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ECONOMIC ANALYSIS OF BANKING SECTOR IN NEPAL

By

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Gopinathan (2009) Banking sector analysis in Sramana Mitra. Internet Portal
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Prague March 7, 2013

Declaration

I declare that I have worked on my bachelor thesis titled "**Economic Analysis of Banking Sector in Nepal** " by myself and I have used only the sources mentioned at the end of the thesis. As the author of the diploma thesis, I declare that the thesis does not break copyrights or any third person.

In Prague on 14th March 2013 ……………………………………..

Chhabi lal Kandel

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Abstract

The purpose of this paper is to examine the health of banking sector in Nepal from the period 2005 to 2011 and to track the causes of banking crisis in 2011 using theories of macro-economic and financial models as a conceptual starting point. In 2011, several commercial and development banks faced several liquidity crisis that caused panic in the general public. Banks lost giant amount of funds in their loan and investment portfolios, which compelled the Government of Nepal to inject liquidity in the market. In the past years leading to the banking crisis of 2011, there was quick alter in the size and activity of banking industry. This paper analyzes changes that occurred in the financial market in the period of 2005 to 2011 that triggered the banking crisis. The roles of remittance and loan sector, credit expansion and Interest rate have been analyzed in terms of their connection to the liquidity crisis.

KEYWORDS: Nepal, banking, commercial bank, economy, stock market, joint venture

Souhrn

Cílem této práce je prozkoumat zdravotní stav bankovního sektoru v Nepálu v období 2005-2011 a sledovat příciny bankovní krize v roce 2011 za použití makro-ekonomických teorií a finančních modelů jako abstraktního východiska. Několik komerčních a rozvojových bank čelilo vážné krizi likvidity v roce 2011, která způsobila paniku v široké části veřejnosti. Banky ztratili velké množství finančních prostředků v poskytnutých půjčkách a investičních portfóliích, které přinutili Nepálskou vládu k investici na trhu. Předešlá léta vedly k bankovní krizi v roce 2011, která rychle změnila velikost a aktivitu bankovního sektoru. Tato práce analyzuje změny, které nastaly na finančním trhu v období 2005-2011, které byly příčinou bankovní krize. Role převodů, uvěrového odvětví, úvěrového rozmachu a úrokové sazby byla analyzovaná z hlediska napojení na krizi likvidity.

Klíčová slova: Nepál, bankovnictví, Komerční banky, ekonomika, burza cenných papírů, společný podnik

List of Abbreviations (Acronyms)

NRB Nepal Rastra Bank

NPR Nepali Rupees

FDI Foreign Direct Investment

NBL Nepal Bank Limited

SCBL Standard Charter Bank limited

NABIL Nabil Bank

HBL Himalayan Bank Limited

NIBL Nepal Investment Bank Ltd.

Rs Rupees

CBs Commercial Banks

BFIs Bank and Financial Institutions

NLSS Nepal Living Standard Survey

BOP Balance of Payment

GDP Growth Domestic Product

GNP Growth National Product

SEBO Securities Board

List of tables

List of figures

Table of Contents

1 Introduction

Nepal, as a landlocked country surrounded by China to the north and India to the west and south, is one of the least developed countries in the world which is directing efforts in accelerating the pace of her economic development. The banking plays the vital role in the development of the country. The possibility is only seen throughout the banking sector which mobilizes the capital to other infrastructural sectors and promotes for the welfare of the country economy.

1.1 Background of Study

Generally, in my thesis I tried to describe the problems of liquidity crisis and strategies adopted by Nepalese banks to resolve such situation through the banking sector. And the role of those Foreign Direct Investment in these sector with the opportunities that can be enlarge to see out. In this present context, many Nepalese are working aboard and more employment opportunities are available within the country itself, as a result of these facts, the inflow of money is decreasing day by day. The citizen of the country are more aware about the banking activities because these are the largest financial intermediaries in the economy, they deserve the careful study. So the Nepal Rastra bank has influencing the commercial sector and foreign investors for permitting the opportunity to invest in the establishing banking sector. FDI involves the capital inflows invested directly by transnational corporations, it affects the volume and characteristics of investible financial resources available to, as well as actual investment in the host countries. The government set the process liberalization of the policies through these policies the domestic, foreign competition has been increasingly viewed in order to take recognize some economic performance to increase the productivity. In these situation the banking sector was highly prioritized due to the overhanging branches of other service sector and mobilization of capital throughout it was the main measure to boost the foreign direct investment through it.

Banks are financial firms, producing and selling professional publics funds performing various roles in the economy. The bank in Nepal have established to improve people’s economy and welfare and facility, to provide loan to the agriculture, industry and commerce and to offer banking services to the people and the country. With the appearance and expansion of banking sector in Nepal. The WTO decisions and the by which banking sector has to allow the foreign banks to open their branches here. And the central banking decision is also forecasting the viable argument of the foreign investment in the banking sector of Nepal. In this work is to seek the proportionate scale of return through the investment and the peace stability which Nepal has been improving to motivate the foreign investors to their huge collateral office of the banking sector.

1.2 History of Banking in Nepal

The history of banking in Nepal is believed to be started from the time of Prime Minister Ranoddip Singh in 1877, he introduced many financial and economic reforms. The Tejaratha Adda was established at that time and its basic purpose was to provide credit facilities to the public at a very concessional interest rate. The Tejarath Adda disbursed credit to the people on the basis of collateral of gold and silver. All employees of government were also eligible for this type of loan, which was settled by deducting from their salary. Tejaratha Adda extended credit only; it did not accept deposits from the public.

But the real banking started with the establishment of Nepal bank limited in 1938, which was found by Judda Samsher. It was the first bank of Nepal. It's main function was to provide loans and accept deposits. Later, Nepal Rastra Bank was established as a central bank in 1957. The bank was completely government ownership bank and it also started to issues notes since 1960. Then after, several commercial banks have been established in the recent years.

Banking method in Nepal is comparatively new compared to countries around the globe. The first bank established in Nepal was Nepal Bank Limited (NBL) in 1938. However, for nineteen years after the establishment of the first commercial bank NBL there was no central bank in the country. In 1956, the central bank Nepal Rastra Bank, was established and hence there was a central authority of the financial sector. In 1966, Government of Nepal established Rastriya Banijya Bank, the largest commercial bank in Nepal[1].

Two decades later in 1984, financial liberalization commenced. Several sweeping changes and reforms were made in the financial system. Competitiveness in the financial market was given the top priority. Barriers to entry in the financial markets were removed in the technique. This was done chiefly to attract private joint venture banks with foreign collaboration with the hope that such banks would bring in much needed foreign capital and technical know-how, infuse modern banking skills to the domestic banks widen as well as deepen the national financial structure [2]. Financial liberalization led to the establishment of a few finance companies, development banks and commercial banks. In the same year, interest rates were also deregulated. Now, the banks were allowed to set their own deposit rates and loan rates. "The objective of interest rate deregulation was to let the market decide the true cost of capital, keep real deposit rates positive, thereby, stimulating savings and creating a competitive environment in the financial system so as to benefit both the depositors and borrowers"[3]. There were other important reforms that were crucial to the health of capital and money markets. Government introduced the auctioning of treasury bills which was a necessary step to check excess liquidity in the market[4].

Previously, commercial banks were reluctant to hold treasury bills because such securities yielded lower returns. One time the action was taken, banks were willing to hold default free treasury bills & add some liquid assets to their portfolio. Through this system, government gained more control in the flow of money supply &, consequently, in the general cost level of the most important reforms in the work of the financial liberalization was the introduction of prudential norms. Banking system was well defined & formed after the norms were put in to practice. Nepal Rastra bank, the central bank, set up certain requirements such as capital adequacy requirement, loan loss provisioning, interest income recognition, loan classification, and income disclosure requirement[5]. This particular move is seen as a landmark in the development of financial sector because it made the banking system transparent and credible to a large extent. Prudential norms have been changed and modified with the passage of time to accommodate the changes occurring in the financial world. The central bank also decided to switch its monetary policy stance from direct to indirect to encourage banks to flourish. After financial liberalization, interest rate was deregulated and credit ceilings were removed. Now, the central bank could only influence price and interest rates through bank rate, cash reserve requirement and open market operations. The financial system moved towards a capitalist market system where market power is vested in the hands of consumers, depositors and the investors. In 2001, Nepal Rastra Bank (NRB) gained autonomous status. It was no longer under government control. NRB could now work independently and could manage financial sector and financial policies simultaneously. While the financial sector was moving in a brand spanking new direction, the government owned banks Nepal Bank Limited and Rastriya Banijya Bank were losing their grips in the market. These banks were going through continuous loss and necessary acute measures to keep them from collapsing. With the support of World Bank, the management of these banks was handed to foreign administration. Restructuring technique was carried out to improve deteriorating health of these financial institutions[6]. NRB demonstrated its support to foreign ventures and openly admitted that the kid Nepalese banking industry needed guidance and assistance from foreign specialists. Hence, by all counts, policymakers showed their determination to direct financial sector from traditional methods toward modern ways.

2 Objectives And Methodology

The objective of this study is to compare the five commercial bank, based on the financial institution and identify the determinants of performance using Panzor and Rosse Model. The paper analyzes changing ratio of financial institution in the period of 2005 to 2011 using Trend and regression analysis model and to analysis the health of the commercial bank. Capital fund and the risk management portfolios and the Interest Back Payment clearly analysis throw the trend analysis regression model. Data were collect from the Nepal Rastra Bank(NRB), the central bank of Nepal.

3 Literature Review

This chapter is focused on banking challanges faced by commercial bank. Explain the turmoil facing by commercial example of Vibor Development Bank in liquidity crisis and having pain in the commercial market. What is even more shocking is total loans made against collateral of land and building is about 50 percent of the total loans of the whole financial system. For facing those problem how commercial bank mobilize their assets towards the profitable, secured & marketable sectors. Position of Nepali currency and Growth of bank and financial institutions. Mainly the Private commercial bank are and the joint venture banks, which are running successfully in a competitive environment. While talking about the capital formation, commercial banks play a major role on it.

3.1 Nepalese Currency

The currency of the country Nepal is the rupee. Formerly called as mohru in Nepalese language, the rupee has the code of NPR and is usually abbreviated as Rs. Responsible for issuing coins and banknotes of the country is the Nepal Rastra Bank. A rupee is subdivided in 100 paisa. In 1932, the Rupee finally replaced the silver mohar, with exchange rates of two mohar is equivalent to one rupee.

Current Nepali currency position, compare with US$, the influence of exchange ratio of NPR to US$, two currency up on borrowing vision.

Figure 1: Nepali currency exchange rate.

Sources:Finance.google.com, " Nepali Currency".

The graph shows the evolution of NPR/USD of the five years. NPR is rising situation in 2007 and slowly falling down in 2008 due to the world financial crisis it fall down . It shows the exchange rate is in depreciation due to the increasing value of country currency in terms of dollar. In 2009 to 2010 slowly increasing in devaluation and revaluation of currency.

In 2011 the political instability and corruption were high in Nepal. After the successful negotiation with political parties and constant support from foreign affairs the currency rate goes on depreciation. That means the country starts to exports more than import.

An exchange rate is the current market price for which one currency can be exchanged for another. For instance, if the Euro exchange rate for the United States Dollar stands at 1.3, this means that 1 euro can be exchanged for 1.3 U.S. dollars. Because exchange rates play such an important role in a country's competiveness level, currency exchange rates are among the most analyzed and forecasted indicators in the world. The exchange rate is determined by the level of supply and demand on the international markets. However, changes in foreign exchange market rates are often difficult to understand and to predict because the market is very large and volatile. In fact, the currency markets are the most liquid in the world with a daily turnover of close to $2 trillion, which compares to $500 billion for the US government bond market and $70 billion on the New York Stock Exchange.

NPR against dollar overview: (USD) $ 1.09 = (NRS) 87.59 on February 22, 2013. This weekend Indian currency fell to one and a half months low as a global risk aversion pushed local stock sharply lower. According to agencies, global risk assets were pummeled as world share markets fell and the dollar and safe-haven assets rose after the Federal Reserve´s last policy meeting cast doubts over how much longer the US central bank would stick to its stimulus plan[7]. The rupee started trading at Rs 86.50 per dollar when the market opened for the week. The currency lost 55 paisa the next day to stand at Rs 87.05. Nepali rupee weakened against the euro but gained a whopping Rs 5.36 paisa against British Pound. On, February 22, 2013 euro was exchanged at Rs 115.65 while British Pound was valued Rs 133.18.

3.2 Growth Of Financial Institutions

Nepal bank limited was the first Nepalese bank established in 1938. The central bank NRB of Nepal was established in 1956, Act 1955, After two decade when NBL come in to existence, then after Nepal Banijaya Bank come in the Nepalese bank.

Table 1: Growth of financial Institutions

Types of Financial Institutions	Mid - July											
	1985	**1990**	**1995**	**2000**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Commercial Banks	3	5	10	13	17	18	20	25	26	27	31	32
Development Banks	2	2	3	7	26	28	38	58	63	79	87	88
Finance Companies			21	45	60	70	74	78	77	79	79	69
Micro-finance Development Banks			4	7	11	11	12	12	15	18	21	24
Saving & Credit Co-operatives Limited Banking Activities)			6	19	20	19	17	16	16	15	16	16
NGOs (Financial Intermediaries)				7	47	47	47	46	45	45	38	36
Total	**5**	**7**	**44**	**98**	**181**	**193**	**208**	**235**	**242**	**263**	**272**	**265**

Sources: Nepal Rastra Bank. (2012). Banking and Financial Statistics. Kathmandu: Nepal Rastra Bank.

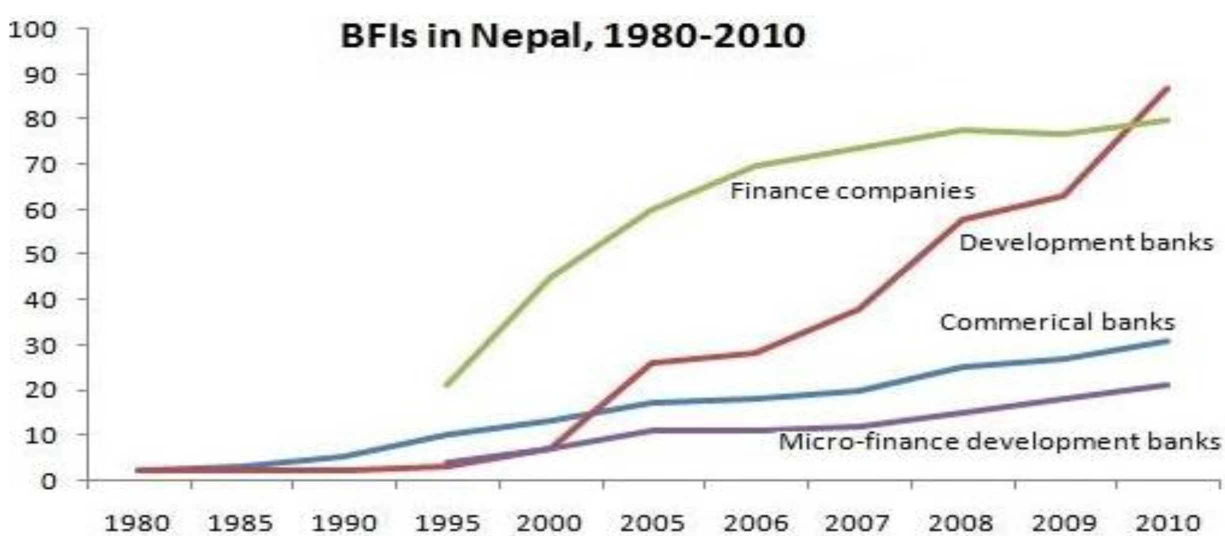
In the given table Ministry of Finance had divided the financial sector in to two groups based on their primary functions: banking sector and non banking sector. Which is composed by the license providing and the central bank Nepal Rastra Bank. At the mid of July 2012, altogether 265 banks and non-bank financial institutions licensed by NRB in operation. Out of then 32 are commercial bank which are in the "A" Class, 88" B" class development banks, 69 "C" class financial companies, 24 "D" class micro credit development banks, 16 saving and credit cooperatives and 36 NGOs. These are the financial institution which are providing financial services to the public[8].

In the recent time , commercial bank branches are mobilized in the rural areas where deposit growths are at a slower pace. In the current situation, bank branches have been concentrated in the urban areas rather than the rural areas where people are still deprived of basic services. According to Nepal Living Standard Survey (NLSS), 15.1 percent of the total households borrowed money from the local money lenders, where as previously, almost fifteen years ago 39.7 percent of the total households used to borrow from the same institution.

Only 12 percent of the total population in the country, hold the deposits with the commercial bank. The Per-capita deposit by mid-April 2010 stood at 20,100 and the total deposit of bank was Rs 590.9 billion.

The growth of BFIs is unprecedented and not warranted by the economic and banking fundamentals of the past decade. There was rapid credit growth specially from the year 2005 to 2011. Increasing number of financial institutions such as development banks and finance companies occurred at the same time as the credit increased. In the concept of banking sector as the income flowing from outside the country increased, the financial sector opened up to new levels to exploit hot money and make profit[9].

Figure 2: BFIs in Nepal,1980-2010



Source: Sapkota, Chandan (2011), "Nepalese Banking Crisis Explained", Journal of Chartered Accountants of Nepal

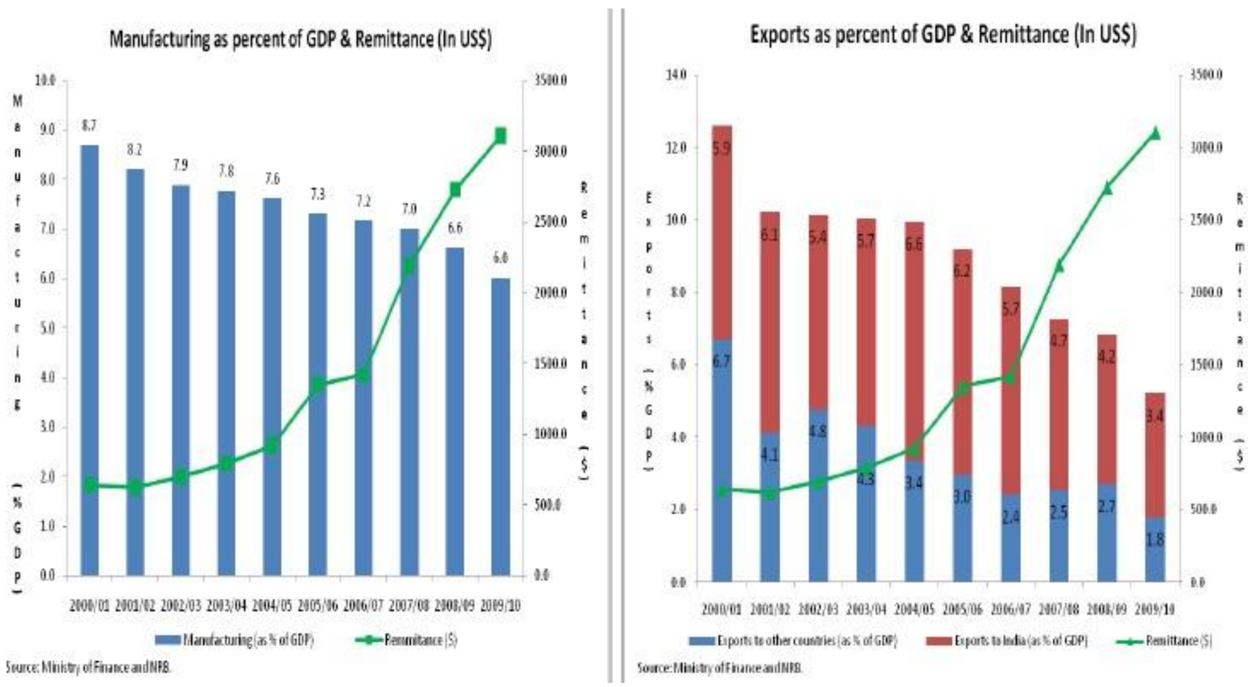
BFIs means bank and financial institutes: Categories A,B,C&D means commercial, development, finance, and Micro-Finance, respectively, financial institutions

The increase number of financial institutions shows the hope of landing on lucrative private sector banking jobs. Increase the financial institutions borrowing and lending activities in the financial sector are also accelerated. Banks were in keen of the domestic investment opportunities, offering Joint venture in the country bank increase in their lending activities which lead the upsurge of credit.

3.3 Remittance and Loan Sector

According to the world bank survey, Remittances account for 23 percent of total value good and services, generally in the term of GDP influence. Increasing in remittances at the household level led the highest consumption of demand, highest imports appreciate the real exchange rate.

Figure 3: Manufacturing as percent of GDP & Remittance (In US$)



Sources: Ministry of finance and NRB

Housing market shows the increasing position in lending and borrowing level. As income increase due to remittance inflows aggregate demand then spending goes up. Stock market of commercial bank.

Unfortunately, the positive changes in the short run have masked a hazardous trend at owner & macro economy levels. First, rising remittances & increase in income of the poorest lot have made politicians & policymakers, at Ministry of Finance (MoF) & National Planning Commission (NPC), complacent about the automatic changes at the household level. They ought to not claim credit for the positive changes outlined above because no substantial owner level initiative has been carried out over the last six years to reduce poverty expect for the customary efforts through Poverty Alleviation Fund (PAF). The only credit they ought to take is for their contribution to the exodus of remitters to location abroad because of their failure to generate employment opportunities at home. Meanwhile, equal blame goes to the insensitive, visionless, & egocentric political leaders who have created a mess that has led to closure of factories, capital flight, & loss of employment & entrepreneurial opportunities, triggering migration of youths.

Secondly, the MoF & the NPC have been increasing the size of fiscal budget without any substantial impact on the economy, where still 76.3 percent of households depend on agriculture. In the last six years, the economy saw economic growth above five percent in 2007/08 only. This was not the result of any miraculous owner intervention, but due to blessing of monsoon that boosted agriculture production. The laxity in enacting actual reforms has triggered consumption binge (only two percent of household remittance is spent on capital formation). Worse, since domestic production is insufficient to satisfy domestic demand, they are forced to import goods & services, leading to ballooning trade deficit. Now, the increase in labor costs will further increase cost of production & make our products even more noncompetitive, forcing us to import even more. Note that the exodus of workers has created a shortage of labor & an increase of average every day wage in agriculture sector by 127 percent & that of non-agriculture by 98 percent between the surveys[10].

3.4 Major Economic Challenges of banking sector

Nepal has been struggling to maintain macroeconomic balance for a couple of year. Low growth rate, high unemployment, balance of payment deficit, ballooning trade deflect, and high inflation are some of the pressing challenges existing in macroeconomic challenges. In those situation bank are in the crisis situation. According to the economic survey of Nepal Rastra Bank financial institution in Nepal were reeling under the liquidity crunch. Interest rates went up, lending went down and investments suffered. In 2011 banking sector became one of the worst disaster in the financial market. The economic growth rate of the country is in average rate is 3.51 percent over a decade has registered growth of 4.56 percent in the current fiscal year[11].

In the recent year bank use half of their assets in the real estate market, in the mid July 2011 the real estate market is in the crisis situation and bank are in collapse situation for example of Vibor Bikash Bank suffer from the liquidity problem in the recent year and collapsed. It happen due to the heavy loan in the real estate market and a businessman using loan in his or her own collateral. According to the NRB investigation, the bank's deposit decline through the bad corporate governance. It's deposit came down to Rs 5 billion as of mid- March 2011.

Due to Maoist insurgency in the early 2000, thousands left their villages and towns to settle in the most secure part of Nepal, the Kathmandu valley. There was a sudden growth of population in the Kathmandu valley and naturally the demand for land and housing went up to accommodate the migrants. Even after political tensions were over, the migration rate did not go down significantly because youths migrated to the cities for college education and work. Migration to the urban areas will not decrease until there are ample opportunities for families in the rural areas.

3.5 Turmoil in Financial Institute

Nepali banking sector is going through a change in institutional and governance reform, `in anticipation of sound corporate governance in Nepal. When Vibor Bikash Bank was in liquidity crisis, Nepal Rastra Bank, our central bank injected money in the development bank and also took over the management, the situation rattled the banking industry and the depositors became suspicious [12]. The Nepali banking sector went into trouble due to excessive loan to the real estate, housing and contraction sectors. Bank and financial institutions (BFIs) had to land in the red zone sooner or later, it was an impending disaster .In 2011 Bank and the financial institutions in Nepal were reeling under a severe liquidity crunch, this made investor very concerned while consumer sentiments dipped to the lowest. Consequently Interest rates went up, lending went down, and investment suffered.

But the immediate measures taken by the Central bank in Relaxation on income declaration requirements, low credit flow, higher interest rates on deposits and elevated level of remittance in flows contributed to the current improved liquidity position. However increase in liquidity had not the obvious effect of decreasing the credit crunch.

According to a survey conducted by the Research Department of Nepal Rastra Bank, primarily to analyze exposure of banks to real estate, real estate and housing sector has been ranked number one lending sector by the respondents.

Table 2: Percentage of Real Estate value in 2011

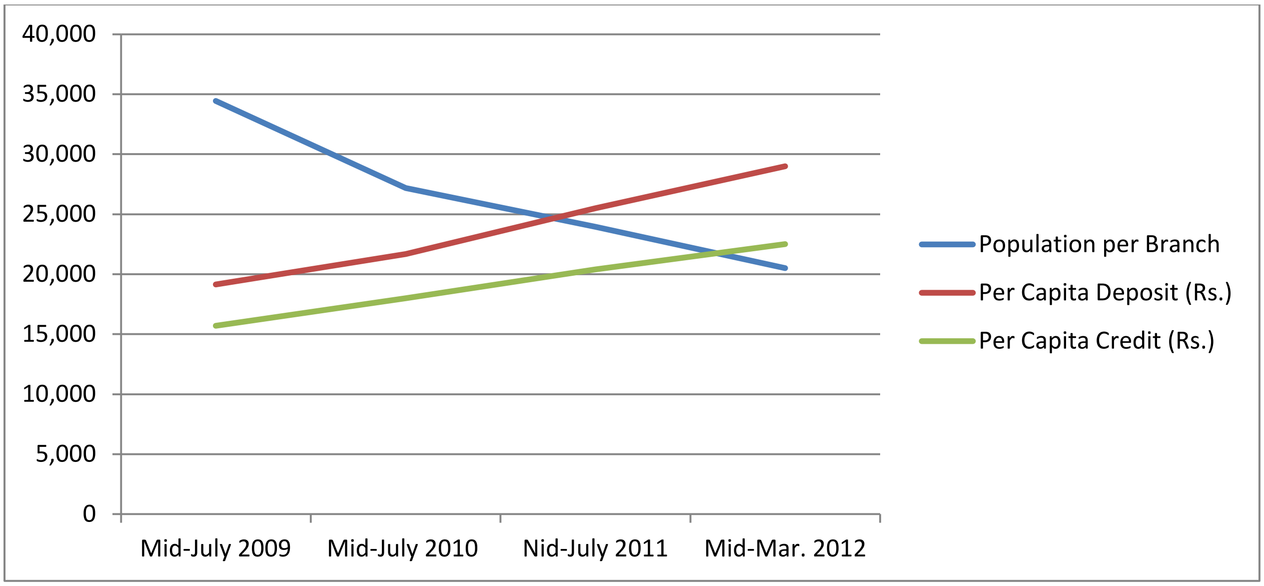
Institution	Percentage of Real Estate Value Approved as Collateral
Commercial Banks	71.44
Development Banks	65.00
Finance Companies	59.48

Source: Real Estate survey,2011

The table shows the higher credit flow in Real Estate from financial Institute. In Global Crisis period 2009 Bank and the Financial Institutes lent Rs 247 billion in Real Estate. This amounts to 61.44 percent of total loans made by the Commercial Banks which is higher loan in the financial market. What is even more shocking is total loans made against collateral of land and building is about 50 percent of the total loans of the whole financial system. This also means that when the bubble burst, it had the potential to disrupt half of the loans made in Nepal. The survey identify the Bank and Financial Institute have been criticized for hoarding money, not moving towards the new areas of market or expanding the traditional lenders.

Nepal Rastra Bank the central bank mandated banks to reduce combined real estate and banking loans to 30 percent in 2011 and 25 percent in 2012 [13]. The result shows the risky in housing and residential loans have gone down. Balance sheets of banks today carry less risk from real estate price movement.

Figure 4: Financial Expansion and Deepening of commercial bank



Source: Nepal Rastra Bank, Own calculation.

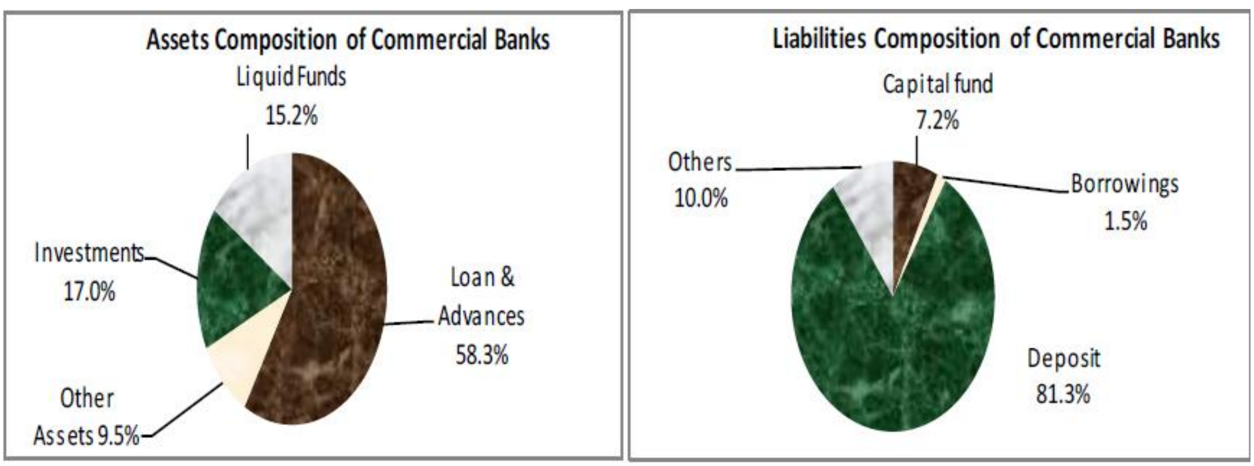
The graph shows banking sector has decreasing number of population as it expands its sector. Here the number of population per branches decreases from 2009 July to March 2012.the per capita deposit and per capita credit of banks are increasing continuously. It means that banks are promoting their credit and deposit although the number of population are low. Increasing number of banks cannot occupy the mass of population in the increasing rate.

3.6 Commercial Bank

Commercial banks has main role in the economic development. For economic development, commercial banks should mobilize then collection towards the profitable, secured & marketable sectors. While talking about the capital formation, commercial banks play a major role on it. Capital is one of the most important components for an organization. Actually, no organization can exist without capital. Although the banks are the major source of capital, they also have to raise capital to run business. Especially, the bank capital has significant role to play as the banks have obligations to mass people, its depositors. Thus, the banks should hold an adequate capital to secure the interest of depositors. Capital adequacy has become one of the most significant factors for assessing the soundness of banking sector. Raise and utilization of funds are the primary functions of commercial banks. As such, commercial banks collect a large amount of deposits from general public. The depositors think that depositing their money in a bank is safe and relaxing

Nepal's First commercial bank, Nepal Bank Limited, is still a semi Government bank which have 200 branches in operation plays pivotal role in the economy of the country. It has more than 5000 employees.

Figure 9. Commercial bank Assets and Liabilities



Sources: Sources: Banking and financial Statistics. Kathmandu: Nepal Rastra Bank.

The Graph show the Commercial bank Assets and liabilities in the year 2012. It shows the loan sector and advances increased by 17.9 percent compare to 12.4 percent in Mid-July 2011. By the end of Mid - July 2012, the total outstanding amount of loans and advances including Bills Purchase and Loan against Collected Bills of commercial banks reached to Rs. 622,575 million. It was Rs. 528,023 million in Mid - July 2011 (Economic survey).

Shrestha (1999), in this article, “A study on deposit & credit of commercial bank in Nepal” concluded that the credit deposit ratio would be 51.30% other things remaining same in 2004[14]. So, it is strongly recommended that the commercial banks should try to give more credit earning field as far as possible. Otherwise, they might not be able to absorb even its total expenses.

The commercial bank is the main indicator of helping in Government GDP, if you see in 2005 to 2012 the GDP in increasing position. Deposit of the commercial bank increase in slight ways but borrowing goes down, This is good because if you borrow more then you have problem in lending.

3.7 Impacts of Joint venture in Nepal

Joint venture banks in developing countries like Nepal have the greatest responsibility towards the economic development of the country. Present world in the developed of developing money in economies ,have a essential process of production and consumption and significantly affected by the aggregate money supply consisting of the currency, demand and time deposit with banks. The main goal of the banks as a commercial organization is to maximize the surplus by the efficient use of its funds and resources. In spite of being a commercial institution , it too has responsibility to provide social service oriented contribution for the socio-economic enlistment to the by providing specially considered loans and advancement towards less privileged sectors. The scope of this study lies mainly in filing a research gap on the study of the investment of the policy of joint venture banks of Nepal. This study is basically confined to reviewing the investment policy of joint venture banks the five year period. This study may also be useful to the person who is the interested to do research in banking sector.

Nepal Rastra Bank operates the foreign investment in financial sector in Nepal. In 1984, the banking sector has taken a new model of the development. Nepal Arab Bank Limited (NABIL) was the joint venture of Emirates Bank International Limited (EBIL), Dubai, United Arab Emirates, with the capital base of NPR 60 million (USD 1 = NPR 13) this exchange ratio shows the milestone development in the country. After the established of NABIL, Nepal Indosuez Bank Limited (NIBL) and Nepal Gindlays Bank Limited (NGBL) has been established in the country with the joint venture of Banque Indosuez, Paris, France and ANZ Gindlays Bank, United kingdom respectively. These banks are provides information on procedures for foreign investment and technology transfer in Nepal[15].

At present there are many joint venture banks, which are running successfully in a competitive environment. Nepal government deliberates policy of allowing foreign joint venture banks to operate in Nepal basically targeted to encourage local tradition commercial bank to enhance their capacity through competitor's efficiencies mechanization modernization and prompt customer service.

Studying the effects of FDI on the aggregate growth of developing countries, Bunchier et al., (1978) in the middle age have, argued that FDI inhibits developing-country growth. In a multiple regression analysis of variance in the rates of growth of gross national product (GNP) per capita in 76 developing countries between 1960 and 1975. They found that flows of FDI were associated positively, but stocks only a licensed commercial bank, a licensed specialized bank or a registered finance company may accept deposits. Only financial institutions with rating of at least 'B' by Credit Rating Agency can have commercial presence in Nepal were associated negatively, with growth in per capital [16]. According to them, flows of FDI inject new capital into a country and so initially spur growth, but over time the more powerful negative effects of multinationals begin to work their way through the economy and constrict further growth. A multiple regression analysis conducted by Dolan and Tomlin (1980: 51-53) of per capita GNP growth in 66 developing countries between 19970 and 19973 appeared to confirm these observations[17]. However, the above cross country studies have been challenged on both methodological and empirical grounds.

Over the years, the flow of FDI is shifting from primary and secondary sectors of the economy to the service sectors. During the 1950s, FDI was mainly concentrated in the primary sector and manufacturing. The latter FDI was of a market-seeking type, motivated by access to national markets, often sheltered from international competition by trade barriers. Today, it is mainly in-services and manufacturing. In fact, the rapid growth of FDI in the recent past has been driven largely by FDI in services. The long-term shift towards services has also been consistent over time. For example, the services represented less than a quarter of the stock of FDI of major home and host countries at the beginning of the 1970s, 40 percent in 1985 and almost a half in 1990. The shift continued into the 1990s and 2000s. The share of the services sector in world FDI stock now amounts to some 60 percent. In inward FDI, the importance of services has also increased in both developed (from 49 percent in 1990 to 61 percent in 2003) and developing countries (from 47percent to 55 percent during the same period)[18].

4 Current Health Of The Nepali Banking Market

Nepal Bank Limited and Rastriya Banijya Bank, oldest Commercial Banks of Nepal, are also the largest public banks of Nepal. These bank hold 20 percent of the total banking sector assets[19]. However, in the last 15 years these banks have been struggling to maintain efficiency and productivity. Although these banks have been making minor profits in the recent few years, questions have been asked about their soundness and health. It is imperative that these state-owned banks perform fairly well given the fact their health has a major impact on the well-being of the entire banking industry.

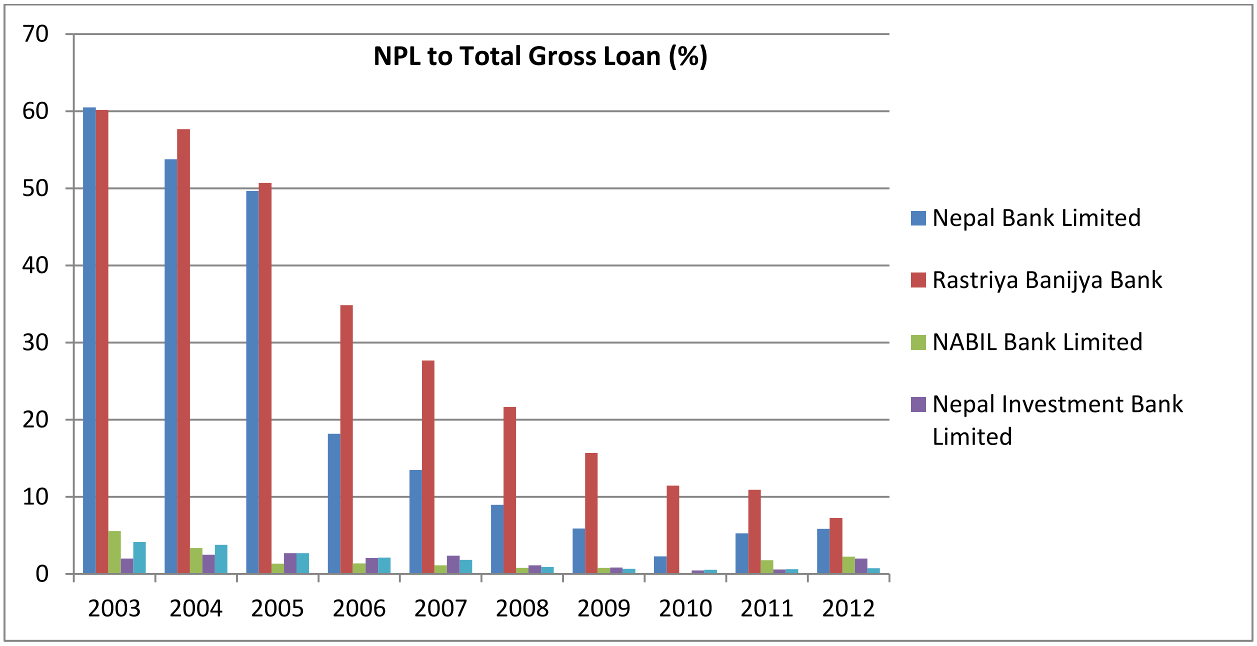
As a case study just to show how badly the two oldest and largest commercial banks yet, have been performing. I have taken data from total gross loan and capital fund to risk weighted assets provided by NRB 2012, for five commercial banks. Simple comparison is evident to prove the real scenario.

On private sector Nabil Bank, Nepal Investment Bank and Standard Charter Bank are the largest Private sector banks in Nepal, these banks contain half of the share from total market assets among them.

In 1998, an organization named KPMG Barents Group conducted a diagnostic study and announced the ill-state of these banks. They claimed that the banks would need recapitalization of worth Rs 25 million to Rs 30 million to rectify the deteriorating condition. In the same year the government also reduced its share in Nepal Bank Limited to 41 percent. It maintained its full control over Rastriya Banijya Bank though. It is also the largest commercial bank in the country with maximum number of branches over the country. The management of these banks has been handed to foreign groups and the World Bank has been granting continuous assistance to improve productivity of these banks[20]. Even after the restructuring process under the leadership of the World Bank, these banks have been bearing negative net worth in the last few years. The main reason for increasing liabilities is extraordinarily high non-performing loans (NPLs). High level of NPLs has exerted enormous large write offs have also been made.[21] Banks have made efforts to improve the situation of NPLs. It has been seen in the recent years that most of the big loan defaulters had political ties; hence judicial actions against the non-payers was difficult. In 2003, some important reforms were introduced in debt recovery especially to counter rising NPLs, such as blacklisting directives, the Debt Recovery Tribunal and the Appellate Tribunal. This has helped to tackle minor offenders but recovery of larger sums of money was still a herculean task. Defaulters of larger loans often tend to seek support from political parties that have powerful influence in policymaking. Banks have even attempted to seize collateral from defaulters but it seems, without strong political will this situation is hard to reverse[22].

If we analyze banks soundness indicators, we get some idea about the problem the largest two state owned banks are going trough compared with other three major commercial banks.

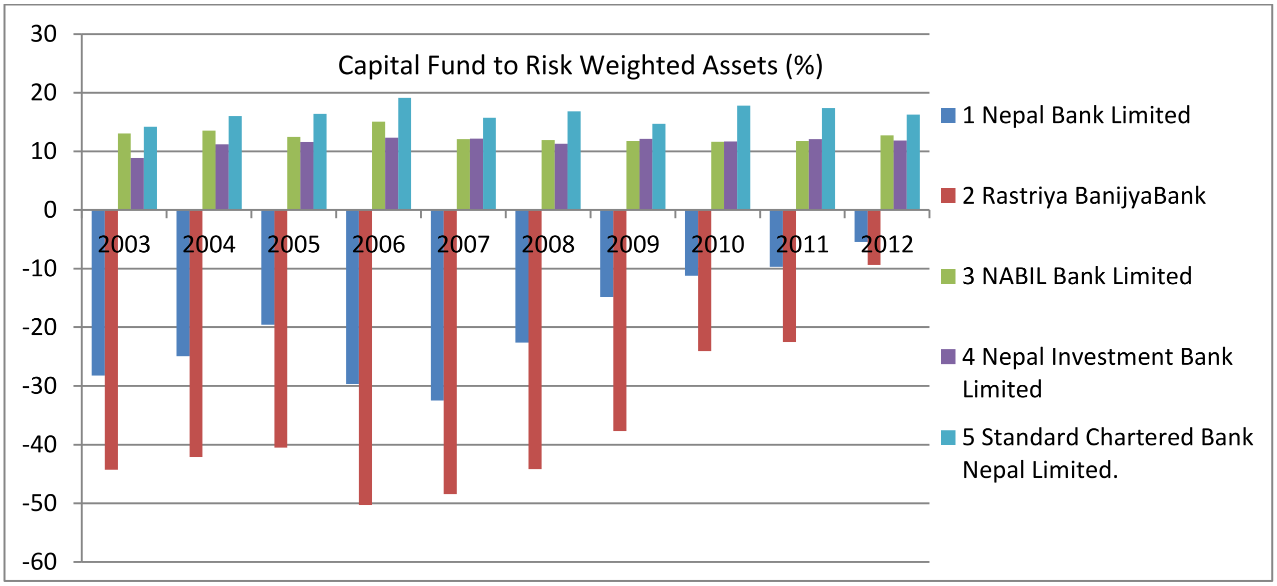
Figure 5: NPL to Total Gross loan (%)



Source: Banking and Financial Statictics, Nepal Rastra Bank. Own calculation

From the figure, we can deduce that ratio of NPL to total gross loan is going down, basically because a large number of loan write-offs has been made. Also, we cannot ignore that total gross loans have also increased. After 2005, there was a significant reduction in the ratio because credit boom was brewing up. In the present, the ratio is far less than in early 2000s but it is still very high by industry standards, as we can see that the other three commercial banks have their books well maintained over the years.

Figure 6: Capital Fund to Risk Weighted Assets in percentage



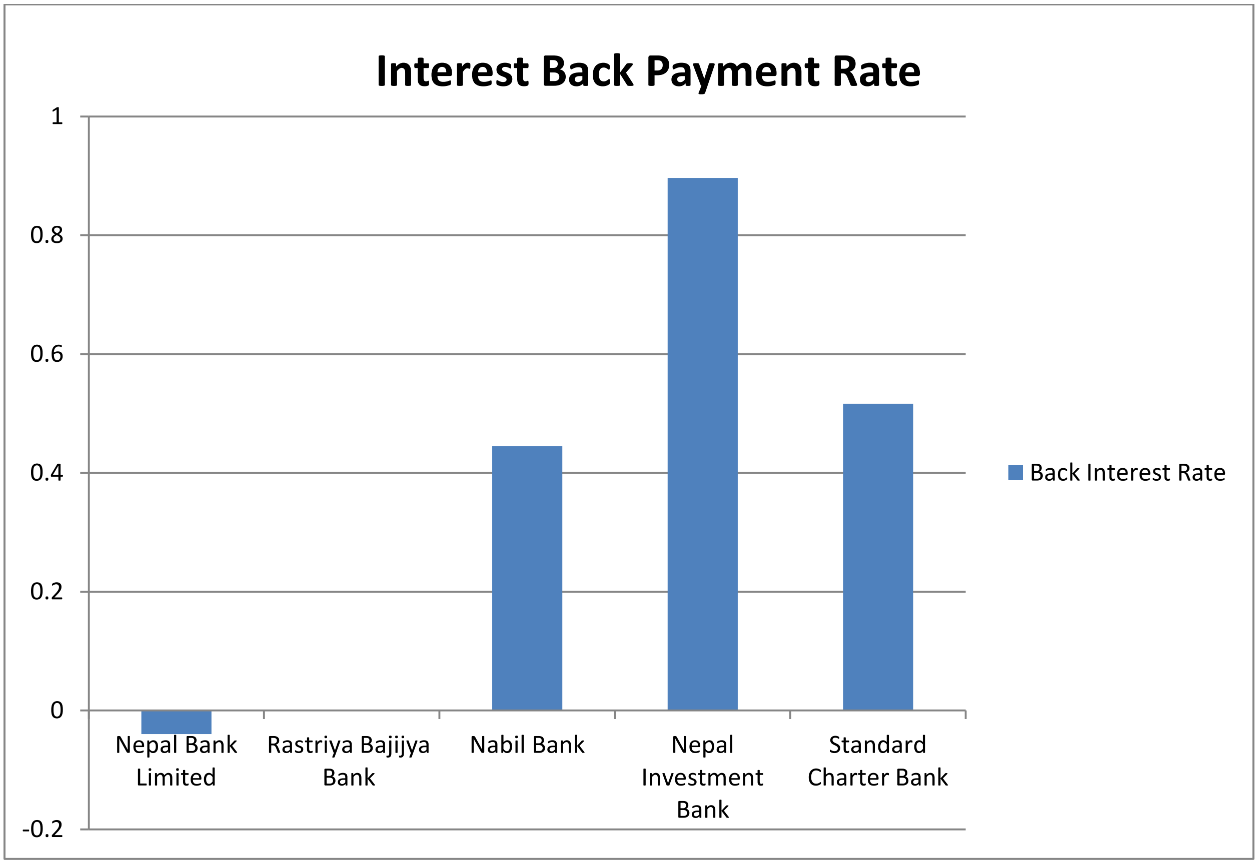
Source: Banking and Financial Statictics, Nepal Rastra Bank. Own calculation

The above figure clearly shows sorry state of affairs of Nepal Bank Limited and Rastriya Banijya Bank. These banks have negative capital funds from the year 2003. retained earnings is negative. Again, 2006 was far worse because of large borrowings to invest real estate sector and monetary instability. Compared to the industry, the performance is far too low. While most of commercial banks enjoyed retention of solid capital funds in their balance sheets, the two oldest and most experienced banks had negative worth. Failure of these banks to maintain healthy balance sheets has added more vulnerability to already fragile banking industry. As soon as measures must be taken to eradicate any chances of sudden collapse.

4.1 Analysis of Interest Rate Spreads

Private commercial banks were moving in a new direction. While the government bank owned banks Nepal bank limited and Rastriya Banijya Bank limited were losing their grips in the market. With the analysis of Interest rate Accrued and suspense interest rate comparison of the top five commercial bank in Nepal, we can clearly find out the condition of Interest back payment rate.

Figure 7: Interest back payment rate of commercial bank



Source: Banking and Financial Statictics, Nepal Rastra Bank. Own calculation

In the above figure 7 we can see that two major Government banks Nepal Bank Limited and Rastriya Badijya Bank limited have negative interest back payment ratio compared with other major commercial bank in Nepal. This goes to show the lack of regulatory and proper measures to follow the guide line set by the central bank of Nepal.

In 2008, In the name of open economic policy and business flexibility, banks were given the autonomy to decide their interest rates. As a result, we noticed such a large gap between interest given to depositors and charged to borrowers. Interest rate is a key factor in maintaining a balance between saving and investment. If interest rate is high people will save money and keep in bank rather than investing and spending which will be disincentive to business and manufacturers. If interest is low, people will have less motivation to save which will raise inflation and less money available in banks for lending/investment. Therefore, maintaining right balance is a challenge of monetary policy.

4.2 Comparison of Real Interest Rate

Nepal is a land-locked country surrounded by India on three sides and China to the north. India has played a key role in the economic performance of Nepal. India with its rapidly developing capital markets is already emerging as one of the economic leaders in the future. Despite rapidly increasing population, India has one of the highest economic growth rates in the world. India is also making swift advancement in technology and has now been producing some of the best human capital in the field of technology. Nepal can have a great support from India.

Nepal's largest trading partner is India with whom Nepal conducts around 80 percent of trade[23]. Nepalese currency is also pegged against Indian currency. This policy has been adopted to bring macro-economic stability. Nepal also adopts open border policy with India which has allowed goods and services to move freely across the border. Due to all these strong economic linkages, Nepal inevitably "imports" inflation from India. Price increase in India is certain to increase prices in Nepal too. Therefore, it becomes logical to compare real interest rate of Nepal with that of India rather than with the real interest rates of other countries.

From the year 2005-2012, mushrooming of financial institutions and rapid credit growth can be attributed to weak supervision and lax monetary policy[24]. Loose monetary policy kept the real interest rates low in comparison to India which exerted pressure in the equilibrium of Nepalese-Indian currency[25]. But the decreasing real interest rates encouraged credit growth in the country. Banks invested large sums of money in the private. Real estate sector emerged as the most promising business idea because political instability in the country has stalled progress in most the business sectors. Too much money chasing the real estate sector fueled the bubble eventually.

Figure 8: Real Interest Rate comparison

Sources : World Bank database. Own calculation.

The real interest rate was decreasing continuously after 2005 till 2008. There was no significant real cost of borrowing in that period of time. Liberal monetary policy allowed many financial institutions to operate at the same time banks started to take higher risk through high borrowing and lending. Herding behavior commenced as banks matched each other's risk taking behavior which made the system vulnerable.

5 Data Analysis and Interpretation

This study considers all the commercial banks operating in Nepal for the sample period of nine years from 2001 to 2009. There are minimum of 15 banks (for 2001) and maximum of 25 banks (for 2009) in each year during sample period. The KIST bank was promoted as commercial banks in 2009. Hence it is not included in study. The nine year sample period is regarded as sufficient to capture characteristics of Nepalese banking industry. The choice of sample period is also confined by the availability of data. Although there are other financial institutions that provide banking and near banking or limited banking activities, still the share of commercial banks on total financial institutions' asset is more than eighty percent over the sample period (Nepal Rastra Bank, 2009:12). Therefore, the sample used in this study may rightly represent Nepalese banking industry.

This study is mainly based on accounting (secondary) data of commercial banks. The required data have been extracted from annual reports and financial statements of the banks available in Securities Board (SEBO) database and Nepal Rasta Bank (NRB) database.

5.1 Test of Market Structure

Panzor and Rosse Model Among the non-structural models, one of the widely used techniques to study competitive conditions in the banking industry is the Panzar and Rosse (1987) model. The PR model assesses the impact of changes in factor prices on the revenue under the different market structure[26]. The magnitude of changes helps to determine the degree of market competition in the market. The Pearson correlation matrix of variables used in Panzar-Rosse model[27]. From the correlation matrix, it reveals that there is lower correlation among explanatory variables; hence multicolinearity may not be the serious problem while estimating the parameters.

Table 3: Correlation Matrix

Correlation Matrix

	REVN	*INTC*	*LC*	*OTHC*	*LOAN*	*TA*	*EQTY*
REVN	1						
INTC	0.49	1					
LC	0.44	-0.13	1				
OTHC	0.24	-0.11	0.23	1			
LOAN	0.22	0.08	-0.12	-0.19	1		
TA	-0.12	-0.47	0.11	-0.43	0.25	1	
EQTY	-0.19	0.11	0.23	0.06	-0.3	-0.45	1

Note: REVN is the ratio of interest income divided by total assets; INTC is the interest expenses divided by total deposit; LC is the staff expenses divided by total assets; INTC is the ratio of interest expenses to total deposit & borrowed funds; LC is the ratio of staff expenses to total assets; OTHC is the ratio of other operating expenses to total assets. LOAN is the ratio of loan to total assets; TA is the total assets; & EQUTY is the ratio of equity to total assets.

The fixed effect estimates for both models are reported in Table 4. The models are statistically significant and have reasonably sound explanatory power evident from adjusted R-square values. All the coefficients, except for the LOAN, are statistically significant. The sum of elasticity of factor prices is 0.685 in Model I and 0.5969 in Model II suggesting monopolistic competition in Nepalese banking industry. The Wald tests for perfect competition (H=1) and for monopoly (H=0) that reject the null hypotheses reconfirms the conclusion. The higher value of H-statistic in Model I indicates that there is higher competition among Nepalese banks in interest income based market than that of in non-interest income market. An analysis of the sign and significance of the regression coefficients, particularly price of inputs in table 3, indicate that the price elasticity of funds, labor and capital are positive and statistically significant in both the models. In interest-based product market (Model I), the impact of cost for funds seems to be high and the labor cost seems to be low. However, these results vary in total market (Model II) where cost of capital seems to be low compared with other input prices.

Table 4: Fixed Effects Estimates of PR Model

Fixed Effects Estimates 0f PR Model						
	Model 1			Model 2		
	Interest-Based Product market Total market			Total Market		
	Coefficient	*S. Error*	*P-value*	*Coefficient*	*S. Error*	*P-value*
INTC	0.387	0.029	0	0.23	0.035	0
LC	0.128	0.04	0.002	0.195	0.050	0
OTHC	0.169	0.043	0	0.171	0.051	0.001
LOAN	0.011	0.007	0.11	0.009	0.008	0.27
TA	0.046	0.015	0.003	0.044	0.018	0.015
EQUTY	-0.11	0.023	0	-0.09	0.028	0.002
CONSTANT	-1.372	0.272	0	-0.942	0.331	0.005
Adj. R-Squared	0.646			0.579		
F-statistic	43.79			14.48		
p-value off-stat.	0			0		
H-statistic	**0.685**		-	**0.597**	-	-
<u>*Wald test for H=1*</u>						
F-statistic	29.94			33.18		
p-value off-stat.	0			0		
<u>*Wald test for*</u>						

<u>*H=0*</u>						
F-statistic	141.5			72.78		
p-value off-stat.	0			0		
No. of observations	130			130		

Note: In Model I, dependent variable is log of total interest income to total assets and in Model II dependent variable is the log of sum of interest income, commission and discount income, and other operating income to total assets. All the independent variables are measured in log scale.

In addition, for interest based market, cost of funds has higher influence on revenue (income); the elasticity is 0.3872 for Model I and 0.2297 for Model II. Regarding other bank-specific variables in regression, the coefficient of lending activities, measured by loan to total assets is positive, suggesting positive effect of lending activities on revenue of the banks. However the coefficient is not statistically significant at normal level.

The H-Statistic (in bold) is the sum of first three coefficients. In Wald test, the given statement is the null hypothesis. The log-linear function of model and equilibrium test limited the sample size to 130 observations. The size of the bank plays significant and equal role in generating revenue in interest-based market and total market as signified by the positive and statistically significant coefficient. The marginal propensity of revenue (interest income) with respect to asset base is approximately 4.5 percent (0.045) indicating some scale economies on revenue generation. The sign of equity capitalization is negative and statistically significant in both models. The result is consistent with banking theories; the bank with higher risk propensity uses less equity hence generates more income and suggests that revenue propensity decreases as equity ratio increases. The magnitude of equity ratio is greater for interest-based product market than that for total market. The evidences from PR reduced form revenue models confirm the evidences from general measure of market competition, the concentration ratio of Nepalese banking industry is competitive, at least monopolistic competitive behavior among banks.

Table 5: H- Statistics: South Asian Comparison

H-STATISTICS: SOUTH ASIAN COMPARISON

Country	H-Statistic
Sri Lanka	0.7568
India	0.6804
Nepal	0.5969
Bangladesh	0.4594
Pakistan	0.3859

Note: H-Statistic for Nepal is extracted from Table 2 above and H-Statistics for Bangladesh, India, Pakistan and Sri Lanka are extracted from Perera et al. (2006) Table 4, 5, 6, and 7 respectively.

The H-Statistic is based on fixed effects estimates without time dummies for Total Market. Meanwhile when comparing the H-Statistic of PR Model for Nepal with similar study in other South Asian banking industries ,the average H-Statistic of Nepal is lower than that is for Sri Lanka and India and higher than that of for Bangladesh and Pakistan suggesting that the Nepalese banking market is less competitive than Sri Lankan and Indian banking markets and more competitive than Bangladeshi and Pakistani banking markets[26]. The average H-Statistics are for the countries are given in Table 5 .

5.2 Outcome of PR Model

The evidence suggest that the banking industry in less concentrated that is, more competitive in recent year. Furthermore, revenue behavior of banking industry is studied using The Panzar-Rosse model for both interest rate market and total revenue based market.

6 Discussion

From 2005 to 2011, there was speedy credit growth. Banks were growing in huge numbers finance companies and development banks. With the rise in the number of financial institutions, borrowing and lending activities also increased. Sudden rise in credit growth was a clear signal of approaching credit boom which when burst could bring disastrous consequences to the whole industry.

The expansion in credit from 2005-2011 can be attributed to sudden increase in remittance. Lots of Nepalese citizens have left their country in search of better employment & schooling opportunities abroad. They send funds earned abroad to their families in Nepal which has increased purchasing power of the recipients. Banks have indulged in cut throat competition to attract remittance recipients by offering unusual rates of interest. Such practice had introduced several kinds of risks that were detrimental to the health of the banking industry.

From the analysis of the period from 2005 to 2011, they can see that banking industry was heading in the wrong direction. There was mismanagement of growing money which were invested heavily in real estate market without much diversification. Lack of clear vision and lack of experience were evident among the policy owner makers and managers of financial institutions. Proper risk management techniques need to be installed to reduce losses from asset bubble burst and mismanagement of funds.

Stock market reached record high in the year 2008 and the market values came crashing down. Rapid expansion in credit growth had increased activities in the stock market but when the growth seemed unsustainable, there was a stock market crash. Margin lending was also identified as one of the problems as it provided space for artificial manipulation of prices. Two largest state-owned banks which hold around one-fifth of the total bank assets have been bearing losses for years. Several attempts have been made to rectify miserable situation of these banks but there are some inherent problems which need to be tackled first to improve their health. These banks need to be restructured as soon as possible.

Behavioral finance tells us certain attributes about the public. Analysis of behavioral basis is important to understand why and how the decisions were made by the bankers, depositors, investors and other stakeholders. Overconfidence was exhibited by bank managers during the period of turmoil. Herding behavior was largely prevalent in Nepalese investors. People were also guilty of extrapolation bias.

7 Conclusion

From the risk analysis we can see that the two major banks of Nepal are relatively growing to better their respective portfolio and trying to come in the level of marginal acceptance to compete with other major commercial banks. Furthermore, revenue behavior of banking industry is studied by using Panzar-Rosse model for both interest based market and total revenue based market. The results from PR model estimate indicate monopolistic competition in Nepalese banking industry. The rejection of monopoly market competition and perfect competition confirms it. The test results indicate that the market is in equilibrium. The value of H-statistic in total revenue based market is lower than that for interest income based market proposing that there is lower competition among banks in non-interest based or fee based market. The banks managers can create their strategies accordingly. In addition, there exist scale economies for Nepalese banks i.e. larger banks are better able to generate more revenue. Therefore the individual banks can take advantage of scale economies. However, there is negative impact of equity capital on revenue generation in Nepalese banking- the banks with higher equity base are likely to generate lower revenue comparing with banks with lower equity capital base. It indicates that there is risk-return trade-off between equity capital and revenue. The results are robust to different model specifications and different estimation techniques. Nevertheless, as indicate by the value of H-statistic, there is room for improvement in competitive behavior of Nepalese commercial banks. Hence, the regulators should give continuity to the ongoing financial sector liberalization and reformation that help to increase competitive market behavior among banks.

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9 Appendix

Table 6:Growth indictor of commercial bank

Particulars	Mid- July											
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Capital Fund	26.56	43.97	26.56	-107.36	-516.43	17.90	192.50	273.5	104.36	46.66	36.9	11.4
Borrowings	-	-	-	12.46	23.77	34.61	22.32	17.55	12.73	7.51	23.8	-26.9
Deposits	21.95	3.96	11.51	13.12	9.81	15.42	19.28	30.10	32.55	16.83	10.8	23.2
Liquid Funds	16.20	-5.90	-20.59	22.08	-14.32	4.23	21.66	68.64	45.18	7.34	-0.8	59.9
Investment	40.59	43.36	31.00	8.64	18.95	33.76	14.53	18.11	17.46	4.53	10.2	28.9
Loans & Advances	15.94	19.54	11.35	11.67	13.38	10.22	26.55	34.27	30.70	21.32	15.8	12.3

Source: Nepal Rastra Bank. (2011). Banking and Financial Statistics. Kathmandu: Nepal Rastra Bank.