# CAPITAL FUND AND CAPITAL ADEQUACY NORMS FOR COMMERCIAL BANKS In NEPAL BANK LIMITED AND NABIL BANK LIMITED

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# DECLARATION

I hereby declare that work reported in thesis entitled "CAPITAL FUND AND CAPITAL ADEQUACY NORMS FOR COMMERCIAL BANKS INNEPAL BANK LIMITEDAND NABIL BANK LIMITED" submitted to United College, faculty of Management, Tribhuvan University is my original work for the partial fulfillment of Master of Business Studies (M.B.S.) under supervision of **Dr.Bal Krishna Shrestha**, United College, Kumaripati,Lalitpur.

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I have tried to cover all the possible matter that I felt, important to sum up the **"CAPITAL FUND AND CAPITALADEQUACY NORMS FOR COMMERCIAL BANKS INNEPAL BANK LIMITEDAND NABIL BANK LIMITED".** I am hopeful that this task will be helpful to the students of business studies and to those who want to make further researchers under this topic.

Researcher

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**Tribhuvan University** 

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# **ABBREVIATIONS**

ATM	Automated Teller Machine
BCBS	Basel Committee on Banking Supervision
BNL	Bottlers Nepal Limited
CAR	Capital Adequacy Ratio
EBL	Everest Bank Limited
FY	Fiscal Year
HBL	Himalayan Bank Limited
IMF	International Monetary Fund
KBL	Kumari Bank Limited
LBL	Laxmi Bank Limited
NABIL	Nabil Bank Limited
NBL	Nepal Bank Limited
NEA	Nepal Electricity Authority
NIBL	Nepal Investment Bank Limited
NIC	Nepal Industrial and Commercial Bank Limited
NKB	New Kabul Bank
NRB	Nepal Rastra Bank
NTC	Nepal Telecom
RBB	Rastriya Banijya Bank
SCBL	Standard Chartered Bank
SH	Hotel Shanghai
TRWA	Total Risk Weighted Assets
TRWE	Total Risk Weighted Exposures
VRS	Voluntary Retirement Scheme

# Chapter 1 INTRODUCTION

# **1.1 Background**

The Nepalese Financial Sector is composed of Banking sector and non-banking sector. Banking sector comprises Nepal Rastra Bank (NRB) and Commercial Banks. The non-banking sector includes Development Banks, Finance Companies, Micro-credit Development Banks, Cooperative Financial Institutions, Non-governmental Organizations (NGOs) performing limited banking activities and other financial institutions such as Insurance Companies, Employee's Provident Fund, Citizen Investment Trust, Postal Saving Offices and Nepal Stock Exchange. Nepal has special characteristics of bank dominated financial sector. As the domestic capital and stock markets are in the initial stage of development, the banking sector largely dominates the entire financial sector. Within a period of two and half decades the Nepalese financial system has growth significantly both in terms of business volume and the size of assets and market. The period saw a number of financial institutions coming into existence with varied nature of operations and offering a wide range of financial service. At the beginning of the 1980s when the financial sector was not liberalized, there were only two commercial banks. During 1980s there were only few banks. After the liberalization in the 1990s, financial sector has made a progress both in term of the number of banks and financial institutions and their branches. As on Mid-August 2009, the number of commercial banks is 26 based on the applications for established of new banks as well as for the up-gradation of other financial institution, the number is likely to grow in the near future as well.

The history of modern financial system in Nepal was begun in B.S.1994 with the establishment of Nepal Bank Ltd. as the first commercial Bank of Nepal. The bank was established to render services to the people and for the economic progress of the country. Prior to the establishment of Nepal Rastra Bank, it plays the role of Central banks also. The establishment of Nepal Rastra Bank, the central bank of Nepal in 2013 B.S under the Nepal Rastra Bank Act-2012 was a significant dimension in the development of the banking sector. The second Commercial Bank, the Rastriya Banijya Bank was established in the public sector in 1966 with the equity participation of HMG/ N and the NRB under the

Rastriya Banijya Bank Act-1967. These banks are the pioneers of the Nepalese banking industry. They have the largest network and they have their operations even in remote areas of the country. Rastriya Banijya Bank is fully owned by the Government while the Government has controlling stake in Nepal Bank Limited. As the financial market was barred for private investors till the mid-1980s, these two banks were the only players in the banking industry. The economic liberalization policy adopted in the mid-1980s brought about a surge in the banking industry. A large number of banks were established and the number continues to grow even today.

During the last two and half decades the Nepalese Financial System has grown significantly. Within this period the Nepalese financial sector has grown significantly both in terms of business volume as well as size of assets and markets. Nepal has a reasonably diversified financial sector, as evidenced by the number and variety of institution that play an active role in this sector, relative to Nepal's small and underdeveloped economic base.

Nepal Rastra Bank (NRB), the central bank of Nepal, established in April 26, 1956, under the NRB Act 2012 is the sole authority for licensing and supervising banks and financial institutions in Nepal. The act has empowered Nepal Rastra Bank to grant license to banks and financial institutions as well as to monitor, inspect and supervise them. The Act also empowers NRB to undertaken resolution measures in order to protect the interest of has the authority even to revoke licenses in case of violation of depositors. NRB prudential norms and relevant laws and regulations. NRB's regulatory and supervisory regime is limited to the Commercial banks, Development banks, Finance companies, Micro-credit development banks, saving and credit cooperatives and Non-government organizations licensed by Nepal Rastra Bank. The following table depicts the types and numbers of financial institutions licensed by NRB by mid-July 2011. Consequently, by the end of mid –July2011, altogether 272 banks and non- bank financial institutions licensed by NRB are in operation. Out of them, 31 are "A" class commercial banks, 87"B" class development banks, 79 "C" class finance companies, 21 "D" class micro-credit development banks, 16 saving and credit co-operatives and 38 NGOs as shown in table below:

## Table: 1.1

S.N.	Type of financial Institutions	Class	Number
1	Commercial banks	A	31
2	Development banks	В	87
3	Finance Companies	C	79
4	Micro Credit Development Banks	D	21
5	Saving and Credit Co-operatives	Non-classified	16
6	Non-Government organizations	Non-classified	38
Total			272

# Number of licensed Financial Institutions

(Source: <a href="http://bfr.nrb.org.np/list\_banks\_n\_non\_banks\_htm">http://bfr.nrb.org.np/list\_banks\_n\_non\_banks\_htm</a> Mid July, 2011)

The business of bank supervision in the past was focused on validating bank's transactions, particularly the value of loan portfolios, which have been historically the principal source of problems for banks. In the process, supervisors would go through the balance sheet, assuring themselves that a bank's assets and liabilities were essentially as stated and that its reserves and net worth were real. Traditional forms of supervision are important regulatory tools but have some severe limitations. In particular, they are labor intensive and narrow in focus, as they look at many transactions to assess the condition of individual financial institutions at a point in time. They were focused on detecting minor mistakes rather than overall financial soundness and risk management aspect of the banks. Traditional supervision provides a snapshot of an institution's condition at a point of time. It is transaction oriented and usually more labor intensive than risk based supervision, thereby straining the scarce resources of most regulators.

Throughout the world, central challenge to bank regulators and supervisors was the stability of the financial system. Supervisory authorities all over the world are gradually moving towards adopting risk- based supervision. There is now a growing stress to adopt a more risk focused comprehensive approach, which is likely to contribute positively in the

supervisory function. Through scrutiny of systems and procedures prevailing in supervised bank is an integral part of on-site inspection, there is scope for more focus on the risk profile of the banks. Supervisory bodies in the world are seeking more focused, responsive and tailored approach to supervision.

NRB issued Unified Directives to be complied by all financial institutions of the country. The Directives consist of 16 volumes. The NRB Directive no. 1 states about the Capital Adequacy Norms for financial institutions indicating the requirements of maintaining the Capital Fund to the prescribed ratios. The directives are said to be based on the internationally accepted norms of Basel Committee. The Basel Committee on banking supervision is a committee of banking supervisory authorities which was established by the central bank governors of the group of ten countries in 1975. It consists of senior representatives of bank supervisory authorities and central banks from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Sweden, Switzerland and the United Kingdom and the United States. It usually meets at the Bank for International Settlements in Basel, Switzerland, where its permanent secretariat is located. Nepal Rastra Bank (NRB) is committed to adopt the best supervisory methods and practices and has been constantly endeavoring to enhance the sophistications and efficiency levels of its supervisory processes. In line with this philosophy, NRB has been continually updating the rules, regulations as well as the supervisory practices to deliver effective supervision.

#### **1.2.** Focus of the study

The study is based on the Capital Funds of the commercial banks which are supposed to be adequate as the NRB Directive no. 1 which is related with Capital Adequacy Norms for commercial banks. The norms basically emphasize on the basic requirement of the Capital Fund that a commercial bank should possess. The fundamental objective of the norm is to safeguard the interest of the depositors. As per the norm, Capital Fund has been divided into two categories i.e. Core Capital Fund and Supplementary Capital Fund. At present, there are total 26 commercial banks in Nepal and this study is related to capital funds of Nepal Bank Limited and NABIL Bank Limited. And the thesis report is mainly focused on accordance of the Capital Adequacy Norms of Nepal Rastra Bank (NRB) followed by these banks. The current supervisory process adopted by the Bank Supervision Department (BSD) is applied uniformly to all supervised institutions i.e., commercial banks. The current approach is largely on-site inspection

supplemented by off-site monitoring and the supervisory follow-up and action commences with the detailed findings of annual financial inspection. The process is based on CAMELS/CAELS approach where capital adequacy, asset quality, management aspects, earnings, liquidity and sensitivity to market risk are assessed keeping in view the legal requirements of Acts and directives. The on-site inspections are conducted, to a large extent with references to the audited balance sheet dates and cut-off dates of financial years. The off-site surveillance plays a supplementary role. While in several external jurisdictions, the supervisory process extensively leverages on the work done by others, such as the internal and external auditors, the use made of these resources in Nepal is rather limited. This is gradually changing with the introduction of Long Form Audit Report.

NRB would be developing an overall plan for moving towards risk based supervisions (RBS) as outlined in monetary policy. The RBS will be a regime in which NRB's resources will be directed towards the areas of greater risk to its supervisory objectives. Risk-based supervision saves regulatory resources and helps to promote a more safe and sound financial system. It saves resources because it focuses regulatory resources on areas of highest risk and usually requires substantially less transaction testing. By getting institutions to manage risks as opposed to correcting symptoms of problems, as is often the case with traditional supervision, supervisors should focus their actions on correcting causes of problem and thereby requiring improvements in management practices and management systems.

The risk-based supervision will not be transaction based. It will be systems based inspection by the regular/supervisor. In this approach, the regulator and supervisor will go into details of the systems and procedures for managing and controlling risks. Risk-based supervision is an enhancement of top-down supervision. In the top-down approach, Problems are identified and defined, and the root causes for the problems are addressed. It focuses examination resources on an overall financial analysis of the financial institution under review, and it document and tests policies, procedures, systems, and management practices. When problems are disclosed, corrective actions are directed toward correcting

the causes of the problems, not just the symptoms. If problems are identified that, in the opinion of the supervisor, significantly impact the safety and soundness of the institution, then bottom-up examination techniques may be necessary to quantify the problems in order to assess the adequacy of capital and liquidity. The Core Principles for effective banking supervision, promulgated by the Basel committee on Banking Supervisions, set out the minimum standards that are considered necessary for effective supervision. Core Principles have been used by countries as a benchmark for assessing the quality of their supervisory system and for identifying future work to be done to achieve a baseline level of sound supervisory practices. Experience has shown that self-assessments of countries' compliance with the Core Principles have proven helpful for the authorities, in particular in identifying regulatory and supervisory shortcomings and settings priorities for addressing them.

Several of the principles embrace risk-based supervision and encapsulate the concepts developed over the past twenty years. However, because the core principles is a brief document and covers a variety of topics, it cannot fully explain the key differences between risk-based supervision and traditional regulatory practices or provide a systematic explanation of all the basic elements that would enable a regulatory agency to implement risk-based supervision. Although supervisory practices and processes are always evolving and improving over time, it is helpful to subject supervisory arrangements to scrutiny against internationally accepted benchmarks, and to consider where improvements can be made. To be effective, any such assessment must be undertaken. It is too easy for supervisors to assert critically that existing arrangements represent best practices when closer analysis would reveal otherwise. Realizing the importance of the core principles, NRB with technical support from IMF has completed a self-assessment which was finalized after various rounds of discussions. The assessment highlighted area which needs improvement and in order to correct those deficiencies an action plan has been prepared. Nepal Rastra bank has already taken initiatives to address those deficiencies in accordance with the action plan.

### **1.3 A Brief Glimpse of the Banks under Study:**

# **1.3.1 Nepal Bank Limited** (Source: www.nepalbank.com.np)

Nepal Bank Limited, The first bank of Nepal was established in November 15, 1937A.D. (Kartik, 30, 1994). It was formed under the principle of Joint venture (Joint venture between govt. & general public). NBL's authorized capital was Rs. 10 million & issued capital Rs. 2.5 million of which paid up capital was Rs. 842 thousands with 10 shareholders. The bank has been providing banking services through its branch offices in the different geographical locations of the country.

#### Vision statement:

"To remain the leading financial institution of the country"

#### **Mission statement:**

Nepal Bank Limited seeks to provide an environment within which the bank can bring unique financial value and services to all customers. It will be a sound institution where depositors continue to have faith in the security of their funds and receive reasonable returns; borrowers are assured of appropriate credit facilities at reasonable prices; other service-seekers receive prompt and attentive service at reasonable cost; employees are paid adequate compensation with professional career growth opportunities and stockholders receive satisfactory return for their investment.

#### Values statement:

Nepal Bank Limited believes that his banking should be based on:

Respect, services and safety for the customers we serve

Respect, reward and opportunity for the people with whom we work

Respect, cooperation and support for the economic community of Nepal

### **Objectives:**

Nepal Bank Limited has the following objectives:

- Continue to maintain leading share of banking sector with a significant presence in all major geographical areas in the country.
- ) Provide competitive and customer oriented banking services to all customers through competent and professional staff.
- ) Reclaim leadership within the national financial community.

# 1.3.2 NABIL Bank Limited (Source: www.nabilbank.com)

NABIL Bank limited, the first foreign venture bank of Nepal, started operations in July 1984. NABIL was incorporated with the objectives of extending international standard modern banking services to various sectors of the society. Pursuing its objective, NABIL provides a full range of commercial banking services through its 19 points of representation across the kingdom and over 170 reputed correspondents' banks across the globe.

NABIL, as a pioneer in introducing many innovative products and marketing concepts in the domestic banking sector, represents a milestone in the banking history of Nepal as is started an era of modern banking with customer satisfaction measured as a focal objectives while doing business.

Operations of the bank including day to day operations and risk management are managed by highly qualified and experienced management team. Bank is fully equipped with modern technology which includes ATMs, credit cards, state of art, world-renowned software from Infosys Technologies System, Bangalore, India, Internet banking system and Tele-banking system.

#### **1.4 Statement of the problem**

The capital adequacy of a bank is determined by analyzing and appraising its capital position in relation to such factors as character of its management, character of its ownership, quality of operating procedure and capacity to provide the broadest service to the public. Over the years, regulatory authority and banking experts have devised several instruments and ratios so as to determine the safe and efficient conditions of a bank. They related capital to a key magnitude in the balance sheet of commercial banks. Regulators have become increasingly concerned that some banks do not hold enough capital and have increased capital requirements. If banks hold more capital, they can more easily absorb potential losses and are more likely to survive. Banks with higher capital ratios are therefore assigned a higher capital adequacy rating. However, a bank with a relatively high level of capital may fail if other components of its balance sheet are not properly managed.

The main reasons of failure of few joint venture banks in Nepal may be due to the manipulation of real data in balance sheet and neglecting the rules according to the NRB directive. The directives, if not properly addressed, may have potentials to destroy the financial system of the nation, as they are the only tools of the NRB to supervise and monitor the financial institutions. Implementation part of directives is more important than the directives themselves.

Since last 6 months, economy melt down of financial institution of world has been significantly increased. The world famous businessman Lehman brothers had become an insolvent and the US government and like UK, Norway, Germany and many countries have declared to give million dollar aid to recovery the banking crisis. In Nepal, the symptom has not come from the today financial crisis but in 2006 the problem of Nepal Bangladesh Bank limited had taught about minimum requirement of capital adequacy in financial institution.

Today's, the problem of Nepal Development Bank Limited taught once again how can secure depositor's deposit and stakeholder. Therefore, the main problem of the world's financial institutions is when the financial institute goes to unable to return the depositor fund, crisis raise in the economy not only the financial institutions because the deposits of depositors lend to the manufacturing and service sectors both. NRB has decided to adopt capital adequacy framework based on Basel II document released by Basel Committee on Banking Supervision with a view of adopting the international best practices,. The complexity and sophistication of the Nepalese financial market didn't warrant advanced approaches like the IRB approach or the Standardized Approach.

Hence, Nepal Rastra Bank adopted the simplified standardized approach for credit risk, Basic Indicator Approach for Operational Risk and Net Open Exchange Model for the Market Risk. Reminiscent of the international convergence of capital measurements and capital standards, this framework also builds around three mutually reinforcing pillars, viz. minimum capital requirements, supervisory review process and disclosure requirements.

The first pillar aligns minimum capital requirements more closely with banks' actual underlying risks. In concept, the first pillar is similar to the existing capital framework, in that, it provides a measure of capital relative to risk. The second pillar- supervisory review process- allows supervisors to evaluate a bank's assessment of its own risks and determine whether that assessment seems reasonable. It is not enough for a bank or its supervisors to rely on the calculation of minimum capital under the first pillar. Supervisors should provide an extra set of eyes to verify that the bank understands its risk profile and is sufficiently capitalized against its risks. The third pillar- market discipline- ensures that the market provides yet another set of eyes. The third pillar is intended to strengthen incentives for prudent risk management. Greater transparency in banks' financial reporting should show marketplace participants to better reward well- managed banks and penalize poorly managed ones.

The coming year shall see a parallel run on the capital adequacy of the banks under both Basel I and Basel II. Banks are required to compute their capital adequacy requirements, based on this framework, on a quarterly basis. The so arrived result should be reported to their respective board of directives as well as to the Nepal Rastra Bank in the prescribed formats. Any shortfall in the capital adequacy requirement in accordance with this framework shall not constitute a default during this review period. However, the failure to submit the returns stipulated in this framework shall constitute non-compliance. The Accord Implementation Group (AIG) constituted to support the Basel II implementation is continuously monitoring and providing support to this process. This group also recommends necessary changes to the framework based on the ground of the need and justification of such changes.

Here, the study will be focused on the following problems related to the subject matter:

- 1. How is the Capital Adequacy examined in NBL and NABIL Bank?
- 2. What is overall financial conditions of these banks?
- 3. What are the factors affecting financial efficiency?
- 4. What further suggestions and recommendations can be made on the selected organizations?

# **1.5 Objectives of the study**

The main objective of this study is to find out how much capital adequacy is required in commercial banks as well as financial institutions to keep safe and sound financial system in economy. The main objectives of the study are as follows:

- 1. To examine the Capital Adequacy of NBL and NABIL.
- 2. To examine the efficiency and weakness (drawbacks) of capital adequacy ratio.
- 3. To analyze the implementation status of the directives given by NRB.
- 4. To evaluate capital adequacy of the commercial banks (Nepal Bank Limited and NABIL Bank Limited).
- 5. Do these banks have adequate capital fund to safeguard the money of depositors?

# **1.6 Limitations of the study**

The study is limited of the capital fund and capital adequacy norms for commercial banks. It is not possible to take all commercial banks as sample therefore the study tries to make comparative analysis of the two banks only: Nepal Bank Limited and NABIL Bank Limited. Thus the result drawn from this study may or may not be applicable to other commercial banks of Nepal.

Balance sheets, profit and loss A/C and other financial statements are considered as basic source of data. Thus, the study is mainly based on the secondary data collected from various sources. However, some primary data has also been derived from the analysis of questionnaire prepared for the research study.

For the literature review, various newspapers, journals, unpublished thesis works nevertheless the internet have been referred. However, the literature review has been limited to few articles and research works due to unavailability of sufficient such matters even after very hard quest. Only the directives related to capital adequacy, loan classification and provisioning are selected for the study. The findings of this study are based on interviews and secondary data received from NRB and respected banks.

This study has following limitations:

- ) All details records for the study have been received as primary and secondary data relating only to respected banks.
- ) This study has limited scope, as only two commercial banks namely: Nepal Bank Limited and NABIL Bank Limited are taken for study.
- ) The study areas are mainly focused on regulatory system on capital adequacy of Nepal. Thus the study area will be very specific.
- ) The accuracy of the calculation is fully depended on the accuracy of data provided by the concerned organizations.

Though the study will be completed within very limited time in order to be considered in a predetermined academic period it will try its best to provide valid results as per its objectives and will try its best to make it useful for other who want to study on the same issue.

# **1.7 Organization of the study**

This study has been organized to five chapters as follows:

# i) Introduction:

This chapter is organized as background, focus of the study, a brief glimpse of the banks under study, statement of the problem, objectives of the study, limitations of the study and organization of the study.

#### ii) Review of Literature:

This chapter deals with the conceptual framework, Review of NRB Capital Adequacy Norms for Commercial Banks, Review of International Policies and Review of various related books, journals, other publications and also unpublished master level dissertations.

#### iii) Research Methodology:

In this chapter, several tools and techniques are employed for analysis. This chapter includes research design, sources and nature of data, data collection instruments, statistical tools that are used for the study. Its main scheme is to describe about the methods and procedures of the study.

#### iv) Presentation and Analysis of Data:

This chapter is the heart of the study in which all the relevant collected data are analyzed and interpreted. This chapter consists of organizing, tabulating and assessing financial and statistical tools.

v) Summary of Major Findings, Conclusions and Recommendations: This chapter contains summary and conclusion in accordance of analysis and interpretation of data. After that allnecessary recommendations for the concerned authorities and institutions is made Bibliography and annexes used in the study has been attached end of the thesis.

### **CHAPTER 2**

#### **REVIEW OF LITERATURE**

This chapter has focused on the review of literature relating to capital adequacy and its impact on commercial banks. This study is very much based on past knowledge which is the key to present knowledge. This chapter helps as adequate feedback to broaden the information and to base the inputs of study.

The Chapter Plan has been arranged as follows:

- ) Conceptual Framework
- Review of NRB Capital Adequacy Norms for Commercial Banks
- ) Review of NRB Directives
- **)** Review of International Policies
- ) Review of Journals and Articles
- ) Review of related Thesis

## 2.1 Conceptual Frame Work

Banks are essential financial institutions. They are the principal source of credit that provides short term working capital finance. They contribute to the economy in different manner. They collect money from savers and invest in lucrative sectors. They make profit by paying less for savings than what they charge to the borrowers. Therefore, banks could play a key role in reducing poverty through income distribution and by producing income opportunities. Safe and sound banking system is of crucial importance =for the financial stability and sustainable development. Nepal has a special characteristic of bank dominated financial sector. As the domestic capital and stock markets are in the initial stage of development, the banking sector largely dominates the entire financial sector.

The first conventional bank in Nepal was the Nepal Bank Limited, established in 1937 A.D. followed by Rastriya Banijya Bank in 1966 A.D. These two banks are the pioneers of the Nepalese banking industry. They have the largest network and they have their operations even in remote areas of the country. Rastriya Banijya Bank is fully owned by the Government while the Government has controlling stake in Nepal Bank Limited. As the financial market was barred for private investors till the mid-1980s, these two banks were the only players in the banking industry. The economic liberalization policy adopted in the mid-1980s brought about a surge in the banking industry. A large number of banks were established and the number continues to grow even today.

#### 2.1.1 Meaning of Commercial Banks

"Commercial bank is an organization chartered either by the Comptroller of the Currency and known as` a national bank or chartered by the state in which it will conduct the business of banking. A commercial bank generally specializes in demand deposits and commercial loans".

(Rosenburg; 1982; Dictionary of banking and finance; New York: John Wiley & Sons Publications; p.4)

"Commercial bank is a bank that concentrates on cash deposit and transfer services to the general public, often to be found on the High Street. It may be joint-venture bank or a private bank". (Clark; 1999; International Dictionary of Banking and Finance; New York; Glenlake Publishing Co Ltd and AMACOM American Management Association; p.6)

"Bank is an institution that deals in money and substitutes and provides other financial services. Banks accept deposits and make loans and derive a profit from the difference in the interest rates paid and charged, respectively. Some banks also have the power to create

money. Commercial bank is a bank with the power to make loans that, at least in part, eventually become new demand deposits. Because a commercial bank is required to hold only a fraction of its deposits as reserves, it can use some of the money on deposit to extend loans. When a borrower receives a loan, his checking account is credited with the amount of the loan; total demand deposits are thus increased until the loan is repaid. As a group, then, commercial banks are able to expand or contract the money supply by creating new demand deposits" (Encyclopedia Britannica, 2002).

"Banking, the business of providing financial services to consumers and businesses"; The basic services a bank provides are checking accounts, which can be used like money to make payments and purchase goods and services; savings accounts and time deposits that can be used to save money for future use; loans that consumers and businesses can use to purchase goods and services; and basic cash management services such as check cashing and foreign currency exchange. Commercial banks specialize in loans to commercial and industrial businesses. Commercial banks are owned by private investors, called stockholders, or by companies called bank holding companies" (Microsoft Encarta Reference Library, 2003).

The main objective of a commercial bank is to earn profit by collecting the fund scattered around the general public, and mobilizing it. So, the main functions of commercial banks happen to be collecting deposits from general public and lending loans to various economic sectors that require financing. Commercial banks make profit by charging a bit higher interest rate in loans than they pay to depositors. So the main source of income of commercial banks is interest income.

# Table: 2.1

<mark>S.No.</mark>	Names	Operation Date (A.D.)	Head Office
1	Nepal Bank Ltd.	1937/11/15	Kathmandu
2	Rastriya Banijya Bank Ltd.	1966/01/23	Kathmandu
3	Agriculture Development Bank Ltd.	1968/01/02	Kathmandu
4	Nabil Bank Ltd.	1984/07/16	Kathmandu
5	Nepal Investment Bank Ltd.	1986/02/27	Kathmandu
6	Standard Chartered Bank Nepal Ltd.	1987/01/30	Kathmandu
7	Himalayan Bank Ltd.	1993/01/18	Kathmandu
8	Nepal SBI Bank Ltd.	1993/07/07	Kathmandu
9	Nepal Bangladesh Bank Ltd.	1994/06/05	Kathmandu
10	Everest Bank Ltd.	1994/10/18	Kathmandu
11	Bank of Kathmandu Ltd.	1995/03/12	Kathmandu
12	Nepal Credit and Commerce Bank Ltd.	1996/10/14	Siddharthanagar, Rupandehi
13	Lumbini Bank Ltd.	1998/07/17	Narayangadh,Chitawan
14	Nepal Industrial & Commercial Bank Ltd.	1998/07/21	Biaratnagar, Morang
15	Machhapuchhre Bank Ltd.	2000/10/03	Pokhara, Kaski
16	Kumari Bank Ltd.	2001/04/03	Kathmandu
17	Laxmi Bank Ltd.	2002/04/03	Birgunj, Parsa
18	Siddhartha Bank Ltd.	2002/12/24	Kathmandu
19	Global Bank Ltd.	2007/01/02	Birgunj, Parsa
20	Citizens Bank International Ltd.	2007/06/21	Kathmandu
21	Prime Commercial Bank Ltd	2007/09/24	Kathmandu
22	Sunrise Bank Ltd.	2007/10/12	Kathmandu
23	Bank of Asia Nepal Ltd.	2007/10/12	Kathmandu
24	DCBL Bank Ltd.	2008/05/25	Kamaladi, Kathmandu
25	NMB Bank Ltd.	2008/06/05	Babarmahal, Kathmandu
26	Kist Bank Ltd.	2009/05/07	Anamnagar, Kathmandu
27	Janata Bank Nepal Ltd.	2010/04/05	New Baneshwor, Kathmandu
28	Mega Bank Nepal Ltd.	2010/07/23	Kantipath, Kathmandu
29	Commerz & Trust Bank Nepal Ltd.	2010/09/20	Kamaladi, Kathmandu
30	Civil Bank Litd.	2010/11/26	Kamaladi, Kathmandu
31	Century Commercial Bank Ltd.	2011/03/10	Putalisadak , Kathmandu

# List of Licensed Commercial Banks in Nepal (Mid July 2011)

(Source: http://bfr.nrb.org.np/list\_banks\_n\_non\_banks\_htm. Mid- July 2011)

## 2.1.2 Present Scenario of Commercial Banks in Nepal

The banking industry is continuously evolving with introduction of new service delivery channels, new products and adoption of sophisticated technologies. The advancement in the information technology and the conductive global environment has fastened the pace of evolution of this industry too. With the adoption of sophisticated technologies, the dimension of banking and financial services has widened a lot. As such, the banks are now equipped with new and innovative service delivery channels offering a number of products on the fore. The banks now have more opportunities, but these are undoubtedly attached with plenty of risks. In light of the rapidly changing scenario, the conventional supervisory tools, techniques and methodology that may have been adequate over a decade ago are unable to meet the supervisory objectives for today's larger, more complex banks.

As on Mid-July 2011, the number of commercial banks is 31 based on the applications for establishment of new banks as well as for the up-gradation of other financial institution, the number is likely to grow in the near future as well.



Figure: 2.1

#### 2.1.3 Bank and Supervision

The major function of bank is to act as financial intermediaries. They act as a repository for the savings of those who spend less than their income, and as a source of borrowed Funds for those whose spending exceeds their income. In playing this role, banks facilitate real resource transfer amongst different groups of people, in accordance with their different needs and preference.

Banks also play an important role in making savings available to those with productive investment opportunities. Similarly, banks are an important source of liquidity for an economy. This is inherent in the payments services provided by the banking system, insofar as deposits held for transactions' purposes must be available for transfer on demand. A unique feature of banks is that they have a low ratio of own' (shareholders') funds to borrowed funds (deposits). This inherent imbalance between 'own' funds and borrowed funds in a bank's overall funding mix presents some potential problems. Because bank's shareholders have only a small amount of their own funds at stake, there is an underlying incentive for banks to tend towards risk taking activities with the fund of depositors and outsiders. In fact, shareholders' losses are limited to the amount of their (relatively small) investment and banks' depositors bear any remaining loss. In short, banks shareholders, in the absence of supervisory requirements and constraints, would potentially have access to large profit opportunities, but with limited downside risk to themselves.

Bank failures can disrupt the flow of credit to local communities, interface with the operation of the payments system and reduce the money supply. These effects can be long-lasting. The past has shown that although the cost of supervision is high, the cost of poor supervision is even higher. The cost of bank failure to the society as a whole is higher than the private costs (the loss to the shareholders), which is compelling reason for supervising banks. Official supervisors have a great role in this regard mostly because banks' depositors are generally not well placed to monitor portfolio behavior of banks not to enforce compliance with the terms of the national covenant depositors have with their bank. Banking supervision is basically concerned with constraining the risks which banks can take in using other peoples' money; money which they have borrowed on the basis of representation that it will be repaid in full together with interest at the rate of contracted.

These reasons call for an independent supervisory body to conduct a direct assessment of the overall condition of the banking institutions with regular review of banks' financial position, systems and controls, risk management practices and the compliance with the relevant regulatory requirements. Nepal Rastra Bank is the supervisory body of all the licensed institutions that carry baking transactions.

#### 2.1.4 Current Issues in Banking Supervision

In the past, the business of bank supervision was focused on validating bank's transactions, particularly the value of loan portfolios, which have been historically the principal source of problems for banks. In the process, supervisors would go through the balance sheet, assuring themselves that a bank's assets and liabilities were essentially as stated and that its reserves and net worth were real. Traditional forms of supervision are important regulatory tools but have some severe limitations. In particular, they are labor intensive and narrow in focus, as they look at many times. They were focused on detecting minor mistakes rather than overall financial soundness and risk management aspects of the banks. Traditional supervision provides a snapshot of an institution's condition at a point in time. It is transaction oriented and usually more labor intensive than risk-based supervision, thereby straining the scarce resources of most regulators.

Stability of the financial system has become the central challenge to bank regulators and supervisors throughout the world. Supervisory authorities all over the world are gradually moving towards adopting risk-based supervision. There is now a growing stress to adopt a more risk focused comprehensive approach, which is likely to contribute positively in the supervisory function. Through scrutiny of systems and procedures prevailing in supervised bank is an integral part of on-site inspection, there is scope for more focus on the risk profile of the banks. Supervisory bodies in the world are seeking more focused, responsive and tailored approach to supervision. Nepal Rastra Bank is committed to adopt the best Supervisory methods and practices and has been constantly endeavoring to enhance the sophistication and efficiency levels of its supervisory processes. In line with this philosophy, NRB has been continually updating the rules, regulations as well as the supervisory practices to deliver effective supervision.

#### A) Basel Core Principles:

The core Principles for Effective Banking Supervision, promulgated by the Basel Committee on Banking Supervision, set out the minimum standards that are considered necessary for effective supervision. Core Principles have been used by countries as a benchmark for assessing the quality of their supervisory systems and identifying future works to be done to achieve a baseline of sound supervisory practices. Experience has shown that self-assessment of countries' compliance with the Core Principles have proven authorities. in helpful for the in particular identifying regulatory and supervisoryshortcomings and setting priorities for addressing them. Several of the principles embrace risk-based supervision and encapsulate the concepts developed over the past twenty years. However, because the Core Principles is a brief document and covers a variety of topics, it cannot fully explain the key differences between risk-based supervision and traditional regulatory practices or provide a systematic explanation of all the basic elements that would enable a regulatory agency to implement risk-based supervision.

Although supervisory practices and processes are always evolving and improving over time, it is helpful to subject supervisory arrangements to scrutiny against internationally accepted benchmarks, and to consider where improvements can be made. To be effective, any such assessment must be undertaken. It is too easy for supervisors to assert critically that existing arrangements represent best practice when closer analysis would reveal otherwise.

Realizing the importance of the core principles, NRB with technical support from IMF has completed a self-assessment which has finalized after various rounds of discussions. The assessment highlighted area which needs improvement and in other to correct those deficiencies an action plan has been prepared. Nepal Rastra Bank has already taken initiatives to address those deficiencies in accordance with the action plan.

#### **B)** Basel II, Concept and its Implication in Nepal

With a view of adopting the international best practices, NRB has decided to adopt capital adequacy framework based on Basel II document released by Basel Committee on Banking

Supervision. The complexity and sophistication of the Nepalese financial market didn't warrant advanced approaches like the IRB Approach or the Standardized Approach. Hence, Nepal Rastra Bank adopted the simplified standardized Approach for credit risk, Basic Indicator Approach for Operational Risk and Net Open Exchange Model for the Market Risk. Reminiscent of the International convergence of capital measurements and capital standards, this framework also builds around three mutually reinforcing pillars, viz. minimum capital requirements, supervisory review process and disclosure requirements.

The first pillar aligns minimum capital requirements more closely with banks' actual underlying risks. In concept, the first pillar is similar to the existing capital framework, in that, it provides a measure of capital relative to risk. The second pillar –supervisory review process- allows supervisors to evaluate a bank's assessment of its own risks and determine whether that assessment seems reasonable. It is not enough for a bank or its supervisors to rely on the calculation of minimum capital under the first pillar. Supervisors should provide extra set of eyes to verify that the bank understands its risk profile and is sufficiently capitalized against its risks. The third pillar-market discipline- ensures that the market provides yet another set of eyes. The third pillar is intended to strengthen incentives for prudent risk management. Greater transparency in banks' financial reporting should allow marketplace participants to better reward well-managed banks and penalize poorly managed ones.

The coming year shall be a parallel run on the capital adequacy of the banks under both Basel I and Basel II. Banks are required to compute their capital adequacy requirements, based on these frameworks, on a quarterly basis. The so arrived result should be reported their respective board of directors as well as the Nepal Rastra Bank in the prescribed formats. Any shortfall in the capital adequacy requirement in accordance with this framework shall not constitute a default during this rewire period. However, the failure to submit the returns stipulated in this framework shall constitute non-compliance. The Accord Implementation Group (AIG) constituted to support the Basel II implementation is continuously monitoring and providing support to this process.

This group also recommends necessary changes to the framework base on the ground of the need and justification of such changes.

#### C. Prompt corrective Action (PCA):

Basel core principle no. 23 (Corrective and remedial powers of supervisions) states supervisors must have at their disposal an adequate range of supervisory tools to bring about timely corrective actions, if the example, a bank is not complying with laws, regulations or supervisory decisions, or is engaged in unsafe or unsound practices, or when the interest of depositors are otherwise threatened. These tools include the ability to require a bank to take prompt remedial action and to impose penalties.

Over the past year, several countries around the world have adopted a system of prudential prompt corrective action (PCA) binding capital adequacy standards and the ability to take substantial actions against banks that failed to meet the standards. On firs appearance, the adoption of PCA in the US, UK, European Union, Hong Kong, Canada, Mexico, Korea, Indonesia, India, Bangladesh, Malaysia and Brazil appear to have been extremely successful. The PCA approach of supervisor realizes that early steps in preventing banks are always better than caring troubled bank. The supervisor and regulators in the last developed countries are also being encouraged to adopt PCA by policy analysts who explicitly call for its adoption. However, some preconditions needed for the adoption of an effective PCA include conceptual element such as prudential supervisory focus on minimizing public deposit losses and mandating supervisory action as capital declines. These preconditions also include institutional aspect such as greater supervisory independence and authority, more effective resolution mechanisms, better methods of measuring capital, and enhancing supervisory capabilities.

Nepal Rastra Bank has planned to adopt PCA framework through Monetary Policy for FY 2007/2008 that states NRB will take actions immediately to those banks whose capital adequacy ratio falls short of the stipulated limit. The triggers and stipulated action are applicable uniformly to all banks including those within the scope of this framework. Actions range from applying restrictions on branch expansion and dividend payments; loan disbursements and deposit mobilization; increase in salary and allowances to execute actions available under Section 86 of Nepal Rastra Bank on the basis of the level of shortfalls from the regulatory capital adequacy ratios as per clause 42 of the Banks and

financial Institutions Act 2006. This framework is expected to encourage banks to observe the minimum capital adequacy at all the times.

#### 2.1.5 Overview: Capital and Capital Adequacy

"Capital is a stock of resources that may be employed in the production of goods and services and the price paid for the use of credit or money, respectively" (Microsoft Encarta Reference Library, 2003).

"Capital in relation with banking is a long-term debt plus owners' equity".(Rosenburg; 1982; Dictionary of banking and finance; New York: John Wiley & Sons Publications; p.8)

The efficient functioning of markets requires participants to have confidence in each other's stability and ability to transact business. Capital-rules help foster this confidence because they require each member of the financial community to have, among other things, adequate capital. This capital must be sufficient to protect a financial organization's depositors and counterparties from the risks of the institution's on-balance sheet and off-balance sheet risks. Top of the list are credit and market risks; not surprisingly, 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 loses, and in the worst case, to allow a firm to wind down its business without loss to consumers, counterparties and without disrupting the orderly functioning of financial markets.

Minimum capital fund standards are thus a vital tool to reducing systematic risk. They also play a central role in how regulators supervise financial institutions. But capital requirements have so far tended to be simple mechanical rules rather than applications of sophisticated risk-adjusted models. Such capital standard is widely known as capital adequacy.

"Banks capital is common stock plus surplus plus undivided profits plus reserves for contingencies and other capital reserves. In addition since a bank's loan-loss reserves

also serve as a buffer for absorbing losses, a broader definition of bank capital includes this account". (Patheja; 1994; Financial Management of Commercial Banks; Delhi; South Asia Publications; p, 11)

"The general public is interested in the higher profitability and safety of the funds of a bank, because the public expects the shareholders to assume all the risks. Lower profitability of a bank

fills the faith of the prospective depositors and all their incentive for investing in the various deposit schemes". (Verma, H.L. & Malhotra, A.K.; 1993; Funds management in commercial banks; New Delhi; Deep & Deep Publications;p, 13)

The Basel Committee sets a standard for all the banking norms, which will be accepted by central banks of all big industrialist countries. Regarding the capital funds the committee has issued the Basel Capital Accord. The first Basel Capital Accord was issued in 1988 and was implemented by 1992. The committee had issued New Basel Capital Accord which should have been implemented by 2006 to overcome the drawbacks of the present capital accord. Central banks of developing and underdeveloped countries follow these standards. NRB also follow these standards and accordingly sets standard for commercial banks in Nepal.

According to the Unified Directive issued by NRB, the bank capital has been categorized into two parts: Core Capital and Supplementary Capital.

# **DEFINATIONS OF CAPITAL:**

Qualifying capital consists of Tier 1 (core) capital and Tier 2 (supplementary) capital elements, net of required deductions from capital. Thus, for the purpose of calculation of regulatory capital, banks are required to classify their capital into two parts as follows.

#### A. Core Capital (Tier 1)

The key element of capital on which the main emphasis should be placed is the Tier 1 (core) capital, which comprises of equity capital and disclosed reserves. This key element of capital is the basis on which most markets judgments of capital adequacy are made; and it has a crucial bearing on profit margins and a bank's ability to compete. The BCBS has therefore concluded that capital, for supervisory purposes, should defined in two ties in a way which will have the effect of requiring at least 50% of a bank's capital base to consist of score element comprised of equity capital and published reserves from post- tax retained earnings.

In order to rank as Tier 1, capital must be fully paid up, have no fixed servicing or dividend costs attached to it and be freely available to absorb losses ahead of general creditors. Capital also needs to have high degree of permanence if it is to be treated as Tier 1.

# **B.** Supplementary Capital (Tier 2)

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

# 2.1.5.1 ELEMENTS OF TIER 1 CAPITAL:

- a. Paid up Equity Capital
- b. Irredeemable non –cumulative preference shares which are fully paid-up and with the capacity to absorb unexpected losses. These instruments should not contain any clauses, which permit redemption by the holder or issuer upon fulfillment of certain condition. Banks should obtain prior approval of NRB for this kind of instruments to qualify as a component of core capital.
- c. Share Premium
- d. Proposed Bonus Equity Share
- e. Statutory General Reserve.
- f. Retained Earnings available for distribution to shareholders.
- g. Un-audited current year cumulative profit, after all provisions including staff bonus and taxes. Where provisions are not made, this amount shall not qualify as Tier 1 capital.
- h. Capital Redemption Reserve created in lieu of redeemable instruments.
- i. Capital Adjustment reserves created in respect of increasing the capital base of the bank.
- j. Divided Equalization Reserves.
- k. Other free reserves

1. Any other type of reserves notified by the NRB from time to time for inclusion in Tier 1 capital

# 2.1.5.2 ELEMENTS OF TIER 2 CAPITAL

- a. Cumulative and/or redeemable preference shares with maturity of five years and above.
- b. Subordinated term debt fully paid up with a maturity of more than 5 years; unsecured and subordinated to the claim of other creditors, free of restrictive clauses and not redeemable before maturity. Since, subordinated term debt is not normally available to participate in the losses; the amount eligible for inclusion in the capital adequacy calculations is limited to 50% of core capital. Moreover, to reflect the diminishing value of these instruments as a continuing source of strength, a cumulative discount (amortization) factor of 20% per annum shall be applied for capital adequacy computations, during the last 5 years to maturity. The banks should obtain written approval of NRB for including any subordinating debt instruments (like Debenture/Bonds) in supplementary (Tier-2) capital.
- c. Hybrid capital instruments are those instruments which combine certain characteristics of debt and certain characteristics of equity. Each such instrument has a particular feature, which can be considered to affect its quality as capital. Where these instruments have close similarities to equity, in particulars when they are able to support losses on an ongoing basis without triggering liquidation, they may be included in Tier 2 capital.
- d. General loss provision limited to a maximum of 1.25% of total Risk Weighted Exposures. The loan loss provision in respect of the rescheduled/ restructured loans and loss provision in respect of Non-Performing Assets shall not be included under this category. However, software expenditure or software development expenditure, research and development expenditure, patents, copyrights, trademarks and lease hold developments booked as deferred revenue
expenditure are subject to 100% risk weight and shall not be deducted from Tire 1 capital. Investment in shares of Rural Development Banks and other institutions, where the waiver has been explicitly provided by NRB are subject to risk weight of 100% and shall not be deducted from Tier 1 capital. Provisions created in excess of the regulatory requirement or provisions which is not attributable to identifiable losses in any specific loans shall be allowed to be included in the general loan loss provision and shall be eligible for Tier II capital subject to a maximum of 1.25% of total risk weighted exposures. Banks shall be required disclose the cases where additional provisions have been made.

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

### 2.1.5.3 DEDUCTIONS FROM CORE (TIER 1) CAPITAL:

Banks shall be required to deduct the following from the Tier 1 capital for capital adequacy purposes. The claims that have been deducted from core capital shall be exempt from risk weights for the measurements of credit risks.

- a. Losses suffered in the current period as well as those brought forward from previous periods.
- b. Book value of goodwill.
- c. Fictitious assets to the extent not written off. (E.g. VRS expenses, preliminary expense, share issue expenses, deferred revenue expenditure, etc.)
- d. Investments in equity of financial institution licensed by Nepal Rastra Bank.
- e. All Investments in equity of institutions with financial interest.
- f. Investments in equity of institutions in excess of the prescribed limits.
- g. Investments arising out of underwriting commitments that have not been disposed within a year from the date of commitment.
- h. Reciprocal crossholdings of bank capital artificially designed to inflate the capital position of the bank.
- i. Any other items as stipulated by Nepal Rastra Bank, from time to time.

### 2.1.5.4 CAPITAL FUNDS:

The capital fund is the summation of Tier 1 and Tier 2 capital. The sum total of the different components of the tier 2 capitals will be limited to the sum total of the various components of the tier 1 capital net of deductions. In case the Tier 1 capital is negative, Tier2 capital should be considered to be "Nil" for regulatory capital adequacy purposes and hence, in such a situation, the capital fund shall be equal to the Tier 1 capital.

### 2.1.5.5 MINIMUM CAPITAL REQUIREMENTS:

- Unless a higher minimum ratio has been set by Nepal Rastra Bank for an individual bank through a review process, every bank shall maintain at all times, the capital requirement set out below:
- a. Tier 1(core) capital of not less than 6 percent of total risk weighted exposures.
- b. A total capital fund of not less than 10 percent of its total risk weighted exposures.

The Capital Adequacy Ratio (CAR) is calculated by dividing eligible regulatory capital by total risk weighted exposure. The total risk weighted exposure shall comprise of risk weights calculated in respect of bank's credit, operational and markets risks.

### 2.2 Review of NRB Capital Adequacy Norms for Commercial Banks

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

"The current Basel I capital framework adopted over around two decades ago, has served us well. ....According to the introduction of the new Accord, issued in June 2004: "the objectives were to maintain the aggregate level of minimum capital requirements, providing incentives to adopt the more advanced risk sensitive approaches of the revised framework."

(Mr. Rayamajhi; 2006; opening address, seminar on draft "Capital Adequacy Framework" on 10th July, 2006) The new capital framework attempts to achieve these objectives with three mutual reinforcing pillars. The first pillar aligns minimum capital requirements more

closely with banks' actual underlying risk. At the outset the first pillar is similar to the existing capital framework that provides a measure of capital relative to risk. The purely new are the second and third pillar. The second pillar- supervisory review- allows – supervisors to evaluate a bank's assessment of its own risks and determine whether that assessment seems reasonable. It is not enough for a bank or its supervisors to rely on the calculation of minimum under the first pillar. Supervisors should provide an extra set of eyes to verify that the bank understands its risk profile and is sufficiently capitalized against its risks.

The third pillar- market discipline- ensures that the market provides yet another set of eyes. The pillar is intended to strengthen incentives for prudent risk management. Greater transparency in banks' financial reporting should allows market participants to reward well-managed banks and penalize poorly managed ones...in a nutshell; I think that new capital framework represents a significant step towards achieving a more comprehensive and risk sensitive supervisory approach.

Basel II is about much more than just selling better quantitative minimum capital requirements. It is about establishing incentive based approaches to risk ad capital adequacy management, within a comprehensive framework of three mutually supporting pillars. The contribution of better risk management, a stronger capital structure and improved transparency standards in the banking system can significantly improve financial stability.

Figure: 2.2



Details explain below year wise.

Nepal Rastra Bank, Annual Bank Supervision Report, (2001-2002): Strong capital base is the prerequisite for the safety and soundness of any bank, since; any losses arising out of the unexpected risk have to be borne by the bank out of its own capital. It is for this reason, Basel Capital Accord, 1988 stresses on the creation and maintenance of the strong capital base in proportion to the Risk Weighted Assets of the banks. At present, Bank in Nepal are required to maintain minimum risk weighted capital adequacy ratio of 9% which is to be increased to 12% from the beginning of FY2004-05

In line with the Basel capital Accord, capital is defined in two tiers, collectively known as capital fund. Capital fund of permanentor core element called 'core capital' and less permanent element called 'supplementary capital'. Banks at present are required to maintain core capital and total capital fund ratios of 4.5% and 9% respectively in proportion to their Risk Weighted assets.

Core capital of the commercial banks as a whole at end of FY201-02 was negative at Rs.18435 million due to heavy accumulated losses. During the given financial year, public

sector banks of the country have failed to meet the capital adequacy requirements due to huge amount of accumulated losses of these banks resulting in the negative core capital to the tune of Rs.25392 million, which was Rs.17128 million (negative) during the previous year.

Private sector bank of the country complied with the minimum risk adjusted capital requirements of 9% except for Nepal Credit and Commerce Bank Limited, which had negative core capital of Rs.150 million. The overall risk adjusted capital ratio maintained by these banks stood at 13.25% up from 11.8% during the previous year.

	Public		Private		Total	
	2000-01	2001-02	2000-01	2001-02	2000-01	2001-02
Core capital	-17128	-25392	6111	6957	-11017	-18435
Supplementary capital	0	0	2105	2614	2105	2614
Total capital fund	-17128	-25392	8216	9571	-8912	-15821

Table 2.2: Capital Fund TableNPR in million

The aggregate capital base (core capital as well supplementary capital) of the commercial banks as a whole as on the end of FY 2001-02 was negative at Rs.15821 million against Rs.8912 million (negative) of previous year registering an increase of 77.52% in the total negative core capital.

Capital base of private sector banks amounted to Rs.9571 million with the increase of 16.49% from the previous year. Core capital of these banks amounted to Rs.6957 million with an increase of 13.84% from the previous year.

Supplementary capital of the banks on the same date was Rs.2614 million registering growth of 24.18% from the previous year.

However core capital of two public sector banks (RBB& NBL) was negative, at Rs.25392 million due to heavy accumulated losses of these banks, registering increase in negative capital by Rs.8264 million (48.25%) from the previous year. such huge negative balance in the core capital of these public sector banks has consumed the core capital of commercial banks as a whole as a result of which core capital of commercial banks as a whole is also negative.

Nepal Rastra Bank, Annual Bank Supervision Report, (2002-2003): The aggregate as well as public sector and private sector banks capital adequacy deteriorated as accumulated loss of the public sector banks highly increased and more private sector commercial banks has total capital fund below the statutory minimum of 10% of risk weighted assets. However, private sector banks average capital adequacy ratio of 11.95% is marginally above the statutory requirement. Negative total capital found of Rs.31448 million relating to two public sector banks converted the total capital base of the commercial bank in to negative (-11.74%). Table given below clearly shows the fact.

### **Table: 2.3**

Year	2000-01	2001-02	2002-03
Public Sector	-2.5%	-24.55%	-37.83%
Private Sector	15.09%	13.82%	11.95%
Commercial Banks	4.00%	-7.25%	-11.74%

### **Capital Fund to Risk Weighted Assets Ratio**

Total capital fund was decreased by 80% compared to previous year's negative capital fund base of Rs.-11,380 million. Rate of decrease in capital fund during year 2001-02 was

280%. Significant part of this decline was because of huge loss incurred by two public sector banks during the relevant period. Decline in the capital adequacy ratio of public sector banks was due to higher growth in exposures in high risk category. Which resulted in growth of risk weighted assets by 29.32%, without commensurate growth in the total capital fund.

Nepal Rastra Bank, Annual Bank Supervision Report, (2003-2004): Aggregate capital fund as well as that part of public sector banks remained negative even though there was some improvement in capital adequacy. Though, average capital adequacy ratio of 11.62%, private sector banks is marginally above the minimum statutory requirement, more number of banks failed to meet minimum requirements during the year. Negative total capital fund of Rs. 29816 million relating to two public sector banks converted the total capital base of the commercial bank into negative 8.92 Percent. Table given below clearly shows the fact.

#### **Table: 2.4**

Year	2001-02	2002-03	2003-04
Public Sector	-24.55%	-37.83%	-35.01%
Private Sector	13.82%	11.95%	11.62%
Commercial Banks	7.25%	-11.74%	-8.92%

#### **Capital Fund to Risk Weighted Assets Ratio**

Total capital fund was increased by 15.90% compared to previous years' capital fund base of negative Rs. 20510 million due to improvement in performance of the public sector banks during the year. Rate of decreases in capital fund during year 2002-03 was 80.22%. Decline in the capital adequacy ratio of the private sector banks was due to higher growth in exposures in high- risk category, which resulted in growth in risk weighted assets by 18.21%, without commensurate growth in the total capital fund.

In addition to the capital adequacy requirement NRB has directed all commercial banks to increase paid up capital up to minimum of 1 billion by mid July 2009 as a part of strengthening the capital base.

Nepal Rastra Bank, Annual Bank Supervision Report, (2005): the consolidated capital of the Nepalese banking industry has shown positive trend during the review period. The capital has improved by Rs.6.34 billion in 2004-05. However, due to the large volume of negative reserves of the public banks, the capital base is still a long way from being satisfactory.

### **Table: 2.5**

Banks/Year	2004-05	Change %	2003-04	Change %	2002-03
Private	13.88	32.70	10.46	16.61	8.97
Public	-27.80	-9.51	-30.7	-5.68	-32.57
Industry	-13.92	-31.29	-20.262	-14.15	-23.60

### **Capital of the Banking Industry (Rs. in billions)**

The capital adequacy position of the private banks is satisfactory. However, because of continuous large increase in the risk assets of these banks, their capital adequacy ratio is declining.

It is the public banks that are responsible for the ruining the capital base of the entire banking industry. The public banks due to their inherent problems had suffered massive losses in the past, which are reflected in their negative reserves. Although, these banks have started to improve their financial condition, it is far cry from an acceptable standard. The public banks, due to their size, have a relatively significant degree of sensitivity to the entire industry's performance and their improvement has been echoed in the improvement of the entire industry's capital.

Figure: 2.3



The review of the individual banks capital adequacy, as on mid July 2005, reflects that most of the banks have complied with the statuary capital adequacy ratio of 11%. The banks with non-compliance are Rastriya Banijya Bank (-34.12%), Nepal Bank Ltd. (-19.54%), Nepal Bangladesh Bank Ltd. (2.38%), Nepal Credit & Commerce Bank Ltd. (4.20%), Lumbini Bank Ltd. (6.35%) and Nepal SBI Bank Ltd. (9.47%).

The capital of the Nepalese banking industry has depicted a favorable trend during 2004/05. There are various reasons for this improvement. The banks, during the period, on an average have performed well and some of them have raised capital from the market, which improved the overall capital position of the industry. All banks, except for three private banks were able to post handsome profits. Some banks were able to distribute cash dividends and bonus shares to its shareholders. At the same time, some banks raised equity capital through initial public offering during the year.

Nepal Rastra Bank, Annual Bank Supervision Report, (2006): The consolidated capital of the Nepalese baking industry has shown positive trend during the review period. The capital has improved by Rs. 2.36 billion in 2005/06. However, due to the large volume of negative reserves of the public banks and three private banks, the capital base is still a long way from being satisfactory.

#### **Table: 2.6**

Banks/Year	2003/04	Change %	2004/05	Change %	2005/06
Private	10.46	70	13.88	-2.36	13.55
Public	-30.72	9.51	-27.8	9.65	-25.12
Industry	-20.26	-1.29	-13.92	16.92	-11.56

**Total Capital Fund of the Commercial Banks (Rs. in billions)** 

The capital adequacy position of the private bank is not satisfactory due to some problematic banks. However, because of continuous large increase in the risk assets of these banks, their capital adequacy ratio is declining. It is the public banks and three private banks that are responsible for the ruining the capital base of the entire banking industry. The public banks due too their inherent problems has suffered massive losses in the past and three private banks due to increase in their non- performing loans has suffered massive losses from last year, which are reflected in their negative reserves. Although, the public banks have started to improve their financial condition, it is a far cry from an acceptable standard. The public banks, due to their size, have a relatively significant degree of sensitivity to the entire industry's performance and their improvement has been echoed in the improvement of the entire industry's capital.

The review of the individual banks capital adequacy, as on Mid July 2006, reflects the most of the banks have complied with the statutory capital adequacy ratio of 11 percent. The banks with non-compliance are Rastriya Banijya Bank (-56.40%), Nepal Bank Ltd. (-40.44%), Nepal Bangladesh Bank Ltd. (-13.23%), Nepal Credit & Commerce Bank Ltd. (-3.46%), Lumbini Bank Ltd. (-13.93%) and Agriculture Development Bank (-2.07%).

The capital of the Nepalese banking industry has depicted a favorable trend during 2005/06. Three are various reasons for this improvement. The banks, during the period, on an average have performed well and some of them have raised capital from the market, which improved the overall capital position of the industry. All banks, except for three private banks were able to post handsome profits. Some banks were able to distribute cash dividends and bonus shares to its shareholders. At the same time, some banks raised

finance from the market through issue of right shares during the year except some problematic banks.

Nepal Rastra Bank, Annual Bank Supervision Report, (2007): The consolidated capital of the Nepalese banking industry has shown positive trend during the review period. The capital has improved by Rs.8.10 billion in 2006/07. However, due to the large volume of negative reserves of the public banks and three private banks, the capital base is still negative and not satisfactory.

#### **Table: 2.7**

#### Total Capital Fund of the Commercial Banks (Rs. in billions)

Banks/Year	2003/04	Change %	2004/05	Change %	2005/06	Change	2006/07
						%	
Private	10.46	70	13.88	-2.36	13.55	25.23	16.97
Public	-30.72	9.51	-27.8	9.65	-25.12	-18.67	20.43
Industry	-20.26	-1.29	-13.92	16.92	-11.56	-70.06	-3.46

The capital adequacy position of the private banks, public banks and the entire industries is not satisfactory mainly due to problematic banks.

It is the negative capital base of public banks and three private banks that has resulted on the negative capital base of the entire banking industry. The public banks due to their inherent problem have suffered massive losses in the past and three private banks due to the increase their non-performing loans has suffered massive losses from last year, which has resulted in their negative reserves. Although, the public banks have started to improve their financial condition, it is far from an acceptable standard. The public banks, due to their size, have a relatively significant degree of sensitivity to the entire industry's performance and their improvement has been echoed in the improvement of the entire industry's capital. The review of the individual banks capital adequacy as on Mid July 2007 reflect that most of the banks have complied with the statutory capital adequacy ratio of 11 percent. The banks with non-compliance are Rastriya Banijya Bank (-48.45%), Nepal Bank Ltd. (-32.46%), Nepal Bangladesh Bank Ltd. (23.55%), Nepal Credit & Commerce Bank Ltd. (2.35%), Lumbini Bank Ltd. (-7.80%) and Agriculture Development Bank (4.84%).

#### Figure: 2.4

#### Capital Adequacies of commercial Banks (Mid July 2007)



The capital of the Nepalese banking industry has depicted a favorable trend during 2006/07. There are various reasons for this improvement. The banks, during the period, on an average have performed well and some of them have raised capital from the market, which improved the overall capital position of the industry. All banks, except for four private banks were able to post handsome profits during the year in review.

### **2.3 Review of NRB Directives**

NRB issues directives from time to time to enhance the strength of commercial banks. The tools described in the directives main objectives are to control and monitor the financial institutions of the country. NRB has been issuing directives into four different parts i.e., directives relating to banking regulation and prudential norms, credit information bureau (CIB), foreign exchange and

list of forms, formats and tables. In present situation, NRB issues directives regulatory and put with new directives.

Directives relating to the banking regulation and prudential norms comprise sixteen directives, which are as follows (Unified Directives 2062, NRB):

Directive No. 1	The provision of minimum capital fund to be maintained by the commercial bank;							
Directive No.2	The provision of loan loss provisioning on the credit;							
Directive No.3	The provision relating to single borrower limit;							
Directive No. 4	The provision of accounting and the structure of financial statement to be followed by the commercial banks;							
Directive No.5	The provision of reducing risk on activities of the commercial banks.							
Directive No.6	The provision of institutional good governance to be followed by commercial banks;							
Directive No. 7	The provision of implementation schedule of regulatory directives issued in connection with inspection and supervision of the commercial banks.							
Directive No. 8	The provision of investment on shares and securities;							
Directive No. 9	The provision of submission of statistical data to the Nepal Rastra Bank, Banking management division and inspection and supervision division;							
Directive No. 10 comme	The provision of sale and re-registration of foundation shares of `							
Directive No. 11	The provision of Consortium Financing Loan;							
Directive No. 12	The provision of Loan Information and black list;							
Directive No. 13	The provision of compulsory Inventory;							
Directive No. 14	The provision of Branch Office;							

Directive No. 15 The provision of Interest rate;

Directive No. 16 The provision of financial source collection;

Among sixteen directives this study is only limited to number one directive that is provision of capital adequacy ratio.

### 2.4 Review of International Studies:

Basel Committee on the Banking Supervision, Report for the G7 summit on the activities of the Basel Committee, June 2006: This report, prepared for the group of seven (G7) Finance Ministers and Central Bank Governors, discusses the Committee's main efforts over the past year. It summarizes the committee's contribution to the promotion of stability in the global banking system through its efforts to provide guidance on key banking supervisory issues and foster cooperation among banking supervisors.

The publication in June 2004 of the Basel II framework represented the outcome of a multiyear effort by the Committee to bring capital adequacy regulations, which are a key underpinning of the safety and soundness of the global banking system, up to date with current business realities and risk management practices. Currently, the committee is actively promoting cooperation among supervisors with the goal of fostering greater convergence in supervisory practices in implementing the new rules.

The Basel Committee reviewed and confirmed the calibrations of the Basel II Framework in May 2006. The QIS results for the Basel Committee member countries show that minimum required capital under the Basel II Framework would decrease relative to the current Accord. For large, internationally active banks, minimum required capital would decrease by 6.8%, based on the results for the approach that participating banks will likely adopt after implementation. Taking into account the benign economic condition prevailing in the final quarter of 2005 and the remaining uncertainties in the data, the Committee agreed that no adjustments of the scaling factor to credit risk-weighted assets would be necessary at this stage. The Committee intends to publish a detailed report on the outcome of QIS 5 in G10 and non G10 countries in 2006. Basel Committee on Banking Supervision, International Convergence of Capital Measurement and Capital Standards, A Revised Framework Comprehensive Version, June 2006, the first pillar- minimum capital requirements needs credit, market and operational risk. The capital ratio is calculated using the definition of regulatory capital and risk weighted assets. The capital ratio is calculated using the definition of regulatory capital and risk weighted assets. The total capital ratio must be no lower than 8%. Tier 2 capital is limited to 100% of Tier 1 capital.

The second pillar- Supervisory Review Process discusses the key principles of supervisory review, risk management guidance and supervisory transparency and accountability produced by the Committee with respect to banking risks, including guidance relating to, among other things, the treatment of interest rate risk in the banking boo, credit risk (stress testing, definition of default, residual risk, and credit concentration risk), operational risk, enhanced cross- border communication and cooperation and cooperation and securitization. The third- pillar Disclosure requirements, the Committee believes that the rational for pillar 3 is sufficiently strong to warrant the introduction of disclosure requirements for banks using the framework. Supervisors have an array of measures that they can use to require banks to make such disclosures. Some of these disclosures will be qualifying criteria for the use of particular methodologies or the recognition of particular instruments and transactions.

### 2.5 Review of Journal and Articles

Blum (1990) has concluded in the article "Do Capital Adequacy Requirements Reduce Risks in Banking" that capital adequacy rules may increase a bank's riskiness. The writer further included that in addition to the standard negative effect of rents on risk attitudes of banks a further inter temporal effect has to be considered. The intuition behind the result is that under binding capital requirements an additional unit of equity tomorrow is more valuable to a bank. If raising equity is excessively costly, the only possibility to increase equity tomorrow is to increase risk today. Lamsal (2001) in the article " NRB Directives: Bankers plea for lighter structures" has mentioned that the commercial banks with seven directives issued in two installments asking banks to start complying with the new structures by mid-July 2001 or face grave consequences. NRB claims that these are based on the internationally accepted banking norms of Basel committee. Lamsal has opined that banks are expected to be disparate to meet the targets of capital adequacy norms since the consequences the banks have to face in case of non-compliance are very strict. And for this purpose they will have to issue additional shares, which is not possible for them in the short-run. Or they do not prefer to go for additional share issue simply because they will also have to pay the same dividend as the past to the holders of shares so issued. This becomes the more difficult as the business is not going to expand commensurately. The difficulty is understandable now when every banker is complaining of the lack of new investment projects.

Shah, P.B. (2005)concluded in the article " Financial Sector Reform Program: Issues and challenges" that being the central bank of the nation, Nepal Rastra Bank has to be active by playing important role for monetary and financial stability. Central bank should always be eager to achieve the public faith towards bank and financial institutions enabling them being disciplined, well organized, healthy and competent by providing effective regulation and supervision to appropriate utilization and mobilization of financial resources by increasing financial saving rate by raising financial stability. Also, central bank should always be willing to safeguard the interest of depositors and investors to accomplish the financial stability. Constant financial stability leads to the accomplishment of monetary stability. As the tools for monetary policy are applied through financial sector, the efficiency of monetary policy depends on effectiveness of financial sector. Balanced growth of financial sector helps monetizing of economy. Various drawbacks; like, managerial ineffectiveness, organizational difficulty, contrary financial situation; make the long-term stability of financial sector suspicious. Failure of any one financial institution leads the destructive impact to whole financial sector and such impact will be spread to other countries from the countries where capital accounts are fully convertible. So, the concept of financial system of the country should be boosting and healthy for achieving higher economic growth by steadying macro-economic stability has been globally supported. The financial sector reform program in Nepal can also be taken in the same background. Since, it is not possible to achieve financial stability without the commanding role of regulation and supervision, new program of financial sector reform program should play role regarding structural reformation / transformation and organizational structure in existing banks and financial institutions by clarifying the role of government and central bank

Khatiwada, (2003) in the article "Banking sectors reform in Nepal I & II; Implications for corporate governance" has indicated that recent financial crisis have revealed a number of data deficiencies, notably in pledged assets, deposits held in financially weak domestic banks and their foreign affiliates, valuation practices leading to bank valuation of assets being significantly different from market values and complicating assessments of the realizable value of reserve assets. Similarly, public information is lacking in many countries on the off-balance-sheet activities of the authorities that can affect foreign currency resources. There was a lack of information on the authorities' financial derivatives activities. Also was observed that inadequate information of actual and potential foreign liabilities of the monetary authorities and central government. Financial sector reform envisages for measures for mitigating this information and data gap problem as well.

Abor (2005) in the article "The Effect of Capital Structure on Profitability" has enlightened that the relationship between capital structure and firm value has been the subject of considerable debate. Throughout the literature, debate has centered on where there is optimal capital structure for an individual firm or whether the proportion of debt usage is irrelevant to the individual firm's value. The capital structure of a firm concerns the mix of debt and equity the firm uses in its operation. Brealey and Myers content that the choice of capital structure is fundamentally a marketing problem. Other theories that have been advanced to explain the capital structure of firms include bankruptcy costs, agency theory, and the pecking order theory. These theories are discussed in turn. Bankruptcy costs are the cost directly incurred when the perceived probability that the firm will default on financing is greater than zero. He further mentioned that the bankruptcy probability increases with debt level since it increases the fear that the company might not able to generate profits to pay back the interest and the loans. The potential costs are the legal and administrative costs in the bankruptcy process. Examples of indirect bankruptcy costs are the loss in profits included by the firm as a result of the unwillingness of stakeholders to do business with them. The use of debt in capital structure of the firm also leads to agency costs.

Agency costs arise as a result of the relationships between shareholder and managers and those between debt holder and shareholder. The need to balance gain and costs of debt financing emerged as a theory known as the static trade off theory by Myers. It value the company as the value of the firm if unlevered plus the present value of the tax shield minus the present value of bankruptcy and agency costs. In summary there is no universal theory of the debt equity choice. Different viewpoints have been put forward regarding the financial choice.

#### 2.6 Review of Thesis

Udas (2007) in the study "Capital Adequacy and its Significance to commercial Banks" has the following major objectives: To analyze the implementation status of the directives given by NRB; To evaluate capital adequacy of the commercial banks; To examine the efficiency and weakness of Capital Adequacy Ratio.

The study has analyzed that none of the banks (SCBL, NABL, NIBL, EBL, HBL, NICB, LBL, and KBL) have been able to meet the mandatory requirement of supplementary capital of 6% as per the NRB directives. On the other hand the entire above bank exceeds the mandatory requirement of core capital of 6% as per the present NRB directives. The supplementary capital of LBL and KBL are the least as compare to NIBL and EBL, whereas in terms of core capital they are just the opposite. On, the overall capital adequacy ratio the above findings revels that SCBNL, NABIL, EBL and NICBL have met the standards of NRB directives whereas NIBL, HBL, LBL and KBL have not met the standards.

The study has concluded that New directive of NRB are made with a view to protect the deposit of depositors, which also enhances the financial strength of the banks. Even then it has adverse effect in profitability of the banks but this decreasing profit will affect the banks in short term. This study also reveals that there is a significant impact of NRB directives of capital adequacy on the various aspects of the commercial banks and it also

helps in maintaining the stability of commercial banks in the financial market and to uplift the banking sector in Nepal to international standard.

Pradhan (2007) conducted the study "A study on capital Structure of Manufacturing Sectors and Hotels". The main objectives of this study were; To analyze the relationship between Capital structure and the value of the firm; To identify the Capital structure decision for BNL, ULNL, YYH and SH; To access the trend of change in Capital structure of BNL, ULNL, YYH and SH; To describe Capital structure, financial leverage and other relevant variables of the BNL, ULNL, YYH and SH; To know about the relationship between long-term debt and equity capital.

The study was conducted by analyzing the effect of financial leverage on return and risk and also picks out the relationship between Capital structure and related variables. From the analysis of different respondents view, it is drawn the conclusion that debt ratio and capital structure has positive relation. From the analysis of different questioner filled by the respondents, it is found that current political situation affect the profitability ratio of service sector than that of Mfg. sector. The political situation and profitability ratio of service ratio has positive relation. This means favorable political situation helps to increase the profit of the service sector and vice-versa.

This study concluded that all the four companies are using equity as well as debt capital in their capital structure. However the total debt amount is increasing for ULNL while it is decreasing for BNL. From the leverage analysis ULNL and Y have higher percentage of debt equity ratio. BNL has 72.76% of the assets finance by equity but ULNL has only 41.04% BNL and SH hotel use more than 50% equity capital of their assets whereas other sample companies use less than 50% equity capital.

Subedi (2008) made the study "NRB Unified Directives on Capital Adequacy Norms and its impact" with the followingmain objectives: To analyze the significance and impact of NRB Capital Adequacy Norms on NIC Bank; To examine the Capital Adequacy of NIC Bank; To examine the relation of Capital Fund to the other stakes of the bank; To analyze the steps taken by NIC Bank to fulfill the requirements as per these Norms;

This study has analyzed that the Capital adequacy Ratio of the bank is in decreasing trend. It is obvious, as transaction of the bank increases; the Risk Weighted Assets also increases in the same manner. But this creates bank difficulty to maintain capital fund as required by the NRB as capital do not increases often and the performance of the bank (i.e. earning of the profit) has major role to comply with the NRB requirements. The study further analyzed that NIC Bank has been performing well enough to comply with the requirements without failure at any point of time. The Capital Adequacy ratio of the Bank is 12.20 on 16July 2007 showed the satisfactory position of Bank's capital fund.

The study concluded that Commercial banks of Nepal are bound by the NRB directives and are currently bound by Unified Directives issued for all financial institutions. The directive no 1 has set norms on capital adequacy for commercial banks. Every commercial bank has to meet the requirements of capital adequacy as stated by directive. Capital adequacy is the portion of capital fund with regards to risk weighted assets that a commercial bank holds. Capital adequacy is required to safeguard the money of the depositors as the banks are playing with the money they collected from the depositors.

Malik (2009) made a study "Capital Structure Management in Nepal' (A case study on NABIL, NIBL, NEA, NTC & HGICL) with the following objectives: To show the trend of composition of assets and capital structure; To analyze the return on equity and assets; To analyze the value of the firm; To analyze the aggregate liability bearing capacity of the selected organizations; To analyze the relationship between liability and assets of the selected organizations; To analyze the profitability of the selected organizations.

This study made an analysis that NIBL has lower capital to other liability ratio which indicated NIBL is mobilizing excessive deposit than its capital or deposit is in significantly higher side.

Similarly NEA is using more or less unvarying gearing or NEA is also depending other collected liabilities than owner' capital. Trend of HGICL is seems more fluctuating because it has shown down trend. In the past HGICL is mobilizing owner's capital only but after the period of 2006 HCICL is mobilizing other capital significantly. Similarly Ratio of NTC is mobilizing owner's capital significantly or NTC has it' own un-mobilized capital so NTC is not depended on other liabilities. Comparatively, capital to other liability ratio of NIBL and NABIL is lowest, ratio of NEA is lower, HGICL has higher ratio and ratio of NTC is in highest position.

This study made a conclusion that NTC is the organization having own sufficient fund, HGICL has moderate level of own fund, NEA has poor in the concern of self-fund and NIBL and NABIL are poorest in the concern. Comparatively, NBIL and NABIL are massively investing in risky asset than other organization; HGICL is also deploying the capital on risky asset which is also aggressive investment. Similarly NEA is trying to invest on risky asset as the capital of the organization. NTC is either increasing the capital or reducing the volume of investment on risky asset so the ratio is higher than 100%.

### **CHAPTER 3**

# **RESEARCH METHODOLOGY**

Research Methodology can be understood as a science of studying how study has been done. This chapter looks into the Research Design, Nature and Sources of Data, Data Collection Procedure and Tools and Technique of Analysis. For the purpose of achieving the objectives of the study, the applied methodologies are used. The research Methodology used in the present study is briefly mentioned below.

### 3.1 Research Design

This study attempts to analyze the Capital Funds of commercial banks taking the data and information of Nepal Bank Limited and NABIL Bank Limited. The research design is basically focused on analytical study. Ratio Analysis, Correlation Analysis and Comparative Analysis of the ratios have been done for analyzing the study. The study examines the relationship of Capital Fund to various other stakes, like Deposits, Credits, etc.

### **3.2 Population and Sample**

There are total 26 commercial banks presently operating in Nepal. Collecting the data of these entire commercial banks is not possible. Hence, Nepal Bank Limited and NABIL Bank Limited have been selected for the case study. Thus, the population of the study comprises of all these commercial banks and the sample of selected banks. Also, through the research questionnaire, various responds of the respondents have been considered as sample for the study.

#### **3.3 Data Collection Procedure**

The data and information are collected from both the primary and secondary sources. For the primary information, research interview and questionnaire are used. For the collection of secondary data and information, Unified Directives of Nepal Rastra Bank, Annual Reports of selected banks, various publications of Nepal Rastra Bank, magazines, the other publications and the internet (website: www.nrb.org.np) have been used. Also, for other related information, various books and periodicals have been referred from library.

### **3.4 Data Analysis Tools**

Before analyzing the data, the data and information have been presented systematically in the formats of Tables, Graphs and Charts which will explain a lot about the data and information collected. For the analysis of the study, the following financials tools and statistical tools are used.

### **3.4.1 Financial Tools**

### 3.4.1.1 Ratio Analysis

Ratio Analysis is one of the best tools for financial analysis. Ratios can be taken as expression of relationships between two items or group of items and therefore may be calculated in any number and ways so far meaningful co-relationship is obtainable. In general, the Ratio Analysis is used as a benchmark for evaluating the financial position and performance of a firm.

The following ratios related to the banks are used to analyze the data:

### (a) Capital Adequacy Ratio

Capital Adequacy Ratio is the foremost tool to analyze the Capital Fund of a bank. Actually, the fundamental objective of this study is to examine Capital Adequacy of Nepal Bank Limited and NABIL Bank Limited. The Capital Adequacy Ratio is based on Total Risk-Weighted Assets (TRWA) of the bank. Capital Adequacy Ratios are a measure of the amount of a bank's capital expressed as a percentage of its risk weighted credit exposures. This ratio is used to examine adequacy of Total Capital Fund and Core Capital, which is yielded by the following formulas:

To measure the adequacy of Total Capital Fund:

Total Capital Fund  $\times$  100%

### TRWA

To measure the adequacy of Core Capital:

Core Capital × 100%

### TRWA

### (b) Capital to Deposit Ratio:

The Capital to Deposit Ratio is an important tool in measuring capital adequacy of banks. But this ratio cannot reflect the capital adequacy of a bank. It is agreed by many researchers that the Capital to Deposit Ratio has enjoyed the longest use of any ratio devised to measure and determine capital adequacy.

The Capital to Deposit Ratio is derived by the following formula:

Total Capital Fund  $\times$  100%

Total Deposit collected

### (c) Credit / Deposit Ratio:

The Credit / Deposit Ratio (CD Ratio) is a major tool to examine the liquidity of a bank. CD Ratio measures the ratio of fund that a bank has utilized in credit out of the total deposit collected. More the CD Ratio more the effectiveness of the bank to utilize the fund it collected.

The CD Ratio is derived by the following formula:

Total Credit  $\times$  100%

Total Deposit collected

Further, comparative analysis of the ratios of the bank with average industry ratios were also made to check the significance of the ratios of the bank in the industry as a whole.

### **3.4.2 Statistical Tools**

The following statistical tool is used to analyze the data:

### (a) Karl Pearson Correlation Analysis:

The relation between two variables is correlated by Karl Pearson's Correlation Coefficient.

The following is the formula proposed by Karl Pearson for calculation of Correlation coefficient.

$$\mathbf{r} = \frac{N \ XY-(\ X) \ (\ Y)}{[N \ X^2-(\ X)^2] \ [N \ Y^2-(\ Y)^2]}$$

Where,

N = Number of pairs in observation

X = Product of the first variable

 $\mathbf{Y} = \mathbf{Product}$  of the second variable

To ease the calculation, a shortcut formula has been proposed which has been used to calculate correlation coefficients in this thesis report. The shortcut formula is as follows:

$$= xy = xy = x2 \cdot y2$$

r

Where,

 $x = (X - \overline{X})$ 

 $y = (Y - \overline{Y})$ 

### b) Multiple Correlation Co-efficient:

Many independent variables do affect the dependent variable and the study on degree of relationship between a single dependent variable and a number of independent variables ratios depends upon the total capital fund and total risk weighted exposures. If we measure the association between capital adequacy ratio on one side and all other factors affecting the CAR taken together on the other side, then we are using multiple correlation analysis. Such a relationship is measured by multiple correlation coefficients, which is denoted by  $R_{1.23}$ ....n. The subscript left to the dot is the dependent variable and to right is the independent variables. Let us consider three variables say Capital Adequacy Ratio  $X_1$ , Total Capital Fund  $X_2$  and Total Risk Weighted Exposures  $X_3$  then,

 $R_{1.23}$ = correlation coefficient between dependent variable CAR  $X_1$  and joint effect of the independent variables Total Capital Fund  $X_2$  and Total Risk Weighted Exposures  $X_3$  on Capital Adequacy Ratio  $X_1$ .

$$\mathbf{R}_{1.23} = \mathbf{r}_{12}^2 + \mathbf{r}_{13}^2 - 2\mathbf{r}_{12}\mathbf{r}_{23}\mathbf{r}_{13}$$

Where,

$$r_{12} = \frac{x_1 y_2}{x_1^2 \cdot y_2^2}$$

$$r_{23} = \frac{x_2 y_3}{x_2^2 \cdot y_3^2}$$

$$r_{13} = \frac{x_1 y_3}{x_1^2 \cdot y_3^2}$$

$$x_1^2$$
.  $y_3^2$ 

### **CHAPTER 4**

### PRESENTATION AND ANALYSIS OF DATA

This chapter deals with the presentation, analysis and interpretation of relevant data and information of Banks under study. Also, the analysis and interpretation of the information and data produced from questionnaire is also contained in this chapter. To obtain the best result, the data and information have been analyzed according to the study methodology as mentioned in Chapter 3. The main purpose of analyzing the data is to change it from an unprocessed form to an understandable presentation. The analysis of data consists of organizing, tabulating and performing statistical analysis.

This chapter is partitioned into the sections of:

- (1) Presentation of Data
- (2) Ratio Analysis
- (3) Statistical Analysis
- (4) Comparative Analysis of Significance of the Ratios of the bank with that of the Industry Average
- (5) Impact of Capital Adequacy Norms
- (6) Study of knowledge of banks officials on capital adequacy

#### 4.1 Presentation of Data

The collected data and information are presented. Various tables, charts and graphs are used to best present the data. The data and information has been presented in most understandable format.

**4.1.1 Capital Fund** Capital Fund of a bank consists of two types of components viz. Core and Supplementary Capital. Hence, the Total Capital Fund of a bank is derived by adding these two components of capital. The Capital Fund of selected banks has been illustrated hereinafter.

### 4.1.1.1 Capital Fund of selected banks

The capital funds of selected banks have been tabulated in table 4.1 which shows the capital fund of the bank over the following period.

### Table: 4.1 Amount in NPR

Capital Fund of selected Banks over the study period								
Fiscal Years								
Banks/Capital	2007 2008 2009 2010							
Nepal Bank Limited			J					
a.Core Capital	(6,334,738,883)	(6,325,869,045)	(5,061,437,000)	(4,867,051,000)	(4,752,653,000)			
b.Supplementary Capital	905,453,784	710,526,707	-	579,550,000	653,631,000			
Total Capital (a+b)	(5,429,285,099)	(5,615,342,338)	(5,061,437,000)	(4,867,051,000)	(4,752,653,000)			
Nabil Bank Limited								
a.Core Capital	1,992,849,715	2,363,598,989	3,044,340,637	3,667,854,525	4,318,697,617			
b.Supplementary Capital	314,782,680	635,131,175	682,742,150	722,374,082	854,701,575			
Total Capital (a+b)	2,307,632,395	2,998,730,164	3,727,082,787	4,390,228,607	5,173,399,192			

In 2011 Total Capital Fund of Nepal Bank Limited is Rs (4,752.653.000) which is negative figure and shown that there is need of huge capital to safe the depositor's deposit. If the bank goes to dissolve, the deposit of depositor are collapsed because of there is insufficient capital in bank to repay the deposit. But in Nabil Bank Limited, the Capital Fund consisted core capital of Rs1,992,849,715 and supplementary capital of Rs314,782,680 totaling Rs2,307,632,395 at the

end of fiscal year 2007. The Capital Fund have been increased to Rs4,318,697,617 of core capital and Rs854,701,575 of supplementary capital totaling Rs5,173,399,192 at the end of fiscal year 2011 which shows there is sufficient capital in its account required by NRB directives.

#### Table 4.2

Nepal Bank Limited						
Year	Core Capital	Index	Supplementary Capital	Index		
2007	(6,334,738,883)	-	905,453,784	-		
2008	(6,325,869,045)	99.86%	710,526,707	78.47%		
2009	(5,061,437,000)	79.9%	-	-		
2010	(4,867,051,000)	76.83%	579,550,000	64%		
2011	(4,752,653,000)	75.02%	653,631,000	72.18%		
	<u> </u>	Nabil Bank Limited				
	1					
Year	Core Capital	Index	Supplementary Capital	Index		
2007	1,992,849,715	-	314,782,680	-		
2008	2,363,598,989	118.6%	635,131,175	201.76%		
2009	3,044,340,637	152.76%	682,742,150	216.9%		
2010	3,667,854,525	184.05%	722,374,082	229.48%		
2011	4,318,697,617	216.70%	854,701,575	271.52%		

#### **Capital Composition of NBL & NABIL:**

The Core Capital of NBL has decreasing from FY 2008 to 2011 from 99.86% to 75.02% and supplementary capital also decreases from 78.47% to 64% in FY 2008 to 2010 and then increase gradually to 72.18% which shows that in the study period, core capital of NBL is decreasing in negative i.e. it is improving its core capital but supplementary capital is fluctuating. If the bank can manage this ratio, the bank can take long period to remove the negative figure of the total capital whereas in NABIL the core capital is increasing from 118.6% to 216.70% in FY 2008 to 2011 and supplementary capital also increasing from 201.76% to 271.52% in FY 2008 to 2011 which shows the growing trend of the capital fund the bank during the study period. The trend shows that core capital and supplementary capital both are in increasing trend. As a result the capital is increase its capital base to comply with the requirements of NRB as prescribed in capital Adequacy Norms for commercial banks.

# Table 4.3

# Capital Structure of Nepal Bank Limited:

Particulars	2007	2008	2009	2010	2011
A.Core Capital (Tier1)	(6,334,738,883)	(6,325,869,045)	(5,061,437,000)	(4,867,051,000)	(4,752,653,000)
aPaid up equity share capital	380,382,600	80,382,600	380,383,000	380,383,000	380,383,000
	6%	1.27%	7.5%	7.815%	8%
	1,332,157,149	1,379,999,951	1,558,911,000	1,608,727,000	1,634,397,000
bGeneral Reserves	21.03%	21.8%	30.8%	33.05%	34.39%
cRetained Earnings	-	-	(8,023,441,000)	(7,252,355,000)	(7,190,814,000)
			158.52%	149%	151.3%
dCurrent Year Profit/Loss	(8,151,491,861)	(8,023,441,085)	660,414,000	-	-
	128.68%	126.83%	13.048%		
eCapital Redemption Reserves	152,153,040	190,191,300	-	-	-
	2.401%	3%			
fCapital Adjustment Reserves	-	-	228,230,000	266,268,000	304,306,000
			4.50%	5.47%	6.4%
gDividend Equalization Reserves	-	-	7,486,000	7,486,000	7,486,000
			0.148%	0.153%	0.157%
hDebenture Redemption Reserves	-	-	-	-	-
iDeferred Tax Reserves	-	-	259,736,000	259,736,000	259,736,000
			5.13%	5.33%	5.46%
jOther Free Reserves	13,548,875	13,548,875	6,063,000	6,063,000	6,063,000
	0.21%	0.214%	0.12%	0.124%	0.127%
kInvestment in excess of prescribed limit	(61,488,686)	(266,550,686)	-	-	-
	0.97%	4.2%			
lLess:Investment in equity of institutions in excess of	-	-	(139,159,000)	(143,359,000)	(154,210,000)
limits			2.75%	2.94%	3.24%
B.Supplementary Capital (Tier2)	905,453,784	710,526,707	-	579,550,000	653,631,000
aLoan Loss Provision on Pass Loans	868,575,830	578,366,581	-	-	-
	95.92%	81.4%			
bExchange Equalization Reserve	25,734,454	51,016,626	-	67,968,000	67,968,000
	2.84%	7.18%		11.72%	10.4%
cProvision for loss on investment	11,143,500	81,143,500	-	-	-
	1.23%	11.42			
dGeneral loan Loss provision	-	-	-	598,796,000	585,526,000
				87.8%	89.58%
eInvestment Adjustment Reserves	-	-	-	2,786,000	137,000
				0.48%	0.02%
C.Total Capital Fund (A+B)	(5,429,285,099)	(5,615,342,338)	(5,061,437,000)	(4,867,051,000)	(4,752,653,000)

# Table 4.4

# Capital Structure of Nabil Bank Limited:

Particulars	2007	2008	2009	2010	2011
A.Core Capital (Tier1)	1,992,849,715	2,363,598,989	3,044,340,637	3,667,854,525	4,318,697,617
aPaid up Equity Share Capital	491,654,400	689,216,000	965,747,000	1,449,124,000	2,029,769,400
	24.67%	29.16%	31,72%	39.5%	47%
bShare Premium	74,000	74,000	74,000	74,000	74,000
	3.7×10 <sup>-3</sup> %	3.13×10 <sup>-3</sup> %	2.4×10 <sup>-3</sup> %	2×10 <sup>-3</sup> %	1.71×10 <sup>-3</sup> %
cProposed Bonus Shares	196,661,760	275,686,400	482,873,500	579,649,600	-
	9.86%	11.66%	15.86%	15.80%	
dGeneral Reserves	983,500,000	1,133,500,000	1,340,500,000	1,568,500,000	1,836,500,000
	49.35%	47.95%	44%	42.76%	42.52%
eRetained Earnings	-	-	57,195,097	2,534,825	493,393,905
			1.878%	0.07%	11.4%
fCurrent Year Profit/Loss	113,381,555	162,544,489	-	-	-
	5.69%	6.877%			
gCapital Redemption Reserves	-	-	-	-	-
hCapital Adjustment Reserves	105,000,000	-	-	-	-
	5.26%				
iDividend Equalization Reserves	100,000,000	100,000,000	100,000,000	100,000,000	-
	5.012%	4.23%	3.2%	2.72%	
jDebenture Redemption Reserves	-	-	-	-	-
kDeferred Tax Reserve	-	-	95,373,040	35,394,100	34,382,312
			3.13%	0.96%	0.8%
lOther Free Reserves	2,578,000	2,578,000	2,578,000	2,578,000	2,578,000
	0.13%	0.11%	0.08%	0.07%	0.06%
mLess: Investment in equity of institutions having financial	-	-	-	(70,000,000)	(78,000,000)
interests				1.9%	1.8%
B.Supplementary Capital (Tier2)	314,782,680	635,131,175	682,742,150	722,374,082	854,701,575
aCumulative and/or Redeemable Preference Share	-	-	-	-	-
bSubordinated Term Debt	-	240.000.000	300.000.000	300.000.000	300.000.000
		37.78%	43.94%	41.53%	35.1%
cHybrid Capital Instruments	-	-	-	-	-
· · · · · · · · · · · · · · · · · · ·					
dGeneral Loan Loss Provision	175,502,575	291,714,142	296,842,150	325,474,082	384,882,171
	55.75%	45.92%	43.47%	45.05%	45.03%
eExchange Equalization Reserves	55,700,000	64,100,000	75,400,000	81,400,000	97,500,000
	17.7%	10.09%	11.04%	11.26%	11.40%
fInvestments Adjustment Reserves	-	-	-	4,000,000	59,819,404
				0.55%	7%
gProvision for Loss on Invectment	10,998,105	26,790,780	-	-	-
	3.5%	4.218%			
hAdditional Loan Loss Provision	64,082,000	3,026,253	-	-	-
	20.35%	0.47%			
iOther Reserves	8,500,000	9,500,000	10,500,000	11,500,000	12,500,000
	2.7%	1.5%	1.53%	1.6%	1.46%
C.Total Capital Fund (A+B)	2,307,632,395	2,998,730,164	3,727,082,787	4,390,228,607	5,173,399,192

The following figure has shown real situation and trend about the combination of core capital, supplementary capital and total capital during the study periods and we can analyze the figure.

### Figure: 4.1



### **Capital Fund of Nepal Bank Limited**

In the study period, core capital of NBL is decreasing in negative i.e. it is improving its core capital but supplementary capital is fluctuating. During the fiscal year 2007 to2011 Nepal Bank Limited decreased its negative figure from Rs.-5,429,285,099 to Rs.-4,752,653,000. If the bank can manage this ratio, the bank can take long period to remove the negative figure of the total capital.

### Figure: 4.2



### **Capital Fund of NABIL Bank Limited**

The figure 4.2 shows the growing trend of the capital fund the bank during the study period. The trend shows that core capital and supplementary capital both are in increasing trend. As a result the capital is increased in their average ratio.

The increment in the capital fund shows that NABIL bank has been trying to increase its capital base to comply with the requirements of NRB as prescribed in capital Adequacy Norms for commercial banks.

### 4.1.2 Total Risk Weighted Assets and Exposures

Total risk weighted exposures is the summation of credit risk, operational risk, and market risk. And the credit risk is the sum of on-balance sheet items and off-balance sheet items. Credit risk, operational risk, and market risk are calculated by multiplying risk percentage under their risk nature followed by prescribed weight. Credit risk calls the Risk weighted Assets and previous year's capital adequacy ratio depends on only Credit risk i.e. RWA.The Risk- Weighted Assets and Exposures of Study banks have been illustrated in table 4.2. The table shows Risk-Weighted Assets and Exposures both of the banks over the study period i.e. since fiscal year 2007 to 2011.

### **Table: 4.5**

Risk-Weighted Exposures of selected Banks over the period								
			Fiscal Years					
	2007	2008	2009	2010	2011			
Nepal Bank Limited								
A.RWE for Credit Risk	19,511,273,179	22,957,432,077	32,136,319,000	39,824,157,000	42,545,894,000			
B.RWE for Operational Risk			2,908,338,000	2,606,640,000	3,029,830,000			
C.RWE for Market risk			1,261,094,000	1,295,450,000	1,266,350,000			
Total Risk Weighted Exposures(A+B+C)	19,511,273,179	22,957,432,077	36,305,751,000	43,726,247,000	46,842,074,000			
		]						
NABIL Bank Limited								
A.RWE for Credit Risk	19,166,766,033	27,010,564,315	32,500,502,288	39,016,206,023	44,468,804,901			
B.RWE for Operational Risk			2,264,233,871	2,706,731,407	3,383,194,495			
C.RWE for Market risk			51,764,691	99,722,645	74,441,277			
Adjustment under Pillar-II								
Add:2% of the total RWE due to noncompliance to					958,528,813			
requirement								
Total Risk Weighted Exposures(A+B+C)	19,166,766,033	27,010,564,315	34,816,500,849	41,822,660,075	48,884,969,486			

The TRWA as well as TRWE of NBL and NABIL have been increasing gradually in the study period. The increasing of TRWA/TRWE indicates that there is more need of Total Capital Fund to maintain the required capital adequacy ratio. Also it indicates that either book value of risks (credit, operation, and market) increased or the multiplying factor risk weight is decreased i.e. more risked assets changed to less risked assets.

### Table 4.6

### Total Risk Weighted Assets/Exposures of NBL & NABIL:

Nepal Bank Limited					
A.Credit Risk					
Fiscal Years	2007	2008	2009	2010	2011
a.On-Balance Sheet Assets	19,031,280,703	22,274,475,330	30,702,112,000	37,400,283,000	41,010,811,000
b.Off-Balance Sheet Items	479,992,476	682,956,747	1,434,207,000	2,423,874,000	1,535,083,000
Total Risk Weighted Assets (a+b)	19,511,273,179	22,957,432,077	32,136,319,000	39,824,157,000	42,545,894,000
B.Operational Risk					
Fiscal Years	2007	2008	2009	2010	2011
Operational Risk	-	-	2,908,338,000	2,606,640,000	3,029,830,000
C.Market Risk					
Fiscal Years	2007	2008	2009	2010	2011
Market Risk	-	-	1,261,094,000	1,295,450,000	1,266,350,000
Nabil Bank Limited					
A.Credit Risk					
Fiscal Years	2007	2008	2009	2010	2011
a.On-Balance Sheet Assets	16,946,257,093	23,724,198,289	28,640,719,606	34,649,694,278	39,812,139,826
b.Off-Balance Sheet Assets	2,220,508,940	3,286,366,026	3,859,782,682	4,366,511,745	4,656,665,075
Total Risk Weighted Assets (a+b)	19,166,766,033	27,010,564,315	32,500,502,288	39,016,206,023	44,468,804,901
B.Operational Risk					
Fiscal Years	2007	2008	2009	2010	2011
Operational Risk	-	-	2,264,233,871	2,706,731,407	3,383,194,495
Fiscal Years	2007	2008	2009	2010	2011
Market Risk	-	-	51,764,691	99,722,645	74,441,277

Here in NBL ,the credit risk has consisting of on-balance sheet assets and off-balance sheet items and in on-balance sheet assets it is increasing from Rs19,031,280,703 to Rs41,010,811,000 in FY 2007 to 2011 as well as in off-balance sheet it is also increasing from Rs479,992,476 to Rs1,535,083,000 in FY 2007 to 2011. In FY 2007 and 2008 there is no operational and market risk which shows the increasing trend of TRWA/TRWE in during period from fiscal year2007 to 2011. Increasing of TRWE needs more Total Capital Fund to maintain Capital Adequacy Ratio prescribed by Capital Adequacy Framework of NRB. This can minimize the risk of depositors
and creditors fund whereas in Nabil Bank Limited, the credit risk has consisting of on-balance sheet assets and off-balance sheet items and in on-balance sheet assets it is increasing from Rs16,946,257,093 to Rs39,812,139,826 in FY 2007 to 2011 as well as in off-balance sheet it is also increasing from Rs2,220,508,940 to Rs4,656,665,075 in FY 2007 to 2011. In FY 2007 and 2008 there is no operational and market risk which shows the increasing trend of TRWA/TRWE during period from fiscal year 2007 to 2011. In this period, the table show that the gradually development of depositors and creditors fund. Increasing of TRWE needs more Total Capital Fund to maintain Capital Adequacy Ratio described by Capital Adequacy Framework of NRB. This can minimize the risk of depositors and creditors fund.

#### Table 4.7

			Nepal Bank Limite	d		
Year	Credit Risk	Index	Operational Risk	Index	Market Risk	Index
2007	19,511,273,179	-	-	-	-	-
2008	22,957,432,077	117.662%	-	-	-	-
2009	32,136,319,000	164.7%	2,908,338,000	-	1,261,094,000	-
2010	39,824,157,000	204.1%	2,606,640,000	89.62%	1,295,450,000	102.72%
2011	42,545,894,000	218.05%	3,029,830,000	104.17%	1,266,350,000	100.41%
			Nabil Bank Limite	d		
Year	Credit Risk	Index	Nabil Bank Limite Operational Risk	d Index	Market Risk	Index
Year 2007	Credit Risk 19,166,766,033	Index -	Nabil Bank Limite           Operational Risk           -	d Index -	Market Risk	Index -
Year 2007 2008	Credit Risk 19,166,766,033 27,010,564,315	Index - 140.92%	Nabil Bank Limite Operational Risk	d Index	Market Risk	Index - -
Year 2007 2008 2009	Credit Risk 19,166,766,033 27,010,564,315 32,500,502,288	Index - 140.92% 169.56%	Nabil Bank Limite           Operational Risk           -           -           2,264,233,871	d Index	Market Risk - - 51,764,691	Index - - -
Year 2007 2008 2009 2010	Credit Risk 19,166,766,033 27,010,564,315 32,500,502,288 39,016,206,023	Index - 140.92% 169.56% 203.56%	Nabil Bank Limite           Operational Risk           -           2,264,233,871           2,706,731,407	d Index 119.54%	Market Risk - - 51,764,691 99,722,645	Index - - - 192.64%

#### **Total Risk Weighted Exposures Composition of NBL & NABIL:**

In NBL, credit risk has increasing from 117.662% to 218.05% in FY 2008 to 2011. As well as operational risk has also increases from 89.62% to 104.17% in FY 2010 to 2011 but market risk has decreasing from 102.72% to 100.41% in FY 20010 to 2011 whereas in NABIL, credit risk has increasing from 140.92% to 232% in FY 2008 to 2011. As well as operational risk also increases from 119.54% to 149.41% in FY 2010 to 2011 but market risk has decreasing from 192.64% to 143.80% in FY 20010 to 2011 which shows The TRWA as well as TRWE of NBL

and NABIL have been increasing gradually in the study period. The increasing of TRWA/TRWE indicates that there is more need of Total Capital Fund to maintain the required capital adequacy ratio. Also it indicates that either book value of risks (credit, operation, and market) increased or the multiplying factor risk weight is decreased i.e. more risked assets changed to less risked assets.

The following figure has shown the actual figure of Risk Weighted Exposures of selected banks separately during the study period. It makes easy to analyze and predict the real situation.

#### Figure: 4.3



#### **Total Risk Weighted Exposures of Nepal Bank Limited**

The figure 4.3 shows the increasing trend of TRWA/TRWE in during period from fiscal year2007 to 2011. The total risk weighted exposures of NBL has reached from Rs.19, 511,273,179 to Rs.46, 842,074,000 since 2007 to 2011. Increasing of TRWE needs more Total Capital Fund to maintain Capital Adequacy Ratio prescribed by Capital Adequacy Framework of NRB. This can minimize the risk of depositors and creditors fund.

Figure: 4.4



**Total Risk Weighted Exposures of Nabil Bank Limited** 

The figure 4.4 shows the increasing trend of TRWA/TRWE during period from fiscal year 2007 to 2011. The total risk weighted exposures of NABIL Bank has reached from Rs.19, 166, 766,033 to Rs.48, 884,969,486 from 2007 to2011. In this period, the figure and table show that the gradually development of depositors and creditors and creditors fund. Increasing of TRWE needs more Total Capital Fund to maintain Capital Adequacy Ratio described by Capital Adequacy Framework of NRB. This can minimize the risk of depositors and creditors fund.

#### 4.2 Ratio Analysis

The following ratios are used to evaluate the financial of study banks in regard of the capital adequacy and capital fund.

## 4.2.1 Capital Adequacy Ratio of selected banks

Capital Adequacy Ratio shows the strength of a bank. The calculated Capital Adequacy Ratio is shown in the Table 4.8 from the fiscal year 2007 to 2011.

Table	<b>4.8</b>
-------	------------

Capital adequacy Ratio of selected Banks over the study period						
Year	2007	2008	2009	2010	2011	
Nepal Bank Limited	Nepal Bank Limited					
Tier 1 capital to Total Risk Weighted	-32.46%	-27.55%	-13.94%	-11.13%	-10.15%	
Exposures						
Tier 1 and Tier 2 capital to Total Risk	-27.83%	-24.46%	-13.94%	-11.13%	-10.15%	
Weighted Exposures						
NABIL Bank Limited						
Tier 1 capital to Total Risk Weighted	10.40%	8.75%	8.74%	8.77%	8.83%	
Exposures						
Tier 1 and Tier 2 capital to Total Risk	12.04%	11.10%	10.70%	10.50%	10.58%	
Weighted Exposures						

The Capital Adequacy Ratios shown that the bank has been able to comply with the requirements of NRB consistently. The minimum requirements of NRB were as follows.

For FY 2063/64: Core Capital5.50% and Total 11% of TRWA

For FY 2064/65: Core Capital5.50% and Total 11% of TRWA

For FY 2065/66: Core Capital 6% and Total 10% of TRWE

For FY 2066/67: Core Capital 6% and Total 10% of TRWE

For FY 2067/68: Core Capital 6% and Total 10% of TRWE

Nepal Rastra Bank revised the rate of capital adequacy time to time. For FY 2063/64 and FY 064/65, it was 11% of Total Risk Weighted Assets. But from 2065 Ashwin, it has applied Basel II principle, and need 10% Capital Adequacy Ratio on Total Risk Weighted Exposures. Total Capital Ratio declined by 1% but core capital ratio increased by. 5%. It shows, core capital is

more important than supplementary capital. The latest policy needs core capital rather than supplementary because to keep sound financial transactions by making promoter responsible.

## 4.2.1.1 Calculation of CAR of NBL & NABIL:

## (i) Calculation of Capital Adequacy Ratio of NBL:

The Capital Adequacy Ratios shown that the bank has been able to comply with the requirements of NRB consistently. The minimum requirements of NRB were as follows.

For FY 2063/64: Core Capital5.50% and Total 11% of TRWA

For FY 2064/65: Core Capital5.50% and Total 11% of TRWA

For FY 2065/66: Core Capital 6% and Total 10% of TRWE

For FY 2066/67: Core Capital 6% and Total 10% of TRWE

For FY 2067/68: Core Capital 6% and Total 10% of TRWE

## Table 4.9

Fiscal Year	Total Capital Fund	Core Capital	Total Risk Weighted Assets/Exposures
			(TRWA/TRWE)
2007	(5,429,285,099)	(6,334,738,883)	19,511,273,179
2008	(5,615,342,338)	(6,325,869,045)	22,957,432,077
2009	(5,061,437,000)	(5,061,437,000)	36,305,751,000
2010	(4,867,051,000)	(4,867,051,000)	43,726,247,000
2011	(4,752,653,000)	(4,752,653,000)	46,842,074,000

## Total Capital Fund, Core Capital and TRWA/TRWE of NBL:

We have,

For 2007/2008:

Ratio of Total Capital Fund as: Total Capital Fund  $\times$  100%

## TRWA

Ratio of Core Capital as: Core Capital  $\times$  100%

## TRWA

Where, TRWA= Total Risk Weighted Assets

For 2009/2010/2011:

Ratio of Total Capital Fund as: Total Capital Fund  $\,\times\,100\%$ 

## TRWE

Ratio of Core Capital as: Core Capital  $\times$  100%

TRWE

Where, TRWE= Total Risk Weighted Exposure

By using above formulas we get the ratios as:

### **Table 4.10**

## **Capital Adequacy Ratio of NBL:**

Fiscal Year	Total Capital Fund	Core Capital
2007	-27.83%	-32.46%
2008	-24.46%	-27.55%
2009	-13.94%	-13.94%
2010	-11.13%	-11.13%
2011	-10.15%	-10.15%

## (ii) Calculation of Capital Adequacy Ratio of NABIL:

The Capital Adequacy Ratios shown that the bank has been able to comply with the requirements of NRB consistently. The minimum requirements of NRB were as follows.

For FY 2063/64: Core Capital5.50% and Total 11% of TRWA

For FY 2064/65: Core Capital5.50% and Total 11% of TRWA

For FY 2065/66: Core Capital 6% and Total 10% of TRWE

For FY 2066/67: Core Capital 6% and Total 10% of TRWE

For FY 2067/68: Core Capital 6% and Total 10% of TRWE

## **Table 4.11**

## Total Capital Fund, Core Capital and TRWA/TRWE of NABIL:

Fiscal Year	Total Capital Fund	Core Capital	Total Risk Weighted Assets /Exposures
			(TRWA/TRWE)
2007	2,307,632,395	1,992,849,715	19,166,766,033
2008	2,998,730,164	2,363,598,989	27,010,564,315
2009	3,727,082,787	3,044,340,637	34,816,500,849
2010	4,390,228,607	3,667,854,525	41,822,660,075
2011	5,173,399,192	4,318,697,617	48,884,969,486

We have,

For 2007/2008:

Ratio of Total Capital Fund as: Total Capital Fund  $\times$  100%

## TRWA

Ratio of Core Capital as: Core Capital  $\times$  100%

TRWA

Where, TRWA= Total Risk Weighted Assets

For 2009/2010/2011:

Ratio of Total Capital Fund as: <u>Total Capital Fund</u>  $\times$  100%

TRWE

Ratio of Core Capital as: Core Capital  $\times$  100%

TRWE

Where, TRWE= Total Risk Weighted Exposure

By using above formulas we get the ratios as:

## **Table 4.12**

## **Capital Adequacy Ratio of NABIL:**

Fiscal Year	Total Capital Fund	Core Capital
2007	12.04%	10.40%
2008	11.10%	8.75%
2009	10.70%	8.74%
2010	10.50%	8.77%
2011	10.58%	8.83%

## Figure: 4.5

## **Capital Adequacy Ratio of Nepal Bank Limited**



The figure 4.5 displays the decreasing trend of the Capital Adequacy Ratios of NBL in negative figure which shows that Nepal Banks Limited has been improving its negative figure of capital adequacy ratio. Due to the negative figure of core capital, the capital adequacy ratio is in negative figure. While the Tier 1 capital of a bank is negative, the Tier 2 capital for regulatory purpose shall be considered as zero and hence the capital fund, in such cases shall be equal to the core capital.

Therefore, in this figure the Tire 1 capital to TRWE is equal to Tire 1 and 2 capitals to TRWE. After the study of this data and minimum capital requirement, the bank has to increase its core capital to maintain minimum capital requirement.

## Figure: 4.6

## **Capital Adequacy Ratio of Nabil Bank Limited**



The figure 4.6 displays the trend of the Capital Adequacy Ratios of NABIL Bank Limited which has been maintaining the minimum capital requirement.

This shows the competency of bank is to maintain the capital adequacy ratio direct by authorized body. The bank is very successful to maintain the capital adequacy ratio because there is nominal gap between bank's actual capital adequacy ratio and required capital adequacy ratio. It explains the good combination of total capital fund and total risk weighted exposures. The banks' depositors and creditors safe either capital fund is high or risk exposure is low. Therefore, the portfolio of capital fund and risk weighted exposures is considerable to maintain the capital adequacy ratio.

## 4.3 Statistical Analysis

Statistical Analysis is carried out for better understanding of the collected data and information. The result of the statistical analysis is enumerated in the following section.

## **4.3.1 Correlation Coefficient**

Correlation may be defined as the degree of linear relationship existing between two or more variables. Two variables are said to be correlated when changes in the value of one variable is accompanied by the change of another variable. For example, changes in the ratio of Capital

Adequacy is associated with the change in Total Capital Fund and Total Risk Weighted Exposure. The correlation like regression shows the degree and direction of relationship between the variables but, unlike regression, it does not show the cause and effect relationship.

#### **Table: 4.13**

Correlation between	Values		
	NBL	NABIL	
CAR and Total Capital (r <sub>12</sub> )	0.937471813	-0.871394752	
CAR and TRWE(r <sub>13</sub> )	0.988361908	-0.890263248	
Total Capital and TRWE(r <sub>23</sub> )	0.960707429	0.999081535	
R <sub>1.23</sub>	0.989315672	0.984899773	
R <sup>2</sup> <sub>1.23</sub>	0.978745498	0.970027564	

### **Correlation Co-efficient**

The calculated correlation co-efficient of Nepal Bank Limited between CAR and total Capital Fund is .94, CAR and TRWE is approximately 1, and Total Capital and TRWE is .960. These relation shows that the relationship between the given variables. This relationship between calculated variable is perfect i.e. CAR increased due to the increasing total capital, and also TRWE and so on.

The correlation coefficient between CAR and Total Capital is -.871, and CAR and TRWE is -.890 for NABIL Bank. But correlation coefficient between Total Capital and TRWE is

approximately 1 i.e. it is perfect. It can say that Capital Adequacy Ratio changed that due to the change of both Total capital fund and total risk weighted exposures. The relationship of Capital Adequacy Ratio between total capital and total risk weighted exposures high negative.

Here, the interpretation of correlation coefficient of given variables will be wrong because there are one dependent variable- capital adequacy ratio and two independent variables- total capital fund and total risk weighted exposures. Therefore, there is need of multiple correlation coefficients and its determination to predict their relationship.

Nepal Bank Limited:

Here, the determination of multiple correlation coefficients is .99. This tells us that 99% of total variation in capital adequacy  $X_1$  is due to the variable  $X_2$  and  $X_3$  and 1% is due to the other factor.

NABIL Bank Limited:

Here, the determination of multiple correlation coefficients is .97. This tells us that 97% of total variation in capital adequacy  $X_1$  is due to the variable  $X_2$  and  $X_3$  and 3% is due to the other factor.

## Figure: 4.7



## **Correlation Coefficient**

### 4.4 Risk Percentage and Correlation Coefficient of Credit Risk

The exactly meaning of capital adequacy is bank must have adequate capital to invest depositor's deposit as a loan. The standard of NRB is 10% of total risk weighted exposures and Basel Standard is 8% of total risk weighted exposures. That is if the bank wants to invest one hundred rupees in riskier investment there must be at least ten rupees of own money, remaining can be the depositors deposit or creditors loan or both.

The ratio of TRWE of Credit Risk and its Book Value represents the average risk of credit which indicates that how many risk in banking.. The commerce philosophy "More risks, more gains and no risks on gains" apply for lending deposit of bank's investment. But more risks need more capital under the capital adequacy framework. NRB says that, if bank wants to invest in riskier assets bank should have to maintain 6% core capital.

And also the correlation coefficient of Book Value of Credit Risk and its TRWE said that the relationship between these two variable. For Nepal Bank Limited, it has approximately 1 i.e. perfect correlation, for NABIL it has also 1.

## 4.5 Analysis of Survey of Capital Adequacy of Banks under study

#### 4.5.1 Study of response of Officials of selected Banks

Regarding the impact of capital adequacy norms, a simple questionnaire was developed as shown in Appendix A total number of twelve officials of related study banks participated in the queries. The questionnaire revealed the opinions that bank officials held towards the capital fund and capital adequacy. All the officials unanimously agreed that the central bank should issue capital adequacy norms for commercial banks. All respondents answered that an adequate capital fund will always help to safeguard the interest of depositors.

However, in some questions, the officials found to be disagreeing. Out of twelve, seven respondents answered that the capital adequacy ratio prescribed by NRB is perfect while remaining answered that it is high. It seemed that officials are not quite satisfied with the prescribed capital adequacy ratio. Especially, the officials at Credit Department were unsatisfied

because the norms have straight relation with flow of credit as it contains the major portion of the risk weighted assets and as such, the quality of the credit makes great difference in capital adequacy norms. This has created as a yardstick to measure the efficiency of the officials involved in credit flowing but has also provided a sense of fear to work freely. All the respondents said that it is necessary to bring changes in capital adequacy norms from time to time. Seven respondents answered that the weightage on risk weighted assets prescribed by NRB are just OK while others said that it needs revision. Officials of the bank had unanimous thoughts that they can increase both components of capital subsequently to cope up with the NRB requirements.

#### 4.5.2 Study of Perception of Depositors on Commercial Banks

To study the perception of depositors a questionnaire was developed as shown in Appendix B total number of 50 depositors responded to the questionnaire. While responding to the why they deposit their money in a bank, 55.22% respondents answered that they deposit their money in a bank for security reason, 25.37% said that to earn interest, 8.96% deposits money to meet the official purpose. 4.48% were of the opinion that they deposit money in a bank for social status and 5.97% referred to other reasons. Out of the 50 respondents, 46.27% said that physical security arrangement of a bank is most important to make a depositor's money safe, 23.88% agreed that an adequate capital is required to make a depositor's money safe. 17.91% of the respondents opine that profitability of the bank is important whereas 11.94% referred to the status of the bank as most important. 41.79% respondents think that a bank should pay an attractive interest rate to attract more deposits, 17.91% urged to arrange proper security, 13.43% insist on to achieve a good profit. But only 16.42% advised to maintain adequate capital fund while the remaining 10.45% referred to other reasons that attract deposits to a bank.

### 4.6 Findings

The thesis has been concentrated on the capital and capital related items of NBL and NABIL. The findings of the study are as follows:

**Capital Fund:** In 2011 Total Capital Fund of Nepal Bank Limited is Rs (4,752.653.000) which is negative figure and shown that there is need of huge capital to safe the depositor's deposit. If

the bank goes to dissolve, the deposit of depositor are collapsed because of there is insufficient capital in bank to repay the deposit. But in Nabil Bank Limited, the Capital Fund consisted core capital of Rs1,992,849,715 and supplementary capital of Rs314,782,680 totaling Rs2,307,632,395 at the end of fiscal year 2007. The Capital Fund have been increased to Rs4,318,697,617 of core capital and Rs854,701,575 of supplementary capital totaling Rs5,173,399,192 at the end of fiscal year 2011 which shows there is sufficient capital in its account required by NRB directives.

**Total Risk Weighted Assets / Exposures:** The risk weighted assets / exposures are the most significant component to be considered while studying the capital adequacy norms. The NBL bank had TRWA/TRWE of Rs 19,511,273,179 during FY2007 which is increased to Rs 22,957,432,077, Rs 36,305,751,000, Rs 43,726,247,000, and Rs 46,842,074,000 in the succeeding years i.e. FY2008, FY2009, FY2010 and FY2011 whereas in NABIL bank had TRWA/TRWE of Rs 19,166,766,033 during FY2007 which is increased to Rs 27,010,564,315, Rs 34,816,500,849, Rs 41,822,660,075, and Rs 48,884,969,486 in the succeeding years i.e. FY2008, FY2010 and FY2011. Increasing of TRWE needs more Total Capital Fund to maintain Capital Adequacy Ratio prescribed by Capital Adequacy Framework of NRB. This can minimize the risk of depositors and creditors fund.

**Capital Adequacy:** It is found that the NBL bank had a capital adequacy ratio of -27.83%,-24.46% in FY2007 and FY2008 against the NRB requirement of Core Capital5.50% and Total 11% of TRWA.During FY2009 to FY2011 the bank had the ratio of -13.94%,-11.13% and -10.15% against the NRB requirement of Core Capital 6% and Total 10% of TRWE.Capital Adequacy Ratios of NBL in negative figure which shows that Nepal Banks Limited has been improving its negative figure of capital adequacy ratio. Due to the negative figure of core capital, the capital adequacy ratio is in negative figure. While the Tier 1 capital of a bank is negative, the Tier 2 capital for regulatory purpose shall be considered as zero and hence the capital fund, in such cases shall be equal to the core capital. Whereas NABIL bank had a capital adequacy of 12.04%, 11.10% in FY2007 and FY2008 against the NRB requirement of Core Capital5.50% and 10.58% against the NRB requirement of Core Capital 6% and Total 10% of TRWE. The trend of the Capital Adequacy Ratios of NABIL Bank Limited which has been maintaining the minimum capital requirement which shows the competency of bank is to maintain the capital

adequacy ratio direct by authorized body. The bank is very successful to maintain the capital adequacy ratio because there is nominal gap between bank's actual capital adequacy ratio and required capital adequacy ratio. It explains the good combination of total capital fund and total risk weighted exposures. The banks' depositors and creditors safe either capital fund is high or risk exposure is low. Therefore, the portfolio of capital fund and risk weighted exposures is considerable to maintain the capital adequacy ratio.

**Statistical Analysis:** The correlation coefficient of Book Value of Credit Risk and its TRWE said that the relationship between these two variable. For Nepal Bank Limited, it has approximately 1 i.e. perfect correlation, for NABIL it has also 1.

**Impact Analysis:** It is observed that both the bank has been complying with the requirement of the capital adequacy norms of NRB. The officials of both the bank feel that NRB, as a central bank, should set the capital adequacy norms. They all agree that these norms are required to safeguard the interest of depositors. The officials are not quite convinced with the prescribed ratios. Some of them say that the ratios are reasonable and some say that it is not perfect. However, the majority opine that these norms are acceptable

**Perception of Depositors:** It has been found that majority of the depositors deposit their money in a bank for security of their money. But they are not seemed to be aware of the capital fund of the commercial bank where they are depositing their money. Only 23.88% of the respondents are aware of the fact of the necessity of adequate capital to safeguard their money. Also majority of the respondents say that attractive interest is required to attract deposits to commercial banks. It has been studied that the depositors in Nepal are not aware of the fact of capital adequacy of a bank which is necessary to safeguard their deposit.

## **CHAPTER 5**

## SUMMARY, CONCLUSION & RECOMMENDATION

#### 5.1 Summary

This study is aimed to study capital adequacy for commercial banks set by NRB with the case study of Nepal Bank Limited and NABIL Bank Limited.

Generally, Bank is known as the depositor's bank because the first primary function of the bank is to collect deposits. Therefore, bank collects huge amount of deposits and it lends to earn profit. Public hardly get surplus from their income and deposit to bank for safety. Banks earn profit by lending deposits in riskier assets. If the lending of bank suffers in loss then ultimately the deposit of depositor will suffer in risk. The promoters of bank always have ambitious to earn profit in short period by lending the money in riskier assets because riskier assets will give high return with high risk. To be responsible in lending the lending the money in riskier assets, the capital adequacy requirement need.

Because capital adequacy requirement explains about ratio, about capital and total risk weighted exposures which can secure the depositors deposit by making shareholders responsible by increasing their capital if they want to lend investments in riskier assets.

Being the central bank of Nepal, NRB has the responsibility to give special attention to the interest of depositors. Because it has already explained the bank is the bank's of depositors' and the depositors can get only nominal interest in their deposited money? NRB has issued various directives to regulate commercial banks. The directive no. 1 has been issued for norms on capital adequacy to be followed by commercial banks.

The thesis has been prepared with the study of capital funds of Nepal Bank Limited and NABIL Bank Limited. The study showed that the capital adequacy requirement and its affect in banking system. Total capital fund of Nepal Bank Limited is negative and it cannot secure depositor deposit but NABIL Bank has sufficient fund prescribed by NRB. Risk Weighted Exposures has been increasing over the research almost all research banks. But its percentage on book value is different and it explains how many percentages have risk in book value of credit risk, it has shown in table 4.4. The capital adequacy ratio of Nepal Bank Limited is by -10.15% in 2011 which was -27.83% in 2007. It improved slightly. But private operated bank NABIL has smoothly maintained the capital adequately ratio prescribed by NRB 12.04% in 2007 and 10.58% in 2011.

The correlation coefficient of Capital Adequacy Ratio, Total Capital Fund, and Total Risk Weighted Exposures are significant for Nepal Bank Limited and Nabil Bank Limited.

#### **5.2 Conclusion**

The study concludes that the capital fund of the banks under study is highly depending upon share capital. The capital adequacy frameworks have many problems in Nepalese banking sector. Poor banking system, lack of professionalism, imperfect banking system are important problems. It has been concluded that the depositors are not aware of the fact of the necessity of adequate capital fund to safeguard their deposits. They deposit their money to any bank regardless of adequate capital fund which may endanger safety of their money.

The thesis has been prepared with the study of capital funds of Nepal Bank Limited and NABIL Bank Limited. The study showed the capital adequacy requirement and its affect in banking system. The main conclusion is that the total capital fund of Nepal Bank Limited is negative and it cannot secure depositor deposit but NABIL Bank has sufficient fund prescribed by NRB. Risk Weighted Exposures has been increasing over the study almost all sample banks. But its percentage on book value is different and it explains how many percentages have risk in book value of credit risk, it has shown in table 4.4. The capital adequacy ratio of Nepal Bank Limited is by -10.15% in 2011 which was -27.83% in 2007. It improved slightly. But private operated bank NABIL has smoothly maintained the capital adequately ratio prescribed by NRB 12.04% in 2007 and 10.58% in 2011.

### **5.3 Recommendations**

After through study of the selected Banks, the following recommendations have been proposed for consideration by the concerned persons:

The capital fund of the banks under study is highly depending upon share capital.
 It is recommended to the commercial banks to follow optimal capital structure

which maximizes the market value of the firm. The both banks Nepal Bank Limited should have increased core capital because their core capital is negative. NABIL Bank Limited can maintain its capital adequacy ratio by keeping perfect correlation coefficient between Total Capital Fund and TRWE.

- The capital adequacy frameworks have many problems in Nepalese banking sector. Poor banking system, lack of professionalism, imperfect banking system are important problems. Nepal Rastra Bank should have to reduce these problems in banking sector.
- It has been found that the depositors are not aware of the fact of the necessity of adequate capital fund to safeguard their deposits. They deposit their money to any bank regardless of adequate capital fund which may endanger safety of their money. Therefore, NRB should initiate awareness programs to make the depositors aware of such fact and carefully think before depositing money in any commercial banks.
- While providing loans and advances, banks should keep on account that the fund they are going to lend is the fund of the depositors and as such, needs to focus on the quality of the investments they make.
- NRB should consult to the various bank officials before setting or resetting standards on such capital adequacy norms. The complaints and criticisms of bank officials should be considered accordingly. Consequently, an optimal standard will be ensured which will satisfy almost everyone.
- It has also been recommended for the students who are interested in the same study of Capital Adequacy of Commercial Banks to use more statistical tools and to take sample of further more banks to get more relevant information about the topic.

#### BIBLIOGRAPHY

#### **Journal and Articles:**

Abor (2005):- "The Effect of Capital Structure on Profitability" Blum (1990):- "Do Capital Adequacy Requirements Reduce Risks in Banking" Khatiwada (2003):- "Banking Sectors reform in Nepal I & II; Implications for corporate governance" Lamsal (2001):- "NRB Directives: Bankers plea for lighter structures" Malik (2009):- "Capital Structure Management in Nepal" Pradhan (2007):- "A Study on Capital Structure of Manufacturing Sectors and Hotels" Shah, P.B. (2005):- "Financial Sector Reform Program: Issues and challenges" Subedi (2008):- "NRB Unified Directives on Capital Adequacy Norms and its impact" Udas (2007):- "Capital Adequacy and its Significance to Commercial Banks"

#### Books:-

Clark: 1999; International Dictionary of Banking & Finance: New York; Glenlake , Publishing Co. Ltd. And AMACOM

(American Management Association; p.6)

Patheja: 1994; Financial Management of Commercial Banks; Delhi, South Asia Publications: p.11

Rosenburg: 1982; Dictionary of banking and finance; New York: John Wiley & Sons , Publications; p.4

Verma, H.L & Malhotra, A.K; 1993; Funds management in commercial banks: New Delhi; Deep& Deep Publications; p.13

#### **Reports and Directories:-**

Annual Reports of NABIL

Annual Reports of NBL

Banking and Financial Statistics (2011), Kathmandu: Nepal Rastra Bank, Bank & Financial Institution Regulation Department Unified Directives for commercial banks (2011), Kathmandu: Nepal Rastra Bank Operation Department

#### Web Sites:-www.google.com

http://en.wikipedia.org/wiki/List of banks in Nepal

www.nrb.org.np

www.sharesansar.com

www.nabilbank.com

www.nepalbank.com.np

## **APPENDIX** A

Tribhuvan University

Faculty of Management

#### **United College**

Kumaripati, Lalitpur

## A STUDY ON "CAPITAL FUND AND CAPITAL ADEQUACY NORMS FOR COMMERCIAL BANKS CASE STUDY OF NEPAL BANK LIMITED AND NABIL BANK LIMITED." INTERVIEW QUESTIONNAIRE FOR BANK OFFICIALS

 Nepal Rastra Bank has prescribed capital adequacy ratio in its directive no. 1 for commercial banks. Do you think it is necessary that a central bank should issue Capital Adequacy norms for commercial banks?

🗌 Yes 🗌 No

2) Which stakeholders' interest will be safeguarded most by an adequate capital fund?

Depositors' interest D Shareholders' interest

Employees' interest Others

3) Do you think the present capital adequacy ratio i.e., 9% for FY 2058/59, 10% for FY

2059/60 and 12% from FY 2060/61 onwards; prescribed by Nepal Rastra Bank is justified?

 $\Box$  Yes, it is perfect  $\Box$  No, it is high  $\Box$  No, it is not adequate

4) Do you think the change in capital adequacy ratio as stated above is necessary in the present context?

 $\Box$  Yes, it is necessary  $\Box$  Not at all

5) The capital adequacy ratio is based on risk-weighted assets. Do you think the

weightage prescribed by NRB on the on- and off-balance sheet items are appropriate?

□ Yes, it is perfect □ Just OK □ No, it should be revised

6) In your opinion, which of the following steps is appropriate for your bank to follow to cope with the above changes in capital adequacy ratio?

 $\Box$  We can increase core capital.

U We can increase supplementary capital.

☐ We can increase both components of capital.

☐ It is not necessary to increase capital for us, it is adequate.

Name of Interviewee:

Designation:

# **APPENDIX A-1**

## Analysis of Interview Questionnaire for Bank Officials:

Question No. 1	No. of Responses	Percentage
Yes	12	100%
No	0	-

Question No. 2	No. of Responses	Percentage
Depositors' interest	12	100%
Shareholders' interest	0	-
Employees' interest	0	-
Others	0	-

Question No. 3	No. of Responses	Percentage
Yes, it is perfect	7	58.33%
No, it is high	5	41.67%
No, it is not adequate	0	-

Question No. 4	No. of Responses	Percentage
Yes, it is necessary	12	100%
Not at all	0	-

Question No. 5	No. of Responses	Percentage
Yes, it is perfect	0	-
Just ok	7	58.33%
No, it should be revised	5	41.67%

Question No. 6	No. of Responses	Percentage	No. of Responses for	Percentage
	for present		future	
We can increase core	0	-	0	-
capital				
We can increase	0	-	0	-
supplementary capital				
We can increase both	6	50%	12	100%
components of capital				
It is not necessary to	6	50%	0	-
increase capital for us,				
it is adequate				

## **APPENDIX B**

Tribhuvan University

Faculty of Management

#### **United College**

#### Kumaripati, Lalitpur

## A STUDY ON "CAPITAL FUND AND CAPITAL ADEQUACY NORMS FOR COMMERCIAL BANKS CASE STUDY OF NEPAL BANK LIMITED AND NABIL BANK LIMITED."

#### **QUESTIONNAIRE FOR BANK ACCOUNT HOLDERS**

#### I would be most grateful if you could spare 5 minutes to answer this questionnaire.

Tick one box per question, unless otherwise indicated.

1) Why do you deposit your money in a bank?

For Security of Money	For Interest Farning
For security of Money	FOI Interest Lanning

☐ For Social Status ☐ For Official Purpose

Others (please specify)

2) Which aspect of the bank do you think is the most important one to make a

depositor's money safe?

Depresentation Physical Security Arrangements Capital Fund

- □ Status □ Profitability
- Others (please specify) .....

3) What do you think a bank should do in order to attract more deposits?

 $\Box$  Arrange the proper security  $\Box$  Maintain the adequate capital fund

Achieve a good profit Pay an attractive interest rate

Others (please specify)	
u 1 2/	

Name:

Address:	 	 
Email:		

Linun.	 	
Occupation:		
Education:		

Thank you for taking the time to complete this questionnaire.

Sumitra Vetwal MBS Student Tribhuvan University, United College Kumaripati, Lalitpur

# **APPENDIX B-1**

Question No. 1	No. of Responses	Percentage
For Security of Money	37	55.22%
For Interest Earning	17	25.37%
For Social Status	3	4.48%
For Official Purpose	6	8.96%
Others	4	5.97%

## Analysis of Questionnaire for Bank Account Holders:

Question No. 2	No. of Responses	Percentage	
Physical Security	31	46.27%	
Arrangements			
Capital Fund	16	23.88%	
Status	8	11.94%	
Profitability	12	17.91%	
Others	0	-	

Question No. 3	No. of Responses	Percentage	
Arrange the proper	12	17.91%	
security			
Maintain the adequate	11	16.42%	
capital fund			
Achieve a good profit	9	13.43%	
Pay an attractive	28	41.79%	
interest rate			
Others	7	10.45%	

# **APPENDIX C** Balance Sheet of Nepal Bank Limited:

	Fiscal Years				
Capital and Liabilities	2007	2008	2009	2010	2010
1.Share Capital	380,382,600	380,382,600	380,382,600	380,382,600	380,382,600
2.Reserve and Fund	(6,627,898,343)	(6,388,684,333)	(5,234,694,507)	(4,985,312,212)	(4,856,965,628)
3.Debentures and Bonds	-	-	-	-	-
4.Borrowings	1,604,868,196	1,820,088,867	1,970,675,296	2,125,140,853	1,840,211,617
5.Deposits	39,014,204,359	41,829,391,063	45,194,232,465	42,882,039,669	46,808,435,445
6.Bills Payables	60,726,059	52,342,562	12,016,207	65,936,364	34,436,212
7.Proposed and Dividend Payable	2,083,097	2,067,637	2,065,342	2,050,117	-
8.Income Tax Liabilities	-	-	-	-	-
9.Other Liabilities	4,824,427,537	4,357,855,914	5,234,433,202	4,266,415,040	6,952,157,199
Total Liabilities	39,258,793,505	42,053,444,310	47,559,110,605	44,736,652,431	51,158,657,445
Assets	I		I	<u></u>	1
1.Cash Balance	1,086,066,645	1,181,792,413	1,515,654,833	1,603,487,197	1,570,315,796
2.Balance with NRB	5,224,859,643	4,430,641,018	6,619,700,019	7,493,117,731	9,343,275,261
3.Balance with Banks/Financial Institution	806,366,796	1,004,559,156	1,036,435,088	1,044,675,089	1,100,274,257
4. Money at call and short notice	200,000,000	-	400,000,000	-	400,000,000
5.Investment	16,072,179,882	16,570,755,516	13,397,559,686	5,784,372,395	7,585,544,182
6.Loan Advances and Bills Purchase	11,058,477,657	13,251,962,768	17,614,898,825	23,560,955,729	24,671,281,894
7.Fixed Assets	205,768,262	207,527,502	249,393,295	301,488,456	334,956,403
8.Non-Banking Assets	-	-	-	-	-
9.Other Assets	4,605,074,620	5,406,205,937	6,725,468,859	4,948,555,834	6,153,009,652
Total Assets	39,258,793,505	42,053,444,310	47,559,110,605	44,736,652,431	51,158,657,445

## **APPENDIX D** Balance Sheet of Nabil Bank Limited:

	Fiscal Years				
Capital and Liabilities	2007	2008	2009	2010	2010
1.Share Capital	491,654,400	689,216,000	1,448,620,500	2,028,773,600	2,029,769,400
2.Reserve and Fund	1,565,395,315	1,747,982,989	1,681,620,137	1,805,452,329	2,542,286,821
3.Non-controlling Interest	-	-	-	-	28,917,414
4.Debentures and Bonds	-	240,000,000	300,000,000	300,000,000	300,000,000
5.Borrowings	882,572,500	1,360,000,000	1,681,305,000	74,900,000	1,650,599,178
6.Deposits	23,342,285,327	31,915,047,467	37,348,255,840	46,340,700,628	49,608,376,346
7.Bills Payables	83,514,820	238,421,890	463,138,615	425,443,908	415,767,753
8.Proposed and Dividend Payable	509,417,925	437,373,004	338,011,450	434,737,200	608,930,820
9.Income Tax Liabilities	-	38,776,869	80,232,454	24,904,405	46,529,177
10.Other Liabilities	378,552,721`	465,940,930	526,213,508	644,813,627	868,442,933
Total Liabilities	27,253,393,008	37,132,759,149	43,867,397,504	52,079,725,697	58,099,619,842
Assets		<u> </u>	<u> </u>		
1.Cash Balance	270,406,987	511,426,584	674,395,434	635,986,600	744,592,259
2.Balance with NRB	1,113,415,436	1,829,470,769	2,648,596,348	549,454,618	1,473,986,407
3.Balance with Banks/Financial Institution	16,003,428	330,243,702	49,520,689	214,656,586	239,970,924
4. Money at call and short notice	563,532,632	1,952,360,700	552,888,297	3,118,144,000	2,452,511,778
5.Investment	8,945,310,567	9,939,771,428	10,826,379,001	13,600,916,613	13,003,205,527
6.Loan Advances and Bills Purchase	15,545,778,730	21,365,053,318	27,589,933,041	32,268,873,283	38,034,097,554
7.Fixed Assets	286,895,224	598,038,998	660,988,986	781,480,397	941,257,815
8.Non-Banking Assets	-	-	-	-	-
9.Other Assets	512,050,004	606,393,650	864,695,708	910,213,600	1,209,997,578
Total Assets	27,253,393,008	37,132,759,149	43,867,397,504	52,079,725,697	58,099,619,842

## **APPENDIX E** Income Statement of NBL & NABIL:

Nepal Bank Limited							
	Fiscal Years						
Particulars	2007	2008	2009	2010	2011		
1.Interest Income	1,848,611,557	2,094,905,989	2,690,058,308	3,067,553,539	3,740,719,028		
2.Interest Expenses	772,644,038	772,657,472	791,710,648	909,990,531	1,482,204,899		
Net Interest Income	1,075,967,519	1,322,248,517	1,898,347,660	2,157,563,008	2,258,514,129		
3.Commission and Discount	181,019,733	229,723,643	273,106,394	425,005,376	261,296,359		
4.Other Operating Income	287,647,712	157,431,924	156,757,711	152,872,783	140,461,336		
5.Exchange Fluctuation Income	-	119,407,417	89,209,047	23,552,030	11,837,708		
Total Operating Income	1,544,634,964	1,828,811,501	2,417,420,812	2,758,993,197	2,672,109,532		
I							
		Nabil Bank Li	mited				
			<b>Fiscal Years</b>				
Particulars	2007	2008	2009	2010	2011		
1.Interest Income	1,587,758,714	1,978,696,72	7 2,798,486,1	96 4,047,725,656	5,258,269,627		
2.Interest Expenses	555,710,109	758,436,212	1,153,280,0	052 1,960,107,902	2,946,691,281		
Net Interest Income	1,032,048,605	1,220,260,51	5 1,645,206,1	144 2,087,617,754	2,311,578,346		
3.Commission and Discount	150,608,550	156,234,754	179,693,02	7 215,481,543	290,855,057		
4. Other Operating Income	87,574,553	97,444,578	144,164,14	3 169,548,006	183,444,757		
5.Exchange Fluctuation Income	209,926,167	196,487,415	251,919,71	2 291,440,756	276,102,798		
Total Operating Income	1,480,157,875	1,670,427,26	2 2,220,983,0	026 2,764,088,060	3,061,980,958		