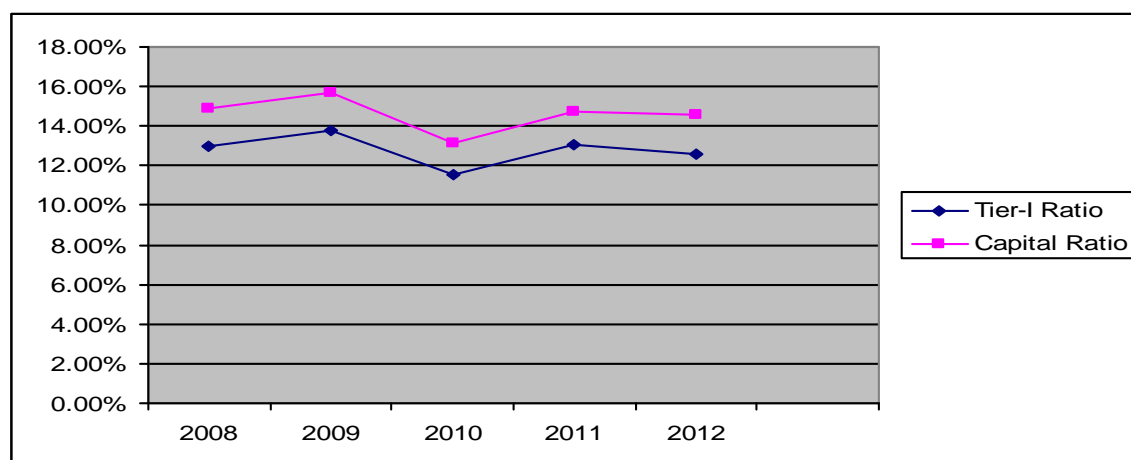
Table 31: Capital Adequacy of SCBNL for last five years

Year	Tier-1 Capital	Tier-II Capital	Total Capital	Tier-I Ratio	Capital Ratio
2008	1,606,898,000	237,344,000	1,844,242,000	12.99%	14.93%
2009	1,951,117,000	274,167,000	2,225,284,000	13.77%	15.71%
2010	2,304,758,000	350,519,000	2,606,326,000	11.52%	13.15%
2011	2,832,761,000	357,606,000	2,987,368,000	13.05%	14.70%
2012	3,050,712,000	479,781,000	3,368,410,000	12.61%	14.60%

Source: Annual Reports of SCBNL from 2008 to 2012

Table no. 31 above explains the capital position of SCBNL for last five years. Through the analysis of table, it seems clear that capital ratio was highest of 15.71 percent and Tier-I ratio 13.77 % in the year 2009. Up to the study period 2012 capital adequacy ratio of the bank was above 14.60% which is enough to meet the requirement of Basel as well as NRB. It can be further illustrated with the help of graphical line showing the percentage increase in tier-I and tier-II capital during the study period.

Figure 29: Percentage Increase in Capital Fund during study Period



4.6 Capital standard of Nepal SBI Bank Limited (NSBL)

Nepal SBI Bank Ltd. (NSBL) is the first Indo-Nepal joint venture in the financial sector sponsored by three institutional promoters, namely State Bank of India, Employees Provident Fund and Agricultural Development Bank of Nepal through a Memorandum of Understanding signed on 17th July 1992. NSBL was incorporated as a public limited company at the Office of the Company Registrar on April 28, 1993 under Regn. No. 17-049/50 with an Authorized Capital of Rs.12 Crores and was licensed by Nepal Rastra Bank on July 6, 1993 under license No. NRB/I.Pa./7/2049/50. NSBL commenced operation with effect from July 7, 1993 with one full-fledged office at Durbar Marg, Kathmandu with 18 staff members. The staff strength has since increased to 511. Under the Banks & Financial Institutions Act, 2063, Nepal Rastra Bank granted fresh license to NSBL classifying it as an "A" class licensed institution on April 26, 2006 under license No. NRB/I.Pra.Ka.7/062/63. The Authorized, Issued and Paid-Up Capitals have been increased to Rs. 200 Crores, Rs. 186.93 Crores and Rs. 186.93 Crores, respectively. The management team and the Managing Director who is also the CEO of the Bank are deputed by SBI. SBI also provides management support as per the Technical Services Agreement. Fifty five percent of the total share capital of the Bank is held by the State Bank of India, fifteen percent is held by the Employees Provident Fund and thirty percent is held by the general public.

4.6.1 On Balance Sheet & Off Balance Sheet Exposure of NSBL.

On balance sheet and off balance sheet exposure of risk for last five years of Nepal SBI Bank Limited has been presented in form of following tabular presentation.

Table 32: On Balance Sheet and Off Balance Sheet Exposure of NSBL

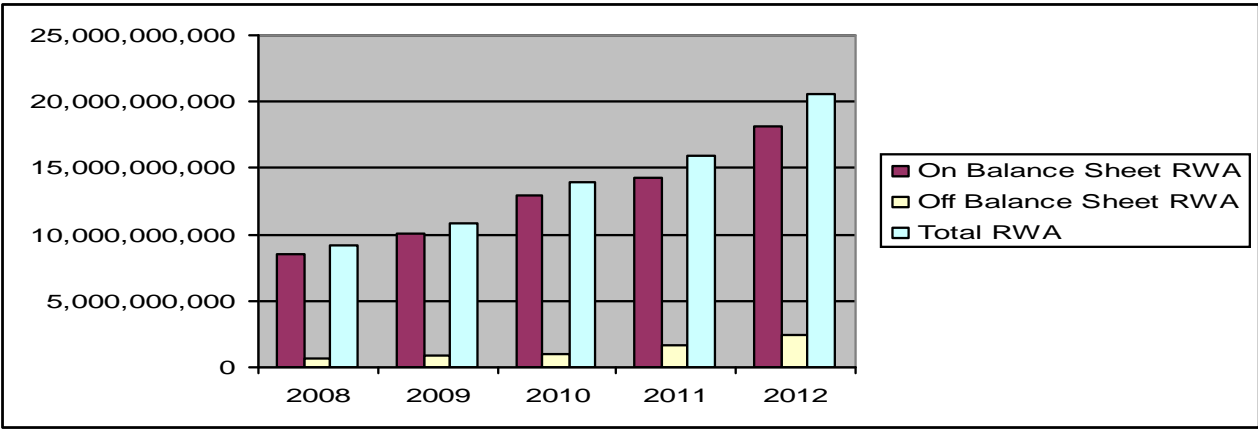
Year	2008	2009	2010	2011	2012
On Balance Sheet RWA	8,485,105,152	10,021,957,116	12,938,523,755	14,296,474,941	18,139,346,914
Off Balance Sheet RWA	674,165,621	851,321,444	1,037,184,562	1,608,302,602	2,440,939,132
Total RWA	9,159,270,773	10,873,278,560	13,975,708,317	15,904,777,543	20,580,286,046

Source: Annual Reports of NSBL from 2008 to 2012

Total amount of on balance sheet and off balance sheet exposure of Nepal SBI Bank Limited has been presented in above table. With the increase in capital, bank has increased its total risk weighted exposure by 124.69% in recent five years which is the indicator of increasing transactions of the bank.

Figure 30: Risk Weighted Exposure of NSBL:

On the basis of above table, On Balance Sheet RWA and Off Balance Sheet RWA can be presented as following figure.



Nepal SBI Bank Limited has significantly increased its total risk weighted exposure in 2011 and 2012. During the study period RWA has been increasing continuously. It implies that NSBL has become able to increase its balance sheet items in recent year. It shows the strength of NSBL in its high profitability and assets expansion.

4.6.2 RWA for Credit Risk, Operational Risk and Market Risk.

Credit risk is the important type of risk concerned with the banking operation. So, to highlight the main components of credit risk of NSBL, Composition of the credit risk weighted exposure for the year 2012 has been presented in table no. 33

Table 33: Credit Risk Weighted Exposure of NSBL in 2012

S.N.	Categories	Risk Weighted Exposure
1	Claims on Government and Central Bank	-
2	Claims on Other Financial Entities	171,423,000
3	Claims on Banks	2,655,418,000
4	Claims on Domestic, Corporate and Securities Firms	9,826,777,000
5	Claims on Regulatory Retail Portfolio	2,252,275,000
6	Claims secured by Residential Properties	1,522,877,000
7	Claims secured by Commercial Real Estate	141,412,000
8	Past Due claims	50,681,000
9	High Risk claims	754,730,000
10	Other Assets	763,752,000
11	Off Balance Sheet	2,440,939,000
TOTAL		20,580,284,000

Source: Annual Reports of NSBL

As on 2012, Nepal SBI Bank Limited has total risk weighted exposure for credit risk equal to Rs. 20,580 million. Large portion of risk weighted claim on domestic, corporate and Securities Firms followed by claims on Regulatory retail portfolios.

Risk weighted exposure of other two risks and total risk weighted exposure is presented in the following table:

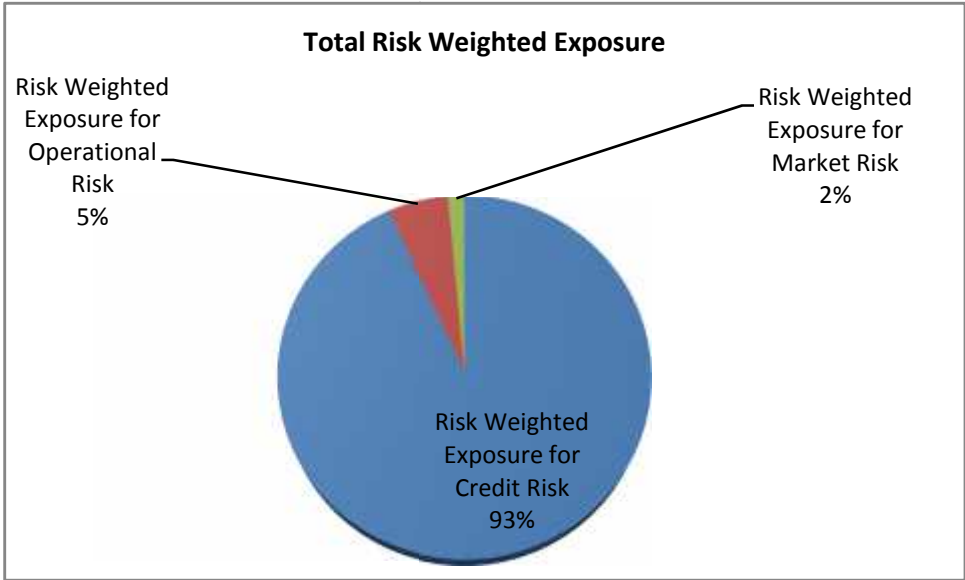
Table 34: Total Risk Weighted Exposure of NSBL in 2012

Particulars	Amount
Risk Weighted Exposure for Credit Risk	20,580,286,000
Risk Weighted Exposure for Operational Risk	1,196,120,000
Risk Weighted Exposure for Market Risk	322,957,000
Adjustment under pillar-II	220,994,000
Total Risk Weighted Exposure	22,320,357,000

Source: Annual Reports of NSBL

For the year the bank has risk weighted exposure for operational risk of Rs. 1,196 million and risk weighted exposure for market risk is of Rs. 322 million. From this, it seems clear that risk weighted exposure for market risk is low. An attempt has been made here to show its composition of total risk exposure in the following pie chart.

Figure 31: Total RWA of NSBL in 2012:



Above figure explains the condition of risk weighted exposure of Nepal SBI Bank Limited in 2012. It has negligible portion of RWE contributed from the market risk which constitutes only 2% of the total risk exposure. About 5% of RWE comes from Operational risk and remaining with credit risk. From these values it can be concluded that it has mitigated the operational and market risk but still holds the large portion of risk for credit risk against which it should maintain large amount of capital.

4.6.3 Core Capital of Nepal SBI Bank Limited.

The bank has seven items as the components of core capital and one item as the deduction from core capital. Paid up capital, Statutory General Reserve and Debenture Redemption reserve constitute large portion in the form of core capital of the bank. Its composition of core capital from 2008 to 2012 has been presented in the following table.

Table 35: Core Capital of Nepal SBI Bank from 2008 to 2012

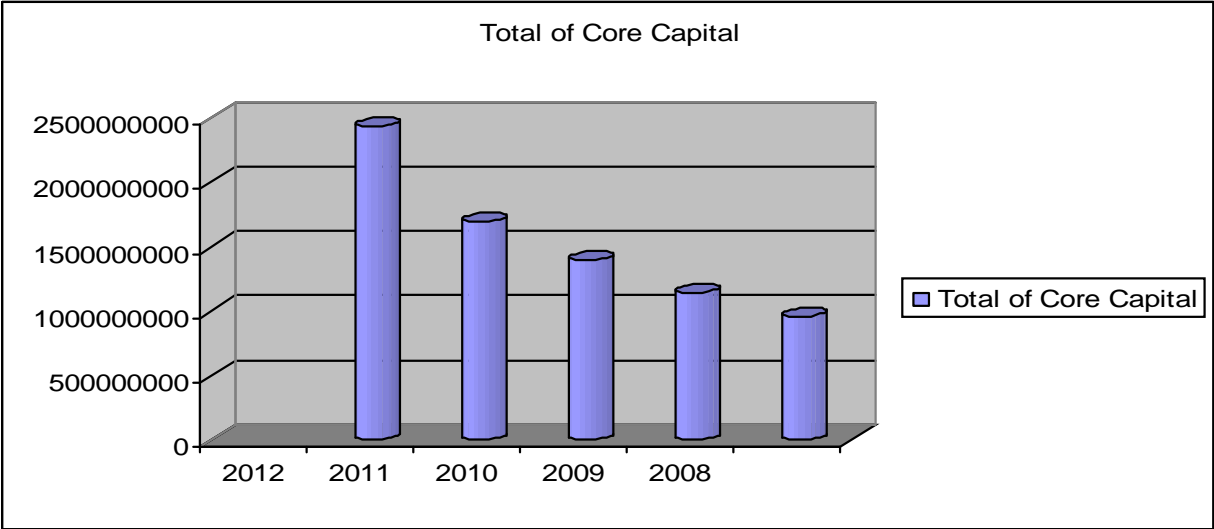
Core Capital		2012	2011	2010	2009	2008
1	Paid up Capital	1,653,623,877	874,527,840	874,527,840	647,798,400	640,236,100
2	Irredeemable Preference Share	-	-	-	-	-
3	Share Premium	-	-	-	-	-
4	Proposed Bonus Equity Share	207,700,362	349,811,136	-	-	-
5	Statutory General Reserve	282,868,285	304,519,861	241,245,162	191,691,010	140,709,241
6	Retained Earnings	4,249,307	3,848,810	1,528,836	665,892	1,705,920
7	Capital Redemption Reserve	-	-	-	-	-
8	Capital Adjustment Reserve	50,000,000	65,000,000	230,000,000	60,000,000	192,413,490
9	Dividend Equalization Reserve	-	-	-	-	-
10	Deferred Tax Reserve	26,984,687	18,985,145	-	-	-
11	Debenture Redemption Reserve	114,285,716	85,714,287	-	-	-
12	Other Free Reserves	-	-	57,142,858	255,300,869	-
Eligible Deductions:						
1	Miscellaneous Assets Not Written Off	-	344,840	-	-	-
2	Goodwill	-	-	-	-	-
3	Investment more than limit	-	-	-	-	-
4	Fictitious Assets	-	-	689,681	1,034,522	1,701,700
5	Investment in shares under Underwriting Arrangement	9,691,000	9,691,000	9,691,000	8,943,000	8,943,000
Total of Core Capital		2,430,021,234	1,692,371,238	1,394,064,015	1,145,478,649	964,420,051

Source: Annual Reports of NSBL from 2008 to 2012

Above table reflects the position of core capital of Nepal SBI Bank Limited for last five years. Its core capital has been significantly increased from 2011 to 2012 as a result of increasing requirement of NRB regulations and Basel requirements. As compared to 2011 it has increased its core capital by 44% in 2012, where large portion comes from the issue of right share to the existing share holders.

Composition of Core Capital fund of Nepal SBI Bank Ltd. for the last five years has been illustrated in the following figure.

Figure 32: Core Capital of Nepal SBI Bank Limited during the study period:



4.6.4 Supplementary Capital of Nepal SBI Bank Limited.

So far as concerned to its supplementary capital, it has about 304 million as Tier – II capital in 2012. Its main component constituting large proportion in supplementary capital is General loan loss provision followed by Subordinated term debt. Composition of Tier – II Capital of Nepal SBI Bank Ltd. from the year 2008 to 2012 has been presented as under.

Table 36: Supplementary Capital of NSBL from 2008 to 2012

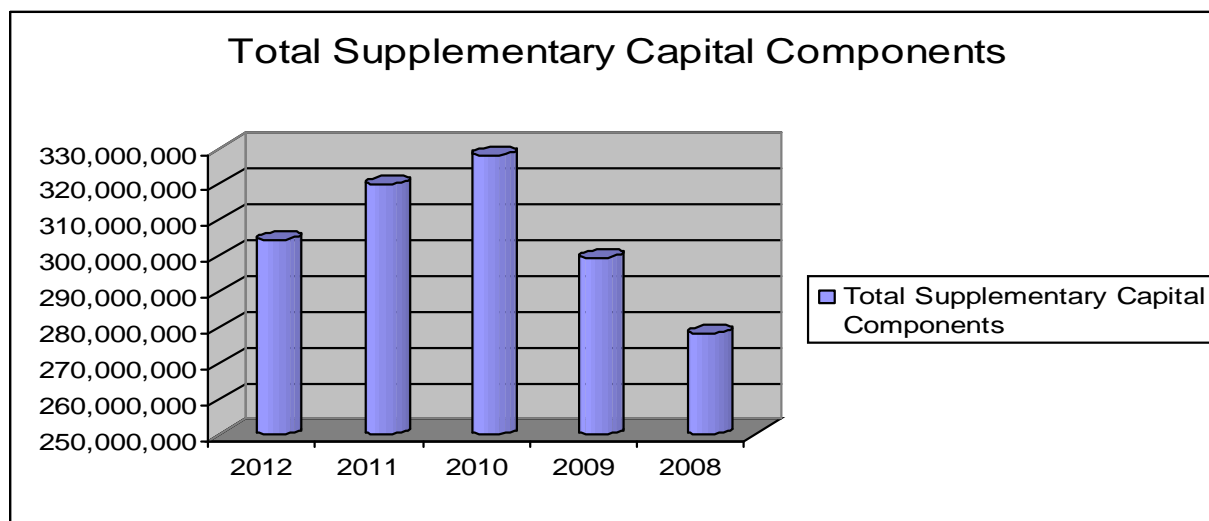
S.N	Supplementary Capital Components	2012	2011	2010	2009	2008
1	Cumulative and or Redeemable Preference Share	-	-	-	-	-
2	Subordinated term Debt	120,000,000	160,000,000	200,000,000	200,000,000	200,000,000
3	Hybrid Capital Instruments	-	-	-	-	-
4	General Loan Loss provision	173,583,537	149,466,541	117,922,667	91,486,927	70,841,219
5	Exchange Equalization Reserve	10,200,116	10,200,116	10,200,116	7,834,680	7,308,977
6	Investment Adjustment Reserve	641,720	-	-	-	-
7	Assets Revaluation Reserve	-	-	-	-	-
8	Additional Loan Loss Provision	-	-	-	-	-
9	Interest Spread Reserves	-	-	-	-	-
10	Provision For Loss on Investment	-	-	-	-	-
11	Contingent/Other Reserve	-	-	-	-	-
	TOTAL	304,425,373	319,666,657	328,122,783	299,321,607	278,150,196

Source: Annual Reports of NSBL

Above table explains about the composition of supplementary capital of Nepal SBI Bank Limited since 2008. It has few components under the supplementary capital fund where large portion of capital fund comes from General loan loss provision and Subordinated term debt.

The condition of tier-II capital of Nepal SBI Bank Ltd. can be further explained through the following chart.

Figure 33: Supplementary Capital of NSBL from 2008 to 2012:



As the summary of the above analysis, its position of core capital and supplementary capital on over the last five years along with capital adequacy ratio has been presented under following table.

4.6.5 Capital Adequacy of Nepal SBI Bank Ltd.:

Upon analysis it has been disclosed that Nepal SBI Bank Ltd. has maintained the required capital fund prescribed by the NRB Capital Adequacy Regulation as per 2012. It also has become able to meet the international standard of capital regulation. Its overall condition of capital fund in terms of risk weighted exposure for past five years has been highlighted in table below:

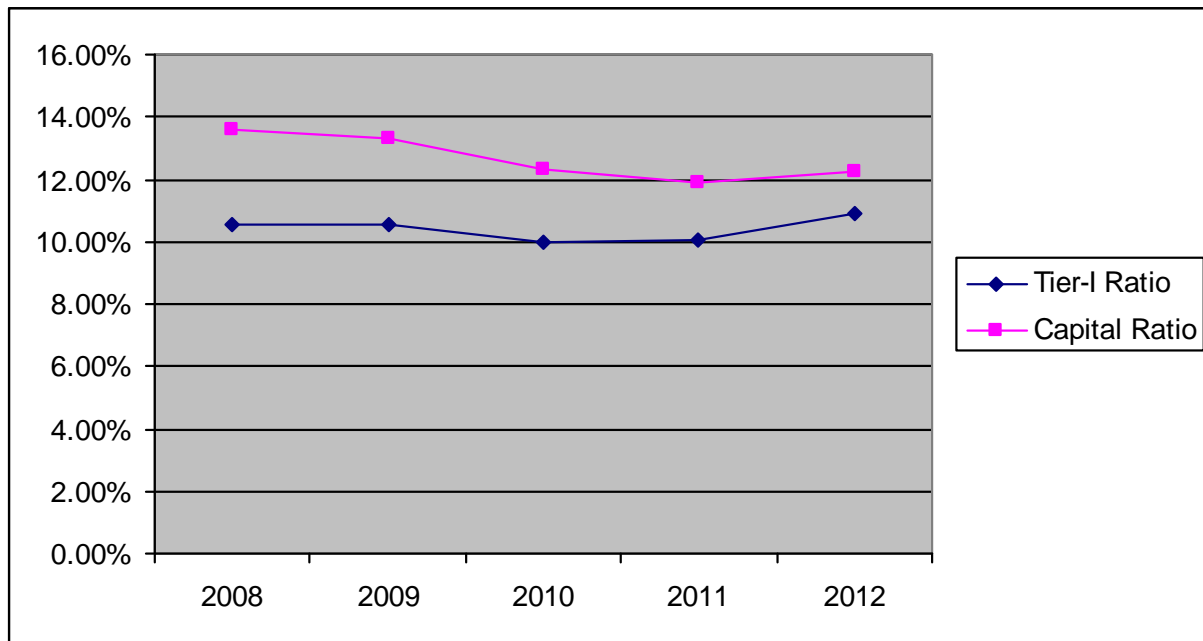
Table 37: Capital Adequacy of NSBL for last five years:

Year	Tier-1 Capital	Tier-II Capital	Total Capital	Tier-I Ratio	Capital Ratio
2008	964,420,051	278,150,196	1,242,570,247	10.53%	13.57%
2009	1,145,478,649	299,321,607	1,444,800,256	10.53%	13.29%
2010	1,394,064,015	328,122,783	1,722,186,798	9.97%	12.32%
2011	1,692,371,238	319,666,657	2,012,037,895	10.03%	11.92%
2012	2,430,021,234	304,425,373	2,734,446,607	10.89%	12.25%

Source: Annual Reports of NSBL from 2008 to 2012

Nepal SBI Bank Limited has maintained adequate capital for all three kinds of risk in all five years of study period. In every year, it has maintained core capital for more than minimum limit of 5.5% prescribed by Basel – II and NRB directives. It can be further illustrated with the help of graphical line showing the percentage increase in tier-I and tier-II capital during the study period.

Figure 29: Percentage Increase in Capital Fund during study Period:



4.7 Comparative Analysis of Sampled Banks:

Upon the study of the capital adequacy of NABIL, BOK, HBL, EBL, SCBNL and NSBIBL, which represent more than 20% of the total commercial banks operating for more than five years, it can be disclosed that Nepalese banks are doing well enough as per the capital adequacy requirements prescribed by Nepal Rastra Bank. They have also become able to meet international standard of capital adequacy to Basel – II.

Table 38: Comparative analysis of Tier - I Capital Ratio of sample banks:

Year	Tier - I Ratio (%)						Average
	NABIL	BOK	HBL	EBL	SCBNL	NSBIBL	
2008							
2009							
2010							
2011							
2012							

2008	10.74	10.71	8.65	8.21	12.99	10.53	10.31
2009	10.40	9.43	9.61	7.82	13.77	10.53	10.26
2010	7.31	9.57	8.77	9.04	11.52	9.97	9.36
2011	8.74	9.81	8.81	7.73	13.05	10.03	9.70
2012	8.77	9.41	8.68	8.39	12.61	10.89	9.79
Average	9.19	9.79	8.90	8.24	12.79	10.39	9.88

The above table shows the Comparative analysis of Tier – I Ratio of all the sample banks. All the banks are able to meet the Tier – I ratio as prescribed by the central bank. The ratio of SCBNL and NSBL is quite higher in comparison to other banks.

Table 39: Comparative analysis of Total Capital Ratio of sample banks:

Year	Capital Ratio (%)						Average
	NABIL	BOK	HBL	EBL	SCBNL	NSBIBL	
2008	12.31	14.52	11.26	12.32	14.93	13.57	13.15
2009	12.04	12.62	12.11	11.20	15.71	13.29	12.83
2010	9.28	11.93	11.56	11.44	13.15	12.32	11.61
2011	10.70	11.68	11.02	10.55	14.70	11.92	11.76
2012	10.50	10.85	10.72	10.77	14.60	12.25	11.62
Average	10.97	12.32	11.33	11.26	14.62	12.67	12.19

The above table shows the Comparative analysis of total Capital Ratio of all the sample banks. All the banks are able to meet the total capital ratio as prescribed by the central bank except Nabil bank is not able to meet its requirement in the year 2009.

Table 40: Cash Reserve Ratio of Five years of sample banks:

Cash Reserve Ratio (CRR) (Liquidity) of five years							
Year	NABIL	BOK	HBL	EBL	SCBNL	NSBIBL	Average
2008	3.26	7.64	5.92	1.88	6.86	5.83	5.23
2009	6.00	8.02	5.92	2.94	5.46	5.6	5.66
2010	8.37	7.57	5.13	4.56	5.84	5.72	6.20
2011	9.03	7.58	6.76	14.26	8.18	6.67	8.75
2012	3.02	8.32	6.76	15.53	6.74	9.03	8.23
Average	5.94	7.83	6.10	7.83	6.62	6.57	6.81

Source: Annual Reports of Sample Banks

The above CRR table shows the average liquidity position of the bank in five different years. The correlation between Capital Adequacy Ratio and Cash Reserve Ratio is also shown in the table given below.

Table 41: Correlation between Capital Adequacy Ratio and Cash Reserve Ratio

Year	Capital Adequacy Ratio (x)	Cash Reserve Ratio (y)	x ²	y ²	xy
2008	13.15	5.23	172.92	27.35	68.77
2009	12.83	5.66	164.61	32.04	72.62
2010	11.61	6.20	134.79	38.44	71.98
2011	11.76	8.75	138.30	76.56	102.90
2012	11.62	8.23	135.02	67.73	95.63
Average	12.19	6.81	148.69	46.38	83.04
Total	73.16	40.88	894.34	288.50	494.95

The above calculation shows that

$$\begin{aligned}
 x &= 73.16 & x^2 &= 894.34 \\
 y &= 40.88 & y^2 &= 288.50 & xy &= 494.95
 \end{aligned}$$

The correlation coefficient can be calculated as

$$\begin{aligned}
 r &= \frac{n \sum xy - \sum x \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}} \\
 &= \frac{6 \times 494.95 - 73.16 \times 40.88}{\sqrt{6 \times 894.34 - (73.16)^2} \sqrt{6 \times 288.50 - (40.88)^2}}
 \end{aligned}$$

Therefore, $r = 0.73$

Since the value of 'r' = 0.73, which is closer to 1, there is positive linear relationship between the Capital Adequacy ratio and cash reserve ratio. It means that maintaining adequate capital by the bank also helps to maintain adequate Cash reserve ratio and this kind of bank will not have the problem of liquidity.

Table 42: Total Credit/Deposit (CD Ratio) of five years of sample banks:

Total Credit/Deposit of five years							
Year	NABIL	BOK	HBL	EBL	SCBNL	NSBIBL	Average
2008	68.63	71.42	55.27	73.44	39.92	69.32	63.00

2009	68.13	78.25	56.57	77.44	43.78	82.66	67.81
2010	68.18	80.51	61.23	78.56	46.95	88.32	70.63
2011	73.87	82.65	71.49	73.43	39.27	55.84	66.09
2012	69.53	83.90	74.39	76.24	45.98	51.48	66.92
Average	69.67	79.35	63.79	75.82	43.18	69.52	66.89

The above CD Ratio table shows the Credit/Deposit ratio of the bank of five different years. The correlation between Capital Adequacy Ratio and Credit/Deposit ratio is also shown in the table given below.

Table 43: Correlation between Capital Adequacy Ratio and CD Ratio

Year	Capital Adequacy Ratio (x)	CD Ratio (y)	x²	y²	xy
2008	13.15	63.00	172.92	3,969.00	828.45
2009	12.83	67.81	164.61	4,597.52	870.00
2010	11.61	70.63	134.79	4,987.89	820.01
2011	11.76	66.09	138.30	4,368.11	777.22
2012	11.62	66.92	135.02	4,478.29	777.61
Average	12.19	66.89	148.69	4,474.05	815.39
Total	73.16	401.33	894.34	26,874.85	4,888.68

The above calculation shows that

$$x = 73.16 \quad x^2 = 894.34$$

$$y = 401.33 \quad y^2 = 26,874.85 \quad xy = 4,888.68$$

The correlation coefficient can be calculated as

$$r = \frac{n \sum xy - \sum x \sum y}{\sqrt{n \sum x^2 - (\sum x)^2} \sqrt{n \sum y^2 - (\sum y)^2}}$$

$$= \frac{6 \times 4,888.68 - 73.16 \times 401.33}{\sqrt{6 \times 894.34 - (73.16)^2} \sqrt{6 \times 26,874.85 - (401.33)^2}}$$

Therefore, $r = -0.58$

Since the value of 'r' = -0.58, there is negative linear relationship between the Capital Adequacy ratio and CD Ratio. It means that maintaining adequate capital by the bank also helps to control

and manage the credit/deposit ratio and the depositors will feel that their deposit is protected and highly safe.

4.8 Analysis of Primary Data

For the purpose of finding true information's and data about the capital adequacy of the Nepalese commercial bank the research work entitled 'Capital Adequacy of Selected Commercial Banks of Nepal' is conducted. Under the format of research, the study has been divided into altogether 30 respondents with the questionnaire consisting of 12 sets of questions related to capital adequacy of commercial banks. Respondents were from normally two sources; one from banks who regularly deal with capital adequacy problem and another category of respondents are analysts and lecturers who are analyzing the performance of banks. Some other respondents are also questioned who know about the Basel-II and capital adequacy framework. For analysis and the classification of primary data, simple Yes/No and multiple answer questions are used. For classification and analysis total no. of respondents were treated as the 100% and the result of each questions are tabulated to analyze. Main focus is given to the relevancy and difficulties in maintaining capital standard as prescribed by NRB and Basel-II. Up on process of collecting primary data, 30 respondents were questioned and all of them answered partially or fully as provided. The format of questionnaire and the result of primary data collection are tabulated and shown in *Appendix – 1*.

First of all the profession and affiliation of the respondent was questioned and found that out of 30 questionnaires, 20 respondents are from banking sector, 6 from lecturer and experts and 4 were analysts.

Secondly, question about the satisfactoriness of Basel-II implementation in Nepal was raised where mixed views were obtained as per *Appendix-II (1)*. In the question out of 30, 67% or 20 express their view as yes and rests are unsatisfied with this.

Another question was about whether the NRB regulation in capital adequacy is justified or not. In this question as well mixed views were obtained however, majority of the respondent argued that it is perfect. The detail about the result is being presented in *appendix – II (2)*. In this question 13% of the respondents also argued that the capital should be well enough than it presently imposed to be.

So far as concerned with the training, most of the respondent advocated that NRB provides training as a seminar & symposium only at once after the amendment of rules. NRB has started implementation of revised framework from July -2007 and such onetime training is not expected to provide complete knowledge about the capital standard to be maintained. Questions were also related to exploring difficulties in maintaining capital standards. Most of respondents argued that framework is somehow complicated to be maintained continuously because of frequent change in risk components of balance sheet as well as off balance sheet assets. Some of them viewed that training factor is weak to provide clear vision about capital standards in terms of various kind of risks. However capital to be maintained against the credit risk is appropriate for the financial institutions, it is not assumed to be cleared to main specific capital for operational and market risk. The primary data collection about this topic has been presented in *appendix – (3)*.

About the problems of maintaining capital standard, most of the respondents argued that some problems still persist there to do as the way prescribed by NRB regulations.

And in turn of the question regarding the types problems in maintaining capital standard, 17% argued that, the accord is not suitable for the development countries like Nepal. 10 of them viewed that main problem is the lack of well training, supervising and understanding. And rest 13 persons are agreeing with the view that it is difficult to update the ever changing risk weighted exposure of the bank. Whereas remaining 2 persons viewed nothing about the problems of maintaining capital standard as prescribed by rule. The answer sheet of this question has been shown in *Appendix – II (4)*.

Another questions raised in the questionnaire was about the relevancy of the Basel-II implementation in the Nepalese perspective. In response to this question, all expressed mixed views. Likewise in response to the question about the role of capital regulation to minimize the risk of depositors and other stakeholders, most of them were agreed in the favor of capital regulations. And most of them also argued that most shareholders are most affected by the imposition of such regulations than other, where as some mixed views were obtained in favor of lenders.

At last, question was raised about the new NRB regulation which states that all commercial bank should have at least 2 billion in paid up capital by the end of 2010. Here also mixed views were

obtained. Out of total 30 respondents 14 of them viewed that it is appropriate and adequate. Whereas, remaining 16 persons expressed equal view that half of them agreed that it is still not enough and rest agreed that it is over burden to commercial banks.

4.9 Major Findings of the Study:

1. The capital maintained by sample banks is sufficient to protect its depositors.
2. One of the challenges of commercial banks to maintain capital standard is found to be non performing assets that are growing in volume and magnitude. This is mainly due to defective lending policies there is also challenge created from increase in loan loss provision and non-banking assets provisions. This has made regulation to undertake shock monitoring and supervision.
3. Basel capital regulation framework has helped in developing suitable prudential norms to save the banks and financial institutions from financial crisis and signals of failure. It has become important to prevent unfavorable impact on the economy.
4. During the time, the operating environment of the banks has changed radically, and their risk management systems have also improved in the new conditions the calculation of capital charges under the current regime has proved insufficient because it covers only risk. Accordingly, a revision of the capital adequacy framework is justified in order to capture the various factors affecting banks risk exposure.
5. New amendment in the capital adequacy has significantly changed the operating proceeding of the commercial banks. Since there are the provisions for supervisory/frequency authorities and the banks themselves would be granted more discretionary power on application of the provisions, the maintenance of required capital adequacy has got some broad area. When the new changes are made on July-8, 2009, the capital adequacy of the commercial banks seems to have showing resistance to change.
6. Out of the six sampled commercial banks, one bank was not able to maintain the capital adequacy in terms of Tier-II capital ratio in the year 2009. It means more than fifteen percentage of the commercial has not been able to maintain the capital fund as required by regulatory body.
7. There is the continuous growth in the capital fund from its components but the rate of growth is very volatile. It means there is no consistency in the trend of capital fund

8. Commercial banks held dominate share on the major balance sheet components of financial system. Of the total deposits Rs. 508905.7 million in mid July 2010, the commercial banks occupied 83.7 percent. Similarly, finance companies held 10.3 percent, development banks 5.1 percent; micro credit development banks 10.3 percent, and other 0.6 percent. Likewise, on the loans and advances the share of commercial banks stood at 78.3 percent, development banks 6.0 percent, finance companies 13.2 percent, micro credit development banks 1.8 percent and others 0.7 percent in mid July 2010. In the same year the share of commercial banks in borrowing, liquid funds and investments constituted 45.9 percent, 68.3 percent and 90.5 percent respectively. The composition of the total liabilities shows as usual, deposit held dominant share of 72.05 percent followed by borrowing 4.44 percent and capital fund 3.65 percent respectively in mid July 2008. Likewise in the assets side, loan and advances accounted the largest share of 55.43 percent followed by investments 17.04 percent, liquid funds 13.86 percent and other assets 13.67 percent in the same year.
9. The past trend of the capital fund of commercial banking industry was really very weak and always negative in successive years but due to the effective implementation of the revised framework of the capital adequacy framework in 2008, commercial banking system has been able to maintain positive 4.40 % of the total risk weighted exposure.
10. Up on the analysis it has been found that Nabil Bank Ltd. has not gave significant importance on supplementary capital. More the bank reduces the risk; more will be the capital adequacy ratio. In the sense, it can be concluded that, bank has become successful to minimize its risks to maintain capital as adequate as required by regulations. But as compared to other sampled banks Nabil has not maintained adequate capital.
11. During the study period, BOK has always maintained the required capital fund in terms of core capital as well as total capital. However, the importance is given only on core capital as it has maintained very low portion of supplementary capital in its capital fund.
12. As like other banks, Everest Bank has also maintained adequate level of total capital fund during all the study period. As compared to the core capital, supplementary capital of the Siddhartha Bank is also very low. Around 90% of total capital is derived from the core capital and only small portion is from the supplementary capital.

13. From the analysis of the sampled banks, it has been found that no. of commercial banks are operating under the low capital frame, despite they have maintained the adequate capital in terms of core capital.
14. Correction of the capital fund with the non performing loan is found to be perfectly negative. As the analysis has been made about the trend of nonperforming loan and the capital of the past 5 years, NPL has been continuously decreasing where as capital fund has a trend of continuous increment as it is in the level of positive 4.04% in the year 2012.
15. Majority of the bankers and experts believe that the present capital adequacy framework prescribed by the central bank is adequate and the commercial banks should follow the standards for the betterment of every concern parties associated directly or indirectly with the performance and risk of the bank.
16. From the primary data analysis, it has been disclosed that the capital standard framework is somehow complicated in the sense that, it is difficult to compute and update the ever changing RWA and the risk components. Most of the respondents believe that the framework is complicated plus the training provided by the regulatory body (NRB) is not well enough to change the existing composition of capital compositions.
17. Commercial banks are seem to be giving low focus on credit risk mitigations that could help them to increase their eligible capital components, which is the cause that some of the commercial banks have lower capital adequacy.

Chapter - 5

Summary, Conclusion and Recommendation

5.1 Summary

The Basel – II capital accord are being imposed internationally as the capital adequacy framework of all institutions. Nepalese financial market has also begun to be affected by the rules. Nepal Rastra Bank has already started imposing capital regulation framework with amendment in every successive period. Though some study were previously made on the effectiveness of capital accord in Nepalese perspective, it is still felt a research gap where lots of confusion exist and lots of facts to be explored about the matter. For the purpose, in partial fulfillment of the masters in business study, a research is being started to prepare a thesis report.

As like other research paper, it has also been prepared in the format of research paper for which total research work has been classified in different chapter. In the first chapter, the brief introduction about the research was mentioned under which background of the study, statement of problem, objective of the study and the limitation of the study are presented. Objective of the study is the main core factor of the chapter whereas methodology is being created to serve as the guide path for the completion of report. Major problems about the research have been presented in statement of problem and limitation of study. Along with this, short history of the research and its subject matter has also been presented in this chapter.

Second chapter is totally based on the past study of the related literatures. All the relevant sources of the study are examined and presented in the chapter. As it is the exploratory types of study, it was very important to examine all the corners of regulation that is implemented to the commercial banks. So the NRB directives for the implementation of capital regulation are studied in detail and all regulation and capital adequacy framework is presented as the literature review. Under this chapter, based on NRB directives, eligible capital funds, various kinds of risk faced by the bank and the NRB review process are presented. At the end of the chapter a review about the past studies are done which served as the basis for finding research gap up on which new visional analysis was required previous article and journals including unpublished student thesis and research papers are also presented in the chapter.

The third chapter is about the research methodology which is over map of the research paper. Under the topic, research design, population and sample, nature and tools of the study are presented. The research is designed as exploratory type and six commercial banks with the history of more than 5 years are taken as sample. The means of presentation is also mentioned here which has disclosed analytical graphs and tables to be used in the research process. Moreover, tools of the presentation and analysis used in the study are also presented here.

As a major step in study, data collection and presentation is done. Under this chapter all the secondary as well as primary data collected from various sources, which were felt to be useful for the study has been presented. Based on the collected data, a detail analysis of the capital standard maintained by the sample banks are presented in systematic manner. The sampled banks, Nabil Bank, BOK, Himalayan Bank, Everest Bank, Standard Chartered Bank and Nepal SBI Bank are the major focus of the chapter to disclose their capital condition as compared to NRB regulations. A comparative analysis of the capital adequacy is also presented in this chapter where the trend of the capital improvements of the bank is analyzed as well. After the analysis of secondary data, an attempt has also made on the analysis of primary data. A 12 question questionnaire is prepared to obtain the various dimensional effects of the capital regulation. Answer of the each of the questions is analyzed with care presenting and tabulating the result from respondent. The findings are also prevented along with the analysis of the data.

As another step a conclusion chapter is being prepared summarizing all the study procedures and drawing conclusion about the findings along with the recommendations if any.

5.2 Conclusion:

After detail analysis of capital adequacy directives issued by NRB on July 15, 2008; Basel-II recommendations, international practice in capital adequacy, the current status of Nepalese commercial banks and their management effort to built strong capital base, primary questionnaire and interview, following conclusion are drawn on the basis of quantitative and qualitative analysis on the sample data of selected commercial banks related to capital adequacy.

During the study period, the risk management system of the commercial banks as well as the operating environment of the commercial banks has improved significantly. The calculation of the capital charge under the current regime has provided sufficient because it covers all the three components of capital risk. Accordingly, a revised capital adequacy framework is justified in order to capture the various factors affecting banks risk exposures. However the proposed changes make the assessment of capital adequacy little bit more complex procedure than under the existing condition before July 2008. Since there are the provisions for supervisory response and the banks themselves would be granted more discretionary power on the application of provisions, it is therefore, assumed to be more relevant frame as it is revised.

Previously about 25% of the total commercial banks were unable to maintain capital adequacy norms based on core capital to risk weighted assets. But the rate of banks maintaining low or negative capital fund has been significant decreased by the end of 2008. Unlike others, Nabil Bank Limited was not able to maintain the required total capital ratio with the risk weighted framework in the year 2010. Other bank seems satisfactory in terms of their capital condition with respect to total risk weighted exposure.

One of the challenges of commercial banks is to maintain capital standard is found to be non performing assets that are growing in volume and magnitude. This is mainly due to defective lending policies there is also challenge created from increase in loan loss provision and non-banking assets provisions. This has made regulation to undertake strong monitoring and supervision.

As per the analysis of Basel capital regulation framework it has been concluded that it has helped in developing suitable prudential norms to save the banks and financial institutions from financial crisis and signals of failure. It has become important to prevent unfavorable impact on the economy. During the study period, the operating environment of the banks has changed radically, and their risk management systems have also improved. In the new conditions the calculation of capital charges under the current regime has proved insufficient because it covers only risk. Accordingly, a revision of the capital adequacy framework is justified in order to capture the various affecting banks risk exposure.

Due to the revision of capital adequacy framework it is concluded that it has significantly changed the operating procedure of the commercial banks. Since there are the provisions for supervisory/regulatory authorities and the banks themselves would be granted more discretionary power on application of the provisions, the maintenance of required capital adequacy has got some broad area. When the new changes are made on July 8, 2008, the capital adequacy of the commercial banks seems to have showing resistance to change.

Due to the ever changing investment pattern of the commercial banks and the inconsistency in the bank's management and policies, despite the continuous growth in the capital fund from its components but the rate of growth is very volatile and there is no consistency in the trend of capital fund.

Nepalese commercial banks are seem to be showing negative net worth with the huge accumulated losses of the newly formed commercial banks records mismanagement and failure to fulfill the norms of NRB. The major cause behind this is the use of high leverage in the capital structure and the investment in risky assets and the establishment & upgrade of new commercial banks to complete in profit motive environment. All the commercial banks seem to care less about the credit risk mitigation that is allowed by the regulation. Very few numbers of commercial banks used to disclose about the market risk and operational risk. Total risk weighted exposure of commercial banks, is however increasing due to the increase in the no. of commercial banks.

One of the major reasons behind the lower capital adequacy of some commercial banks is the negligence towards the effective allocation of the source of the fund which could help in increasing the supplementary capital which could lead the bank of sufficiency of capital.

Analyzing the relationship of the capital fund with the non performing loan, correction of capital fund with the non performing loan is found to be perfectly negative. The analysis has been made about the trend of nonperforming loan and the capital of the past 5 years. Total capital fund tends to be increasing in all the years where the NPL tend to decrease.

Majority of the bankers and experts believe that the present capital adequacy framework prescribed by the central bank is adequate and the commercial banks should follow the standards

for the betterment of every concerned parties associated directly or indirectly with the performance and risk of the bank.

The capital standard framework is somehow complicated in the sense that, it is difficult to compute and update the ever changing RWA and the risk components. Most of the respondents believe that the framework is complicated as well as the training provided by the regulatory body (NRB) is not well enough to change the existing composition of capital components.

One of the new directives of the NRB about the maintenance of the paid up capital at least 2 billion by 2012 is not good for the development of the commercial banking industry in Nepal. Moreover, the same capital standard for the all banks operating in the demographic variation is not good for the health and performance of the commercial banks. Commercial Banks are not giving more focus on credit risk mitigations that could help them to increase their eligible capital components, which is the another cause that some of the commercial banks have lower capital adequacy. To strengthen the capital fund of the commercial banks, they should focus on credit mitigation along with the supplementary capital fund. Commercial Banks of Nepal are also not seemed to give attention the operational risk and market risk. Their disclosure about the market and operational risk also should complete and justified to all the stakeholders.

5.3 Recommendations

After detail analysis of the capital adequacy framework by the NRB, Basel-II report and other related sources, following recommendations are made to fill the leakage and improve the capital adequacy of the commercial banks of Nepal. To develop prudent capital adequacy norms and to make strong capital base in commercial banks, based on the findings of the study, following suggestions are forwarded.

1. Commercial banks are seem to be focused only on minimization of credit risk, but low focus on the effect of the market risk and operational risk, so they are suggested to give appropriate weighted for the market and operational risk as well. By the end of 2012 branches of the international banks can be established in Nepal as the globalization and membership of Nepal with WTO, adequate capital and risk assessment provide the base to compete with the international financial institutions.

2. To maintain the adequate capital, the creditworthiness of the commercial banks should be assessed which is not currently available in Nepalese financial market. So, in the direction of the NRB a national level credit rating agency should be established and the capital adequacy framework should be imposed according the credit rating of the institutions. This will prevent the burden of the banks having high credit worthiness to maintain more capital. Adequate rules and capital adequacy should be issued for non-bank thrift institutions as well, because they are the institution competing with the commercial and other banks and the customers of both industries are same. So to protect the savers, along with the banking industry, other financial institutions are also should be complied with the new framework of capital adequacy.
3. Good management information's system and risk management technique should be implemented. Supervisory response should be done regularly and huge negative net worth problem should be solved by introducing reasonable tools by the regulatory body. For the management, banks should always focus on efficient portfolio of assets and maturity matching of liabilities with the assets.
4. Commercial banks should also focus on the supplementary capital as the major component of the capital fund. Moreover, it has been found that only few commercial banks are using the risk mitigation techniques, so they are advised to make a move towards the risk mitigation to make more of their fund eligible for capital fund.
5. In course of action of maintaining capital adequacy, Nabil Bank should prepare clear capital plan and maturity matching of its assets and liability portfolio. To increase its capital adequacy it should open the path of two short of capital fund inflow. One is to increase the internal fund mobilization and another is external fund mobilizations. Internal fund mobilization can be possible through improving profitability position of the bank and retaining the more fund in risk reserves. Revaluation of assets and displacement of risky securities investment to treasury bills can also improve the capital adequacy problem. Likewise capital fund can also be improved through external sources, like issue of additional equity shares in premium and issue of non-redeemable preference shares.
6. One of the main reasons of the Nabil Bank to have low capital adequacy in year 2010 is the large amount of the weighted assets it carries. So, the bank should try to increase the investment in assets which carry low risk weight. It can further go for better loan

screening process which reduces the default loan approvals and thus helps in reducing the nonperforming loan which is the part of credit risk. The weight of nonperforming loan with respect to total loan investment should be around zero to ensure the stakeholders about the minimization of credit risk.

7. Risk weighted exposure of Himalayan Bank Limited has increased in the recent year. However it has maintained the capital adequacy at present, it may be harmful for it for future if the same growth rate persists. So it is advices to the HBL to control the rapid growth in the risk weighted exposure by divesting its investment in risky assets to less risky investments.
8. Rate of increment in the risk weighted exposure of the Nabil Bank is also higher than its average growth rate in past, so it also should try to maintain the risk exposure more consistently by following the tool of cutting of risky investment and investing in less risky. Such action can reduce the profit in short run but proves to be the mainstay for the future growth.
9. Out of many available tools of risk assessment, Nepalese commercial banks use only the basis indicator approach and standardized approach to assets their risk weighted exposure. So, the NRB should start introducing the various models for determining the capital standard of Nepalese commercial banks.

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