INVESTING IN SHARES OF COMMERCIAL BANKS IN NEPAL: AN ASSESSMENT OF RETURN AND RISK ELEMENTS

By:

NARAYAN PRASAD PAUDEL*

Abstract

An attempt has been made in this paper to determine whether the shares of commercial banks in Nepal are correctly priced and to trace their future price movements when striving towards equilibrium. For this, some theoretical models have been discussed to analyze return and risk characteristics of those shares. The correlation coefficients between the returns on individual shares and the return on market portfolio have been analyzed with the objective of decomposing the total risk into systematic and unsystematic components. The analysis of the individual stock's beta coefficient helps determine the minimum rate of return required by the investor to compensate for systematic risk. Statistical results suggest that the analyzed shares here are not in equilibrium with most of the shares being less risky than the market. While all the shares examined appear to be attractive to the potential investors since they produce higher rates of return than that of the average stock, the various shares have different degrees of risk with some shares being unable to generate the minimum rate of return (i.e. the sum of risk free-rate plus a premium for additional risk bearing).

* Deputy Director, Development Finance Department, Nepal Rastra Bank, Baluwatar, Kathmandu, NEPAL.

I. Introduction

Investment is defined simply to be the sacrifice of current consumption for future consumption whose objective is to increase future wealth. The sacrifice of current consumption takes place at present with certainty and the investor expects desired level of wealth at the end of his investment horizon. The general principle is that the investment can be retired when cash is needed. The decision to investment now is a most crucial decision as the future level of wealth is not certain. Time and risk are the two conflicting attributes involved in the investment decision. Broadly investment alternatives fall into two categories: real assets and financial assets. Real assets are tangible while financial assets involve contracts written on pieces of papers such as common stocks, bonds and debentures. Financial assets are bought and sold in organized security markets.

Organized security markets exist to facilitate the exchange of financial assets. Specialized markets may also exist to deal in specific type of securities such as bond markets, stock markets and government bond markets. In Nepal, Nepal Stock Exchange Limited (NEPSE) is the only organized stock market facilitating the trading of corporate securities, mainly common stocks. It opened its floor for the trading of corporate securities on the 13th of January 1994. Prior to the establishment of NEPSE in 1994, secondary market was operated over-the-counter facility managed by Securities Exchange Center (SEC). The number of listed companies, which stood at 15 in 1993/94, increased to 115 by the end of the fiscal year 2000/01. Over the last few years, both the annual turnover and market capitalization of listed companies have increased substantially. It is noteworthy to point out that commercial banks to total annual turnover stood at 82 percent by the end of the fiscal year 2000/01 with those shares accounting for 62.4 percent of the total market capitalization during the 2000/01 fiscal year. These indicators reveal that the shares of commercial banks have a dominant role in determining the key indicators of the Nepalese stock exchange. It is thus unsurprising that commercial banks' shares have continued to appear as the most attractive investment alternatives since the opening of the floor in January 1994.

Some investment alternatives are preferred over others since the risk and return characteristics on such underlying investment alternatives satisfy the individual investor's expectations. Return expected on share investment can be partitioned into dividend and capital gain components. Both these two components of the total return on share investment are not certain with investors having to make decisions in an uncertain environment. Fixed deposits, National Saving Bonds and the other saving products/schemes offered by non-bank financial institutions are the other investment alternatives available in the market producing a fixed rate of return over the investors' investment horizon. Investments in shares are risky in relation to investments in other fixed-income securities. Despite the risk element inherent to investment in shares, most investors desire to invest in shares in anticipation that the future

price of the stock will increase. The intrinsic, or theoretical, price of the stock today can be ascertained by analyzing publicly disclosed financial investments. Investors, in most cases, do not analyze published financial statements before they make the investment in shares of a given company. The actual market price of the stock striving towards equilibrium must reflect the theoretical value of the stock determined by using some valuation models. Determining the intrinsic value of the stock today and comparing it with the actual market price however, are rare in practice.

The objective of the study is, therefore, to determine whether the shares of commercial banks are correctly priced by analyzing the realized rates of returns and the required rates of return using the Capital Asset Pricing Model (CAPM). The study also aims at exploring the future price behaviors of the individual share in the market striving towards equilibrium. In sum, the paper attempts to determine whether the shares of commercial banks in Nepal are overpriced or under-priced by analyzing risk and return characteristics of the individual shares.

2. Conceptual Paradigms: The Efficient Markets Hypothesis and the Share Price Movements

An efficient market is one where shares are always correctly priced. In an efficient capital market, current market prices fully reflect available information. Therefore, if the market is efficient, it uses all information available for setting a price. Market efficiency, as reflected by the Efficient Market Hypothesis (EMH), may exist at three levels - the weak form, the semi-strong form and the strong form.

- *The weak form of EMH* states that the current share prices fully reflect all information contained in the past price movements. If this level of efficiency holds, there is no value in trying to predict future price movements by analyzing trend in past price movements. The stock price movements will not follow any pattern; this is known as random walk. Therefore, the weak form of EMH argues that the trend offers no clues as to tomorrow's price - the stock market has no memory. The stock prices will fluctuate more or less randomly, any departure from randomness being too expensive to determine.

- *The semi-strong form of the EMH* states that the current market prices reflect not only all past price movements, but all publicly available information. There is no benefit in analyzing existing information, such as that given in published accounts, after the information has been released; the stock market has already captured this information in the current share price. Only those with the access to information prior to its general release can earn superior or abnormal returns over the normal return expected for the associated degree of risk.

- *The strong form of the EMH* goes beyond the previous two by stating that current market prices will reflect all relevant information- evenly if privately held. The market prices reflect the true or intrinsic value of the share based on the underlying future cash flows. The implications of such a level of market efficiency are clear and no one can consistently beat the market i.e. earn abnormal returns.

In the real world, the strong form of EMH does not exist. The stock markets in most of the developed countries appear in the semi-strong form while the stock markets in the developing countries seem to be in the weak form of the EMH. For the later, the stock prices in developing markets thus follow a random walk.

3. The Concept of Stock Valuation

The concept of value is at the heart of financial management. The value of any tradable item is whatever the bidder is prepared to pay. With a well-established asset market, valuation is relatively simple. So long as the market can be accepted as being reasonably efficient, then the market price can be trusted as a fair assessment of value.

Several analytical techniques are available to assist the financial manager for valuing common stock. The investor expects regular earnings in the form dividends and capital gains from the upward movement of the stock price. Therefore, the valuation model should account for all these factors. Some of the basic valuation models used to determine the intrinsic value of the stocks are: Net Asset Value (NAV); the Dividend Discount Model (DDM); and Price-Earnings (P/E) model. These different models are discussed below:

3.1 The NAV Model

The NAV is the value of total assets less current liabilities and long term debt, which is financed by shareholders' net-worth. The shareholders' net-worth comprises of paid-up capital, share premium, accumulated profit and other free reserves, which belong to shareholders. The NAV per share or the book value per share is determined dividing the total NAV by number of outstanding shares.

NAV (Book Value) per share = Net Asset Value/Number of shares outstanding

3.2 The DDM Model

The DDM states that the value of a share now is the sum of stream of future discounted dividends, plus the value of the share as and when sold in some future year. Therefore, the

value of a share today is a function of the cash inflows expected by the investors and the risk associated with the cash inflows.

$$V_0 = D_1/(1+K)^1 + D_2/(1+K)^2 + D_3/(1+K)^3 + \ldots\ldots\ldots\ldots + D_t/(1+K)^n \text{ or}$$

$$V_0 = \Sigma D_t/(1+K)^t$$

In the model, V_0 represents the intrinsic or the theoretical value of the stock today, D_t is the dividend expected in n^{th} year and the K is the firm's cost of equity capital. The equation stated above assumes that dividend will grow at a given rate and the amount of dividend will be different in different years. A zero growth stock is a stock from which the investor expects a constant amount of dividend each year and where the dividend is not expected to grow. In such case the price of the stock now, V_0, is calculated by dividing the amount of dividend by the cost of equity.

$$V_0 = D/K$$

Generally, dividend is expected to grow at a given rate (g). Myron J. Gordon developed an equation to value the stock price for a growing firm. It is often called the Gordon Model.

$$V_0 = D_1/(K-g)$$

D_1 is the next expected dividend and g is the growth rates in dividends.

3.3 The P/E Model

This model requires only an estimate of price–earnings ratio. It uses earnings rather than dividends in determining the intrinsic value of the stock. Under this model, the intrinsic value of the stock today is calculated as follows

$$V_0 = M*E$$

M is the estimate if earnings multiplier or P/E ratio and E is the estimates of earnings. The theoretical multiplier (M) for a company that distributes all earnings as dividends and has no earnings growth is equals to:

$$M=[D/E]/K = 1/K$$

If the company retains parts of its earnings and that results in earnings growth, the theoretical multiplier (M) can be calculated as:

$$M= [D/E(1+g)]/[K–g]$$

The growth rate (g), being the product of retention ratio (b) and return on incremental capital (r), will be zero if the company does retain earnings and distributes all its earnings as dividends (b=0) or the if the company produces no additional earnings on retention (r=0).

4. The Expected Rate of Returns

The expected rate of return is the expected after-tax increase in the value of the initial investment over the over the holding period. The overall rate of return can be decomposed into capital appreciation and dividend components. Capital appreciation is the difference between investor's end-of-the period and beginning-of-the period.

4.1 Single-Period Return

For a one-year holding period, the benefits associated with ownership include the cash dividend paid during the year together with an appreciation in market price, or capital gain, realized at the end of the year. Thus, the Expected or realized or ex-post rate of return is:

$$\frac{\text{Ending price - Beginning price + Dividends}}{\text{Beginning price}}$$

Ex-ante rate of return on an investment is also the mean value of the probability distribution of its possible returns. The expected rate of return, in such case, can be calculated as:

$$HPR = \sum_{t=1}^{n} \frac{HPR_t}{n}$$

In this equation, HPR_i is the i^{th} possible outcome, P_i is the probability of the i^{th} outcome and n is the number of possible outcome.

4.2 Return Over Several Periods

Annualized rate of returns over several periods can be calculated in two ways. The first one is simply to take the average of the annual holding period returns over a given period and the second one, which also takes into account the compounding effects of cash receipts over different time intervals, is the geometric mean rate of return.

The simple arithmetic mean:

$$HPR = \sum_{t=1}^{n} HPR_t / n$$

The geometric mean rate of return:

$$HPR_g = \prod_{t=1}^{n} (1 + HPR_t)^{1/n} - 1.0$$

5. Measuring Risk of Investment Alternatives

Investors are risk-averter and they select the securities that maximize expected rate of return for any given level of risk or minimize risk for any given level of expected returns. Chenny and Moses define risk as the variability of possible returns around the expected return of an investment. For some investments, this variability can be quite small. Similarly, Weston and Brigham define risk as the chance that some unfavorable event will occur. Each investor has his one attitude toward risk and how much he can tolerate. The real rate of return will provide a rate of return that compensates the investors for deferred consumption. An additional rate of return should be added to the risk-free rate of return that provides premium for additional risk bearing.

$$E(R_j) = RR + RP_j$$

Where, $E(R_j)$ = Required rate of return for asset j.
RR = Risk-Free- rate of return.
RP_j = Risk premium for stock j.

A number of factors may contribute to investment uncertainty. The factors usually mentioned with respect to marketable securities are business risk, financial risk, liquidity risk, default risk, interest rate risk, management risk and purchasing power risk. Risk is a difficult concept to grasp. Some of the statistical methods that can be used to measure risk of an underlying financial asset are discussed below.

5.1 The Range

The range is one of the traditional methods of measuring risk, which simply communicates the difference between the best possible return and the worst possible return, it does not provide any information about the distribution of the rates of return between the extremes.

The range = Best possible rare of returns – Worst possible rate of returns.

The degree of risk of an underlying security is reflected in the magnitude of the difference. The smaller difference the lower will be the degree of risk.

5.2 The Standard Deviation

The standard deviation (σ) is the other measure of investment risk. The smaller the standard deviation the lower will be the degree of risk of the stock. The formula for calculating the standard deviation is:

$$\text{Standard deviation } (\sigma) = \sqrt{\Sigma(K-K_{Avg})^2 / N}$$

In the equation, K is the possible rates of returns, and K_{Avg} is the average mean return and N is the number of observations. The variance can also be used to measure risk, which is the square of the standard deviation.

Total risk (σ) can also be defined as the sum of systematic risk plus unsystematic risk. Systematic risk has its source factors that affect all marketable assets and thus cannot be diversified away. The sources of systematic risk are market-pervasive. The measure of systematic risk permits an investor to evaluate an asset's required rate of return relative to the systematic risk of the stock. Unsystematic (or company-specific or unique) can be reduced through diversification. The relationships among total risk, systematic risk and unsystematic risk are shown below.

$$\text{Total Risk } (\sigma_j) = \text{Systematic risk} + \text{Unsystematic risk; with Systematic risk} = (\sigma_j)(\rho_{jM}) \text{ and}$$
$$\text{Unsystematic risk} = \sigma_j(1-\rho_{jM})$$

In the equations ρ_{jM} is the correlation coefficient between the returns of a given stock (i) and the return on market portfolio.

5.3 The Coefficient of Variation

The coefficient variation (CV) is the other useful measure of risk. It is the standard deviation divided by the expected return, which measures risk per unit of return. It provides a more meaningful basis for comparison when the expected returns on two alternatives are not the same. If investors believe that the rate of return should increase as the risk increase, then the coefficient of variation provides a quick summary of the relative trade-off between expected return and risk.

$$\text{Coefficient of Variation (CV)} = \sigma / K_{Avg}$$

In general the CAPM indicates that an asset's required return should be related to the risk free rate of return plus a risk-free return based on the beta of the asset.

5.4 The Beta Coefficient

The beta coefficient (β), a measure of systematic risk, can be calculated by using the following formula.

$$\text{Beta coefficient } (\beta_I) = Cov_{iM} / \sigma_M^2$$

Cov_{iM} is the covariance between the return of an individual asset and the returns of the market and σ_M^2 is the variance of the market returns. Stocks can be classified as aggressive or defensive or average depending on the value of beta coefficients.

Beta coefficient (β)	Stocks classification	Degree of risk
Exactly 1	Average stock	Equally risky as the market
Greater than 1	Aggressive stock	More risky than the market
Less than 1	defensive stock	Less risky than the market

Beta coefficient can also be related with the CAPM equation to determine the required rate of return of a given stock. The required rate of return (K_i) is the risk free rate of return (K_{RF}) plus a risk premium ($RP_M = K_M - K_{RF}$) based on the beta of the stock (β).

$$K_i = K_{RF} + \beta (K_M - K_{RF}) \text{ or } K_i = K_{RF} + RP_M\beta$$

6. Data, Methodology and Statistical Results

To analyze the risk characteristics of the shares of joint-venture commercial banks, the share prices of Nepal Arab Bank Limited (NABIL), Nepal Indosuez Bank Limited (NIBL), Standard Charter Bank Nepal Limited (SCBNL), Himalayan Bank Limited (HBL), Nepal SBI Bank Limited (NSBL), Nepal Bangladesh Bank Limited (NBBL), Everest Bank Limited (EBL) and Bank of Kathmandu Limited (BOKL) have been analyzed. Data on share price and the NEPSE index have been collected from the secondary sources, particularly from the publications of Nepal Stock Exchange Limited (NEPSE). The sample period commenced on mid-July 1996 and ends in mid-July 2001. Likewise rates of returns on shares and on the market have been used on a quarterly basis.

For the purpose of analyzing risk characteristics of the shares of above-mentioned joint-venture commercial banks, the standard deviation (with systematic and unsystematic parts of total risk), the coefficient of variation, the correlation coefficient between the return on individual bank's share and the return on market portfolio and the beta coefficient have been used. As Nepal Stock Exchange Limited is the only organized stock market in the country, quarterly percentage changes in the NEPSE index are used as the returns on market portfolio (return on average stock). Average return on the 91-day Treasury bill has been taken as a proxy of the risk-free rate of return.

The statistical results of bank shares, through the statistical tools discussed earlier, are presented below:

Bank	K_{Avg}	K	Risk (%)			CV	ρ_{jM}	β
			TR	SR	UR			
Nepal Arab Bank Ltd.	5.90	6.18	18.66	-3.23	21.89	3.16	-0.17	-0.14
Nepal Indosuez Bank Ltd.	5.79	5.90	18.16	7.70	10.46	3.14	0.42	0.34
Standard Charter Bank Nepal Ltd.	7.06	5.72	17.79	14.27	3.52	2.52	0.80	0.64
Himalayan Bank Ltd.	5.52	6.00	14.92	4.26	10.66	2.70	0.29	0.19
Nepal SBI Bank Limited	8.56	5.82	20.92	10.49	10.43	2.44	0.50	0.47
Nepal Bangladesh Bank Ltd.	14.24	5.81	24.56	11.13	13.43	1.73	0.45	0.50
Everest Bank Ltd.	13.09	5.75	26.66	13.36	13.30	2.04	0.50	0.59
Bank of Kathmandu Ltd.	15.57	5.00	24.62	19.73	4.89	1.58	0.80	1.87
NEPSE	5.51	5.51	22.46	22.46	0	4.08	1.0	1.00

Notes: K_{Avg} = Average mean return;
K = The required rate of return using the Capital Asset Pricing Model
= $K_{RF} + \beta (K_M - K_{RF})$

TR = Total risk as measured by the standard deviation (SR+UR);
SR = Systematic risk;
UR = Unsystematic risk;
CV = The coefficient of Variation;
ρ_{jM} = The correlation coefficient between the returns of an individual bank's share and the return on market (NEPSE Index); and
β = The individual share's beta coefficient.

7. Analysis of the Statistical Results

The statistical results imply that over the period, the share of Bank of Kathmandu Limited offers the highest realized rate of return. The lowest realized rate of return is 5.52 percent, which is observed on the shares of Himalayan Bank Limited. The realized rates of returns on different shares do not have the same characteristics, being within the range of 5.52 to 15.57 percent. Return on average stock is 5.1 percent over the period with a unique feature being that each of the analyzed shares generated higher rate of return than the return on market portfolio.

Since all the examined shares' realized rates of return are not equal to the calculated required rates of return, none of the share prices are in the equilibrium. The shares with higher realized returns than the required returns are under-priced and the prices of shares will increase in the market that is striving towards the equilibrium. Therefore, the prices of the shares of Standard Charter Bank Nepal Limited, Nepal SBI Bank Limited, Nepal Bangladesh Bank Limited, Everest Bank Limited and Bank of Kathmandu are under-priced. Likewise the shares of Nepal Arab Bank limited, Nepal Indosuez Bank Limited and Himalayan Bank Limited have the required rates of return (i.e. the sum of the risk free rate of return plus a risk premium based on individual shares beta coefficients) less than their respective realized rates of return. The market forces will cause the prices of Nepal Arab Bank Limited, Nepal Indosuez Bank Limited and Himalayan Bank Limited to fall as the required returns on such shares are less than the realized returns.

Based on the standard deviation of the returns on shares, the shares of Everest bank Limited can be considered as high-risk securities. The standard deviation of the returns on shares of Himalayan Bank Limited is the lowest one. However, the realized rates of returns are not the same and in such case the use of standard deviation may not provide a meaningful basis for measuring risk. Looking at the coefficients of variation, the share of Bank of Kathmandu Limited has the lowest risk per unit of return, the highest being with the shares of Nepal Arab Bank Limited. The systematic part of the total risk is due to the individual share's correlation coefficient with the market portfolio and the systematic risk is negative with the shares of Nepal Arab Bank Limited. Therefore, the total risk on of the returns on shares of Nepal Arab Bank is due to company-specific characteristics rather than market pervasive. All

the other shares have systematic risk less than total risk. Only a portion of the total risk is rewarded by the individual share's returns and the unrewarded portion of the risk is the unsystematic risk. The unsystematic risk with the shares of Nepal Arab Bank Limited is very high and it indicates that the realized return does not compensate the individual investors for company-specific or unique risk.

The negative correlation coefficient observed in the statistical results reveal that if the returns on shares of Nepal Arab Bank Limited move above its mean return, the returns on market move below its mean return. Returns on all the other shares have positive correlation with the returns on market. However, the correlation coefficients, that ranges from -1 to +1, indicates that return on individual share move less than the proportionate movements of the returns on market portfolio consisting of all shares.

By observing the individual share's beta coefficient, Most of the shares appear to be defensive as beta coefficients are less than 1. Low-beta shares are less volatile than the market as a whole. Only the return on shares of Bank of Kathmandu Limited has beta coefficient of greater than 1, indicating that the share is more riskier that the market. Very few stocks in the market may have negative beta coefficient indicating that their returns rise whenever returns on most stocks fall and vice versa. Some of the findings based on individual stock's beta coefficient can be summarized as follows.

Bank	Characteristics		
	Price	Return	Risk
Nepal Arab Bank Ltd.	Over-priced	Higher than the market, not attractive	Defensive with high unsystematic risk, less volatile with the market.
Nepal Indosuez Bank Ltd.	Over-priced	Higher than the market, not attractive	Defensive, moderately volatile with the market
Standard Charter Bank Nepal Ltd.	Under-priced	Higher than the market, attractive	Defensive, moderately volatile with the market
Himalayan Bank Ltd.	Over-priced	Higher than the market, not attractive	Defensive, moderately volatile with the market
Nepal SBI Bank Limited	Under-priced	Higher than the market, attractive	Defensive, moderately volatile with the market
Nepal Bangladesh Bank Ltd.	Under-priced	Higher than the market, attractive	Defensive, moderately volatile with the market
Everest Bank Ltd.	Under-priced	Higher than the market, attractive	Defensive, moderately volatile with the market
Bank of Kathmandu Ltd.	Under-priced	Higher than the market, attractive	Aggressive, more volatile than the market

The average rate of interest on 91-day Treasury bill is 6.1 percent over the period. The realized return on market is only 5.51 percent. Therefore, the rate of return on an average stock is less than risk free rate of return. In such a case the market risk premium will be negative and happens to be -0.59 in this analysis. The share with negative beta coefficient will require higher rate of return to the investor. Theoretically, the Security Market Line (SML) slopes upward, indicating that the market return is greater than the risk-free rate of return. In this analysis the SML, if plotted on the graph, will slope downward, indicating that the low-beta stocks have higher required rate of return.

8. Concluding Remarks

The shares of commercial banks in Nepal are heavily traded in the stock market and, therefore, these shares play a key role in the determination stock exchange indicators. The average mean return on market portfolio, as measured by percent changes in the NEPSE index, was 5.51 percent over the sample period. All the shares produced higher rates of return than the return on market portfolio. However, the risk-return characteristics do not seem to be the same for all the shares reviewed.

The shares with larger standard deviations seem to be able to produce higher rates of return. The portion of unsystematic risk is very high with the shares having negative beta coefficient. The risk per unit of return, as measured by the coefficient of variation, is less than that of the market as a whole for all the individual shares. Most of the shares fall under the category of defensive stocks, (having beta coefficients less than 1), except the shares of Bank of Kathmandu Limited. Return on the shares of Nepal Arab Bank Limited is negatively correlated with the return on market portfolio and, therefore, it has negative beta coefficient. From the analysis, it appears that none of the shares are correctly priced. Theoretically, the market price of an over-priced (under-priced) share will fall (rise) in order to increase the expected return such that the expected return equals the required return. Therefore, shares of Nepal Arab Bank Limited, Nepal Indosuez Bank Limited and Himalayan Bank limited which are overpriced relative to equilibrium thus market forces, will decline. The remaining shares appears to be under-priced indicating a possible positive long term price trend.

Annex-1
The Nepalese Stock Market: Key Indicators (Mid-July)

Indicators	1997	1998	1999	2000	2001
No. of listed companies	95	101	107	110	115
Paid-up value (Rs in million)	4476.5	4959.8	6487.4	7347.4	8165.2
Number of Brokers	30	28	28	27	27
Number of Dealers	4	4	2	2	2
Number of Market Makers	4	3	2	3	1
Number of Issue Managers	-	11	10	10	10
NEPSE Index	176.31	163.77	216.92	360.70	348.43

Source: Annual report, 2000/2001, Securities Board, Nepal.

Annex-2
Number of Listed Companies, Market Capitalization and Annual Turnover in Rs. Millions (Fiscal Year ending 2000/01)

Sectors	No.	Market Capitalization		Annual Turnover	
		Amount	%	Amount	%
Commercial Bank	10	31235.21	67.39	1923.07	82.04
Finance Company	28	3077.17	6.64	254.67	10.86
Insurance Company	11	2178.47	4.70	46.08	1.97
Hotel	3	2969.85	6.41	22.35	0.95
Manufacturing/ Processing Company	37	5971.97	12.88	67.07	2.86
Trading Company	22	616.98	1.33	4.48	0.19
Other	4	299.76	0.65	26.46	1.13
Total	115	46349.41	100	2344.16	100

Source: Annual report, 2000/2001, Securities Board, Nepal.

Annex-3

Share Prices and the NEPSE Index

Period	NABIL	NIBL	SCBNL	HBL	NSBL	NBBL	EBL	BOKL	NEPSE INDEX
Mid-July, 1996	661	525	728	640	406	140	116		184.69
Mid-Oct., 1996	925	545	702	590	376	126	105		182.62
Mid-Jan. 1997	1024	541	605	605	335	112	72		100.09
Mid-April, 1997	670	600	910	630	400	130	94		180.83
Mid-July, 1997	500	625	970	633	412	135	90		174.25
Mid-Oct., 1997	493	610	1070	637	410	140	130	140	169.43
Mid-Jan. 1998	512	724	1051	665	404	145	132	130	170.6
Mid-April, 1998	450	480	739	750	418	203	166	125	158.86
Mid-July, 1998	430	600	840	755	440	252	184	124	163.35
Mid-Oct., 1998	441	600	927	825	460	321	207	156	168.75
Mid-Jan. 1999	595	741	827	1067	585	355	251	155	181.67
Mid-April, 1999	605	736	930	810	516	450	310	191	188.38
Mid-July, 1999	700	822	1162	1000	562	616	407	285	216.92
Mid-Oct., 1999	775	975	1400	1180	572	670	432	345	245.41
Mid-Jan. 2000	875	1050	1475	1500	755	815	551	516	269.88
Mid-April, 2000	1222	1275	1900	1650	1000	1250	730	682	331.76
Mid-July, 2000	1400	1401	1985	1700	1165	1502	980	998	360.7
Mid-Oct., 2000	1580	1850	2440	1950	2025	2300	1725	1402	429.46
Mid-Jan. 2001	1750	2300	2600	2280	2190	2840	1110	1490	464.76
Mid-April, 2001	1625	1545	2040	1545	1597	1240	900	1020	369.05
Mid-July, 2001	1500	1150	2144	1500	1500	1100	750	850	348.43

Annex-4

Fiscal Year	91-Day Treasury Bill Rate (%)
1995/96	10.93
1996/97	10.22
1997/98	3.52
1998/99	2.33
1999/00	4.66
2000/01	4.94

Source: Economic Reports, 1995/96,1997/98 and 1999/00, Nepal Rastra Bank, Annual Report (2000/01) , Securities Board, Nepal.

References

Brealey, Richard A. and SC Myres. Principles of Corporate Finance. The McGraw-Hill Companies (1996).

Cheney, John M. and Edward A Moses. Fundamentals of Investments. West Publishing Company.

Nepal Stock Exchange Limited Kathmandu. Trading Report. Various issues.

Pike, Richard and Bill Neale. Corporate Finance and Investments decision and strategies, 2nd ed. Prentice Hall. (1996).

Security Board Nepal. Annual Report. Various issues.

Sharpe, William F, Gordon J. Alexander and Jeffery V. Bailey. Investments, 5th ed. Prentice Hall.

Horne, James C. Van. Financial Management and Policy, 10th ed. Prentice Hall .

Weston, J. Fred and Eugene F. Brigham. Essentials of Managerial Finance, 9th ed. 'The Dryden Press.

Weston, J. Fred and Eugene F. Brigham. Managerial Finance, 7th ed. The Holt Saunders International Edition.

• • •