

**A STUDY ON CAPITAL ADEQUACY OF COMMERCIAL BANKS**

**(Comparative Study of Standard Chartered Bank Nepal Limited,  
Nepal Investment Bank Limited and Rastriya Banijya Bank Limited )**

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# CHAPTER I

## INTRODUCTION

### 1.1 Background of the Study

The major economic policy tasks ahead for Nepal are the maintenance of macroeconomic stability, restoration of growth and alleviation of poverty and inequality. While sound and effective monetary, foreign exchange and fiscal policies are important for maintenance of macroeconomic stability, structural reforms in financial and public sectors are crucial for restoring growth and reducing poverty (NRB, 2006:4).

The growth in the number of financial institution in Nepal is tremendous in the last two decades. At the beginning of the 1980s when financial sector was not liberalized, there were only two commercial banks (Nepal Bank Limited and Rastriya Banijya Bank Limited) and two development banks (Nepal Industrial and Development Corporation and Agricultural Development Bank) performing banking activities in Nepal. There were no micro-credit development banks, finance companies, cooperatives and NGOs with limited banking transactions. After the liberalization (after 1990 A.D.) of the financial sector, financial sector has made a hall-mark progress both in terms of the number of financial institutions and beneficiaries of financial services. By mid-July 2008, NRB licensed bank and non-bank financial institutions totaled 231. Out of them, 25 are commercial banks, 58 development banks, 79 finance companies.

Capital adequacy is one of the most important and emerging topics in the prudential regulations issued by Nepal Rastra Bank (central bank of Nepal) and implemented by Commercial Bank in Nepal. Capital adequacy is a measure of the financial strength of banks or securities firms, usually expressed as a ratio of its capital to its assets. For banks, there is now a worldwide capital adequacy standard, drawn up by the Basel committee, of the Bank for International

Settlements (BIS). This BIS ratio requires banks to have capital equal to 8 per cent of their assets.

Capital adequacy measures the financial strength of a financial institution. It tells how much capital it has relative to (as a percentage of) the money it has lent out, i.e. its assets. There are specific minimum levels of capital set by international banking rules. They are designed to make it possible for banks to absorb a reasonable amount of losses before getting into deep trouble.

With every investment decision, there is not only an anticipated return, but also a certain amount of risk associated with that return. The investment decision therefore, may be characterized as trade off between risk and return. It is generally assumed that the larger amount of risk, the larger the anticipated return must be to compensate for this risk. Just as the risk associated with various securities and assets varies widely, the ability and willingness to accept risk also varies substantially from investor to investor. This proposed study aims to look at the role of capital adequacy of the commercial banks in economic development, sustainable future for commercial banks with the maintenance of adequate capital.

Financial sector is one of the most important sectors for the economic development for developing country like Nepal. "The real GDP growth rate in finance and real estate transactions is expected to increase by 2.8 percent in FY 2007/08, which was limited to 2.5 percent increase in the previous fiscal year.

On surface, it looks as though it is the result of increase in financial sector transactions, but no proportional growth is observed in financial intermediation because of falling interest rate (Economic Survey, 2008). "For the development of financial sector, Nepal has been implementing financial sector reform program since 1980s. In addition to the various measures pursued under macroeconomic stabilization and structural adjustment initiatives, the eighties marked the implementation of a number of financial sector and monetary reform measures. The financial market was given complete autonomy in

determining the level and structure of interest rates in August 1989, there has been significant positive outcomes on the financial system, with the interest rate becoming more competitive for borrowers" (Basyal, 2006:2). In addition to complete deregulation of interest rate, adoption of the measures like the maintenance of the statutory liquidity ratio and the focus on prudential regulation and supervision in place of the direct monetary control measures were aimed at promoting greater efficacy and overall soundness of the financial system of Nepal.

The efficient functioning of markets requires participants to have confidence in each other's stability and ability to transact business. Capitals rules help foster this confidence because they require each member of the financial community to have adequate capital. This capital must be sufficient to protect depositors and counter-parties from the risks of the institution's on- and off-balance sheet risks. Banks are required to set aside capital to cover these two main risks. Capital standards should be designed to allow a firm to absorb its losses, and in the worst case, to allow a firm to wind down its business without loss to customers, counter-parties and without disrupting the orderly functioning of financial markets.

### **1.1.1 Introduction to Selected Commercial Banks**

Following banks are selected for the study.

#### **A) Introduction to Standard Chartered Bank Nepal Ltd**

Standard Chartered Bank Nepal Limited has been in operation in Nepal since 1987 when it was initially registered as a joint-venture operation. Today the Bank is an integral part of Standard Chartered Group who has 75% ownership in the company with 25% shares owned by the Nepalese public. The Bank enjoys the status the largest international bank currently operating in Nepal.

Standard Chartered Group employs 30,000 people in over 500 locations in more than 50 countries in the Asia Pacific Region, South Asia, the Middle East, Africa, the United Kingdom and the Americas. It is one of the world's most

international banks, with a management team comprising 79 nationalities. Standard Chartered Bank Nepal Ltd. is in a position to service its customers through a large domestic network. In addition to which the global network of Standard Chartered Group gives the Bank the unique opportunity to provide truly international banking in Nepal. 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.

### **A. Bank's Financial Services**

Standard Chartered Bank Nepal Limited offers a full range of banking products and services in Wholesale and Consumer banking, catering to a wide range of customers from individuals, to mid-market local corporate to multinationals and large public sector companies, as well as embassies, aid agencies, airlines, hotels and government corporations. Following are the major product and services offered by the bank:

#### a. Consumer Bank : It includes

- Current savings, call and term deposit accounts in Local & Foreign currency
- Fund Transfer Services - Local & International - Drafts, SWIFT
- Credit Card Services - Issuance & Acquiring
- 24 Hour ATM services - SCBNL debit card, VISA and Master Card
- Safe Deposit lockers
- Foreign Exchange Services - Issuance/purchase of Travellers Cheques
- X-tra Banking - 365 days banking from Lazimpat and Lalitpur Branches
- Priority Banking; Home Banking
- Auto Loan
- Home Loan; Home Advantage
- Personal Loan
- SMS Banking

- Corporate Employee accounts
- b) Wholesale Bank: It includes
  - Trade Finance
    - Letters of credit: Issuance and acceptance
    - Guarantees: Issuance and acceptance
  - Commercial Lending (Working Capital)
  - Term Lending
  - Loan Syndication
  - Forward Exchange Rates
  - Electronic Banking
  - Cash Management
    - Operating Accounts
    - Quick Collection Services
    - Quick Payment Services
  - Cheque writer

c) Corporate Social Responsibility:

Standard Chartered Bank Nepal concentrates on projects that assist children, particularly in the areas of health and education and it has taken up various initiatives to benefit the community. Major initiatives in the area of health 'Living with HIV' and 'Seeing is Believing' have been undertaken by the Bank since 2003.

**B. Branch Network**

Standard Chartered Bank Nepal has 11 points of representation (7 Branches) and 9 ATMs across the Kingdom and with over 300 local staff. At present, SCBNL has following branch offices.

1. Head Office, New Baneshwor
2. Kantipath Branch, Kathmandu
3. Lalitpur Branch, Lalitpur

4. Pokhara Branch, Pokhara
5. Hetauda Branch, Hetauda
6. Bhairahawa Branch, Bhairahawa
7. Biratnagar Branch, Biratnagar

### **C. Major Achievements of the Bank**

- July 2004 - Award for the Best Presented Accounts in the Financial Institutions Category in Nepal for the Year 2002-2003 and 2002-2001 awarded by Institute of Chartered Accountants of Nepal (ICAN).
- December 2003 - The Best Company, Financial Institutions from Top 10 awards for Business Excellence awarded by 'The BOSS'
- September 2002 "Bank of the Year 2002 Nepal" by 'The Banker' of the Financial Times.
- April 2002 - Commercially Important Person (CIP) awarded by His Majesty's Government the Ministry of Finance
- April 2002- National Excellence Award 2002" for significant achievement in customers satisfaction and relationship" awarded by Federation of Nepalese Chamber of Commerce & Industry (FNCCI)
- Standard Chartered Nepal - awarded 'Best Commercial Bank' for the 2nd successive Year

### **B) Introduction to Nepal Investment Bank Ltd.**

Nepal Investment Bank Limited (NIBL), previously Nepal Indoseuz Bank Ltd, was established in 1986 as a joint venture between Nepalese and French partners. The French partner (holding 50% of the capital of NIBL) was Credit Agricole Indoseuz, a subsidiary of one the largest banking group in the world. A group of companies comprising of bankers, professionals, industrialists and

businessmen, has acquired the 50% shareholding of Credit Agricole Indoseuz, in Nepal Indoseuz Bank Ltd on April 2002, with the decision of Credit Agricole Indoseuz to divest.

The name of the bank has been changed to Nepal Investment Bank Ltd upon approval of bank's Annual General Meeting, Nepal Rastra Bank and Company Registrar's Office with the following shareholding structure. From the above table given below shows that NIBL composes of local share ownership.

- a) A group of companies holding 50% of the capital.
- b) Rastriya Banijya Bank holding 15% of the capital.
- c) Rastriya Beema Sansthan holding 15% of the capital.
- d) The remaining 20% being held by the General Public.

#### **A. Bank's Financial Services**

Nepal Investment Bank Limited has been able to occupy competitive position in Nepalese banking system. Deposits, e-banking, ATM, Loans and advances, Credit card, Safe deposit locker, Easy savings, Premier Banking, NTC mobile bill, Vehicle loans, Debit card, 365 days service are the major services offered by Nepal Investment Bank Ltd. In order to meet the growing needs of customers, NIBL has offered following new product and services:

- a. For the first time in the country, NIBL has formed consortium of banks and financial institutions for issuance and acquiring of Visa products. The scheme allows members banks cardholders to use other banks' ATMs at a very subsidized rate. NIBL has recently launched the 'Premier Banking Cell' that caters to its high net worth clients and renders consultancy services in taxation, legal, insurance and travel tours.
- b. NIBL has obtained associate membership of Master Card International for acquiring and issuance of Master Card products. NIBL has planned to launch Master Card in very near future.

- c. Given the good response to existing ATMs, and to meet the increasing demands of NIBL's customers, NIBL has installed two more ATMs one in Putalisadak Branch and another at Durbar Marg office.
- d. For convenience of customers, Bank has introduced Mobile Bill Payment through eBanking, internet banking for all of its branches in addition to the existing modes of payment through ATMs and over the counter.
- e. NIBL is conducting regularly; 'Customer Satisfaction' surveys to ascertain customers' needs and feedback. Emphasis is continuously being made to provide prompt and convenient services to the customers by limiting the customers turn around time to 15 minutes.
- f. NIBL has deployed the highest number, 604, of point of sales machines in the market.
- g. NIBL has tied up with ARY speed Remit-UAE and Doha Bank-Quatar to increase our market share in remittance business. NIBL has also appointed 40 remittance disbursement agents all over Nepal for speedy disbursement of remittances.

## **B. Branch Network**

Nepal Investment Bank Ltd has widened its services to various parts of Nepal, by opening branch offices in various places. At present, Nepal Investment Bank Ltd has following branch offices.

1. Pulchowk Branch, Pulchowk, Lalitpur
2. Seepadole Branch, Arniko Highway
3. Jeetpur Branch, Jeetpur, Bake
4. Biratnagar Branch, Gocha chowk, Biratnagar
5. Bhairahawa Branch, Maitri road, Bhairahawa
6. Pokhara Branch, Chiple Dunga, Pokhara

7. Birgunj Branch, Addarshanagar, Birgunj
8. Banepa Branch, Banepa
9. Newroad Branch, Newroad, Kathmandu
10. Butwal Branch, Traffic Chowk, Butwal
11. Putalisadak Branch, Putalisadak
12. Narayangarh Branch, Pulchowk , Narayangarh
13. Kalimati Branch, Kalimati, Kathmandu

### **C. Major Achievements of the Bank**

#### **a) Bank of the Year**

Nepal Investment Bank Ltd has been awarded the prestigious "Bank of the Year 2005" by the London based financial times groups. The Banker making it the first Nepali Bank to win the award two times in the three years. NIBL has also won the "Bank of the Year 2003" award.

#### **b) Increase of Capital**

Considering the mandatory provision of Nepal Rastra Bank to increase paid up capital, to NPR 1 billion with the FY 2008/09 as well as meets the regulatory minimum capital requirements of the central bank, NIBL has made a right issue at the ratio of 1:1 at par and raised additional capital of NPR 295 million during the year. Further, in view of insufficient supplementary capital of the bank for the targeted growth for the FY 2005/06, the Board of Directors proposes to issue debentures (7 years) with NPR Rs 250 million.

### **C) Introduction to Rastriya Banijya Bank Limited**

Rastriya Banijya Bank (RBB) is fully government owned, and is the largest commercial bank in Nepal. RBB was established in January 23, 1966 (2022 Magh 10 BS) under the RBB act.

RBB has many correspondent arrangements with major international banks all over the world that facilitate trade finance, bank-originated personal funds

transfers and inter bank funds transfer via SWIFT. As well, RBB works with Western Union and International Money Express, two leading person-to-person funds transfer networks. As well, RBB actively delivers various government programs to people living in remote parts of the country. RBB has began to provide modern banking facilities. The Bank aims to reach every rural and urban corner of Nepal and develop banking habits among people.

RBB provides various banking services to a wide range of customers including banks, insurance companies, industrial trading houses, airlines, hotels, and many other sectors. The bank's extensive branch network and international connections are designed to transact banking activity between any part of the country and any part of the world. RBB's main objectives are to provide banking services throughout Nepal and contribute in the socio economic development of the country. From 16 January, 2003 to till date, the management of the bank was given to the foreign consultant Mr Bruce F Henderson with his support team. There were 19 consultants in the consulting group.

The bank has a large deposit base with more than 1.2 million depositors. The depositors are individuals, institutions, private organizations, business houses, non-profit organizations, social organizations, industries, finance companies, co-operatives, etc. The bank has more than 300,000 clients who have used the bank's resources for their business and development activities. They vary from big business houses to public sector enterprise, medium and small-scale industries to farmers and individuals.

## **B. Branch Network**

RBB has Nepal's most extensive banking network with over 113 branches. It spreads all over regions. Through its extensive branch network, RBB has been contributing to Nepal's economic development by providing banking services throughout the country. Braches are distributed in the following numbers in five different regions.

1. Kathmandu : 30 branches
2. Biratnagar : 28 branches
3. Pokhara : 14 branches
4. Nepalgunj: 19 branches
5. Birgunj: 23 branches

### **C. Major Achievements of the Bank**

The bank's major activities include accepting deposits, investment in government securities, lending to productive sectors, dealing with foreign currency, operating remittances, merchant banking & correspondent banking services etc. In order to meet the growing needs of customers, RBB has offered following new product and services:

- Production Credit for Rural Women
- Banking with the poor for the deprived people
- Micro credit
- Loan to unemployed graduates
- Intensive banking program
- Mini & microbus/clean Tempo credit program for environment protection
- Biogas credit program.
- Deposits: Current deposit, Saving deposit, Fixed deposit, Call deposits
- Remittances: Draft SWIFT, Telegraphic Transfer Mail Transfer Fax Transfer
- Fixed/Working Capital
- Hire Purchase,
- Overdraft
- Construction
- Consumer Loan
- Securities Loan
- Consortium
- Trade Finance
- Trust Receipt
- Interbank lending

- Merchant Banking
- Issue Management
- Underwriting
- Security dealers (Primary Market)
- Refund Management
- Bank Guarantee
- Foreign Exchange Dealing

## **1.2 Statement of the Problem**

Capital adequacy is the core subject for long-term sustainability of any organization. It is an emerging topic in financial sector. It can play a vital role for the success of commercial banks. To bridge the gap of implementing and supervisory bodies for their effective results in performance, this study is conducted.

Due to differences in economic, political and financial situations, legal and other restrictions, government policies, risky business, management ownership and control and other environmental variables, provisions of capital adequacy may be different in different years. The Table 1.1 shows the capital adequacy and profitability position of commercial banks in Nepal in mid July, 2008 (NRB, 2008:12).

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- i. Whether there is proper care taken for maintaining capital adequacy or not and the commercial banks are operated on the basis of directives of capital adequacy issued by Nepal Rastra Bank or not?
- ii. What are the major problems faced by them in maintaining capital adequacy in selected commercial banks?
- iii. Whether there is trade off between risks of assets with the capital while fulfilling capital adequacy norms?
- iv. Do commercial banks are able to improve the financial performance?
- v. Do maintenance of capital adequacy is similar in different commercial banks in Nepal?

### **1.3 Objectives of the Study**

The main objective of the study is to examine and evaluate the capital adequacy in commercial banks in Nepal considering the provisions made by Banks for International Settlements based on risk factors in assets. The specific objectives are as follows:

- a) To review the practice and effectiveness of capital adequacy in selected commercial banks.
- b) To appraise various capital adequacy patterns considering risk in different assets in selected commercial banks.
- c) To suggest suitable model of capital adequacy for the strength of commercial banks in Nepalese economy.

### **1.4 Rationale of the Study**

Minimum capital standards are thus a vital tool to reduce systemic risk. They also play a central role in how regulators supervise commercial banks. But capital requirements have so far tended to be simple mechanical rules rather than applications of sophisticated risk-adjusted models, although moves are afoot to change. It helps to preserve confidence in the financial institutions. It

helps to protect uninsured depositors. It also helps to acquire real investments in order to provide financial services.

This study provides a basis of reference for Nepalese commercial banks which may compare and evaluate their own capital adequacy towards the risks of their business in the context of findings of the study and may be motivated to maintain adequate capital. Finally, this study shows the position of capital adequacy in commercial banks in different time periods. It is expected that the findings of this study will exert a significant impetus to make decision of maintaining adequate capital at minimize business risks. As the study designed to conduct from economic and management perspective, planners and policy makers will indubitably find its results important.

### **1.5 Limitations of the Study**

We have limited resources and it may be difficult to explore researcher to find out new aspect. Reliability of statistical tools used and lack of research experience are the major limitation and some other limitations can be enlisted as follows:

- i) This study confines few years' data and other information only. Only the commercial banks in banking industries are considered for study purpose.
- ii) In addition to adequacy of capital, there are other factors such as investment management, socio-political environment; government programmes, corporate governance, efficient management etc. may not be covered by this study in intensive way. So result from this study may not be equally useful to all.
- iii) There may be time and resource constraints for the researcher to get higher level of efficiency in collection and processing of information.
- iv) The secondary data are used to analyze and interpretations for result, so the accuracy of the finding depends on the reliability of available information.
- v) Due to time and resource factor only three commercial banks are taken for the study.

vi) The study covers the time period of 2002/03 to 2007/08.

## **1.6 Organization of the Study**

This study is carried out to different stages and procedures, as it needed as well the study are organized in the following chapters.

Chapter I: Introduction

Chapter II: Review of Literature

Chapter III: Research Methodology

Chapter IV: Data Analysis and Presentation

Chapter V: Summary, Conclusions and Recommendations

The first chapter deals with the subject matter consisting background of the study, statement of the problem, objective of the study, significance of study, Limitation of the study and organization of the study.

The second chapter is mainly focused with literature review that includes a conceptual framework on capital adequacy and review of major-studies relating with capital adequacy.

The third chapter describes the research methodology used to conduct the present research. It deals with research design, sources of data, data processing procedures, population and sample, period of the study, method of analysis, financial and statistical tools and limitations of the study.

The fourth chapter is concerned with analytical framework. It includes the analysis of financial indicators, analysis of mean, correlation coefficient, regression analysis, trend analysis and financial analysis. The major findings are included at the end of this chapter.

The fifth chapter includes the summary, conclusion and recommendations of the study which deals about the main theme of study. The bibliography and appendixes are also incorporated at the end of the study.

## **CHAPTER II**

### **REVIEW OF LITERATURE**

#### **2.1 Conceptual Review**

This study shows the position of capital adequacy in commercial banks in different time periods. It is expected that the findings of this study will exert a significant role to make decision of maintaining adequate capital at minimise business risks. Capital adequacy is the core subject for long-term sustainability of any organisation. It is an emerging topic in financial sector. It can play a vital role for the success of commercial banks. To bridge the gap of implementing and supervisory bodies for their effective results in performance, this study is conducted.

In 1975, an international committee was formed by the central banks and supervisory authorities of ten centralized countries to coordinate the surveillance exercised by national authorities over the international banks. This group of ten countries, known as the G-10 countries, included Belgium, Canada, France, Germany, Holland, Italy, Japan, Sweden, the United Kingdom and the United States. Since inception, the Basle Committee on Banking Supervision has met regularly at the Bank for International Settlement in Basle, Switzerland.

The Basle concordat 1975 provided a general statement on the responsibilities of national authorities for the supervision of international banks. This concordat was revised in 1983, paving the way for more standardized methods of bank supervision among central banks around the world.

In 1988, after consulting with bank supervisors around the world, the Basle Committee proposed a risk based capital adequacy framework. Underlying this framework, commonly known as the Basle Capital Accord, was the premise that a uniform approach to establishing minimum levels of capital will help to:

- a) Strengthen the soundness and stability of international banking system, b)

Promote a fair and consistent basis for evaluating capital; and c) Diminish competitive inequalities among international banks. The weighted risk based framework proposed by the Basle Committee focuses on credit risk and takes into account both off balance sheet and on balance sheet credit risk exposure. The approach also distinguishes the varying degrees of risk inherent to different assets by assigning weights according to asset class. The Basel I Capital Accord 1988 have been endorsed by the Group of Ten central-bank Governors. The Basle Committee on Banking Supervision comprises representatives of the central banks and supervisory authorities of the Group of Ten countries (Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, Switzerland, United Kingdom, United States) and Luxembourg (Basle Committee on Banking Supervision, 1988:1).'

For the purpose of study, following major four sections are divided. The first two describe the framework: Section third constituents of capital and Section fourth the risk weighting system. Section III deals with the target standard ratio; and Section IV with implementing arrangements.

### **2.1.1 The constituents of capital under Capital Accord 1988**

As per Capital Accord 1988, there are two types of capital. First one is core capital and the next is supplementary capital.

#### **2.1.1.1 Core capital (basic equity)**

The key element of capital on which the main emphasis is placed on equity capital and disclosed reserves. It includes fully paid ordinary shares/common stock and non-cumulative perpetual preferred stock (but excluding cumulative preferred stock). This emphasis on equity capital and disclosed reserves reflects the importance to secure progressive enhancement in the quality, as well as the level, of the total capital resources maintained by major banks. transfers and inter bank funds transfer via SWIFT. As well, RBB works with Western Union and International Money Express, two leading person-to-person funds transfer networks. As well, RBB actively delivers various government programs to

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### **2.1.1.2 Supplementary capital**

While calculating supplementary capital, following points are included.

- i. Undisclosed reserves: Unpublished or hidden reserves are constituted in various ways according to differing legal and accounting regimes in member countries. Under this heading are included only reserves which, though unpublished, have been passed through the profit and loss account and which are accepted by the bank's supervisory authorities.
- ii. Revaluation reserves: Some countries, under their national regulatory or accounting arrangements, allow certain assets to be revalued to reflect their current value. Such reserve is included within supplementary capital provided that the assets are considered by the supervisory authority to be prudently valued, fully reflecting the possibility of price fluctuations. Such revaluations can arise in two ways:
  - (a) from a formal revaluation, carried through to the balance sheets of banks' own premises; or
  - (b) from a notional addition to capital of hidden values which arise from the practice of holding securities in the balance sheet valued at historic costs.
- iii. General provisions/general loan-loss reserves: General provisions or general loan-loss reserves are created against the possibility of future losses. General provisions (or general loan-loss reserves)

should conceptually be regarded as part of capital. Such items would constitute no more than 1.25 percentage points, or exceptionally and temporarily up to 2.0 percentage points, of risk assets.

iv. Hybrid (debt/equity) capital instruments. This heading includes a range of instruments, which combine characteristics of equity capital and debt. Their precise specifications differ from country to country, but they should meet the following requirements:

- they are unsecured, subordinated and fully paid-up;
- they are not redeemable at the initiative of the holder or without the prior consent of the supervisory authority;
- they are available to participate in losses without the bank being obliged to cease trading.
- Cumulative preference shares, having these characteristics, are eligible for inclusion in this category.

Subordinated term debt: Subordinated term debt instruments have transfers and inter bank funds transfer via SWIFT. As well, RBB works with Western Union and International Money Express, two leading person-to-person funds transfer networks. As well, RBB actively delivers various government programs to people living in remote parts of the country. RBB has began to provide modern banking facilities. The Bank aims to reach every rural and urban corner of Nepal and develop banking habits among people.

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### **2.1.2 The Risk Weights Under Capital Accord 1988**

Weighted risk ratio in which capital is related to different categories of asset or off-balance-sheet exposure, weighted according to broad categories of relative riskiness, is the method for assessing the capital adequacy of banks. The framework of weights has been kept simple and only five weights are used - 0, 10, 20, 50 and 100%.

#### **2.1.2.1 There are six aspects of the structure to which attention is particularly drawn while calculating risk weights in capital accord 1988.**

- i. Categories of risk captured in the framework: There are many different kinds of risks against which banks' managements need to guard. For most banks the major risk is credit risk, that is to say the risk of counter-party. There are many other kinds of risk - for example, investment risk, interest rate risk, exchange rate risk and concentration risk. The central focus of this framework is credit risk and, as a further aspect of credit risk, country transfer risk.

- ii. Country transfer risk: Firstly, a simple differentiation between claims on domestic institutions (central government, official sector and banks) and claims on all foreign countries; and secondly, differentiation on the basis of an approach involving the selection of a defined grouping of countries considered to be of high credit standing.
- iii. Claims on non-central-government, public-sector entities (PEs): In order to preserve in the application of such discretion, the weights should be 0, 10, 20 or 50% for domestic PEs.
- iv. Collateral and guarantees: In view of the varying practices among banks in different countries for taking collateral and different experiences of the stability of physical or financial collateral values, it has not been found possible to develop a basis for recognizing collateral generally in the weighting system. These attract the weight given to the collateral (i.e. a zero or low weight). The contingent liabilities assumed by banks in respect of guarantees attract a credit conversion factor of 100%.
- v. Loans secured on residential property: Loans fully secured by mortgage on occupied residential property have a very low record of loss in most countries. 50% weight to loans fully secured by mortgage on residential property which is rented or is (or is intended to be) occupied by the borrower. Other collateral has not been regarded as justifying the reduction of the weightings.
- vi. Off-balance-sheet engagements: An importance that all off-balance-sheet activity should be caught within the capital adequacy framework. At the same time, it is recognized that there is only limited experience in assessing the risks in some of the activities. The credit conversion factors would be multiplied by

the weights applicable to the category of the counter party for an on-balance-sheet transaction

### **2.1.3 Target Standard Ratio**

The target standard ratio of capital to weighted risk assets should be set at 8% (of which the core capital element is at least 4%). This is expressed as a common minimum standard which international banks in member countries were expected to observe by the end of 1992.

### **2.1.4 Implementation**

Each country should decide the way in which the supervisory authorities introduce and apply these recommendations in the light of their different legal structures a

### **Provisions for Capital Adequacy in Commercial Banking Sector in Nepal**

Present capital adequacy norms developed by central bank of Nepal had considered major international norms from The Basel I Capital Accord 1988. Nepal Rastra Bank had issued unified directives to banks and financial institution operated in Nepal. That directive had included the directive related with capital adequacy. Following provisions are made in that directive.

transfers and inter bank funds transfer via SWIFT. As well, RBB works with Western Union and International Money Express, two leading person-to-person funds transfer networks. As well, RBB actively delivers various government programs to people living in remote parts of the country. RBB has began to provide modern banking facilities. The Bank aims to reach every rural and urban corner of Nepal and develop banking habits among people.

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bank's resources for their business and development activities. They vary from big business houses to public sector enterprise, medium and small-scale industries to farmers and individuals.

### **1. Maintenance of Minimum Capital Fund**

On the basis of the risk-weighted assets, the banks shall maintain the prescribed proportion of minimum capital fund as per the following time-table given in Table 2.1.

## **2. Definition of Capital**

For the purpose of calculation of Capital fund, the capital of the banks is divided into the following two components and defined:

### **2.1 Core Capital**

The amounts under the following heads shall be included in the Core Capital

- (a) Paid up capital
- (b) Share premium
- (c) Non-redeemable preference shares
- (d) General Reserve Fund
- (e) Accumulated Profit and loss account

However, where the amount of Goodwill exists, the amount of goodwill shall be deducted for the purpose of calculation of Core Capital.

### **2.2 Supplementary capital**

For the purpose of the calculation of capital fund, the amount under the following heads, subject up to one hundred percent of the core capital, shall be included under the supplementary capital.

- (a) General Loan Loss Provision

Under this head, provision made only against the Pass Loan shall be included. This amount shall be limited up to 1.25 percent of the total Risk Weighted Assets.

- (b) Exchange Equalization Reserve
- (c) Assets Revaluation Reserve

The amount of Assets Revaluation Reserve can be included for the purpose of transfers and inter bank funds transfer via SWIFT. As well, RBB works with

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This includes the following instruments that have the characteristics of both debt and equity:

- (i) Unsecured, fully paid up instruments issued by the bank which are subordinated to priority of payment after) depositors and creditors, and available to absorb losses as well as convertible into ordinary capital.
- (ii) Instruments, which are non-redeemable at the option of the holder except with the approval of Nepal Rastra Bank.
- (iii) Perpetual or long-term preference stock (Shares) convertible into common stock if the profit and loss account becomes negative.

However, banks and financial institutions can not hold (purchase) Hybrid Capital Instruments issued by any bank of financial institution.

- (e) Unsecured Subordinated Term Debt.

many other sectors. The bank's extensive branch network and international connections are designed to transact banking activity between any part of the country and any part of the world. RBB's main objectives are to provide banking services throughout Nepal and contribute in the socio economic development of the country. From 16 January, 2003 to till date, the management of the bank was given to the foreign consultant Mr Bruce F Henderson with his support team. There were 19 consultants in the consulting group.

(f) Other Free Reserves not allocated for a specific purpose

### **3. Total Capital Fund**

Total Capital Fund is defined as the sum of core capital and supplementary capital.

#### **4. Total Weighted Risk Assets**

For the purpose of calculation of capital fund, the risk weighted assets has been classified into following two components:

- (a) On balance sheet risk weighted assets
- (b) Off-balance sheet risk weighted assets

#### **5. Risk weighted on Balance Sheet Assets and off-balance sheet items**

- (a) For the purpose of calculation capital fund, the on balance sheet assets are divided as follows with assignment of separate risk weight-age. Accordingly, for determining the Total Risk Weighted Assets the amount as exhibited in the balance sheet assets shall be multiplied by their respective risk weight-age and then added together. Risk weights for on balance sheet items are given in Appendix 2.
- (b) Risk weighted off Balance Sheet items
- (c) For the purpose of calculation Capital Fund, the Off-Balance Sheet Items are divided as follows with assignment of separate risk weight-age. Accordingly, for determining the total Risk Weighted Off Balance sheet assets, the amount of such transaction shall be multiplied by their respective risk-weights and then added together. Risk weights for off balance sheet items are given in Appendix 3.

#### **6. Capital Fund Ratios**

This ratio would measure the total capital fund on the basis of total risk-weighted assets. The capital fund ratio shall be determined as follows:

Capital fund ratio =  $\frac{\text{Core capital} + \text{Supplementary capital}}{\text{Sum of risk-weighted assets}} \times 100$

Sum of risk-weighted assets. = Total on balance sheet risk-weighted assets+  
Total off balance sheet risk-weighted items.

## **7. Reporting Requirement of Capital Fund**

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In respect of FY 2058/59, such statement is submitted on half-yearly basis. In determining the capital fund, the un-audited quarterly net profit (or net loss) amount shall be exhibited separately in the balance sheet under profit and loss account and such net profit/loss amount may be included for the purpose of calculation of the capital fund.

## **8. Time period for fulfilling the shortfall in capital fund**

In the event of non-fulfillment of capital fund ratio as mentioned under section 1 above in any quarter, the shortfall amount shall be fulfilled within next 6 (six) months. Until the fulfillment of such capital fund, banks shall not declare or

distribute dividend to its shareholders under section 18 of commercial bank act, 2031. The shortfall in the capital fund may be rectified:

(a) by issuing new shares.

(b) by reallocating assets.

## **9. Actions for not complying the directives relating to capital fund.**

Where any bank does not fulfill the minimum capital fund within the period specified in clause (8) above, any of the following actions may be initiated:

(a) Suspension of declaration or distribution of dividend (including bonus shares)

(b) Suspension of opening new branch.

(c) Suspension of access to refinancing facilities of Nepal Rastra Bank.

(d) Restriction on lending activities of the bank

(e) Restriction on acceptance of new deposits.

(f) Initiation of any other actions by exercising the authority under Section 32 of Nepal Rastra Bank Act, 2012.

## **Playing Factors in the Provisions for Capital Adequacy in Commercial Banking Sector in Nepal as per On-Site Inspection Manual of Nepal Rastra Bank**

Capital adequacy or calculation of a ratio. The following factors come into play when considering the sufficiency of capital for the banks/non banks.

### **a. Competent and Effective Management**

The competence and effectiveness of management including the board of directors, is a key determinant of capital adequacy. A competent and effective management team would chart the proper course of operations and establish efficient systems with effective internal controls to guide the bank towards

growth and a planned asset/liability structure. By so doing, the bank should retain sufficient reserves to cover unanticipated losses and reduce the probability of capital erosion.

The board of directors must decide on the financial objectives and strategies to be pursued in the longer term, as well as make sure that the bank/non bank has a competenuation of revenue reserves that constitute the main ingredient of capital growth.

A trend of sustained profitability may be a sign of well-managed operations and may be a reflection of competent and efficient management. However, the components of profits should be analyzed to determine the quality of earnings. That is profits should be separated into operating profits and extraordinary profits. Obviously, profits from a stable source of operational earnings provided a better defense against losses than the occasional sale of assets or opportune gains from investments.

#### **b. Balance Sheet Composition**

The asset/liability mix as reflected in the balance sheet is a good indicator of the bank/non-bank's long term financial stability. The components of the balance sheet and the proportion of each category of assets and liabilities should be consistent with the objective and targets of the bank/nonblank. Furthermore, the balance sheet composition should also be fairly consistent over time, o people living in remote parts of the country. RBB has began to provide modern banking facilities. The Bank aims to reach every rural and urban corner of Nepal and develop banking habits among people.

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### **Present Effort for the Development of Prudential Directives in Capital Adequacy**

After the successful implementation of 1988 capital accord in more than 100 countries, the Basel Committee on Banking Supervision reached an agreement on a number of important issues for promoting prudential and uniform banking practices as well as setting standards and guidelines for supervisory functions. Realizing the fact, transfers and inter bank funds transfer via SWIFT. As well,

RBB works with Western Union and International Money Express, two leading person-to- des various banking services to a wide range of customers including banks, insurance companies, industrial trading houses, airlines, hotels, and many other sectors. The bank's extensive branch network and international connections are designed to transact banking activity between any part of the country and any part of the world. RBB's main objectives are to provide banking services throughout Nepal and contribute in the socio economic development of the country. From 16 January, 2003 to till date, the management of the bank was given to the foreign consultant Mr Bruce F Henderson with his support team. There were 19 consultants in the consulting group.

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### **Key Elements of the New Accord**

The New Accord consists of three re-enforceable pillars:

- (1) Minimum capital requirements,
- (2) Supervisory review process and
- (3) Market discipline.

The proposals comprising of each of the three pillars are summarized below:-

#### **1) Pillar 1: Minimum Capital Requirements**

In new capital accord 2005 also, the definition of eligible regulatory capital, as outlined in the 1988 Accord II is eligible for inclusion in Tier 1 (Core Capital) and in Tiend inter bank funds transfer via SWIFT. As well, RBB works with

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- (1) credit risk
- (2) market risk, and
- (3) operational risk

A major innovation of the proposed Basel-II is the introduction of three distinct options for the calculation of three types of risk. It is not feasible or desirable to insist upon a one-size-fits-all approach to the measurement of either risk. Instead, for credit, operational and market risk, there are three approache by risk type.

#### 1. Credit Risk

- a. Standardized Approach
- b. Foundation IRB Approach
- c. Advanced IRB Approach

#### 2. Operational Risk

- a. Basic Indicator Approach
- b. Standardized Approach

- c. Advanced Measurement Approaches (AMA)

### 3. Market Risk

- a. Variance Co-variance Approach
- b. Monte Carlo Simulation Approach
- c. Historical Simulation Approach

### **Credit risk**

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Factors affecting credit risk can be summarized by the following formula:

Expected Loss (EL) on a loan = Exposure at default (EAD) X Loss given default (LGD) X Probability of Default (PD).

The bank can also suffer losses in excess of expected losses, say, during economic downturns. These are called unexpected losses. Ideally, a bank should recover expected loss on a loan from its customer through loan pricing. The capital base is required to absorb the unexpected losses, as and when they arise.

## **Market risk**

Investment is risky because of the change in their prices due to market forces. This volatility in the value of a bank's investment portfolio is known as the market risk, as it is driven by the market forces. The change in the value of the portfolio can be due to changes in interest rate, fluctuation in exchange rate or the changes in the values of equity or commodities.

## **Operational Risk**

Several events that are neither due to default by third party nor because of the volatility of the market mechanism are called operational risks and can be attributed to internal systems, processes, people and external factors.

## **2) Pillar 2: Supervisory Review Process**

Pillar II ensures that not only do the banks have adequate capital to cover their risks, but also that they employ better risk management practices so as to minimize the risks. Capital cannot be regarded as a substitute for inadequate risk management practices.

This pillar requires that if the banks use asset securitization and credit derivative review process is based on four principles:

### **Principle 1:**

Banks should have a process for assessing their overall capital adequacy vis-à-vis their risk profile and a strategy for maintaining their capital levels.

### **Principle 2:**

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### **3) Pillar 3: Market Discipline**

Banking operation is becoming complex and difficult for supervisors to monitor and control. Though supervisors try to indoctrinate corporate governance in banks, they can take indication from the market to strengthen

their supervisory and monitoring activities. In this context, Basel Committee has recognized that market discipline is so important that it warrants being the third pillar of Basel–II norms. This market discipline is brought through greater transparency by asking banks to make adequate disclosures. The potential market participants of these disclosures are supervisors, bank's customers, rating agencies, depositors and investors.

With frequent and material disclosures, outsiders can learn about the bank's  
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risk. Armed with this information, the outsiders can always protect themselves by ending their relationships with the bank.

Market discipline has two important components:

- a. Market signaling is the form of change in bank's share prices or change in bank's borrowing rates
- b. Responsiveness of the bank or the supervisor to market signals Seeing the importance of the impact that the market can have on banks, Pillar III provides a comprehensive menu of public and regulatory disclosures like disclosures related to capital structure (core and supplementary capital), capital adequacy, risk assessment and risk management processes to enhance the transparency in banking operations.

## **2.2 Review of Related Studies**

### **2.2.1 Articles and Reports**

Basel–II norms are expected to have far-reaching consequences on the health of financial sectors worldwide because of the increased emphasis on banks' risk-management systems, supervisory review process and market discipline. The new norms bring to front not only the issues of bank-wide risk measurement but also of active risk management.

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To reform of supervisory authorities' practices and measures to ensure that the national supervisory practices in different countries do not vary unnecessarily. Supervisory authorities related to the current capital adequacy regime require a considerable input of work and expense from banks. The proposed changes would increase the amount of information needed by the authorities concerning

risks related to commercial banking activities, in particular. In order to avoid unnecessary effort and costs, the changes should be implemented in a way that would allow the systems and data currently used for banks' business management and supervision to be utilized as far as possible (NRB, 2006:26).

This new accord has examined possible approaches in relation to these risks. Furthermore, and more generally, capital ratios, judged in isolation, may provide a misleading guide to relative strength of banking industries. There may be differences between countries in the fiscal treatment and accounting presentation for tax purposes of certain classes of provisions for losses and of capital reserves derived from retained earnings may to some extent distort the comparability of the real or apparent capital positions of international banks (NRB, 2006:28).

### **2.2.2 Thesis**

Wagle (2000) in his thesis entitled- "A Study on Trends of Saving, Investment and Capital Formation in Nepal" has indicated that capital fund has significant and positive relation with both deposit and loans. It means increase (decrease) in capital fund increase (decrease) deposits as well as loans. However the degrees of relationship were different. But relation of capital with profit was positive and insignificant. It indicated less of increase or decrease in profit is due to capital fund or capital fund is least responsible in changing profit. Bank should increase capital fund to increase the capital fund ratio according to increase in deposit.

Dhakal (2006) in his study entitled "A comparative study of Capital Adequacy of Joint Venture Banks in Nepal especially of Nepal Arab Bank Ltd. and Nepal Investment Bank Ltd." concludes that the liquidity position of both the banks is below the normal standard of 2:1. Comparatively this ratio of NIBL is better on an average. Both the banks are found to be efficient in utilizing most of their total assets. Capital structure is highly leveraged, capital adequacy ratio of NIBL is better than that of NABIL and the profitability position of both the

banks is not recorded as satisfactory. Based on the findings of analysis, the research suggests finding out the root cause of weak liquidity position to improve the liquidity of both banks. Similarly, both the banks are suggested to maintain improve capital structure by increasing equity base, to extend loan and advances to utilize more of the total deposits, to minimize operational expenses or to mobilize resources more efficiently and to extend their banking facilities even in the rural areas.

Kandel (2007) in his study entitled “Capital Adequacy of Commercial Banks in Nepal especially of Nepal Bank Limited, Himalayan Bank Limited and Nepal Investment Bank Limited.” concludes that After detail analysis of capital adequacy directives issued by Nepal Rastra Bank based on Capital Accord 1988, International practices on capital adequacy, the compliance status on capital adequacy by selected commercial banks and their management effort to built strong capital base, following conclusions are drawn:

During this 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 credit risk. Accordingly, a revision of the capital adequacy framework is justified in order to capture the various factors affecting banks' risk exposure. However, the proposed changes make the assessment of capital adequacy a significantly more complex procedure than under the current framework.

HBL has surplus core and supplementary capital by Rs 772.83 million and Rs 489.64 million in FY 2004/5 and in all the years the bank is successful to maintain capital adequacy requirement. In NIBL, there was surplus core and supplementary capital by Rs. 421.66 million and Rs 78.14 million in FY 2004/5 and in all the years the bank is successful to maintain capital adequacy requirement except FY 2002/3. In NBL, there is deficit core capital and capital fund by Rs -24559.02 million and Rs -27614.92 million in FY 2004/5 and in all the years, the bank was failed to maintain capital adequacy requirement.

Timsina (2008), in his study entitled “A study on capital adequacy of commercial banks in Nepal,” and following conclusions were drawn on the basis of quantitative and qualitative analysis on the selected commercial banks (Standard Chartered Bank Nepal Limited, Nepal Investment Bank Limited and Rastriya Banijya Bank Limited)

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transfers and inter bank funds transfer via SWIFT. As well, RBB works with Western Union and International Money Express, two leading person-to-person funds transfer networks. As well, RBB actively delivers various government programs to people living in remote parts of the country. RBB has began to provide modern banking facilities. The Bank aims to reach every rural and urban corner of Nepal and develop banking habits among people.

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The bank has a large deposit base with more than 1.2 million depositors. The depositors are individuals, institutions, private organizations, business houses, non-profit organizations, social organizations, industries, finance companies, co-operatives, etc. The bank has more than 300,000 clients who have used the bank's resources for their business and development activities. They vary from big business houses to public sector enterprise, medium and small-scale industries to farmers and individuals. The amount of non-performing loan of SCBNL is decreasing in each year where as capital fund is in increasing trend. Percentage of non-performing loan to capital fund of SCBNL is in decreasing trend. In case of NIBL, non-performing loan was fluctuating. The growth of capital fund of NIBL is higher than SCBNL. NIBL's percentage of non-performing was fluctuating. Percentage of non-performing loan was also fluctuating in RBB. Capital Fund of the RBB was continuously deteriorating till FY 2003/4 and began to improve from FY 2005/06 but the fund is still negative.

### **2.3 Research Gap**

From the above literature, it can be concluded that capital adequacy is the pre-requisite for running commercial bank smoothly. Capital adequacy should be maintained for the welfare and benefit of the investors and bank itself. Previous transfers and inter bank funds transfer via SWIFT. As well, RBB works with

Western Union and International Money Express, two leading person-to-person funds transfer networks. As well, RBB actively delivers various government programs to people living in remote parts of the country. RBB has begun to provide modern banking facilities. The Bank aims to reach every rural and urban corner of Nepal and develop banking habits among people.

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## **CHAPTER III**

### **RESEARCH METHODOLOGY**

In general sense, research methodology refers to the various sequential steps to adopt by a researcher in studying a problem with certain objectives in view. In other words “Research methodology is a way to systematically solve the research problem (Kothari, 1990:39).” "A statement of the purpose of research is made in the form of a problem so formulated to be tackled (Wilkinson and Bhandarkar, 1997:53)." To solve the problem of capital adequacy in banks and financial institutions, research methodology is followed in order to achieve the basic objectives and goals of this research work.

By using both the secondary and primary sources of data and information, various quantitative techniques have been used to establish relationship between various variables.

#### **3.1 Research Design**

“A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure (Kothari, 1990:40).”

It can be said that research design is the plan, structure and strategy of investigation adopted to gain answers to research questions and to control variances. The descriptive and analytical research designs were used to achieve the objectives of this study.

This study covers relevant data collection, tabulation and compilation of data, compilation data to find out required economic parameters, analysis of compiled data and economic parameters. Various statistical and economic tools has been used to examine facts in order to evaluate capital adequacy situation of commercial banks, comparing inter-bank units of selected commercial banks and the average of banking industries.

### **3.2 Population and Sample**

The total number of commercial banks 25 is the population of this study.

Commercial banks are important player in the financial sector. They cover more than 80% in the deposit collection and lending in national economy.

Some selected commercial banks are taken into consideration purposively as samples to have fair representation of total banking industries. Out of 25 commercial banks, three are state owned commercial banks, 16 are Nepalese Private Sector owned commercial banks, 6 are foreign joint venture banks.

Selected commercial banks are Rastriya Banijya Bank Limited which is fully owned commercial bank, Standard transfers and inter bank funds transfer via SWIFT. As well, RBB works with Western Union and International Money Express, two leading person-to-person funds transfer networks. As well, RBB actively delivers various government programs to people living in remote parts of the country. RBB has began to provide modern banking facilities. The Bank aims to reach every rural and urban corner of Nepal and develop banking habits among people.

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The bank has a large deposit base with more than 1.2 million depositors. The depositors are individuals, institutions, private organizations, business houses, non-profit organizations, social organizations, industries, finance companies,

co-operatives, etc. The bank has more than 300,000 clients who have used the bank's resources for their business and development activities. They vary from big business houses to public sector enterprise, medium and small-scale industries to farmers and individuals. air representation of the population of total banking industries. The period covered by the study is five years, covering 2003/04-2007/08.

### **3.3 Nature and Sources of Data**

To conduct any research, data collection is a major task. This research is mainly based on the secondary sources of data and information as well as primary sources.

A. Major secondary sources are as follows:

- i. Annual reports commercial banks.
- ii. Quarterly bank and financial institution statistics published by Nepal Rastra Bank.
- iii. Annual reports of commercial banks published by Nepal Rastra Bank.
- iv. Economic Survey published by Nepal Government, Ministry of Finance.
- v. Statistical Year Book of Nepal published by Central Bureau of Statistics.
- vi. Previous Research Studies and Articles on the subject.
- vii. Various IMF, World Bank, UN Reports.

B. Major primary sources are as follows:

- i. Questionnaires asked to officers of commercial bankers, Nepal Rastra Bank
- ii. Personal interviews, unstructured dialogues with related persons of this sector.

### **3.4 Method of Analysis**

The data extracted from financial statement and other available source of information are processed and tabulated in various tables and charts under different headings according to their needs. Major economic and statistical transfers and inter bank funds transfer via SWIFT. As well, RBB works with Western Union and International Money Express, two leading person-to-person funds transfer networks. As well, RBB actively delivers various government programs to people living in remote parts of the country. RBB has began to provide modern banking facilities. The Bank aims to reach every rural and urban corner of Nepal and develop banking habits among people.

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The various results so obtained from the above calculations are then analyzed for drawing conclusions and for prescribing recommendations.

### 3.4.1 Capital Fund Ratios

This ratio would measure the total capital fund on the basis of total risk-weighted assets. The capital fund ratio shall be determined as follows:

$$\text{Capital fund ratio} = \frac{\text{Core capital} + \text{Supplementary capital}}{\text{Sum of risk-weighted assets}} \times 100$$

Sum of risk-weighted assets. = Total on balance sheet risk-weighted assets + Total off balance sheet risk-weighted items.

### 3.4.2 Risk Based Capital

The risk based capital ratio is calculated using the following formula:

$$\text{Risk Based Capital} = \frac{\text{Tier I capital} + \text{Tier II capital}}{\text{Sum of risk weighted assets}} \times 100$$

Where sum of risk weighted assets = sum of (on balance sheet items x risk weights) + Sum of (off-balance sheet items x conversion factors x risk weights). Conversion factor is neglected for off balance sheet items in Nepalese context.

Where, (Tier I) = Core Capital and (Tier II) = Supplementary Capital.

### 3.4.3 Regression Analysis

It establishes the nature of relationship between two or more variables and then estimates the unknown variables on the basis of other known variables. The model of multiple regressions is employed to test and analyze the relationship between dependent and independent variables. This model also helps to analyze critically to find cause and effects of dependent and independent variables. The model of multiple of multiple regression equation could be expressed by:

$$Y = f(X_1, X_2, \dots)$$

$$Y = a + bx_1 + bx_2 + e_t$$

Where,

a = Constant.

Y = Capital fund.

X1= Net profit.

X2= Non Performance Loan.

Regression Constant (a)

The value of constant, which is intercept of the model, indicates the average level of dependent variable when independent variable (s) is (are) zero. In other words, it is better to understand that a (constant) indicates the mean or average effect on dependent variable if all the variables omitted from the model.

zero, the worse the fit of regression plane.

#### 4. Standard Deviation

The standard deviation is commonly used to measure of risk. It shows the deviation of actual mean with average mean. The standard deviation measures the absolute variability or dispersion, greater the standard deviation or vice versa. The standard deviation is found from the following formula.

$$\text{Standard Deviation } (s) = \frac{S(x - \bar{x})^2}{N}$$

Where,

$(s)$  = Standard deviation

$X$  = Variables

$\bar{x}$  = mean value

$N$  = Number of years

#### 5. Coefficient of Variation

The corresponding relative measure of dispersion is known as the coefficient of variation. It is used in such problems, where the study needs to compare the variability of two or more than the series. The higher coefficient of variations of series refers more variable or less consistency or less uniformed and the series for which coefficient of variation is less, is said to be less variable or more consistent and more uniform variable, it is calculated by the following formula.

$$\text{Co-efficient of variation. (C.V.)} = \frac{s}{\bar{x}}$$

Where,

$\bar{x}$  = (mean of Series)

CV = Coefficient of variation

$(s)$  = Standard deviation

#### 6. Coefficient of Correlation

Coefficient of correlation is used for measuring the magnitude of linear relationship between two variables. The value of coefficient of correlation

always lies between + 1 and -1, +1 shows the perfect positive correlation between the variable and -1 means perfect negative correlation between the variable and when coefficient of correlation  $[r] = 0$  that means there is no relationship between variables.

It is found as (r)

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

Where,

r = Correlation coefficient

n= Number of years

x = Sum of X series

y =Sum of Y series

xy = Sum of X and Y series

$\sum x^2$  = Sum of Square of Series X

$\sum y^2$  = Sum of Square of series Y

x&y =Financial Variable

## CHAPTER IV

### DATA PRESENTATION AND ANALYSIS

#### 4.1 Performance Indicators of Selected Commercial Banks

In general, Financial Performance Indicators is an authoritative reference source of key financial ratios of related organization. It is based on up-to-date, reliable and comprehensive data, derived from Statistics of financial statements. The indicators will be helpful to serve as financial performance of individual bank. Such indicators show the overall financial position at a glance. Financial performance indicators in the form of ratios cover a number of concepts and are grouped as: profitability; liquidity; utilization; financial structure; and investment – shareholder ratios.

Some relevant performance indicators of selected commercial banks are given in the following table below.

##### 4.1.1 Financial Performance Indicators of Standard Chartered Bank Nepal Limited (SCBNL)

Table 4.1 shows the financial performance indicators of SCBNL. Net profit margin of SCBNL is in increasing trend in comparison to last year. Likewise earning per share was increasing per year up to FY 2004/05. But EPS was decreased in FY 2005/06 due to additional bonus share issue of Rs 321.74 million in FY 2005/06. Payment of dividend including bonus share (stock dividend) and cash dividend both are increasing in all years in comparison to last years. Percentage of interest to loan & advance was around 10% up to FY shares. Liquidity or cash reserve ratio of the bank is decreasing each year except in FY 2005/06. The percentage of core capital and capital fund to risk weighted assets of the bank is above the regulatory requirement in all the years.

**Table: 4.1****Financial Performance Indicators of Standard Chartered Bank Nepal Limited**

Fiscal Years	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
% Net Profit/Total Income	25.92	33.12	33.71	33.95	34.21	35.12
Earning Per Share in Rs.	126.88	141.13	149.3	143.55	143.93	144.25
Market Value Per Share in Rs.	2144	1575	1640	1745	2345	2500
% Dividend (Cash & Bonus) on Paid Up Share Capital	100	100	120	110	120	115
% of Cash Dividend on Paid Up Share Capital	100	100	110	110	120	115
% of Interest Income on Loan & Advance	10.22	10.31	10.11	8.83	7.43	6.52
% of Interest Income on Deposit & Borrowing	2.77	1.82	1.35	1.3	1.31	1.10
Total Loan/Total Deposit	36.82	35.97	31.99	31.63	43.55	39.25
Non Performing Loan/Total Loan	5.23	4.84	4.13	3.77	2.69	2.12
Interest Rate Gap (Spread Rate)	4.65	4.19	4.11	3.76	3.7	3.7
Book Net Worth in Million Rs.	1112.02	1235.48	1368.91	1495.74	1582.41	1695.54
Liquidity (Cash Reserve Ratio)	10.76	9.87	9.07	9.46	8.77	8.52
% of Core Capital to Risk Weighted Assets	11.61	13.92	12.25	13.76	13.81	14.05
% of Capital Fund to Risk Weighted Assets	14	17.38	14.14	15.57	15.85	15.62

Source: Standard Chartered Bank Nepal , 2002/03-2007/08

#### **4.1.2 Financial Performance Indicators of Nepal Investment Bank Limited**

Table 4.2 shows the financial performance indicator of Nepal Investment Bank Limited. Net profit margin of NIBL is in increasing trend in comparison to last year except in FY 2005/06.

**Table: 4.2****Financial Performance Indicators of Nepal Investment Bank Limited**

Fiscal Years	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
% Net Profit/Total Income	25.92	33.12	33.71	33.95	34.21	35.12
Earning Per Share in Rs.	126.88	141.13	149.3	143.55	143.93	144.25
Market Value Per Share in Rs.	2144	1575	1640	1745	2345	2500
% Dividend (Cash & Bonus) on Paid Up Share Capital	100	100	120	110	120	115
% of Cash Dividend on Paid Up Share Capital	100	100	110	110	120	115

% of Interest Income on Loan & Advance	10.22	10.31	10.11	8.83	7.43	6.52	
% of Interest expenses on Deposit & Borrowing	2.77	1.82	1.35	1.3	1.31	1.10	
Total Loan/Total Deposit	36.82	35.97	31.99	31.63	43.55	39.25	
Non Performing Loan/Total Loan	5.23	4.84	4.13	3.77	2.69	2.12	
Interest Rate Gap (Spread Rate)	4.65	4.19	4.11	3.76	3.7	3.7	
Book Net Worth in Million Rs.	1112.02	1235.48	1368.91	1495.74	1582.41	1695.54	
Liquidity (Total cash in hand/Total Deposit)	10.76	9.87	9.07	9.46	8.77		8.52
% of Core Capital to Risk Weighted Assets	11.61	13.92	12.25	13.76	13.81		14.05
% of Capital Fund to Risk Weighted Assets	25.92	33.12	33.71	33.95	34.21		35.12

Source: Nepal Investment Bank Limited, 2002/03-2007/08

Likewise earning per share was increasing per year up to FY 2005/06. But EPS was decreased in FY 2006/07 and 2007/08 due to additional bonus share issue. Payment of dividend including bonus share (stock dividend) and cash dividend both are decreasing in all years in comparison to last years. Percentage of interest to loan & advance was around 9% in all years except in FY 2004/05 at which the rate was 7.8% percent. Interest rate on deposits and borrowings of the bank was in decreasing trend because of market from where it could easily get deposit and due to liberalization in the determination of interest rate on both lending and deposits. Percentage of non-performing loan to total loan was decreasing in all the years except in increasing each year due to higher return and in spite of payment of dividend in some years. Liquidity or cash reserve ratio of the bank was fluctuating each year. The percentage of core capital and capital fund to risk weighted assets of the bank is above the regulatory requirement in all the years.

#### **4.1.3 Financial Performance Indicators of Rastriya Banijya Bank Limited**

Table 4.3 shows the financial performance indicator of Rastriya Banijya Bank Limited. RBB was incurring loss up to FY 2004/05 and the Net profit margin

of RBB was begun to increase from FY 2005/06 to FY 2007/08. This bank is fully government owned bank, which has not issued equity shares till date. Likewise there was loss per share till FY 2004/05 and earning per share of the bank was Rs 341.3 and Rs 342.5 in FY 2006/07 and 2007/08. There was 1 percent non-redeemable preference share so the bank was paying 1 percent dividend to government each year. Percentage of interest to loan & advance was decreasing each year. Interest rate on deposits and borrowings of the bank was in decreasing trend because of market competition. Percentage of non-performing loan to total loan was increasing till FY 2004/05 and began to decrease from FY 2005/06. Spread rate of the bank was very low in this bank in comparison to other selected banks. Book net worth of the bank was negative and was decreasing each year till FY 2004/05 and begins to increase from FY 2005/06 and it is still negative. There is excessive liquidity in the bank in comparison to other selected banks. The percentage of core capital and capital fund to risk weighted assets of the bank was negative and was decreasing each year till FY 2004/05 and begin to increase from FY 2004/05 and it is still negative. The capitals were below the regulatory requirement in all the years.

**Table: 4.3****Financial Performance Indicators of Rastriya Banijya Bank Limited**

Fiscal Years	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
% Net Profit/Total Income	25.92	33.12	33.71	33.95	34.21	35.12
Earning Per Share in Rs.	126.88	141.13	149.3	143.55	143.93	144.25
Market Value Per Share in Rs.	2144	1575	1640	1745	2345	2500
% of Interest Income on Loan & Advance	100	100	120	110	120	115
% of Interest expenses on Deposit & Borrowing	100	100	110	110	120	115
Total Loan/Total Deposit	10.22	10.31	10.11	8.83	7.43	6.52
Non Performing Loan/Total Loan	2.77	1.82	1.35	1.3	1.31	1.10
Interest Rate Gap (Spread Rate)	36.82	35.97	31.99	31.63	43.55	39.25
Book Net Worth in Million Rest	5.23	4.84	4.13	3.77	2.69	2.12
Liquidity (Total cash in hand/Total Deposit)	4.65	4.19	4.11	3.76	3.7	3.7
% of Core Capital to Risk Weighted Assets	1112.02	1235.48	1368.91	1495.74	1582.41	1695.54
% of Capital Fund to Risk Weighted Assets	10.76	9.87	9.07	9.46	8.77	8.52

Source: Rastriya Banijya Bank Limited, 2002/03-2007/08

#### 4.2 Analysis of Capital Adequacy

In general, Nepal Rastra Bank issues various directives including capital adequacy related directives. All the banks and financial institutions licensed by NRB should implement those directives. Regarding the compliance status, NRB also monitor and inspect those banks and prepares the reports of compliance status. 'Capital adequacy, loan classification and provisioning, ceiling on investment in share and debentures and other regulatory requirement as well as financial conditions of the commercial banks are regularly monitored through these reports (NRB, 2006:17).

The Capital is the permanent fund supplied by the owners of the business. It is a fundamental resource. In accouf the business. First, bank/non-banks should strengthen their capital positions so that long-term fixed assets and infrastructure investments that do not directly generate cash flows can be funded. Then, aside from the capital used to meet the funding requirements for fixed assets and infrastructure investments that don not directly generates cash

flows can be funded. Then, aside from the capital used to meet the funding requirements for fixed assets and infrastructure investments, it is used to absorb unusual losses and to continue to conduct business when resources are not available or have been withdrawn. The strength of the capital position is an important signal to the public as to the safety of their deposits. Therefore, capital strength is important not only for the individual bank/non-bank but also for the banking system as a whole (NRB, 2002:5)."

Nepal Rastra Bank had issued a revised capital adequacy directive in April, 2001. The revised regulation on capital adequacy requires the banks to maintain a capital ratio consistent with international standards. That is, all banks are required to observe the 8 percent risk weighted capital adequacy ratio proposed by Basle Committee by July 2001, 9 percent by July 2002, 10 percent by July 2003, and 12 percent by July 2004.

"The minimum capital adequacy ratio of 8 percent is considered a minimum level because the original capital adequacy framework is based on credit risk and does not incorporate interest rate risk of other forms of risk or other forms of risk. As a result, well managed ratio.

#### **4.2.1 Constituent of Core Capital**

The core capital is the major part of capital for banks. It appears in balance sheet under the heading of Capital and Liabilities. Following items falls under core capital.

- a. Paid Up Capital: Paid up capital includes an amount paid by the shareholders on ordinary shares only. It is made up of ordinary shares held by the promoters as well as by the general public. It also includes bonus shares issued from time to the existing shareholders out of profit earned by the bank.
- b. Share Premium: Share premium is the excess of price over par value received by the bank that had issued shares.

- c. Non-redeemable Preference Share: Non-redeemable preference share is that type of share, which gets fixed rate of preference dividend, and it can not redeemed unless it liquidates.
- d. General Reserve: General reserve is an amount set aside out of profit for the future use or for the expansion of business. For commercial banks, banks should transfer at least 20% of net profit in such reserve account annually. Such reserve can be used only after getting approval from Nepal Rastra Bank.
- e. Accumulated profit and loss account: Accumulated profit or loss is that amount of profit or loss which is transferred to the balance sheet after all other transfers to reserves etc for the year.

Detail core capitals to risk weighted assets of commercial banks during last three years are given in Appendix 1. The regulatory requirement of core capital to risk weighted assets were 4.5%, 5%, 5.5% during FY 2005/06, FY 2006/07, FY 2007/08 respectively. The avct of two state owned commercial banks including Nepal Bangladesh Banks and Nepal Credit and Commerce Banks were poor (NRB, 2008).

#### **4.2.2 Constituent of Supplementary Capital**

Supplementary capital is considered as supplemental to core capital because it can not provide the same degree of performance as a core capital cushion. For compliance with capital adequacy requirements, the amount of supplemental capital is limited to the total amount of core capital. Any excess of supplemental capital over core capital is ineligible for the calculation of the capital adequacy ratio. Following are the components of supplement capital.

- a. General loan loss provisions: General loan loss provision is the provision made against the pass loans of bank. This amount is limited to 1.25% of total risk weighted assets.
- b. Exchange fluctuation reserve: Assets revaluation reserve: Assets are revalued from the historic cost to market value. If revaluation results gain, the excess amount is transferred to assets revaluation reserve. Such reserve should not be more than 2 percent of total supplementary capital.

- c. Hybrid capital instruments: These are such capital instrument which has both/combine characteristics of capital and debt. These instruments are unsecured, are not redeemable, participate in losses. It includes cumulative perpetual preferred shares, perpetual loan stocks, and mandatory convertible loan stocks approved by the NRB etc.
- d. Subordinated term debt: These reserves, which should not be used for the purpose of meeting future liabilities. Such reserves are created from profit e.g. Contingency reserves, Dividend equalization reserves etc.

#### **4.2.3 Types of Assets and Their Risk Assessment**

In every investment, there is risk, so all assets are subject to risks. There are many different kinds of risks against which a bank's management needs to be on guard. The major risks for most banks are credit risk, investment risk, interest rate risk, country risk, operational risk and exchange rate risk.

Currently, the risk based capital framework focuses on credit risk and country risk.

The risk based capital framework groups the banks' assets into 5 broad categories covering both on and off balance sheet items. For each category of asset held, a risk weight is attached to reflect the inherent risk of financial loss. The importance of security and collateral is taken into consideration to a certain extent in the risk weighting. It provides a fairer basis for making international comparisons between banking systems whose structures may differ;

- a. It allows off balance sheet exposure to be incorporated more easily into the measure and
- b. It does not deter banks from holding liquid or other assets that carry low risk.

But in case of Nepal, the on balance sheet assets of banks are grouped into three categories with risk weights of 0%, 20% and 100% instead of five categories of 0%, 10%, 20%, 50% and 100% as in capital accord. Details of risk weights of on balance sheet assets are shown in Appendix 2.

In case of Nepal, the off-balance sheet items of banks are grouped into five categories with risk weights of 0%, 10%, 20%, 50% and 100% instead of four categories with risk weights of 0%, 20%, 50% and 100% as in capital accord. The values of these items are multiplied by their appropriate risk weights as described below. Details of risk weights of off balance sheet items are shown in Appendix 3.

#### **4.2.4 Calculation of Risk Based Capital Ratio**

In case of Basle regulatory framework, the risk based capital ratio is calculated using the following formula:

Risk Based C of Nepalese regulatory framework, the risk based capital ratio is calculated using the following formula:

$$\text{Risk Based Capital} = \frac{\text{Tier I capital} + \text{Tier II capital}}{\text{Sum of risk weighted assets}} \times 100$$

Where sum of risk weighted assets = sum of (on balance sheet items x risk weights) + Sum of (off-balance sheet items x risk weights). Conversion factor is neglected for off balance sheet items in Nepalese context.

"The established standard target ratio established by the Basle Committee for industrialized countries is a risk based capital ratio of 8%, of which core (Tier I) capital must be at least 4%. The industry average for risk based capital ratios for the G-10 industrialized countries increased from 9.3% in 1988 to 11.2% in 1996. Since the banking environment in developing countries entails higher economic and market risks, 15% has been regarded as appropriate for these economies (Hennie and Sonja, 2000:116-117)." Table 4.4 shows the time table for required capital adequacy ratio for commercial banks.

#### **4.2.5 Capital Adequacy Ratio of All Commercial Banks**

Details of Total Risk Based Capital of commercial banks during last three years (FY 2005/06 to FY 2007/08) are given in Appendix 4. The regulatory requirement of capital fund to risk weighted assets were 9%, 10%, and 11% during FY 2003/04, FY 2004/05, and FY 2005/06 respectively. The average

percentage of capital fund to RWA was 15.68%, 8.95%, 6.24% in those years. Considering all those three years, 8 commercial banks had complied regulatory requirement in the maintenance of capital fund and 9 commercial banks had not state owned commercial banks including Nepal Bangladesh Banks, Nepal Credit & Commerce Banks and other few banks were poor.

#### **4.2.6 Growth of Capital Fund, Core Capital and Risk Weighted**

##### **Assets of Selected Commercial Banks**

Growth indicators of capital fund, core capital and risk weighted assets are important indicators in the assessment of capital adequacy. The details of three selected commercial banks are given in table 4.5.

**Table: 4.5****Growth of Capital Fund, Core Capital and RWA of SCBNL**

<b>Fiscal Years</b>	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	Average
Total Capital Fund in Million	25.92	33.12	33.71	33.95	34.21		35.12
Growth in Capital Fund in %	126.88	141.13	149.3	143.55	143.93		144.25
Total Core Capital in Million	2144	1575	1640	1745	2345		2500
Growth in Core Capital in %	100	100	120	110	120	115	100
Risk Weighted Assets in Million	100	100	110	110	120	115	100
Growth in RWA in %		10.22	10.31	10.11	8.83	7.43	6.52
% of Total Capital Fund to RWA	2.77	1.82	1.35	1.3	1.31	1.10	2.77
% of Core Capital to RWA	36.82	35.97	31.99	31.63	43.55		39.25
							36.82

Source: Annual Report of Bank, 2002/03-2006/07

There is continuous increment in the capital fund and core capital of Standard Chartered Bank Nepal Limited. The rate of increment in both core capital and capital fund is in decreased trend in the last five years. The growth of risk-weighted assets of Standard Chartered Bank Nepal Limited is fluctuating. For commercial banks, it's not good to increase the risk-weighted assets in increasing rate. The same is applied to this bank. The bank has excessive core capital and capital fund than the regulatory requirement. So, this bank has strong capital base. Average growth rate of capital fund, core capital, RWA, % of capital fund to RWA, % of core capital to RWA were 7.59%, 8.84%, 4.92%, 19.24%, 16.34% respectively in SCBNL.

**Figure: 4.1**

**Growth of Capital Fund, Core Capital and RWA of SCBNL**

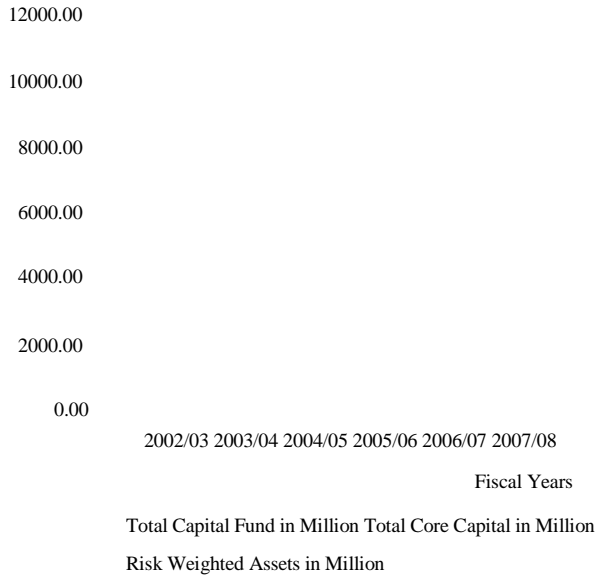


Figure 4.1 also shows that there is continuous growth in core capital, capital fund. The risk weighted assets was fluctuating and it was decreased in FY 2003/04 and again it had begun to increase in SCBNL.

**Table: 4.6**

**Growth of Capital Fund, Core Capital and RWA of NIBL**

Fiscal Years	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	Average
Total Capital Fund in Million	25.92	33.12	33.71	33.95	34.21	35.12	25.92
Growth in Capital Fund in %							
		126.88	141.13	149.3	143.55	143.93	144.25
Total Core Capital in Million	2144	1575	1640	1745	2345	2500	2144
Growth in Core Capital in %							
		100	100	120	110	120	115
Risk Weighted Assets in Million	100	100	110	110	120	115	100
Growth in RWA in %							
		10.22	10.31	10.11	8.83	7.43	6.52
% of Total Capital Fund to RWA	2.77	1.82	1.35	1.3	1.31	1.10	2.77
% of Core Capital to RWA	36.82	35.97	31.99	31.63	43.55	39.25	36.82

Source: Annual Report of Bank, 2002/03-2007/08

For Nepal Investment Bank Limited, there is a continuous increment in the capital fund and core capital. The rate of increment in capital fund is in increased trend but the rate of growth of core capital is not consistent in the last five years. The growth of risk-weighted assets of this bank is only 1.62% in FY 2003/04 in comparison to last year and such risky asset has increased by 124.33 percent in FY 2004/05. So the rate of growth of risky assets in Nepal Investment Bank Limited is re

**Figure: 4.2**

**Growth of Capital Fund, Core Capital and RWA of NIBL**

Figure 4.2 also shows that there is continuous growth in core capital, capital fund and risk weighted assets of NIBL.

**Table: 4.7**

**Growth of Capital Fund, Core Capital and RWA of RBB**

<b>Fiscal Years</b>	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	Average
Total Capital Fund in Million	25.92	33.12	33.71	33.95	34.21		35.12
Growth in Capital Fund in %	126.88	141.13	149.3	143.55	143.93		144.25
Total Core Capital in Million	2144	1575	1640	1745	2345		2500
Growth in Core Capital in %	100	100	120	110	120	115	100
Risk Weighted Assets in Million	100	100	110	110	120	115	100
Growth in RWA in %	10.22	10.31	10.11	8.83	7.43	6.52	10.22
% of Total Capital Fund to RWA	2.77	1.82	1.35	1.3	1.31	1.10	2.77
% of Core Capital to RWA	36.82	35.97	31.99	31.63	43.55		39.25
							36.82

Source: Annual Report of Bank, 2002/03-2007/08

In Rastriya Banijya Bank Limited, there is a continuous decrement in capital fund from FY 2003/04 to 2005/06 in the capital fund and there is a positive signal from FY 2005/06 in both capital fund and core capital. But still, both the capital fund and core capital are negative and below the level of regulatory

requirement. The growth of risk-weighted assets of this bank was decreasing till FY 2005/06 but it was increased by 18.80% in FY 2006/07. So increasing trend in the growth of risky assets in Rastriya Banijya Bank Limited in recent year is not good sign for th

### **Figure: 4.3**

#### **Growth of Capital Fund, Core Capital and RWA of RBB**

Figure 4.3 also shows that there is continuous decrement in core capital, capital fund and risk-weighted assets of RBB. But, risk weighted assets was begun to increase in FY 2005/06.

#### **4.2.7 Detailed Position of Capital Adequacy of Selected**

##### **Commercial Banks with Risk Weighted Assets**

In the selected commercial banks, major components of core capital are paid up capital, general reserve fund and cumulative profit (loss) account of the banks.

Likewise, loan loss provision, exchange equalization reserves.

**Table: 4.8****Capital Adequacy of SCBNL**

Particulars	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	Rs in Million
<b>A. Core Capital</b>				25.92	33.12	33.71	33.95 34.21 35.12
Paid up Capital				126.88	141.13	149.3	143.55 143.93 144.25
General Reserve Fund	2144	1575	1640	1745	2345	2500	
Capital Adjustment Fund				100	100	120	110 120 115
Cumulative Profit/Loss (up to previous FY)	100	100	110	110	120		115
Current Year Profit/Loss as per Balance Sheet	10.22	10.31	10.11	8.83	7.43		6.52
<b>B. Supplementary Capital</b>				2.77	1.82	1.35	1.3 1.31 1.10
Loan Loss Provision	36.82	35.97	31.99	31.63	43.55	39.25	
Exchange Equalization Reserve	5.23	4.84	4.13	3.77	2.69	2.12	
<b>Total Capital Fund (A+B)</b>				4.65	4.19	4.11	3.76 3.7 3.7
Risk Weighted Assets				<b>8906</b>	<b>8256.12</b>	<b>10359.4</b>	<b>10023.0 10497.5 11056.5</b>
							<b>7 9 3</b>
Minimum Capital Fund Required to be Maintained On the basis of Risk Weighted Assets							
Core Capital	400.77	371.53	517.97	551.27	577.36	588.3	
Capital Fund	801.54	743.05	1035.95	1102.54	1154.73	1175.6	
Core Capital (Excess/Short)	633.48	777.98	750.60	827.70	872.83	905.36	
Total Capital Fund (Excess/Short)	445.27	692.28	428.88	457.61	509.64	582.3	

Source: Annual Report of Bank, 2002/03-2007/08

As per the regulatory requirement, total core capital and capital fund needed based on risk weighted assets of Standard Chartered Bank Nepal Limited was Rs 577.36 million and Rs 1154.73 million only in FY 2006/07 but the bank was able to maintain that level up to Rs 1450.19 million and Rs 1664.37 million respectively. So there was surplus core ca

**Table: 4.9****Capital Adequacy of NIBL**

Particulars	Rs in Million						
	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	
<b>A. Core Capital</b>							
Paid up Capital	126.88	141.13	149.3	143.55	143.93	144.25	
General Reserve Fund	2144	1575	1640	1745	2345	2500	
Capital Adjustment Fund							
Debenture Redemption Fund							
Cumulative Profit/Loss (up to previous FY)	10.22	10.31	10.11	8.83	7.43	6.52	
Current Year Profit/Loss as per Balance Sheet	2.77	1.82	1.35	1.3	1.31	1.10	
Less Excess Investment (above allowable limit of 10% as per NRB Directive 8 in the shares of Swabalamban Bikash Bank)					-0.5	-0.5	-0.4 -0.4
<b>B. Supplementary Capital</b>	<b>35.63</b>	<b>53.02</b>	<b>73.82</b>	<b>388.73</b>	<b>417.29</b>	<b>700.5</b>	
Loan Loss Provision	20.2	36.38	57.21	70.8	99	442.7	
Exchange Equalization Reserve	15.4	16.61	16.58	17.9	18.26	147	
Unsecured Subordinated Term Debt	300	300	210.8				
Other Free Reserves	25.92	33.12	33.71	33.95	34.21	35.12	
<b>Total Capital Fund (A+B)</b>	<b>126.88</b>	<b>141.13</b>	<b>149.3</b>	<b>143.55</b>	<b>143.93</b>	<b>144.25</b>	
Risk Weighted Assets	2144	1575	1640	1745	2345	2500	
Minimum Capital Fund Required to be Maintained On the basis of Risk Weighted Assets							
Core Capital	155.86	158.39	394.81	541.02	749.81	1545.6	
Capital Fund	311.72	316.78	789.62	1082.04	1499.62	2246.1	
Core Capital (Excess/Short)	297.82	280.45	226.63	169.67	411.66	210.4	
Total Capital Fund (Excess/Short)	177.59	175.08	-94.36	17.38	79.14	81.25	

Source: Annual Report of Bank, 2002/03-2007/08

As per the regulatory requirement, total core capital and capital fund needed based on risk weighted assets for Nepal Investment Bank Limited was Rs 749.81 million and Rs 1499.62 million only but the bank was able to maintain that level up to Rs 1161.47 milli

**Table: 4.10**  
**Capital Adequacy of RBB**

Rs in Million

Particulars	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
<b>A. Core Capital</b>	<b>-10672.7</b>	<b>-17768.3</b>	<b>-22616</b>	<b>-21583.8</b>	<b>-20288.8</b>	<b>-16676.6</b>
Paid up Capital	385.3	385.3	385.3	385.3	385.3	1172.3
Share Premium	-----					
Non Redeemable Preference Share	787	787	787	787	787	787
General Reserve Fund	68.18	68.18	68.18	276.21	540.78	1195.4
Cumulative Profit/Loss (up to previous FY)				-11913.2	-11913.2	-19008.8
Current Year Profit/Loss as per Balance Sheet				-7095.6	-4847.65	824.21
				1030.37	2548.3	
<b>B. Supplementary Capital</b>	<b>7871.52</b>	<b>7315.78</b>	<b>3565.18</b>	<b>574.19</b>	<b>214.31</b>	<b>1197.7</b>
Loan Loss Provision	7576.85	6998.82	3345.15	428.34	124.95	896
Exchange Equalization Reserve	287.9	307.37	214.53	140.35	83.86	68.6
Other Free Reserves	6.77	9.59	5.5	5.5	5.5	233.1
<b>Total Capital Fund (A+B)</b>	<b>-2801.21</b>	<b>-10452.6</b>	<b>-19050.8</b>	<b>-21009.6</b>	<b>-20074.5</b>	<b>-17865.6</b>
Risk Weighted Assets				50993.66	50639.78	50378.99
Minimum Capital Fund Required to be Maintained On the basis of Risk Weighted Assets				50048.26	59458.46	65745.6
<b>Core Capital</b>				<b>-10672.7</b>	<b>-17768.3</b>	<b>-22616</b>
Capital Fund	385.3	385.3	385.3	385.3	385.3	1172.3
Core Capital (Excess/Short)	-----					
Total Capital Fund (Excess/Short)	787	787	787	787	787	787

Source: Annual Report of Bank, 2002/03-2007/08

In case of Rastriya Baniya Bank Limited, total core capital and capital fund needed based on risk weighted assets as per the regulatory requirement was Rs 3270.22 million and Rs 6540.43 million but the bank was not able to maintain that level. Instead of positive capital adequacy requirement, the bank had Rs -20288.8 million(negative) and Rs -20074.5 million(negative) of core capital and capital fund respectively. So there was deficit core capital and capital fund by Rs -23559.02 million and Rs -26614.92 million respectively. In all the years, the bank was failed to maintain capital adequacy requirement.

#### **4.2.8 Detailed Position of Risk Weighted Assets of Selected**

##### **Commercial Banks**

In the selected commercial banks, major components of risk weighted assets are loan and advance, investment, fixed assets of on balance sheet assets which have 100% risk weighted assetsillion (81.5%) of on balance sheet risk assets

and Rs 1769 million (18.5%) of off balance sheet risk assets in average of SCBNL. In FY 2002/03 and in FY 2003/04, RWA was lower than average RWA and in FY 2004/05 to FY 2007/08, RWA was higher than the average RWA. Since, the bank has already excessive amount of capital base, there will be lower risk for the even the risk weighted assets becomes higher than last year. Since, high risk assets have higher return, the bank may take more risk to increase profitability of the bank.

**Figure: 4.4**

**Average Risk Weighted Assets Composition of SCBNL**

Figure 4.4 is drawn from the average of five years data of SCBNL. The chart shows that majority of risk weighed asset is composed by loan and advance and bills and purchase (54%) in total risk weighted assets.

**Risk Weighted Assets of NIBL**

Detailed position of risk weighted of NIBL is shown in Appendix 6. From Appendix 6, Risk weighted assets of both on balance sheet and off balance sheet assets of Nepal Investment Bank Limited was in increasing trend up to FY 2005/06. Average risk weighted assets was Rs 7670 million. The bank had Rs 6640 million (86.5%) of on balance sheet risk assets and Rs 1030 million (13.5%) of off balance sheet risk assets. Standard Chartered Bank Nepal Limited had focused more business on off balance items (18.5% of total risk weighted assets) in comparison to Nepal Investment Bank Limited which has 13.5% of off balance sheet risk weighted assets based on total RWA. In FY 2002/03 and FY 2003/04, RWA was lower than average RWA and in FY

**Figure: 4.5**

**Average Risk Weighted Assets Composition of NIBL**

Above figure is drawn from the average of five years data of NIBL. The figure shows that majority of risk weighed asset is composed by loan and advance and bills purchase (72%) in total risk weighted assets.

### **Risk Weighted Assets of Rastriya Banijya Bank Limited**

Detailed position of risk weighted of RBB is shown in Appendix 7. From Appendix 7, risk weighted assets of both on balance sheet and off balance sheet assets of Rastriya Banijya Bank Limited was fluctuating. In some years it was in increasedA was lower than average RWA and in FY 2006/07; RWA was higher than the average RWA. Since, the bank has negative capital base of about -2000 million in all five years, the bank should access the risky-ness of assets before investment to avoid more deterioration in capital base and it also should rearrange its previous investments in risky assets to reduce down its risky assets.

### **Figure: 4.6**

#### **Average Risk Weighted Assets Composition of RBB**

Above figure is drawn from the average of five years data of RBB. The figure shows that majority of risk weighed asset is composed by loan and advance and bills and purchase (22%) and by other assets (46%) in total risk weighted assets.

#### **4.2.9 Relationship of Capital Fund with Profitability and Non Performing Loan of SCBNL**

Appendix 8 (a), shows the position of capital fund, net profit, non-performing

**Table: 4.11**

**Capital Adequacy with Profitability, NPL of SCBNL (2 Variable Relationship)**

<b>Fiscal Years</b>	<b>Capital Fund</b>	<b>Net Profit</b>	<b>NPL</b>
Average Rs in Million		-10672.7	-17768.3 -22616
Standard Deviation		385.3	385.3 385.3
Coefficient of Variation %		---	
Coefficient of Correlation (r )	0.96	-0.95	
Coefficient of Determination (r <sup>2</sup> )	0.92	0.90	
Probable Error			0.02 0.03

Table 4.11 shows that coefficient of variation in the data of capital fund is deviated by 8.62%, 7.42% in net profit, 8.59 % in NPL. Net profit has positive correlation but NPL has negative correlation with capital fund. It means higher the profit, higher the capital fund and higher the NPL, lower the capital fund. Likewise, considering the relationship betweenr than 6 times of probable error for capital fund to net profit, capital fund to percent of NPL all the values of r are statistically significant.

**4.2.10 Analysis of Variance of Multiple Regression Line of Capital Adequacy of SCBNL**

Appendix 8 (a) shows the position of capital fund, net profit and non-performing loan (NPL) of Standard Chartered Bank Nepal Limited for last five years. For the purpose of regression analysis, capital fund is assumed as Y (dependent variable), net profit as  $X_1$  (independent variable) and NPL as  $X_2$  (independent variable).

By converting the actual value of Appendix 8 (a) into natural log value, Table 4.12 can be drawn from the analysis of multiple regression of Appendix 8 (b).

**Table: 4.12**

**Summary of Regression Statistics of SCBNL**

<b>Regression Statistics</b>	
Multiple R	-10672.7

R Square	385.3
Standard Error	-
Observations	6
Coefficients	
Intercept of Capital Fund	4.706515
X <sub>1</sub> (Net Profit)	0.741254
X <sub>2</sub> (NPL)	-0.36317

Multiple regression coefficient R<sup>2</sup> i.e 97.48% shows that there is positive relationship between capital fund, net profit and non-performing loan in SCBNL. Since the value of multiple coefficients of correlation is higher than 6 times of standard (probable) error, the value of r is statistically significant. So, the relationship of capital fund with net profit and % of NPL is significant.

With regard to the multiple regression equation of capital fund on net profit and non-performing loa

#### ANOVA

	df	SS	MS	F	Critical Value F
Regression	2	0.044335	0.022168	19.15539	6.94
Residual	2	0.002315	0.001157		
Total	4	0.04665			

Here following hypothesis is tested.

H<sub>0</sub> : b = 0, the regression line of actual capital fund (Y) on net profit (X<sub>1</sub>) and non-performing loan (X<sub>2</sub>) is not significant in SCBNL.

H<sub>1</sub> : b ≠ 0, the regression line of actual capital fund (Y) on net profit (X<sub>1</sub>) and non-performing loan (X<sub>2</sub>) is significant in SCBNL.

Critical value of F for (K-1=2, N-k=2), degree of freedom (df) at 5% level of significant is 6.94..e. 6.94. H<sub>1</sub> is accepted. So, the regression line of Y on X<sub>1</sub>, and X<sub>2</sub> is significant.

#### 4.2.11 Relationship of Capital Adequacy with Profitability and Non Performing Loan of NIBL

Appendix 9 (a), shows the position of capital fund, net profit, non-performing loan (NPL) of Nepal Investment Bank Limited for last five years. Based on those five years related with capital fund, net profit, non performing loan, following information are summarized.

**Table: 4.13**

#### **Capital Adequacy with Profitability, NPL of NIBL (2 Variable Relationship)**

<b>Fiscal Years</b>	<b>Capital Fund</b>	<b>Net Profit</b>	<b>NPL</b>
Average Rs in Million	870.92	123.00	182.22
Standard Deviation	381.54	59.99	53.29
Coefficient of Variation			
%	43.81	48.78	29.25
Coefficient of Correlation (r )	0.99	-0.77	
Coefficient of Determination (r <sup>2</sup> )	0.97	0.59	
Probable Error			0.01 0.12

Table 4.13 shows that coefficient of variation in the data of capital fund is deviated by 43.81%, 48.78% in net profit, 29.25% in NPL. Net profit has positive correlatiog the relationship between capital fund and % of NPL, up to 59% is explained/determined by NPL in capital fund and rest by other factors. Since the value of coefficient of correlation is higher than 6 times of probable error for capital fund to net profit, and capital fund to NPL, those value of r are significant.

#### 4.2.12 Analysis of Variance of Multiple Regression of Capital Adequacy of NIBL

Appendix 9 (a) shows the position of capital fund, net profit and non-performing loan (NPL) of Nepal Investment Bank Limited for last five years. For the purpose of regression analysis, capital fund is assumed as Y (dependent variable), net profendix 9 (b) with natural log values.

**Table: 4.14**

**Summary of Regression Statistics of RBB**

Regression Statistics	
Multiple R	0.991881
R Square	0.983829
Standard Error	0.092502
Observations	5
Coefficients	
Intercept of Capital Fund	1.767207
X <sub>1</sub> ( Net Profit)	0.727421
X <sub>2</sub> (NPL)	-0.291276

Multiple regression coefficient R i.e 99.19% shows that there is positive relationship between capital fund, net profit and non-performing loan in NIBL.

Since the value o

$$\text{Capital Fund (Y)} = 1.77 + 0.73 \text{ NP} - 0.29 \text{ NPL}$$

(5.25)                      (4.20)

$$R^2 = 0.9838 \quad F = 60.83$$

Table 4.14 shows that capital fund will increase each year with positive intercept 1.77% plus 0.73 percent of % of net profit increased minus 0.73% of % NPL increased. The calculated value of coefficient of determination (R<sup>2</sup>) shows the goodness of fit of regression line. This value of R<sup>2</sup> shows that 98.38% of variation in capital fund is explained by net profit and non performing loan and rest by others.

**ANOVA**

	df	SS	MS	F	Critical Value	F
Regression	2	1.041137	0.520569	60.8377	6.94	
Residual	2	0.017113	0.008557			
Total	4	1.05825				

Here following hypothesis is tested.

**H<sub>0</sub> : b= 0, the regression line of actual capital fund (Y) on net profit (X<sub>1</sub>), non- nship of Capital Adequacy with net loss and Non Performing Loan of RBB**

Appendix 10 (a), shows the position of capital fund, net loss, non-performing loan (NPL) of Rastriya Banijya Bank Limited for last five years. Based on those five years related with capital fund, net loss, non performing loan, following information are summarized.

**Table: 4.15**  
**Capital Adequacy with Profitability, NPL of RBB (2 Variable Relationship)**

<b>Fiscal Years</b>	<b>Capital Fund</b>	<b>Net Loss</b>	<b>% of NPL</b>
Average Rs in Million	-14677.72	-3325.66	14447.48
Standard Deviation	6419.30	3442.09	893.99
Coefficient of Variation			
%	-43.74	-103.50	6.19
Coefficient of Correlation (r)	-0.80	-0.47	
Coefficient of Determination (r <sup>2</sup> )	0.65	0.22	
Probable Error			0.11 0.24

Table 4.15 shows that coefficient of variation in the data of capital fund, net loss, NPL are deviated by -43.7%, -103.50%, 6.19% respectively. Net loss with ce value of coefficient of correlation is higher than 6 times of probable error for capital fund to net profit, the value of r are significant. But in case of capital fund to NPL, coefficient of correlation is lesser than 6 times of probable error, that value of r (coefficient of correlation) is insignificant.

**4.2.14 Analysis of Variance of Multiple Regression of Capital Adequacy of RBB**

Appendix 10 (b) shows the position of capital fund, accumulated loss and non-performing loan (NPL) of Rastriya Banijya Bank Limited for last five years. For the purpose of regression analysis, capital fund is assumed as Y (dependent variable), accumulated loss as X<sub>1</sub> (independent variable) and NPL as X<sub>2</sub> (independent variable).

Following summarized figure can be drawn from the analysis of multiple regression of Appendix 11(b) with actual values.

**Table: 4.16**

**Summary of Regression Statistics of RBB**

Regression Statistics  
 Multiple R 0.995328  
 R Square 0.990679  
 Standard Error 1073.474  
 Observations 5  
 Coefficients  
 Intercept of Capital Fund -15103.8  
 $X_1$  (Accumulated Loss) 1.978548  
 $X_2$  (NPL) 2.706109

Multiple regression coefficient R i.e 99.53% shows that there is positive relationship between Capital Fund and RBB.

Though the relationship between capital fund with accumulated loss and non-performing loan is not significant, following multiple regression equation of capital fund on accumulated loss and non-performing loan (NPL) in RBB can be drawn for theoretical purpose.

$$\text{Capital Fund (Y)} = -15103.8 + 1.98 \text{ Accumulated Loss} + 2.71 \text{ NPL}$$

$$(5.57) \quad (4.37)$$

$$R^2 = 0.9906 \quad F = 106.27$$

Table 4.16 shows that capital fund will decrease each year with Rs 15103.8 million and increase by 1.98 times of accumulated loss plus increase by 27.71 times of NPL each year. The calculated value of coefficient of determination

**ANOVA**

	df	SS	MS	F	Critical	Value F
Regression	2	244940013.4	122470006.7	106.278902	6.94	
Residual	2	2304690.853	1152345.427			
Total	4	247244704.2				

Here following hypothesis is tested.

$H_0$  :  $b = 0$ , the regression line of actual capital fund (Y) on net profit ( $X_1$ ), non-performing loan ( $X_2$ ) is not significant in RBB

$H_1$  :  $b \neq 0$ , the regression line of actual capital fund (Y) on net profit ( $X_1$ ), non-performing loan ( $X_2$ ) is significant in RBB.

Critical value of F for ( $K-1=2$ ,  $N-k=2$ ), degree of freedom (df) at 5% level of significant is 6.94. Since calculated value of F i.e. is higher than its critical value of F i.e. 106.29,  $H_1$  is accepted. So, the regression line of Y on  $X_1$ , and  $X_2$  is significant.

#### **4.2.15 Percentage of Pass, Doubtful, Bad Loan to Total Loan of Total Commercial Banks**

There should be 1%, 25%, 50% and 100% provisioning for pass loan, substandard loan, doubtful loan and bad loan as per regulatory requirement.

When pass loan increases and other loan decreases, the requirement of provisioning will be lower and it will increase the profitability due to low amount of provisioning. So, for increased amount of profitability, position of pass loan, sub standard loan, doubtful loan and bad loan are studied here.

**Table: 4.17**  
**Percentage of Pass, Doubtful, Bad Loan to Total Loan of SCBNL**

Particulars	2003/04		2004/05		2005/06		2006/07		2007/08	
	Rs	%	Rs	%	Rs	%	Rs	%	Rs	%
<b>Performing Loan</b>	<b>5384.3</b>	<b>94.8</b>	<b>5420.2</b>	<b>95.2</b>	<b>5752.2</b>	<b>95.9</b>	<b>6441.7</b>	<b>96.2</b>	<b>8194.6</b>	<b>97.3</b>
Pass Loan	5384.3	94.8	5420.2	95.2	5752.2	95.9	6441.7	96.2	8194.6	97.3
<b>Non performing Loan</b>	<b>297.1</b>	<b>5.2</b>	<b>275.9</b>	<b>4.8</b>	<b>247.9</b>	<b>4.1</b>	<b>251.2</b>	<b>3.8</b>	<b>226.3</b>	<b>2.7</b>
Substandard	9.3	0.2	3.3	0.1	7.1	0.1	0.0	0.0	10.4	0.1
Doubtful	<b>5384.3</b>	<b>94.8</b>	<b>5420.2</b>	<b>95.2</b>	<b>5752.2</b>	<b>95.9</b>	<b>6441.7</b>	<b>96.2</b>	<b>8194.6</b>	<b>97.3</b>
Bad	5384.3	94.8	5420.2	95.2	5752.2	95.9	6441.7	96.2	8194.6	97.3
<b>Total Loan</b>	<b>297.1</b>	<b>5.2</b>	<b>275.9</b>	<b>4.8</b>	<b>247.9</b>	<b>4.1</b>	<b>251.2</b>	<b>3.8</b>	<b>226.3</b>	<b>2.7</b>

Source: Annual Report of Bank, 2003/04-2007/08

From Table 4.17, percentage of pass loan to total loan is increasing in each year of SCBNL where as percentage of bad loan is decreasing each year. It is good indicator of the bank to reduce credit risk and to increase profitability of the bank. Pass loan of the bank consist about more than 95% of total loan where as bad loan consists less than 2.5% of total loan.

**Table: 4.18**  
**Percentage of Pass, Doubtful, Bad Loan to Total Loan of NIBL**

Particulars	2003/04		2004/05		2005/06		2006/07		2007/08	
	Rs	%	Rs	%	Rs	%	Rs	%	Rs	%
<b>Performing Loan</b>	<b>5384.3</b>	<b>94.8</b>	<b>5420.2</b>	<b>95.2</b>	<b>5752.2</b>	<b>95.9</b>	<b>6441.7</b>	<b>96.2</b>	<b>8194.6</b>	<b>97.3</b>
Pass Loan	5384.3	94.8	5420.2	95.2	5752.2	95.9	6441.7	96.2	8194.6	97.3
<b>Non performing Loan</b>	<b>297.1</b>	<b>5.2</b>	<b>275.9</b>	<b>4.8</b>	<b>247.9</b>	<b>4.1</b>	<b>251.2</b>	<b>3.8</b>	<b>226.3</b>	<b>2.7</b>
Substandard	9.3	0.2	3.3	0.1	7.1	0.1	0.0	0.0	10.4	0.1
Doubtful	<b>5384.3</b>	<b>94.8</b>	<b>5420.2</b>	<b>95.2</b>	<b>5752.2</b>	<b>95.9</b>	<b>6441.7</b>	<b>96.2</b>	<b>8194.6</b>	<b>97.3</b>
Bad	5384.3	94.8	5420.2	95.2	5752.2	95.9	6441.7	96.2	8194.6	97.3
<b>Total Loan</b>	<b>297.1</b>	<b>5.2</b>	<b>275.9</b>	<b>4.8</b>	<b>247.9</b>	<b>4.1</b>	<b>251.2</b>	<b>3.8</b>	<b>226.3</b>	<b>2.7</b>

Source: Annual Report of Bank, 2003/04-2007/08

From Table 4.18, percentage of pass loan to total loan is also increasing each year in NIBL where as percentage of bad loan is decreasing each year except in FY 2005/06. Such management of loan in the bank will be helpful to reduce credit risk and to increase profitability of the bank. Pass loan of the bank consist about more than 95% of total loan where as bad loan consists about 3% of total loan.

**Table: 4.19**  
**Percentage of Pass, Doubtful, Bad Loan to Total Loan of RBB**

2003/04 2004/05 2005/06 2006/07 2007/08

Particulars	Rs	%	Rs	%	Rs	%	Rs	%	Rs.	%
<b>Performing Loan</b>	<b>5384.3</b>	<b>94.8</b>	<b>5420.2</b>	<b>95.2</b>	<b>5752.2</b>	<b>95.9</b>	<b>6441.7</b>	<b>96.2</b>	<b>8194.6</b>	<b>97.3</b>
Pass Loan	5384.3	94.8	5420.2	95.2	5752.2	95.9	6441.7	96.2	8194.6	97.3
<b>Non performing Loan</b>			<b>297.1</b>	<b>5.2</b>	<b>275.9</b>	<b>4.8</b>	<b>247.9</b>	<b>4.1</b>	<b>251.2</b>	<b>3.8</b>
Substandard	9.3	0.2	3.3	0.1	7.1	0.1	0.0	0.0	10.4	0.1
Doubtful			<b>5384.3</b>	<b>94.8</b>	<b>5420.2</b>	<b>95.2</b>	<b>5752.2</b>	<b>95.9</b>	<b>6441.7</b>	<b>96.2</b>
Bad	5384.3	94.8	5420.2	95.2	5752.2	95.9	6441.7	96.2	8194.6	97.3
<b>Total Loan</b>	<b>297.1</b>	<b>5.2</b>	<b>275.9</b>	<b>4.8</b>	<b>247.9</b>	<b>4.1</b>	<b>251.2</b>	<b>3.8</b>	<b>226.3</b>	<b>2.7</b>

Source: Annual Report of Bank, 2002/03-2007/08

In case of RBB, percentage of pass loan was decreasing up to FY 2005/06 and began to increase from FY 2006/07. The average percentage of pass loan and non-performing loan each was about 50%. The percentage of non-performing loan was increasing up to FY 2005/06 and began to decrease from FY 2006/07. Since the level of NPL in RBB significantly higher in comparison to SCBNL and NIBL, there is high credit risk in RBB.

#### **4.2.16 Size and Composition of Off-balance Sheet Items of Selected Commercial Banks**

Off balance sheet transactions for commercial banks are important for their profitability because such transaction does not require fund. They are commitment of the bank in case of failure of the client or borrowers of the banks. From such s is given below.

**Figure: 4.7**  
**Average Off Balance Sheet Items of SCBNL**

Figure 4.7 shows that 28% of off balance sheet items are occupied by letter of credit with maturity less than 6 months, 26% by guarantee provided against

counter guarantee of internationally rated bank, 10% by performance guarantee etc in SCBNL.

Likewise, based on the average of five years data of NIBL of Appendix 12, following chart of size and composition of off balance sheet items is given below.

### **Figure: 4.8**

#### **Average Off Balance Sheet Items of NIBL**

Figure 4.8 shows that 49% of off balance sheet items are occupied by letter of credit with maturity less than 6 months, 15% by other guarantee, 9% by guarantee provided against counter guarantee of internationally rated bank etc in NIBL. Accordingly, based on the average of five years data of RBB of Appendix 13, the size and composition of off balance sheet items is given in figure 4.9.

**Figure: 4.9**  
**Average Off Balance Sheet Items of RBB**

Figure 4.9 shows that 30% of off balance sheet items are occupied by letter of credit with maturity more than 6 months, 25% by performance guarantee, 10% by letter of credit with maturity less than 6 months, 10% by other guarantee etc in RBB.

**4.2.17 Percentage of Non Performing Loan to Capital Fund of  
Selected Commercial Banks**

Non performing loan includes sub standard, doubtful and bad loan of commercial banks. Such loan has overdue for more than three months. Such loan requires provisioning from 25% to 120% of the loans and such provision are charged to profit and loss account. So, in order to increase profit of banks there should be greater part of pass loan, which requires 1% provisioning only but non-performing loan requires provision up to 25% to 120%. Following table shows the percentage of non-performing loan to capital fund.

**Table: 4.20****Percentage of Non Performing Loan to Capital Fund****Rs in Million**

Years	SCBNL	NIBL	RBB							
Fiscal	Non	Capital	% Non	Non	Capital	% Non	Non	Capital	% Non	
Years	Perfor	Fund	Performing	Perform	Fund	Performin	Performi	Fund	Performi	
	ming		Loan	ing		g Loan	ng Loan		ng Loan	
	Loan			Loan						
2002/03	<b>5384.3</b>	<b>94.8</b>	<b>5420.2</b>	<b>95.2</b>	<b>5752.2</b>	<b>95.9</b>	<b>6441.7</b>	<b>96.2</b>	<b>8194.6</b>	
2003/04	5384.3	94.8	5420.2	95.2	5752.2	95.9	6441.7	96.2	8194.6	
2004/05	<b>297.1</b>	<b>5.2</b>	<b>275.9</b>	<b>4.8</b>	<b>247.9</b>	<b>4.1</b>	<b>251.2</b>	<b>3.8</b>	<b>226.3</b>	
2005/06	9.3	0.2	3.3	0.1	7.1	0.1	0.0	0.0	10.4	
2006/07	<b>5384.3</b>	<b>94.8</b>	<b>5420.2</b>	<b>95.2</b>	<b>5752.2</b>	<b>95.9</b>	<b>6441.7</b>	<b>96.2</b>	<b>8194.6</b>	
2007/08	5384.3	94.8	5420.2	95.2	5752.2	95.9	6441.7	96.2	8194.6	

Source: Nepal Rastra Bank Banking and Financial Statistics, 2065

The amount of non-performing loan of SCBNL is decreasing in each year where as capital fund in increasing. Percentage of non-performing loan to capital fund of SCBNL is in decreasing trend. In case of NIBL, non-performing loan was reducing in FY 2004/05, 2005/06 but it was increasing from FY 2004/05. The growth of capital fund of NIBL is higher than SCBNL. Percentage of non-performing to capital fund in NIBL was decreasing except in FY 2006/07.

In case of

#### **4.2.18 Percentage of Capital Fund to Total Assets of Selected**

##### **Commercial Banks**

The ratio between capital funds to total assets of a bank shows the claims in the ownership of total assets of the bank. If such ratio is in increasing trend, then the risk in the business will be decreasing. Higher the ratio shows the more ownershi not require fund in normal situation. Normally capital fund to total assets of any bank are normally less than 10%. Hence, banking business are

much more riskier in comparison to other types of business. Following table shows the percentage of capital fund to total assets of selected commercial banks.

**Table: 4.21**  
**Percentage of Capital Fund to Total Assets**

Fiscal Years	SCBNL			NIBL			RBB			%
	Capital Fund	Total Assets	% Capital Fund	Total Assets	% Capital Fund	Total Assets	% Capital Fund	Total Assets		
2002/03	<b>5384.3</b>	<b>94.8</b>	<b>5420.</b>							
										<b>2</b>
2003/04	5384.3	94.8	5420.							
										<b>2</b>
2004/05	<b>297.1</b>	<b>5.2</b>	<b>275.9</b>	<b>4.8</b>	<b>247.9</b>	<b>4.1</b>	<b>251.2</b>	<b>3.8</b>	<b>226.3</b>	
2005/06	9.3	0.2	3.3	0.1	7.1	0.1	0.0	0.0	10.4	
2006/07	<b>5384.3</b>	<b>94.8</b>	<b>5420.</b>							
										<b>2</b>
2007/08	5384.3	94.8	5420.							
										<b>2</b>

Source: Nepal Rastra Bank Banking and Financial Statistics, 2065

The percentage of capital fund to total assets of SCBNL is more consistent and is deviated less than one percent in all the years. SCBNL is distributing more dividends from the earnings so capital fund has not increased as in NIBL. The risk of business of SCBNL is more stable. But in case of NIBL, such ratio is in increasing trend gradually because the growth of capital fund in NIBL more in comparison for the claim in the assets of the bank, shareholders should pay 35.33% of total assets in FY 2006/07 in RBB.

### 4.3 Major Findings of the Study

Based on the above study, following are the major finding:

1. During this 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 credit risk. Accordingly, a revision of the capital adequacy framework is justified in order to capture the various factors affecting banks' risk exposure.

2. However, the proposed changes make the assessment of capital adequacy discretionary power on the application of the provisions. When the changes are implemented, it is therefore of great importance that uniform application of the provisions should be ensured for all banks subject to the new Basel II issued on November, 2005 (latest revision). For this, Nepal Rastra Bank should be serious to develop new capital adequacy framework timely in order to implement it timely.
3. 25% commercial banks out of total numbers commercial banks are and Nepal Investment Bank Limited are successful in this regard.
4. Many commercial banks had not complied regulatory requirement in the maintenance of capital fund out of total commercial banks. Again, Rastriya Banijya Bank Limited is not able to comply the regulatory requirement on capital fund to risk weighted assets based on average data of last three years. Standard Chartered Bank Nepal Limited and Nepal Investment Bank Limited are successful in this regard.
5. There is continuous growth in core capital, capital fund. The risk-weighted asset was fluctuating in SCBNL. Average growth rate of capital fund, core capital, RWA, % of capital fund to RWA, % of core capital to RWA were 7.59%, 8.84%, 4.92%, 19.24%, 16.34% respectively in SCBNL.
6. There is continuous growth in core capital, capital fund and risk There is continuous decrement in core capital, capital fund and risk-weighted assets of RBB. But, risk weighted assets was begun to increase in FY 2004/5. Average growth rate of capital fund, core capital, RWA, % of capital fund, % of core capital to RWA were -72.25%, -16.64%, 3.39%, -27.94%, -35.63% respectively.
7. SCBNL has surplus core and supplementary capital by Rs 872.83 million and Rs 509.64 million in FY 2005/06 and in all the years the bank is successful to maintain capital adequacy requirement.

8. In NIBL, there was surplus core and supplementary capital by Rs 411.66 million and Rs 79.14 million in FY 2005/06 and in all the years the bank is successful to maintain capital adequacy requirement except FY 2002/3.
9. In RBB, there is deficit core capital and capital fund by Rs -23559.02 million and Rs -26614.92 million in FY 2005/06 and in all the years, the bank was failed to maintain capital adequacy requirement.
10. Average total risk weighted assets of SCBNL was Rs 9608 million. RW5%) of off balance sheet risk assets in average. Majority of risk weighed asset is composed by loan and advance and bills and purchase (54%) in total risk weighted assets.
11. Average total risk weighted assets of NIBL was Rs 7670 million. RWA in NIBL is increasing trend. The bank had Rs 6640 million (86.5%) of on balance sheet risk assets and Rs 1030 million (13.5%) of off balance she weighted assets.
12. Risk weighted assets of both on balance sheet and off balance sheet assets of Rastriya Banijya Bank Limited was fluctuating. The bank had Rs 51508 million (98%) of on balance sheet risk assets and Rs 796 million (2%) of off balance sheet risk assets in average. majority of risk weighed asset is composed by loan and advance and bills and purchase (22triya Banijya Bank Limited has not focused on off balance sheet transactions (2% of total risk weighted assets) in its business to increase profitability in comparison to Standard Chartered Bank Nepal Limited (18.5%) and Nepal Investment Bank Limited (13.5%) of off balance she profit and capital fund of SCBNL and NIBL are in increasing in each
13. year in comparison to last year. But, in case of RBB, capital fund of RBB is continuously decreasing up to FY 2004/05 and began to improve slightly from FY 2005/06. RBB has been incurring loss from FY Two variable relationships: There is positive correlation between capital fund

and net profit but negative relationship between capital fund and non-performing loan in SCBNL and NIBL. All those relationship were significant in SCBNL and NIBL. But in case of RBB, there is negDP, capital fund and NPL. Relationship of capital fund to net profit was significant but relationship of capital fund to non-performing loan was insignificant.

14. Multiple regression for SCBNL: There is positive relationship ( $r=97.49\%$ ) of capital fund among net profit, NPL and it was significant in SCBNL. Multiple regression line of SCBNL shows that in each year, capital fund will increase with positive intercept 4.7% plus 0.74 per cent. The goodness of fit of regression line is significant. The calculated value of coefficient of determination ( $R^2$ ) shows that 98.32% of the variation in capital fund is explained/determined by net profit and NPL.
15. Multiple regression for NIBL: There is positive relationship ( $r=99.19\%$ ) of capital fund among net profit, NPL and it was significant in NIBL. Multiple regression line of SCBNL shows that in each year, capital fund will increase with positive intercept 1.77% plus 0.73 percent of % of n. The goodness of fit of regression line is significant. The calculated value of coefficient of determination ( $R^2$ ) shows that 98.38% of the variation in capital fund is explained/determined by net profit and NPL.
16. Multiple regression for RBB: There is positive relationship ( $r=99.53\%$ )n each year, capital fund (dependent variable) will decrease by 15103.8 million intercept plus 1.98 times of net profit plus 2.71 times of non-performing loan. The goodness of fit of regression line is significant. The calculated value of coefficient of determination ( $R^2$ ) shows that 99.07% of the variation in capital fund is explained/determined by net profit and NPL. Percentage of pass loan to total loan is increasing each year in SCBNL and NIBL where as percentage of bad loan is decreasing each year. It is good indicator of the bank to reduce credit risk and to increase pran in SCBNL and NIBL.

17. In case of RBB, percentage of pass loan is fluctuating. The average percentage of pass loan and non-performing loan both was 50%. The percentage is significantly higher in comparison to SCBNL and NIBL, there is high credit risk in RBB.
18. Considering the size and composition of off balance sheet assets, 28% of off-balance sheet assets of an internationally rated bank, 10% by performance guarantee etc in SCBNL. Likewise, 49% of off balance sheet items are occupied by letter of credit with maturity less than 6 months, 15% by other guarantee, 9% by guarantee provided against counter guarantee of internationally rated bank etc in NIBL. But in RBB, 30% of off balance sheet items are occupied by letter of credit with maturity more than 6 months, 25% by performance guarantee, 10% by letter of credit with maturity less than 6 months, 10% by other guarantee etc.
19. The amount of non-performing loan of SCBNL is decreasing in each year. In NIBL, non-performing loan was fluctuating. The growth of capital fund of NIBL is higher than SCBNL. NIBL's percentage of non-performing loan was fluctuating. Percentage of non-performing loan was also fluctuating in RBB. Capital Fund of the RBB was continuously deteriorating till FY 2004/05 and began to improve from FY 2005/06 but the fund is still negative.
20. The percentage of capital fund to total assets of SCBNL is more consistent and is deviated less than one percent in all the years. SCBNL is distributing more dividends from the earnings so capital fund has not. But in case of NIBL, such ratio is in increasing trend gradually because the growth of capital fund in NIBL more in comparison to SCBNL. Higher ratio shows the increasing ratio of ownership of shareholders in the assets of NIBL. Since the capital fund of RBB is negative in all the years, it is in dissolution.

## CHAPTER V

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Summary

Nepal Rastra Bank issues prudential directives to all bank and financial institution licensed by it on various issues. Capital adequacy is one of the most important directives to strengthen the soundness and stability in the banking sector. For high degree of consistency in the application, uniform capital adequacy norms were developed for banks in a country with a view to diminish an existing source of competitive inequality among commercial banks. Capital adequacy directives implemented by Nepal Rastra Bank were based on the framework prescribed by Basle Committee in "International Convergence of Capital Measurement and Capital Standard 1998".

Basel Capital Accord 1988 is a capital adequacy framework developed by the Basel committee. In 1988, the Basel Committee decided to introduce a capital measurement system commonly referred to as the Basel Capital Accord which has provided for the implementation of credit risk measurement framework with minimum capital standard of 8% by end 1992 which is known as Basel I. Basel II is also a capital adequacy related standard framed by Basel Committee as well as setting standards and guidelines for supervisory function. Following extensive interaction with banks, industry groups and supervisory authorities that are not members of the Committee, the revised framework was issued on 26 June 2004. The latest version on the framework was issued on November 2005.

The Basel II aims to replace Basel I and to make the capital framework more risk sensitive. Basel II has recommended major revision on the international standard on bank's capital adequacy, which requires bank to implement risk management policies that align capital adequacy assessment with underlying credit risk, market risk, and operational risk. Basel II has been introduced. The major risks faced by commercial banks should be addressed and mitigation

process should be incorporated in capital assessment process. There are mainly following types of risk in banking industries.

- a) Credit Risk : Every commercial bank should have methodologies that enable them to assess the credit risk involved in exposure to individual borrowers or counterparts as well as at the portfolio level. The credit review assessment of capital adequacy, at a minimum should cover risk rating systems, portfolio analysis, and large exposure and risk concentration. A bank's framework for managing credit risk concentrations should be clearly documented and should include a definition of the credit risk concentrations relevant to the banks.
- b) Operational risk: To mitigate operational risk, bank should develop a framework for managing operational risk and evaluate the adequacy of capital given by the framework. The framework should cover 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.
- c) Market risk: Banks are required to perform stress testing in evaluating the adequacy of capital to support the trading function.

Interest rate risk, liquidity risk, reputation and strategic risk are not issued by Nepal Rastra Bank, only credit risk is considered and other risks are ignored. So it is high time for the Nepal Rastra Bank to incorporate other risks also while setting the level of capital. This can be done if new framework is developed on capital adequacy by adopting new capital accord 2005 is implemented in Nepal by Nepal Rastra Bank.

"The Asian Crisis clearly demonstrated that the 1988 Accord was in need of a comprehensive overhaul. While the vast majority of the regulatory ratio. In reality, a large number of banks were crippled by ballooning non-performing loans (NPLs) and had dwindling capital reserves to deal with the problem, transforming what could have been at best a currency misalignment to an out-and-out economic crisis."

New capital accord, 2005 has already been implemented in the most developed countries and this new accord has made provision to keep capital for all types of risk. But, Nepal Rastra Bank has planned to implement this new accord from FY 2007/08 A.D.

For the purpose of study of capital adequacy in commercial banks in Nepal, Standard Chartered Bank Nepal Limited is selected from foreign investment bank, Nepal Investment Bank Limited from private sector one organization, and the ability of management to address these risks. While conducting this thesis, consideration is given to the level and quality of capital and the overall financial condition of the selected commercial banks, the trend management to address emerging needs for additional capital.

This study has focused more on the review and effectiveness of capital adequacy in Standard Chartered Bank Nepal Limited, Nepal Investment Bank Limited and Rastriya Baniya Bank Limited. The difference in the pattern considering risk in different assets is also assessed in this study.

To develop confidence in the markets, participants of markets requires having confidence in each other's stability and ability to transact business SCBNL has strong capital base, the public has high level of confidence, reason of which, the bank's market value per share as of mid July, 2007 is Rs 3500 which is the highest price among other existing commercial banks.

## **5.2 Conclusion**

After detail analysis of capital adequacy directives issued by Nepal Rastra Bank based on Capital Accord 1988, International practices on capital adequacy, the compliance status on capital adequacy by selected commercial banks and their management effort to built strong capital basmited, Nepal Investment Bank Limited and Rastriya Baniya Bank Limited)

During this 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 credit risk. Accordingly, a revision of the capital adequacy framework is justified in order to capture the various factors affecting banks' risk exposure. However, the proposed changes for supervisory/regulatory authorities and the banks themselves would be granted more discretionary power on the application of the provisions. When the changes are implemented, it is therefore of great importance that uniform application of the provisions should be ensured for all banks subject to the new Basel II issued on November, 2005 (latest revision). For this, Nepal Rastra Bank should be serious to develop new capital adequacy framework timely in order to implement it timely.

There is positive correlation between capital fund and net profit but negative relationship between capital fund and non-performing loan and net profit, capital fund and GDP, capital fund and NPL. Relationship of capital fund to net profit was significant but relationship of capital fund to non-performing loan was insignificant. Percentage of pass loan to total loan is increasing each year in SCBNL and NIBL where as percentage of bad loan is decreasing each year. It is good indicator of the bank to reduce credit risk and to increase profitability of the bank. Pass loan of the SCBNL consist about more than 95% of total loan where as bad loan consists less than 2.5% of total loan in SCBNL. Percentage of non-performing loan was increasing up to FY 2003/04 and began to decrease from FY 2004/05. Since the level of NPL in RBB significantly higher in comparison to SCBNL and NIBL, there is high credit risk in RBB. The amount of non-performing loan of SCBNL is decreasing in each year where as capital fund is in increasing trend. Percentage of non-performing loan to capital fund. NIBL's percentage of non-performing was fluctuating. Percentage of non-performing loan was also fluctuating in RBB. Capital Fund of the RBB was continuously deteriorating till FY 2003/4 and began to improve from FY 2006/07 but the fund is still negative.

### 5.3 Recommendations

After detail analysis of capital adequacy directives issued by Nepal Rastra Bank, International practices on capital adequacy, the compliance status on capital adequacy by selected commercial banks and their management effort to built strong capital base, following recommendations are o make strong capital base in commercial banks following suggestions are concluded based on the findings of this study.

- 1) The existing capital adequacy directives issued by Central bank of Nepal (Nepal Rastra Bank) had been prepared considering only credit risk. So, it is recommended that Nepal Rastra Bank should issue new directives on capital adequacy which can cover other risk in banking sectors such as operational risk, market risk, liquidity risk, repu as per Nepalese requirements in Nepal in the context of liberalized economy after WTO membership of Nepal, new international branches will be established in Nepal after 2010 A.D.
- 2) To improve the capital adequacy position in RBB, prepared capital plan by RBB should be implemented as soon as possible. The measures, internal resource mobilization/strengthening and external fund should be adopted in RBB. A. Internal Resource Mobilization can be from:
  - Improving the profitability position of the bank
  - b. Improving recovery position of the banknks and financial institutions
  - c. Selling of Non Banking Assets
  - d. Revaluation of AssetsB. External Resource Mobilization may be from:
  - a. Additional issue of Equity Shares for at least Rs 11 billion or
  - b. Additional issue of Non Redeemable Preference Shares for Rs 15 billion.
- 3) Since there is large volume of Risk Weighted Assets in RBB, the bank should review and reevaluate its assets and reduce risky assets. RBB has the problem of core capital inadequacy (deficit of R issue equity shares

which are the part of core capital. RBB is strongly recommended to reduce its level of NPA by increasing pass loan and by decreasing non-performing loan in order to reduce risk in credit and to improve its profitability.

- 4) As per regulatory requirement, all commercial banks should maintain 2 billion paid up capital by FY 2008/09. RBB already has 1 billion paid up capital and NIBL has Rs 587.73 million. SCBNL has already Rs 1121.09 million in reserve whereas NIBL has Rs 592.43 million. So, SCBNL will have not the problem to increase upto the level of paid up capital by that period but NIBL should be serious for the increment in paid up capital either by issue of additional right shares or by other means.
- 5) In NIBL, the RWA has begun to increase, so it should focus on its activities for not to increase more RWA in future. In SCBNL, most of data related with core capital, capital fund, net profit, NPL are more stable in comparison to other banks. So, the bank should continue its objective to make stable and consistent in its business.
- 6) RBB has only about 2 percent of RWA from off balance sheet transactions which are normally non funded items. So the bank should increase its business from off balance sheet transactions in order to increase its profitability. Likewise the bank has about risky assets of on balance sheet item by strengthening its recovery actions and other measures.
- 7) Percentage of pass loan to total loan in SCBNL and NIBL is increasing and percentage of bad loan is decreasing each year. Those banks should focus its business to maintain such trends in order RBB should focus its business to increase pass loan and to decrease non-performing loan in future seriously for its financial sustainability.

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**Appendix: 1**  
**Core Capital to Risk Weighted Assets**

%Core Capital to RWA	FY 2003/04	FY 2004/05	FY 2006/07	Average	Remarks
Nepal Bank Limited	-27.03%	-29.75%	-25.91%	-27.56%	Non compliance
Rastriya Banijya Bank Limited	-35.30%	-45.52%	-43.27%	-41.36%	Non compliance
Nabil Bank Limited	10.53%	11.45%	12.12%	11.37%	Compliance
Nepal Investment Bank Limited	15.47%	7.88%	7.22%	10.19%	Compliance
Standard Chartered Bank Ltd.	13.92%	12.31%	14.14%	13.46%	Compliance
Himalayan Bank Limited	6.99%	7.14%	7.66%	7.26%	Compliance
Nepal Bangladesh Bank Limited	5.75%	6.22%	4.65%	5.54%	Non compliance
Nepal SBI Bank Limited	10.83%	11.34%	9.47%	10.55%	Compliance
Everest Bank Limited	12.11%	10.48%	9.58%	10.72%	Compliance
Bank of Kathmandu Limited	9.91%	10.44%	10.14%	10.16%	Compliance
Nepal Credit & Commerce Bank	-4.07%	1.90%	2.85%	0.23%	Non compliance
Lumbini Bank Limited	6.45%	8.68%	7.54%	7.56%	Compliance
Nepal Industrial and Commercial Bank Limited	18.54%	17.44%	12.92%	16.30%	Compliance
Machhapuchhre Bank Limited	8.00%	23.98%	17.01%	16.33%	Compliance
Kumari Bank Limited	25.60%	14.22%	28.21%	22.68%	Compliance
Laxmi Bank Limited	133.19%	37.60%	11.90%	60.90%	Compliance
Siddhartha Bank Limited	40.1%	41.11%	18.50%	19.87%	Compliance
Average% of Core Capital to RWA	13.21%	8.64%	6.16%	9.07%	
Regulatory Required % of Core Capital to RWA	4.50%	5.00%	5.50%	5.00%	

Source: Banking and Financial Statistics NRB,2007/08

## Appendix: 2

### Risk Weights of On Balance Sheet Assets

On Balance Sheet Assets	Risk weight-age %
Cash Balance	0
Gold (exchangeable)	0
Balance with Nepal Rastra Bank	0
Investment in HMG Bonds	0
Investment in Nepal Rastra Bank Bonds	0
Fully secured loan against own fixed deposit receipt	0
Fully secured loan against Government Securities	0
Balance with Domestic banks and financial Institutions	20
Fully secured FDR loan against fixed deposit receipt of other banks	20
Balance with foreign banks	20
Money at call	20
Loan against the guarantee of Internationally rated*/ foreign banks	20
Investment in shares, debentures and bonds	100
Other investments	100
Loan, advances and bills purchased/discounted**	100
Fixed assets	100
All other assets	100

Source: Banking and Financial Statistics NRB, 2007/08

\* Internationally rated bank-having rating of at least A+ by reputed Rating agency or banks specified as first class bank by Nepal Rastra Bank from time to time.

\*\* Except loans and advance provided against FDRs and Government.

### Appendix: 3 Risk Weights of Off Balance Sheet Items

Particulars of Balance Sheet Items	Risk weight-age %
Bills collection	0
Forward Foreign Exchange Contract	10
Letters of credit with Maturity of less than 6 months (full value)	20
Guarantees provided against counter guarantee of internationally rates*/foreign banks	20
Letters of credit with Maturity of more than 6 months (full value)	50
Bid Bond	50
Performance Bond	50
Advance Payment Guarantee	100
Financial Guarantee	100
Other Guarantee	100
Irrevocable Loan Commitment	100
Contingent liability in respect of Income Tax	100
All other contingent liabilities	100

Source: Banking and Financial Statistics NRB,2007/08

- Internationally rated bank-having rating of at least A+ by reputed Rating agency or banks specified as first class bank by Nepal Rastra Bank from time to time.

**Appendix No: 4**  
**Capital Fund to Risk Weighted Assets**

% of Capital Fund to RWA	FY 2003/04	FY 2004/05	FY 2006/07	Average	Remarks
Nepal Bank Limited	-19.67%	-28.25%	-24.97%	-24.30	Non compliance
Rastriya Banijya Bank Limited	-28.02%	-44.28%	-42.12%	-38.14	Non compliance
Nabil Bank Limited	13.86%	13.05%	13.56%	13.49	Complied
Nepal Investment Bank Ltd	17.21%	8.85%	11.18%	12.41	Complied
Standard Chartered Bank Ltd	17.39%	14.21%	15.99%	15.86	Complied
Himalayan Bank Limited	12.33%	11.03%	10.62%	11.33	Non compliance
Nepal Bangladesh Bank Ltd	9.92%	8.11%	5.61%	7.88	Non compliance
Nepal SBI Bank Limited	13.92%	13.78%	10.25%	12.65	Non compliance
Everest Bank Limited	14.30%	12.33%	11.07%	12.57	Complied
Bank of Kathmandu Limited	8.11%	8.67%	6.66%	7.81	Non compliance
Nepal Credit & Commerce	2.33%	6.51%	3.42%	4.09	Non compliance
Lumbini Bank Limited	12.89%	11.37%	8.71%	10.99	Non compliance
NIC Bank Limited	20.90%	18.87%	13.75%	17.84	Complied
Machhapuchhre Bank Limited	10.45%	2.08%	0.98%	4.50	Non compliance
Kumari Bank Limited	26.79%	15.46%	29.13%	23.79	Complied
Laxmi Bank Limited	133.80%	38.56%	12.81%	61.72	Complied
Siddhartha Bank Limited	0.00%	41.85%	19.36%	20.40	Complied
Average% of Capital Fund to RWA	15.68%	8.95%	6.24%	10.29	
Regulatory Required % Capital Fund to RWA	9.00%	10.00%	11.00%	10.00	

Source: Banking and Financial Statistics NRB, 2007/08

## Appendix: 5

### Risk Weighted Assets of Standard Chartered Bank Nepal Limited

Rs in Million

Particulars	Weight	2002/03	2003/04	2004/05	2005/06	2006/07	Average						
Amo	age	unt	RWA Amou	nt	RWA Amount	RWA Amou	nt	RWA Amou	nt	RWA Amount	RWA		
Balance Sheet Assets													
Balance	0%	188 0 258 0	199 0 188 0	195 0 205 0									
(Tradable)	0%	0 0 0 0	0 0 0 0										
Investment with Nepal Rastra		0%	656 0 376 0	1141 0 1534 0	692 0 880 0								
Investment with Govt.		0%	4811 0 5785 0	6581 0 7948 0	7203 0 6466 0								
Investment in NRB Bonds	0%	0 0 0 0	0 0 0 0										
Secured Loan against Fixed Deposit Receipt		0%	189 0 197 0	113 0 99 0	180 0 156 0								
Secured loan against Govt. Securities		0%	755 0 723 0	683 0 1162 0	1133 0 891 0								
Investment with Domestic Commercial Bank & Financial Institution		20%	5 1 7 1	8 2 22 4	15 3 11 2								
Secured FDR Loan against FDR of other Banks		20%	83 17 98 20	123 25 98 20	138 28 108 22								
Investment with Foreign Bank	20%	113 23 184 37	165 33 280 56	208 42 190 38									
Key at Call	20%	2612 522 2062 412	1658 332 2219 444	2260 452 2162 432									
Investment Against the Guarantee of Internationally Rated Banks		20%	0 455 91	127 25 345 69	404 81 266 53								
Investments with Internationally Rated Banks		20%	4590 918 3195 639	3137 627 3371 674	2486 497 3356 671								
Investment in Shares, Ventures and Bonds		100%	11 11 11 11	11 11 11 11	13 13 12 12								
Investments in, Advance and Bills	100%	147 147 285 285	486 486 30 30	0 190 190									
Purchased/Discounted Assets	100%	262 262 284 284	415 415 404 404	394 394 352 352									
Other Assets	100%	422 422 793 793	1637 1637 1493 606	606 990 990									
<b>Total (A)</b>	<b>1949</b>		<b>6976 1893</b>	<b>6796 21439 8547 24194 8196 22494 8680 21312 7839</b>									
			<b>7</b>	<b>6</b>									
<b>Balance Sheet Items</b>													
Collection	0%	136 0 87 0	101 0 148 0	158 0 126 0									
Forward Foreign Exchange Contract		10%	923 92 237 24	143 14 163 16	67 7 307 31								
Letters of Credit With Maturity more than 6 months		20%	2062 412 1149 230	780 156 1439 288	1087 217 1303 261								
Guarantee Provided Against Counter Guarantee of Internationally Rated Foreign Banks		20%	1331 266 1550 310	1435 287 865 173	921 184 1220 244								
Letters of Credit With Maturity more than 6 months		50%	114 57 499 250	516 258 231 116	369 185 346 173								
Bond	50%	446 223 39 19	13 6 8 4	13 7 104 52									
Performance Guarantee	50%	504 252 437 219	518 259 491 246	488 244 488 244									
Advance Payment Guarantee	100%	127 127 31 31	17 17 21 21	1 1 1 40 40									
Financial Guarantee	100%	104 104 93 93	86 86 290 290	107 107 136 136									
Letter Guarantee	100%	0 0 0 0	0 0 0 0										
Revocable Loan Commitment	100%	0 0 295 295	2 2 0 59 59										
Contingent Liability in Respect of Income Tax		100%	54 54 10 10	10 10 10 10	38 38 24 24								
Other Contingent Liabilities	100%	342 342 274 274	424 424 663 663	827 827 506 506									
<b>Total (B)</b>	<b>6144 1930 4407 1460 4338 1813 4332 1827 4077 1817 4659 1769</b>		<b>8906 2334</b>	<b>8256 25776 1035</b>				<b>28526 1002</b>	<b>26572 1049</b>	<b>25971 9608</b>			
			<b>1</b>	<b>3</b>			<b>9</b>	<b>3</b>	<b>8</b>				

Source: Banking and Financial Statistics NRB, 2007/08

## Appendix: 6

### Risk Weighted Assets of Nepal Investment Bank Limited

Rs in Million

Particulars	FY 2002/03	FY 2003/04	2004/05	2005/06	2006/07	Average		RWA Amount	RWA Amount	RWA Amount	RWA Amount	RWA
						Balance Sheet Assets	Weight					
			age	nt	nt	nt	nt	unt	unt	unt	ount	t
Cash Balance	0%	72 0 62 0 201 0 315 0 374 0 205 0										
Gold(Tradable)	0%	0 0 0 0 0 0 0 0										
Balance with Nepal Rastra Bank	0%	212 0 166 0 450 0 546 0 780 0 431 0										
Investment with Govt. Securities	0%	300 0 224 0 400 0 2001 0 2949 0 117									5	0
Investment in NRB Bonds	0%	0 0 0 0 0 0 0 0										
Fully Secured Loan against own			0%	74 0 153 0 81 0 71 0 63 0 88 0								
Fixed Deposit Receipt												
Fully Secured loan against Govt. Securities			0%	76 0 173 0 23 0 15 0 20 0 62 0								
Balance with Domestic Commercial Bank & Financial Institution			20%	4 1 3 1 4 1 86 17 16 3 22 4								
Fully Secured FDR Loan Against			20%	0 0 12 2 13 3 30 6 11 2								
DR of other Banks												
Balance with Foreign Bank	20%	159 32 108 22 272 54 280 56 170 34 198 40										
Money at Call	20%	0 0 40 8 310 62 140 28 98 20										
Loan Against the Guarantee of Internationally Rated Banks			20%	135 27 132 26 30 6 3 1 10 2 62 12								
Other Investments with Internationally Rated Banks			20%	1644 329 1560 312 1271 254 1716 343 1922 384 162							2	324
Investment in Shares, Debentures and Bonds			100%	13 13 14 14 14 14 14 14 18 18 14 14								
Other Investments	100%	14 14 24 24 21 21 132 132 46 46 47 47										
Loan, Advance and Bills Purchased/Discounted			100%	2144 2144 2255 2255 5775 5775 7236 7236 10330 10330 554							8	5548
Fixed Assets	100%	34 34 36 36 191 191 250 250 321 321 166 166										
Other Assets	100%	580 580 457 457 379 379 476 476 413 413 461 461										
<b>Total (A)</b>		<b>5460 3173 5367 3146 9164 6706 1346</b>						<b>8590 17601 11585 102</b>			<b>11</b>	<b>6640</b>
Off Balance Sheet Items												
Bills Collection	0%	31 0 30 0 147 0 81 0 142 0 86 0										
Forward Foreign Exchange Contract	10%	159 16 0 4 0 86 9 6 1 51 5										
Letters of Credit With Maturity less than 6 months			20%	475 95 480 96 1665 333 2105 421 1538 308 125							3	251
Guarantee Provided Against Counter Guarantee of Internationally Rated Foreign Banks			20%	179 36 374 75 361 72 69 14 110 22 219 44								
Letters of Credit With Maturity more than 6 months			50%	0 1 1 122 61 108 54 279 139 102 51								
Fixed Bond	50%	11 6 7 4 91 46 79 39 214 107 80 40										
Performance Guarantee	50%	49 24 43 22 129 64 194 97 469 234 177 88										
Advance Payment Guarantee	100%	9 9 10 10 61 61 104 104 399 399 117 117										
Financial Guarantee	100%	0 0 0 0 0 0 0 0										
Other Guarantee	100%	69 69 131 131 517 517 500 500 640 640 371 371										
Revocable Loan Commitment	100%	0 0 0 0 0 0 0 0										
Contingent Liability in Respect of Income Tax			100%	36 36 36 36 36 36 9 9 9 25 25								
Other Contingent Liabilities	100%	0 0 0 0 190 190 38 38										
<b>Total (B)</b>		<b>1019 291 1114 374 3132 1190 3335 1247 3996 2048 251</b>									<b>9</b>	<b>1030</b>
<b>Total</b>		<b>6478 3464 6481 3520 12296 7896 16799 9837 21597 13633 127</b>									<b>30</b>	<b>7670</b>

Source: Banking and Financial Statistics NRB,2007/08

## Appendix: 7

### Risk Weighted Assets of Rastriya Banijya Bank Limited

Rs in Million

Particulars	2002/03	2003/04	2004/05	2005/06	2006/07	Average
Balance Sheet Assets	Weight	Amount RWA	Amount RWA	Amount RWA	Amount RWA	Amount RWA
	age					
Balance	0%	921 0 850 0 1019 0	1007 0 1622 0 1084 0			
Tradable)	0%	0 0 0 0 0 0 0				
ce with Nepal Rastra		0%	2393 0 2494 0 1866 0	5599 0 3325 0 3135 0		
ment with Govt.		0%	5575 0 4089 0 4137 0	2919 0 6434 0 4631 0		
ities						
ment in NRB Bonds	0%	0 0 0 0 0 0 0				
Secured Loan against		0%	237 0 284 0 284 0	195 0 99 0 220 0		
Fixed Deposit Receipt						
Secured loan against		0%	19 0 28 0 28 0	60 0 30 0 33 0		
Securities						
ce with Domestic		20%	0 0 35 7 96 19	165 33 59 12		
mercial Bank &						
cial Institution						
Secured FDR Loan		20%	0 0 0 0 0 0 0			
st FDR of other Banks						
ce with Foreign Bank	20%	1814 363 1202 240 815 163 317 63 441 88 918 184				
y at Call	20%	0 0 740 148 100 20 0 168 34				
Against the Guarantee		20%	0 0 0 0 0 0 0			
ernationally Rated						
Investments with		20%	0 0 0 0 0 0 0			
ationally Rated Banks						
ment in Shares,		100%	71 71 71 71 96 96 98 98 112 112 90 90			
atures and Bonds						
Investments	100%	0 0 404 404 125 125 1946 1946 495 495				
Advance and Bills		100%	27375 27375 27037 27037 26297 26297 24851 24851 26872 26872 26486 26486			
ased/Discounted						
Assets	100%	0 0 515 515 530 530 569 569 323 323				
ther Assets	100%	22290 22290 22593 22593 21915 21915 23597 23597 29029 29029 23885 23885				
<b>(A)</b>		<b>60696 50100 58648 49942 58152 49545 59494 49304 70644 58649 61527 51508</b>				
<b>Balance Sheet Items</b>						
Collection	0%	0 0 341 0 150 0 205 0 139 0				
ard Foreign Exchange		10%	0 0 0 0 103 10 21 2			
act						
s of Credit With		20%	0 0 0 45 9 751 150 159 32			
ity less than 6 months						
ntee Provided Against		20%	0 0 0 0 0 0 0			
er Guarantee of						
ationally Rated Foreign						
s of Credit With		50%	835 418 703 352 335 167 473 236 26 13 474 237			
ity More than 6 months						
ond	50%	0 0 0 243 122 190 95 87 43				
rmance Guarantee	50%	936 468 676 338 0 140 70 184 92 387 194				
nce Payment Guarantee	100%	0 0 0 0 0 0 0				
cial Guarantee	100%	0 0 0 1 1 0 0 0				
Guarantee	100%	0 0 561 561 196 196 2 2 152 152				
cable Loan		100%	0 0 0 0 0 0 0			
nitment						
ngent Liability in		100%	0 0 98 98 98 98 96 96 59 59			
ct of Income Tax						
her Contingent		100%	8 8 8 8 7 7 11 11 351 351 77 77			
ities						
<b>(B)</b>		<b>1780 894 1387 698 1342 834 1357 744 1908 810 1555 796</b>				
		<b>62476 50994 60035 50640 59494 50379 60852 50048 72552 59458 63082 52304</b>				

Source: Banking and Financial Statistics NRB,2007/08

**Appendix No: 8 (a)**

**Capital Fun with Profitability and NPL of SCBNL**

Rs in Million

**Fiscal Years Capital Fund Net Profit NPL**

2002/03	1246.81	430.8	297.05
2003/04	1435.33	479.2	275.92
2004/05	1464.83	506.93	247.94
2005/06	1560.15	539.2	251.21
2006/07	1664.37	537.8	226.3
2007/08	2344.6	602.4	195.17

**Appendix No: 8 (b)**

**Capital Fund with Profitability and NPL of SCBNL With Natural Log Value**

**Fiscal Years Capital Fund Net Profit NPL**

2002/03	7.128344	6.065714	5.6939
2003/04	7.26915	6.172139	5.620111
2004/05	7.289494	6.228373	5.513187
2005/06	7.352537	6.290087	5.526289
2006/07	7.417202	6.287487	5.421862
2007/08	7.759870	6.400921	5.273871

**Appendix No: 9 (a)**

**Capital Fun with Profitability and NPL of NIBL**

Rs in Million

**Fiscal Years Capital Fund Net Profit NPL**

2002/03	489.31	56.4	201.43
2003/04	491.86	57.1	130.29
2004/05	695.26	116.8	117.09
2005/06	1099.42	152.6	181.43
2006/07	1578.76	232.1	280.87
2007/08	2246.1	241.5	302.94

**Appendix No: 9 (b)**

**Capital Fund with Profitability and NPL of NIBL With Natural Log Value**

**Fiscal Years Capital Fund Net Profit NPL**

2002/03	6.192996	4.032469	5.305442
2003/04	6.198194	4.044804	4.869763
2004/05	6.544286	4.760463	4.762943
2005/06	7.002538	5.02782	5.20087
2006/07	7.364395	5.447168	5.637892
2007/08	7.716950	5.486869	5.713534

**Appendix No: 10 (a)**  
**Capital Fun with Accumulated losses and NPL of RBB**

Rs in Million

<b>Fiscal Years</b>	<b>Capital Fund</b>	<b>Net Profit</b>	<b>NPL</b>
2002/03	-2801.21	-7083.25	13183.3
2003/04	-10452.6	-7068.25	14889
2004/05	-19050.8	-4839.78	16005.3
2005/06	-21009.6	1040.1	14470.5
2006/07	-20074.5	1322.89	13689.3
2007/08	-17865.3	1428.5	12313.84

**Appendix No: 10 (b)**  
**Capital Adequacy with Accumulated losses and NPL of RBB for Regression Analysis**

Rs in Million

<b>Fiscal Years</b>	<b>Capital Fund</b>	<b>Accumulated loss</b>	<b>NPL</b>
2002/03	-2801.21	-11550.4	13183.3
2003/04	-10452.6	-18623.7	14889
2004/05	-19050.8	-23568.3	16005.3
2005/06	-21009.6	-22610.2	14470.5
2006/07	-20074.5	-21371.7	13689.3
2007/08	-17865.3	-19943.2	12313.84