Financial Liberalization and Financial Development in Nepal

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An efficient financial system can effectively mobilize and allocate resources leading to robust economic growth. Financial liberalization improves the functioning of financial system by increasing the availability of funds and allowing risk diversification and increased investment. The indices of financial liberalization and financial development, generated by the principal component analysis, depict a gradual process of financial liberalization and a continuous financial sector development. The paper finds the presence of bi-directional causal relationship between the liberalization of financial sector and level of financial development in Nepal.

I. INTRODUCTION

A deep and efficient financial system can contribute robustly to sustained economic growth and lower poverty (Beck, Levine, and Loayza 2000). An efficient and effective provision of financial services requires that financial policies and financial system structures be adjusted in response to financial innovations and shifts in the broader macroeconomic and institutional environment. Thus, the financial system acts as the brain of modern economy. Well developed financial systems ease the exchange of goods and services by providing payment services; help mobilize and pool savings from a large number of investors; acquire and process information about enterprises and possible investment projects, thus allocating society's savings to their most productive use; monitor investments and exert corporate governance; and help diversify and reduce liquidity and intertemporal risk (Levine, 1997, 2004). The proponents of liberalization argue that the allocation of capital is more efficient in a competitive financial system and that higher real interest rates stimulate saving, thereby raising the funds available to finance investment (McKinnon 1973, Shaw 1973). In McKinnon's (1973) Complementary Hypothesis, money and capital are complementary to each other. High interest rate can mobilize more savings. According to Shaw's (1973) Debt Intermediation View (DIV), high real interest rates are essential in order to attract more savings. Thus, the McKinnon – Shaw framework of financial liberalization asserts that high interest rates

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can avail more financing by sufficiently mobilizing scarce savings. Financial interventionism in the 1960s and 1970s directed cheap credit to favoured sectors (industry, exports, small enterprises, and agriculture), which deemed productive, but discouraged consumption and trade as unproductive. In doing so, credit ceilings and high reserve requirements were imposed and interest rate administered in order to contain inflationary pressure due to cheap credit policy. However, financial interventionism could benefit neither industry and exports nor the agricultural sector. Such credits at low rates tended to be characterized by poor lending decisions, weak repayment discipline, and corruption in the government, since those granted access to capital (usually at low rates) may buy influence to protect their favored positions. Rather, it distorted financial development and economic growth (Fry 1995, 1997).

However, financial crisis is more prone to financial liberalization. Financial fragility aggravates unpleasant economic development, inappropriate economic policies and balance of payment problems. Institutional development with effective legal enforcement, prudential regulation in place, efficient bureaucracy and low level of corruption minimize the reverse impacts of financial liberalization (Demirguc-Kunt and Detragiache, 1999). Legal environment (including enactment and enforcement of laws) has important influence on financial liberalization and financial development of a country. Reforms including advancing investor protection are likely to promote financial development (La Porta *et al*, 1998, 2002). Imperfect financial markets make external finance costly and reduce investment. Financial development (Rajan and Zingales, 2003; and Love, 2003) and banking sector liberalization (Laeven, 1999) help to reduce financing constraint and raise investment.

Financial liberalization helps to improve the functioning of financial system by increasing the availability of funds and allowing risk diversification and increased investment (Bekaert et al. 2000). Moreover, financial liberalization helps to discipline policymakers enticed to a captive financial market. Financial liberalization triggers financial development, which facilitates economic growth (King and Levine, 1993; Jayaratne and Strahan, 1996; Rajan and Zingales, 1998).

The process of reforms or liberalization varies across countries and is dependent upon the prevailing politico-economic features. In some of the developing countries (the Latin American countries, in particular) financial sector reforms started with interest rate liberalization, whereas in Nepal the easing of entry barriers was followed by the liberalization of interest rates on deposits and loans so as to foster competition. The statutory liquidity requirement (SLR) was lifted in 1989 as part of financial reforms, but re-imposed in 1991 for two more years. Deregulation of interest rates and credit control began in 1986 and full deregulation took place only in 1989. Regarding international financial transactions, current account convertibility was undertaken in 1993, whereas move towards capital account convertibility has been cautious. The chronology of financial reforms and financial liberalization index as illustrated in Appendix 1 and 2 respectively depict the financial reform process in Nepal.

The next section discusses the theoretical framework on deriving the indices of financial liberalization and financial development. The objectives of the study and methodology adopted are discussed in the third section. In the fourth section, the indices of financial liberalization and financial development are developed, followed by the interpretation in the fifth section. The sixth section analyzes the causal relationship

between financial liberalization and financial development. The last section concludes the study.

II. THEORETICAL FRAMEWORK

The index of financial liberalization documents the trend and pace of financial reforms. Most of the researchers have constructed their own indices of financial liberalization based upon the chronological study of different financial systems. Demirguc-Kunt and Detragiache (1999) have considered the deregulation of interest rates as the liberalization of domestic financial sector and include liberalization of domestic banking sector and opening up the stock markets to foreign investors. In a survey of financial liberalization in 34 countries, Williamson and Mahar (1998) have identified six different dimensions of financial liberalization: (1) elimination of credit controls, (2) deregulation of interest rates, (3) lifting of entry barriers into the banking industry, (4) bank autonomy, (5) pace of privatization of public sector banks, and (6) liberalization of international capital transactions.

Kaminsky and Schmukler's (2002) index of financial liberalization captures a wide degree of intensity of financial liberalization, including the episodes of reversal and the regulation on domestic financial institutions and non-financial corporations, multiple exchange rates, and controls over capital flows. They have divided financial system into three regimes (as fully liberalized, partially liberalized and repressed and ranked by 1, 2 and 3 respectively). The lower the index, the more liberalized is the financial system.

Demetriades and Luintel (1996 a, b) have directly measured the degree of control in the banking sector of Nepal and India separately by applying the principal component method and taking interest rate controls, liquidity requirements, directed lending, and branch banking as the proxy of financial repression. They have mentioned ceilings, floor and band on both lending and deposit rates. Bekaert *et al* (2000) have considered capital account convertibility as the measure of financial liberalization. The indicator takes a value between zero (pre-reform period) and one (post-reform period). Bandiera, Caprio, Honohan and Schiantarelli's (1998, 1999) studies find eight different components: interest rates, pro-competition measures, reserve requirements, directed credit, bank ownership, prudential regulation, securities markets deregulation, and capital account liberalization. They generate the index by using principal component method.

Abiad and Mody (2003) have indexed financial liberalization for 35 countries including Nepal, over a period 1973 to 1996. They pursue political economy perspective in explaining timing, pace and extent of financial sector reforms. They have considered six policy dimensions as the inputs while indexing the degree of policy liberalization. They are: (i) credit controls, (ii) interest rate controls, (iii) entry barriers, (iv) regulations and securities markets, (v) privatization in the financial sector, and (vi) restrictions on international financial transactions.

Ang and McKiibbin (2005) developed a single index of financial development by using principal component method. The indicators of financial development are logarithm of (i) ratio of liquid liabilities to GDP, (ii) ratio of commercial bank assets to total assets of commercial bank and central bank and (iii) ratio of domestic credit to private sector to GDP.

III. OBJECTIVES AND METHODOLOGY

This paper aims to provide a better understanding of the liberalization process in Nepal over the period 1975 to 2006. It captures various aspects of liberalization. It covers several regulatory reforms and impositions of prudential regulation and other control measures to provide information on the degree of financial liberalization while relating it to institutional reforms. The principal component analysis is performed to reduce a large number of correlated variables into the two indices of financial liberalization and financial development so as to overcome the problem of muticollinearity.

The paper examines casual relationship between financial reforms and financial development. Granger causality test is performed to find out the direction of causation between the financial liberalization and financial development. Granger causality test (Granger 1969, and Sims 1972) is used to test whether changes in one variable causes change in another or both of them are endogenously determined. Given the two variables financial development (X) and financial liberalization (Y), we estimate unrestricted and restricted equations, as given below.

Unrestricted Regression: $$Y_t = \sum_{i=1}^{p} \alpha_i Y_{t-i} + \sum_{j=1}^{q} \beta_j X_{t-j} + u_t \qquad (1)$$

Restricted Regression: $$Y_t = \sum_{i=1}^{p} \alpha_i Y_{t-i} + u_t \qquad (2)$$

where, u_t is white noise, p is the order of the lag for Y, and q is the order of the lag for X.

IV. INDICES OF FINANCIAL LIBERALIZATION AND FINANCIAL DEVELOPMENT

Different dimensions of financial liberalization and financial development are highly correlated. It is obvious that correlation does not imply causation, but it is likely to be an outcome of causality. The principal component analysis reduces a number of correlated variables into a smaller set of uncorrelated principal components. It sufficiently deals with the problems of multicollinearity. It expresses different dimensions of financial liberalization and financial development in terms of two indices of financial liberalization and financial development respectively. The new proxies of financial liberalization and financial development are able to capture most of the information from the original series.

The method of principal components involves linear transformation of a large number of policy variables, which are possibly correlated. In this method, a new series is developed with standardized variables so that they are uncorrelated and they are ordered in terms of variance. The standardized series is constructed by deducting the mean of the variables and dividing it by the respective standard deviation. The variances of each policy variable are divided by the square root of the sum of the variance to get the loadings for each policy variable. Finally, the standardized series are multiplied by respective loading. While generating the index of financial liberalization each dimension is classified into four categories, fully repressed, partially repressed, largely liberalized and fully liberalized and graded as 0, 1, 2 and 3 respectively.

The index of financial development consists of the ratios of liquid liabilities of the financial system to GDP, credit to private sector to GDP, domestic assets of commercial banks to the sum of domestic assets of Nepal Rastra Bank and commercial banks, and private sector credit to total loans and advances of commercial banks. The subject matter of financial liberalization is broader and it requires subjective judgment while constructing the index of financial liberalization. The grading is also subjective. However, some guiding principles have been adopted to reduce subjectivity. Interest rates control, for example, was graded as fully repressed when it was determined by the central bank and partially repressed when the interest rates were subject to a ceiling or floor or allowed to vary within a band. It was largely liberalized when some of the interest rates were allowed to be completely market driven and finally fully liberalized when all the restrictions were removed completely. Each subcomponent is ranked between 0 and 3 and their sum is divided by total number of subcomponents to reach into the common ranking of every dimensions. Since each of the indices can take on values between 0 and 3, the sum takes on values between 0 and 18 altogether.

The indices of financial liberalization and financial development are for the period 1975 – 2006. Financial liberalization index is derived from six different dimensions of financial policy variables as suggested by Abiad and Mody (2003). The ratios of broadly defined money supply to nominal GDP, private sector credit to GDP, private sector credit to total loans and advances of commercial banks and total assets of commercial banks to total assets of commercial banks and domestic assets of central bank are used to construct the index of financial development (as used by King and Levine 1993a; Beck *et al* 2004; Levine 2004). Data for nominal GDP is obtained from various issues of the *Economic Survey* published by the Government of Nepal, broad money supply is used as proxy for liquid liabilities, credit to the private sector and total assets of commercial banks, domestic assets of Nepal Rastra Bank and total loans and advances of commercial banks are taken from various issues of *Quarterly Economic Bulletin* published by the Nepal Rastra Bank.

Index of Financial Liberalization

The index of financial liberalization captures the various policies implemented for liberalizing the financial sector. This paper, therefore, considers six dimensions of financial sector policies to arrive at a single index of financial liberalization.

(a) *Entry Barriers (ENTRANCE):* It covers licensing requirements, limits on foreign participation in the banking sector, restrictions on bank specialization and establishment of universal banking.

(i) Licensing requirements: Licensing was totally restricted before 1984 and ranked by 0. Restrictions were eased as documented by 1 up to 1997, which increased to 1.50 for 2000 to 2002 and further to 1.75 in 2003.

(ii) Limits on foreign bank participation: Domestic private sector was allowed for new entrance since 1998 and it is marked as 2 onwards.

(iii) Restrictions to bank specialization: Bank specialization was allowed after 1984 (graded as 1) with widening of private participation since 1998 (graded by 2). Bank specialization is graded 0 before 1984.

(iv) Universal banking is not allowed yet and ranked as 0.

(b) *Interest Rate Controls (INTEREST):* It is a policy variable that seeks to find out whether there exists a direct control over interest rates (in the form of floor, ceilings or interest rate bands). Complete administrative control over the interest rates before 1984 is indicated by 0. Liberal attitude towards fixing interest rates within the range of 1 to 1.5 percent since 1984 to 1985 is ranked as 1. Similarly, partial deregulation between 1986 and 1989 is ranked by 2 and thereafter by 3 as complete deregulation.

(c) *Credit Controls (CREDIT):* This policy variable comprises of directed credit, credit ceilings and reserve requirements (both CRR and SLR).

(i) Directed credit to the favored industries or sectors: Directed credit existed until 2001 and is graded as 0. As it was eased in 2002, it is ranked by 2; it is graded as 3 as it was phased out gradually starting from 2003.

(ii) Credit ceilings toward other sectors: Credit ceilings were present till 1989 and then removed. Therefore, it is graded as 0 before 1989 and 3 onwards.

(iii) High reserve requirements: It is the summation of cash reserve requirement (CRR) and statutory reserve requirement (SLR). The reserve requirement below 10 percent of deposit liabilities is noted as fully liberalized, 10-15 as largely liberalized, 15-25 as partially repressed and above 25 percent as completely repressed. It is ranked by 3, 2, 1 and 0 respectively.

(d) *Regulations and Securities Market (REGULATION):* This variable includes the presence and magnitude of control measures (e.g. staffing, branching and advertisement) and presence of prudential regulations in the banking system.

(i) Operational restrictions and prudential regulations: This explains whether or not there are operational restrictions pertaining to staffing, bank branching and advertising, among others and establishment of new securities markets. The absence of prudential regulation in the banking sector until 1987 is graded as 0, presence of prudential regulation up to 2000 as 1 and onwards as 2.

(ii) Securities market development: Existence of securities market since 1984 is graded as 1 until 1993; stock market was reformed later and is graded as 2. Foreign investors are not allowed to participate in the stock market.

(e) *Restriction in International Financial Transactions (CAPITAC):* International financial transactions comprise presence of multiple exchange rates and restrictions on current account & capital account convertibility.

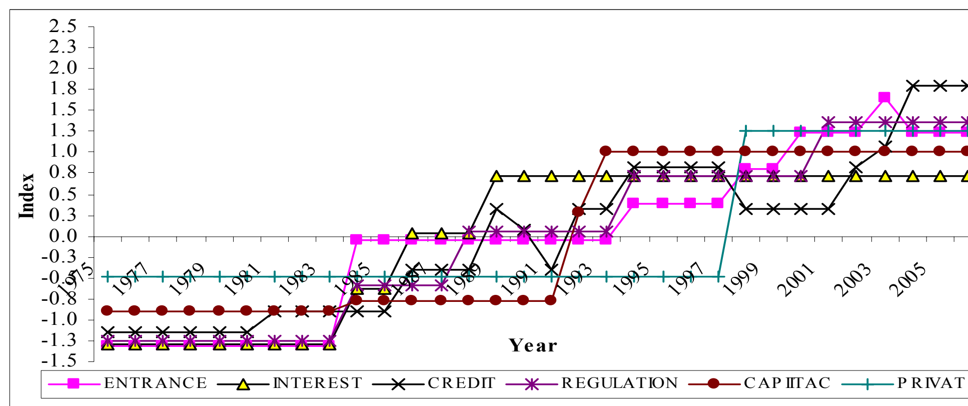
(i) Restriction on current account convertibility: Current account was convertible partially in 1992 and fully since 1993. Therefore, it is graded as 0 up to 1991, 2 for 1992 and 3 onwards.

(ii) Restriction on capital account convertibility: Capital account convertibility captures four components: control on investment outflow, foreign direct investment (FDI), portfolio flows and multiple exchange rates. Investment outflows and portfolio investment are prohibited and ranked by 0 for the whole period. Foreign direct investment was partially allowed (in the financial sector) since 1984; more sectors were opened since 1993. Therefore, it is graded as 0 before 1984; 1 up to 1993 and 2 onwards. Multiple exchange rates were present until 1991 (ranked 0), brought into single rate in 1991 (ranked 1) and market forces were allowed to determine exchange rate since 1992 with frequent interventions of the NRB (ranked 2).

(f) *Privatization of the Financial Sector (PRIVAT):* Policies relating to privatization explain the level of privatization of the public sector banks and financial institutions. It was in 1998 that Nepal Bank Limited was divested by 10 percent to limit government ownership to 40.5 percent. Therefore, it is graded 0 until 1997 and 1 onwards.

When controls were lifted, there were jumps of more than one unit along that dimension. Reversal or impositions of controls were also recorded in the form of shifts from a higher to a lower score. The index allows for distinguishing the dimensions of financial sector reforms, year of major reforms undertaken and minor policy changes as well as policy reversal. The financial liberalization index is fitted in Figure 1.

FIGURE 1: Financial Liberalization Index



Source: Appendix 2.

Index of Financial Development

A well-developed financial system mobilizes savings and allocates resources efficiently, diversifies risks, induces liquidity, reduces both information and transaction costs and provides alternative to raising funds. There are an array of agents and institutions involved in the activities of financial intermediation. In a diversified financial system, the selection of variables to represent the level of financial services generated and measures the extent and efficiency of financial intermediation is not an easy task. Financial deepening can be measured by the intermediaries' ability to mobilize savings, facilitate transactions, reduce information and transaction costs and manage risks. However, valid and reliable data are not readily available and, hence, the proxy so far taken is not perfectly satisfactory. Broad money supply (M2) is considered to be a proxy for the liquidity in the economy.

The natural logarithms of the following variables are used as the proxies while generating the index of financial development covering the period 1975 to 2006. They are: (a) ratio of liquid liabilities of the financial system to GDP (DEPTH), (b) ratio of credit to private sector to GDP (PRIVY), (c) ratio of domestic assets of commercial banks to the sum of domestic assets of Nepal Rastra Bank and commercial banks (BANK), and (d) ratio of private sector credit to total loans and advances of commercial banks (PRIVATE).

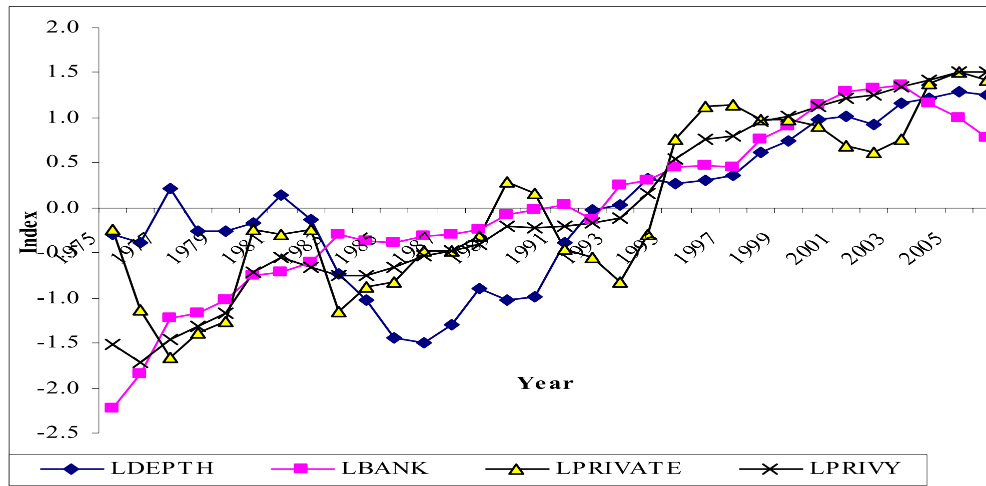
(a) *Liquid Liabilities* (DEPTH) is the ratio of liquid liabilities of the financial system, i.e., the sum of currency, demand and time deposits liabilities of financial intermediaries to GDP [King and Levine (1993a) have used this measure].

(b) *Private Credit* (PRIVY) is the ratio of commercial bank credit to the private sector to GDP. It excludes credit to the public sector and cross claims of one group of banks on another [however, King and Levine (1993 a, b) have used the credit issued by the central bank and development banks as well].

(c) *Bank* (BANK) is the ratio of domestic assets of commercial bank to the sum of domestic assets of commercial banks and the central bank. It measures the degree of credit allocation by the commercial banks. The motive behind this measure is that commercial banks identify profitable investment, monitor managers, facilitate risk management, and mobilize savings more than the central bank.

(d) *Private Sector Credit* (PRIVATE) is the ratio of commercial banks' credit to the private sector to their total loans and advances. It measures the extent of bank credit to the private sector out of their total loans and advances. The index of financial development is illustrated in Figure 2.

FIGURE 2: Index of Financial Development



Source: Appendix 2

V. ANALYSIS AND INTERPRETATION

Statistical examination of liberalization has two major challenges. Firstly, the policy changes tend to be periodic and triggers for these events need to be identified. The events move both ways, towards liberalization as well as reversals in the long-run process. Secondly, identification of dynamic process also leads to cumulative transformations. Since financial sector reform is an ingredient of overall economic reforms, it is difficult to extricate its effects from the reforms in other sector of the economy. Further, the task of reforms is not straightforward but with numerous pitfalls. Generally, it seems clear that

financial liberalization has contributed to mobilize resources through the formal financial system and improved efficiency of allocation.

TABLE 1: Correlation Matrix

VARIABLES	DEPTH	BANK	PRIVATE	PRIVY	ENTRANCE	INTEREST	CREDIT	REGULATION	CAPIITAC	PRIVATE
DEPTH	1.000									
BANK	0.621	1.000								
PRIVATE	0.667	0.774	1.000							
PRIVY	0.740	0.956	0.906	1.000						
ENTRANCE	0.581	0.923	0.800	0.929	1.000					
INTEREST	0.412	0.836	0.721	0.820	0.883	1.000				
CREDIT	0.673	0.837	0.846	0.909	0.869	0.853	1.000			
REGULATION	0.677	0.917	0.844	0.950	0.963	0.904	0.934	1.000		
CAPIITAC	0.797	0.832	0.771	0.887	0.831	0.775	0.865	0.889	1.000	
PRIVATE	0.783	0.749	0.711	0.811	0.775	0.503	0.645	0.741	0.692	1.000

Source: Appendix 2

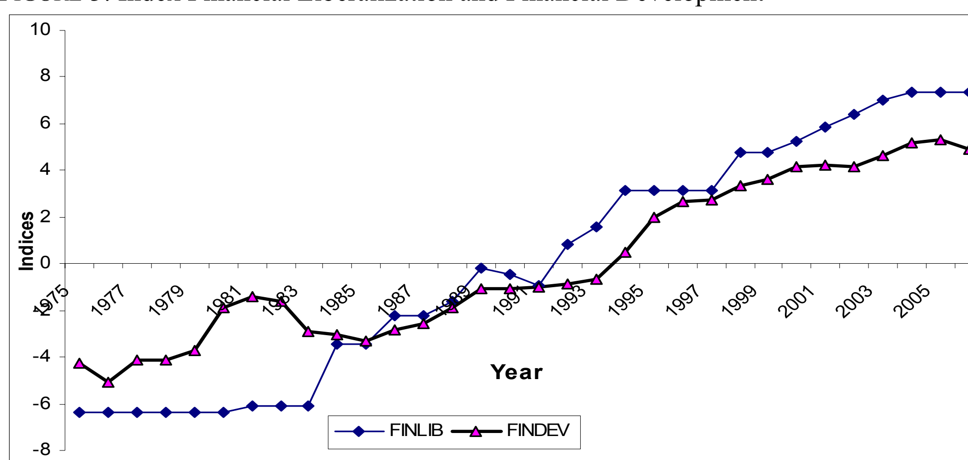
The financial policy variables (credit controls, interest rate controls and controls on international financial transactions) and indicators of financial development are highly correlated with each other. Table 1 shows the correlations among different components of financial liberalization and financial development. The method of principal component is applied to overcome the problem of multicollinearity among the policy variables (financial liberalization and financial development) while quantifying them and constructing the indices of financial liberalization and financial development.

Figure 1 shows the gradual liberalization of the financial sector with partial repression. The reform process has been stretching for more than a decade. Although the process of reforms began in the mid-1980s, the major reforms took place in the late 1980s and comprehensive reforms undertaken after the restoration of democracy in 1990. This index, thus, jointly evaluates the liberalization of the domestic financial sector, the stock market and international financial transaction.

As shown in Figure 2, the index of financial development clearly depicts the development of different variables. The level of financial development was less than average of the overall period before 1993. Among the different variables, LBANK increased more than the others prior to 1981. It was mainly due to the increase in bank lending to the public enterprises and the government. It declined after the initiation of economic stabilization programme in the early 1980s. After liberalization, total domestic assets of commercial banks increased more than that of the central bank. LPRIVATE has an increasing trend but the pace is rather slow over time. LPRIVY has a declining trend before 1980. However, it improved gradually after the initiation of reforms with a smooth growth path until 1994. The emergence of new banks and financial institutions in private sector after 1994 contributed to the growth of the ratio of private credit to GDP since 1994. Further, its growth is affected due to poor investment environment after 1998. LDEPTH (ratio of M2 to GDP) shows an increasing trend at the level above zero since 1989. Its trend is smooth in comparison to the other variables. The declining trend in 1980s improved gradually in the late years of the decade. However, it moved down in the year 1992 due to the adoption of contractionary monetary policy during 1991.

The index of financial development (FINDEV) shows that the development was attributed to the expansion of bank branches before 1980. However, there was a setback in the process of financial development during the early 1980s. An improvement can be observed after the establishment of joint venture banks and partial deregulation of interest rates. The index of financial development shows a variable path of development of the financial system in Nepal. The index turned positive by 1994; however, the extent of development is stagnant with a change each year being less than unity. When the indices of financial liberalization and financial development are put together in Figure 3, both indices are seen to move together.

FIGURE 3: Index Financial Liberalization and Financial Development



Source: Appendix 2

VI. GRANGER CAUSALITY TEST

The indices of financial liberalization and financial development have a rising trend, indicating increase in the degree of financial liberalization and the level of financial development. It refers to the change in the policy i.e. change in the degree of financial liberalization promotes financial development. At the same time, the level of financial development will demand further financial liberalization. In this light, the simple Granger causality technique is applied to find out whether or not there exists any causal relationship between the two series.

TABLE 2: Granger Causality

Granger Causality Tests with Two Lags
Sample period: 1975- 2006

Null Hypothesis:	Obs	F-Statistic	Probability
FINDEV does not Granger Cause FINLIB	30	2.778	0.081
FINLIB does not Granger Cause FINDEV		5.121	0.014

The Granger causality test between the financial liberalization and financial development series suggests that the direction of causality is from financial liberalization

to financial development, since the computed F-statistics (5.121) is greater than the critical value (3.35). The computed F-value of FINDEV to FINLIB (2.78) is not significant statistically and suggests that there is no reverse causation from financial development to financial liberalization at 5 percent level of significance. At 10 percent level of significance, the critical F-value (2.49) is lower than the computed F-value in both the equations indicating bi-directional causality. It shows the existence of bi-directional causality between the FINDEV and FINLIB. However, at the 1 percent level of significance as usual, there is unidirectional causation from financial liberalization to financial development.

VII. CONCLUSION

The analysis of several financial sector policies with the help of a single index of financial liberalization states that financial sector reforms is a process rather than a single moment event. It is clear that after the introduction of financial sector reforms in 1980s, the Nepalese financial sector has widened. The elimination of direct administration of the prices of financial products and private sector participation has contributed to this expansion. Financial liberalization is a process of removing restrictions taking several years to complete. Further, it is also characterized by reintroduction of restrictions at times, but only temporarily. Institutional reforms do not predate liberalization but they are vital for the success of financial sector reforms. It covers information on the quality of institutions as well as laws governing the functioning of the financial system. Improved quality of institutions is likely to reduce financial instability. This analysis shows that the process of financial reforms in Nepal is rather slow. During recent years, reforms are concentrated mainly on improving the financial health of large state-owned banks as well as capacity enhancement of central bank and other institutional improvement. The reorganization and reforming the Nepal Stock Exchange has raised the scope of financial market in Nepalese financial system. Global revolution in information technology and the country's integration with the rest of the world requires the financial sector to be more competitive and updated with recent financial products.

The estimated indices show liberalization of the financial sector and thereby steady financial development in Nepal. Financial development is not only caused by policy changes in the financial sector, but it largely depends on the demand of financial services in the economy. The development of the financial sector is vital for economic development of a country. But it cannot be achieved in isolation with the other sectors of the economy. Simultaneous growth in all the sectors of the economy can raise more demand of financial services and it can stimulate financial development. Unidirectional causality from financial liberalization to financial development (at 5 percent level of significance) found from the Granger causality test depicts this practical situation. At 10 percent level of significance, there is bi-directional causal relationship between financial liberalization and financial development.

APPENDIX 1: Chronology of Financial Sector Reforms

1. *Removal of Entry Barriers*

1A. Policy Measures	*Year*	*Desired Objectives*
Entry barriers were eased for joint venture banks.	1984	Increase private sector participation to foster competition in the financial sector
ADB/N was allowed to undertake commercial banking activities	1984	Foster competition in mobilizing resources from the urban areas to lend in the agricultural sector.
Establishment of Citizen Investment Trust	1991	Mobilize contractual saving
Establishment of Regional Rural Development Banks	1993	Enhance access of rural poor to the formal credit
1B. Legal and Institutional Reforms		
Enactment of Finance Company Act 1985	1985	Avail consumer credit and promote competition
Establishment of Credit Information Bureau	1989	Discourage risky lending, enhance recovery of loans
Creation of Rural Self Reliance Fund	1991	Improve rural credit system
Introduction of Privatization Act	1994	Minimize government's role in public sector utilities
Enactment of International Financial Centre Act	1997	Develop a regional offshore financial centre
Enactment of Financial Intermediaries act	1999	Formalize the informal finance
Enactment of Nepal Rastra Bank Act	2002	Increase autonomy
Establishment of Debt Recovery Tribunal	2003	Reduce NPL
Enactment of BFI Ordinance	2004	Umbrella Act to remove legal fragmentation

2A. Interest Rate Controls

	Year	*Desired Objectives*
Interest rate regulated by NRB. Minimum rate on saving and one year fixed deposit were fixed at 4 and 6 percent.	1966	To make deposit interest rates on savings competitive to that of India.
Interest rates were revised upwards to minimize the impact of the negative real rates. • Interest rates on savings and one year fixed deposit interest rates increased by 0.5 and 1.5 percentage to 5 and 8.5 percent respectively. • Interest rates on call deposit were introduced. • Slack season and busy season rates were fixed at 3.5 and 4.5 percent respectively.	1971	Encourage saving mobilization.
Introduction of new lending rates ranging from 7 to 13 percent	1971	Encourage investment
Introduction of subsidized interest rates 3.5 to 10 percent for agricultural and 7.5 percent for industrial sector.	1971	Protect agricultural and industrial sectors.
Interest rates raised upwards on savings	1974	Maintain positive real interest rate
Upward revision of overall interest rate structure of commercial banks at 15 percent per annum on fixed deposit and higher bank loans 15 to 18 percent	1975	Effectively mobilize domestic saving and control capital flight
Deposit rates sliced down gradually	1977	Reduce the lending rates
Commercial banks were restricted from accepting deposit from foreign institutions	1978	Discourage capital inflow to ease monetary control

2B. Interest Rate Liberalization

	Year	*Desired Objectives*
Banks were free to offer interest rate on deposits above a band of 1 to 1.5 percent than fixed by the Nepal Rastra Bank.	1984	Promote competition; increase deposit rate.
Banks were allowed to fix their own interest on both deposit and loans within a floor and ceilings respectively.	1986	Enable the market to determine interest rate competitively
Inter-bank borrowing was allowed.	1986	Enable banks to manage short term liquidity problems
Complete deregulation of interest rates.	1989	Market forces determine interest rate freely
Redesigning of Nepal Rastra Bank refinance facilities	1989	Solve liquidity problem of banks
Treasury bills auction	1988	Deny cheap funds to the government
Narrow down interest rate spread	1993	Reduce the spread between deposit and lending rates
Abolition of spread regulation	2002	Allow efficient allocation of credit

3. Credit Control and Deregulation

3A. Credit Ceilings	*Year*	*Desired Objectives*
Credit ceiling of 13.5 percent (to that of previous year) was imposed so that no commercial banks could expand their credits in excess	1986	Contain inflation by reducing money supply and curbing down aggregate domestic credit
Abolition of credit ceiling	1989	Freeing banks to extend credit
3B. Directed credit		
Priority Sector Credits		
5% of Total Deposit	1974/75	Avail credit to small and medium projects and diversify risk of credit concentration, encourage productive sector, avail credit to excluded and small sectors of the economy
7% of Total Deposit	1976/77	
8% of Total Lending	1981/82	
10% of Total Lending	1985/86	
12% of Total Lending	1991/92	
While deprived sector credit would remain intact, priority sector credit will be gradually phased out by 2007/08 as follows:		Reduce operating cost and loan default and increase profitability of the banking sector, and make efficient use of fund
7 percent	2002/03	
6 percent	2003/04	
4 percent	2004/05	
2 percent	2005/06	
2 percent	2006/07	
3C. Cash Reserve Requirement		
9 percent	Until 1989	Gradually reduce the CRR so as to free more resources to avail credit to the private sector.
2 percent	1990-97	
0 percent	1998-2001	
9 percent	2002	
6 percent	2003-04	
5 percent	2005-06	
3D Statutory Liquidity Requirement *(SLR): Lifted*	1989	Allow banks to choose portfolio of their own.
Reintroduced	1991	Mop up excess liquidity from the economy.
Abolished	1993	Remove direct control

4. Regulation of Financial Institutions and Securities Market

4A. Prudential Norms for Banks

I.	Capital adequacy ratio, income recognition, loan classification and loan loss provisioning, and single borrower limit	1988	Achieve financial stability through market discipline while discouraging risk exposure and maintain accounts uniformly with that of international practice.
	a. Capital adequacy ratio 5.0 %	1988	Ensure sound and healthy financial system in line with international best practices
	8.0 %	1991	
	12.0%	2002 onwards	
	b. Core capital adequacy ratio of risk weighted assets and off-balance sheet transaction 2.5%, 4.0 %, 6.0 %	1991, 1992 and 1993	Increase franchise value of banks and hence reduce their vulnerability
II.	Allocation of risk factors on off-balance-sheet items.	1991	Safeguard solvency of the financial system
III.	Risk based loan classification and provisioning for loss	1989	Promote stability.
IV.	Interest income recognition on cash basis	1989	Discourage overspending tendency
V.	Single borrower obligation	1989	Control banks' risk exposure and widely avail credit

4B. Securities Market Reform

Establishment of Securities Exchange Centre	1977	Develop the capital market for long term investment.
Enactment of Securities Exchange Act	1984	Enhance the capital market.
Nepal Stock Exchange Ltd (NEPSE) revamped	1994	Develop a modern securities market.
Formation of Security Exchange Board	1994	Regulate the stock market activities.
Introduction of Code of Conduct for Security Agents	2003	Encourage self-discipline.
Issued directives on transaction of securities	2004	Regulate securities market prudently.

5. Privatization in the Financial Sector

New industrial policy further eased entry barriers in all the sectors of economy including financial sector	1992	Encourage private sector participation in the financial sector
Divestment of 10 percent of public sector share from Nepal Bank Limited	1998	Encourage private participation in the bank and improve work culture and efficiency

6. Restriction on the International Financial Transactions

6A. Reforms in the exchange rate regime:		Market determined exchange rate
i Devaluation of NRs against US$ by 14.7%	1985	Encourage exports
ii Partial convertibility of current account	1992	Achieve article VIII status in the IMF
a. At a ratio of 65: 35		
b. At a ratio of 75:25		
c. Full convertibility of Rupee in current account	1993	
6B. Foreign currency denominated bank accounts		
Nepali citizens permitted to open foreign currency accounts		Lower the cost of international transactions
i Up to 30 % of earning in convertible currency	1992	Encourage inflow of forex in banking system
ii Up to 50 % of earning in convertible currency	1993	
iii Up to 100 % of earning in convertible currency	1994	
6C. Borrowing in convertible currencies from commercial banks		Provide incentive to exports and promote competition
i Short term loans for export-industries and small scale power generating entities	1993	
ii Import of raw wool for carpet industries and specified imports from India	1993	
iii Amortization of principal and interest in FC	1994	

Sources: Acharya et. al (1998) and various publications of Nepal Rastra Bank and Government of Nepal.

APPENDIX 2: Indices of Financial Liberalization and Financial Development

	FINANCIAL LIBERALIZATION							FINANCIAL DEVELOPMENT				
	ENTRANCE	INTEREST	CREDIT	REGULATION	CAPIITAL	PRIVATE	*FINLIB*	LDEPTH	LBANK	LPRIVATE	LPRIVY	*FINDEV*
1975	-1.31	-1.29	-1.14	-1.25	-0.90	-0.49	*-6.37*	-0.29	-2.22	-0.24	-1.51	*-4.26*
1976	-1.31	-1.29	-1.14	-1.25	-0.90	-0.49	*-6.37*	-0.39	-1.85	-1.13	-1.72	*-5.08*
1977	-1.31	-1.29	-1.14	-1.25	-0.90	-0.49	*-6.37*	0.21	-1.23	-1.67	-1.46	*-4.15*
1978	-1.31	-1.29	-1.14	-1.25	-0.90	-0.49	*-6.37*	-0.27	-1.17	-1.39	-1.32	*-4.15*
1979	-1.31	-1.29	-1.14	-1.25	-0.90	-0.49	*-6.37*	-0.26	-1.02	-1.27	-1.16	*-3.71*
1980	-1.31	-1.29	-1.14	-1.25	-0.90	-0.49	*-6.37*	-0.16	-0.76	-0.23	-0.71	*-1.86*
1981	-1.31	-1.29	-0.89	-1.25	-0.90	-0.49	*-6.12*	0.15	-0.71	-0.30	-0.55	*-1.41*
1982	-1.31	-1.29	-0.89	-1.25	-0.90	-0.49	*-6.12*	-0.13	-0.61	-0.24	-0.65	*-1.63*
1983	-1.31	-1.29	-0.89	-1.25	-0.90	-0.49	*-6.12*	-0.73	-0.30	-1.15	-0.75	*-2.92*
1984	-0.04	-0.62	-0.89	-0.59	-0.78	-0.49	*-3.42*	-1.02	-0.37	-0.88	-0.74	*-3.01*
1985	-0.04	-0.62	-0.89	-0.59	-0.78	-0.49	*-3.42*	-1.45	-0.38	-0.82	-0.65	*-3.30*
1986	-0.04	0.04	-0.41	-0.59	-0.78	-0.49	*-2.26*	-1.50	-0.31	-0.47	-0.53	*-2.81*
1987	-0.04	0.04	-0.41	-0.59	-0.78	-0.49	*-2.26*	-1.30	-0.29	-0.47	-0.48	*-2.54*
1988	-0.04	0.04	-0.41	0.06	-0.78	-0.49	*-1.61*	-0.90	-0.25	-0.32	-0.41	*-1.88*
1989	-0.04	0.71	0.33	0.06	-0.78	-0.49	*-0.21*	-1.03	-0.08	0.28	-0.21	*-1.04*
1990	-0.04	0.71	0.08	0.06	-0.78	-0.49	*-0.45*	-1.00	-0.02	0.16	-0.23	*-1.09*
1991	-0.04	0.71	-0.41	0.06	-0.78	-0.49	*-0.94*	-0.39	0.04	-0.45	-0.21	*-1.02*
1992	-0.04	0.71	0.33	0.06	0.29	-0.49	*0.86*	-0.03	-0.13	-0.55	-0.18	*-0.89*
1993	-0.04	0.71	0.33	0.06	1.00	-0.49	*1.57*	0.03	0.24	-0.82	-0.11	*-0.67*
1994	0.38	0.71	0.82	0.72	1.00	-0.49	*3.14*	0.33	0.31	-0.30	0.16	*0.51*
1995	0.38	0.71	0.82	0.72	1.00	-0.49	*3.14*	0.26	0.45	0.76	0.54	*2.01*
1996	0.38	0.71	0.82	0.72	1.00	-0.49	*3.14*	0.31	0.46	1.13	0.75	*2.66*
1997	0.38	0.71	0.82	0.72	1.00	-0.49	*3.14*	0.35	0.45	1.14	0.79	*2.73*
1998	0.81	0.71	0.33	0.72	1.00	1.25	*4.80*	0.62	0.76	0.97	0.95	*3.31*
1999	0.81	0.71	0.33	0.72	1.00	1.25	*4.80*	0.74	0.91	0.98	1.01	*3.64*
2000	1.23	0.71	0.33	0.72	1.00	1.25	*5.23*	0.98	1.14	0.90	1.12	*4.14*
2001	1.23	0.71	0.33	1.37	1.00	1.25	*5.88*	1.01	1.29	0.69	1.21	*4.20*
2002	1.23	0.71	0.82	1.37	1.00	1.25	*6.37*	0.93	1.33	0.62	1.25	*4.13*
2003	1.65	0.71	1.06	1.37	1.00	1.25	*7.04*	1.17	1.37	0.76	1.35	*4.65*
2004	1.23	0.71	1.80	1.37	1.00	1.25	*7.35*	1.21	1.16	1.38	1.42	*5.18*
2005	1.23	0.71	1.80	1.37	1.00	1.25	*7.35*	1.29	0.99	1.51	1.51	*5.30*
2006	1.23	0.71	1.80	1.37	1.00	1.25	*7.35*	1.25	0.77	1.42	1.50	*4.94*

Sources**:** *Quarterly Economic Bulletin, Economic Survey* and own computations

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