



Diversified Portfolio Management in Indian Capital Market

KEYWORDS

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ABSTRACT *The main motto of an investor is to maximize the return with minimum risk. He does not put all eggs into one basket. He opts for diversified portfolio investment, because diversification of portfolio of assets helps to achieve a higher risk adjusted return. Indian capital market introduced a verity of investment securities which enables a number of investment opportunities within home Capital market. The price of home stocks is fixed by the local and international market forces. With the implementation of reforms in the securities industry in the past few years, Indian stock markets have stood out in the world ranking. In this paper, an analysis on the application of risk return techniques and their results on Indian Capital market, the portfolio management and its success in this market are presented.*

Introduction

The main motto of an investor is to maximize the return with minimum risk. He does not put all eggs into one basket. He opts for diversified portfolio investment, because diversification of portfolio of assets helps to achieve a higher risk adjusted return. This means that an investor is able to reduce risk and raise return through well diversified investment. For these, he chooses a bunch of better investment opportunities in Capital Market. In olden days, for diversification, he depends on International Markets, but now, Indian capital market introduced a verity of investment securities starting from equity to equity derivatives, currency futures & options, commodity futures & options which enable a number of investment opportunities within home Capital market. For systematic risk analysis, this market introduced indices with the verity of investment vehicles. Indian capital market integrated globally and gained from foreign inflows through the investment of Foreign Institutional Investors (FIIs). The price of home stocks are fixed by the local and international market forces. With the implementation of reforms in the securities industry in the past few years, Indian stock markets have stood out in the world ranking. As per Standard and Poor's Fact Book, India ranked 9th in terms of market capitalization, 17th in terms of total value traded in stock exchanges, and 26th in terms of turnover ratio. The year 2012 was a challenging year for the securities market across the globe. This can be seen from a 25.1 percent decline in the turnover of all the markets taken together to US \$ 49.7 trillion in 2012. However, India despite having a large number of companies listed on its exchanges, accounted for a meager 1.3 percent of the total world turnover in 2012.

Objective of the study:

The main objective of the study is to analyze the home capital market and risk analyses. Portfolio management techniques, calculation of risk and return on portfolio of assets are included in this study.

Hypothesis: The null hypotheses of the study are:

- Ho 1: All individual stocks are well correlated with respective sectoral indices;
 Ho 2: All sectoral indices are positively correlated with bench mark Index;
 Ho 3: There is possibility of diversification of portfolio in Indian Capital Market.

Period of Study:

The Present study consist three years data starting from 1st July, 2012 to 31st July, 2014.

The structure of Indian Capital market is present Diagram 1:

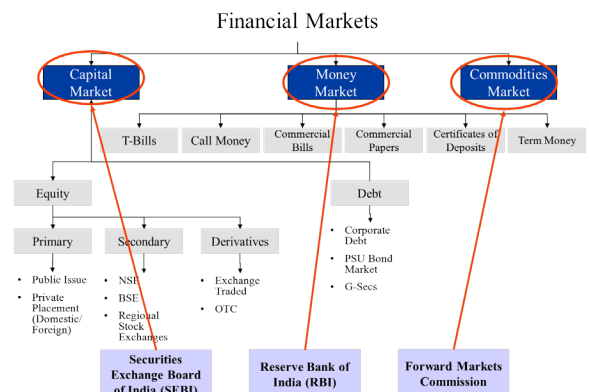


Diagram: 1

Meaning of Portfolio Management:

The art and science of making decisions about investment mix and policy, matching investments to objectives, asset allocation for individuals and institutions, and balancing risk against performance. Portfolio management is all about strengths, weaknesses, opportunities and threats in the choice of debt vs. equity, domestic vs. international, growth vs. safety, and many other tradeoffs encountered in the attempt to maximize return at a given appetite for risk. The Portfolio Construction, Monitoring and Revision Process is shown in Diagram 1:

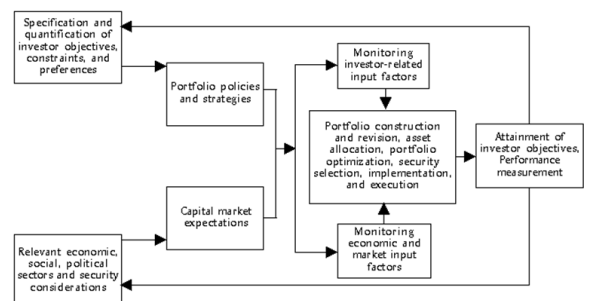


Diagram 2

The analysis of portfolio is not only analysis of returns from the stocks, but also analysis of risk and return. Portfolio analysis deals with the calculation of risk and return of different portfolios. Risk is the chance that actual returns will differ from their expected values. The expected value of return can be obtained from probability estimates for ex ante data. Portfolio risk is measured by the variance (or the standard deviation) of the portfolio's return. The portfolio risk depends not only on the risk of individual securities in the portfolio, but also on the correlation or covariance between the returns on the securities of the portfolio. Portfolio risk can be defined as the function of each individual security's risk and the covariances between the returns on the individual securities. According to the portfolio theory, the total risk (variance) is not the relevant risk in the portfolio context. It is necessary to understand that the risk of security when held in isolation is not equal to the amount of risk it contributes to a portfolio, when it is included in the portfolio. The risk of a security is the sum of systematic risk and unsystematic risk. Unsystematic risk is the extent of variability in the security's return due to the specific risk attached to the firm of that particular security. Unsystematic risk is diversifiable risk, and hence this risk can be removed from the total risk of portfolio by investing in large portfolio securities. This is possible, because the firm specific risk factors are mostly random. There are number of indices to measure the systematic risk. A brief note on various indices is:

Stock market indexes:

An Index is used to give information about the price movements of products in the financial, commodities or any other markets. Financial indexes are constructed to measure price movements of stocks, bonds, T-bills and other forms of investments. Stock market indexes are meant to capture the overall behaviour of equity markets.

A stock market index is created by selecting a group of stocks that are representative of the whole market or a specified sector or segment of the market. An Index is calculated with reference to a base period and a base index value.

Risk Analysis

The most common measures of riskiness of a security are standard deviation and variance of returns. Standard deviation (commonly denoted as σ) of returns merely measures the extent of deviation of returns from the average value of return. The square of standard deviation is called variance (commonly denoted by σ^2). The beta coefficient measures the market risk as a non-diversifiable risk of an asset such as a stock compared to the rest of the market. It also measures volatility of the asset compared to the general market. The beta of a stock shows the relationship of the change in the price of a stock to the market. The risks of the securities are classified into systematic and unsystematic risks based on the relationship with market or divisibility. Systematic risk is also known as market risk or undiversified risk. It is associated with aggregate market (Stock Exchange Index, or BSE Sensex or NSE Nifty) returns. It is the proportion of total risk of the security which cannot be reduced through diversification. In contrast, unsystematic risk is the company or industry specific risk that is inherent in each investment one makes. The amount of unsystematic risk present can be eradicated through appropriate diversification. The calculated all risk analysis tools for selected indices and stocks are presented in **table 1&2**. With the calculations, it is found that there is high significant among variables. **It can be easily accept the 1 and 2 null hypotheses where all individual stocks are well correlated with respective sectoral indices and all sectoral indices are positively correlated with bench mark index. It means that an investor can find the systematic risk and unsystematic risk in the market and diversify his portfolio.**

Table : 1

Name of Index/ Company	Index/Company Statistics									Market Statistics		
	Average Return	SD of Return	Variance of Return	Covariance	Alpha	Beta	Coefficient of Correlation	R2	Standard Error of Beta	Average Return	SD of Return	Variance of Return
CNX Bank Index	0.0214	0.1178	0.0139	0.0041	0.0102 (1.05)	0.79 (6.02)	0.485**	0.24	0.13	0.0143	0.0724	0.0052
SBI Stock	0.0713	0.1709	0.0292	0.0064	0.0311 (1.54)	1.36 (5.01)	0.549**	0.30	0.27	0.0296	0.0686	0.0047
CNX Pharma Index	-0.0030	0.0876	0.0077	0.0030	-0.0185 (-1.57)	0.64 (3.96)	0.508**	0.26	0.16	0.0243	0.0688	0.0047
Dr.Reddy Laboratories Ltd.	0.0647	0.2070	0.0429	0.0035	0.0552 (2.93)	0.67 (2.59)	0.232*	0.05	0.26	0.0143	0.0724	0.0052
CNX Metal Index	0.0311	0.1693	0.0287	0.0038	0.0208 (1.38)	0.73 (3.51)	0.307**	0.09	0.20	0.0143	0.0724	0.0052
SAIL Ltd.	0.0443	0.2071	0.0429	0.0049	0.0310 (1.69)	0.94 (3.74)	0.326**	0.11	0.25	0.0143	0.0724	0.0052
CNX Realty Index	0.0208	0.1620	0.0263	0.0059	0.0046 (0.35)	1.13 (6.42)	0.509**	0.26	0.18	0.0143	0.0724	0.0052
DLF Ltd	0.0454	0.2157	0.0465	0.0044	0.0334 (1.73)	0.85 (3.21)	0.284**	0.08	0.26	0.0143	0.0724	0.0052
CNX Energy Index	0.0507	0.3145	0.0989	0.0035	0.0411 (1.417)	0.67 (1.71)	0.155NS	0.02	0.39	0.0143	0.0724	0.0052
Reliance Ltd	0.0265	0.2019	0.0408	0.0057	0.0110 (0.63)	1.10 (4.60)	0.390**	0.15	0.24	0.0143	0.0724	0.0052

NS = Not Significant * = Significant at 0.05 level

** = Significant at 0.01 level

Note: 't' values are presented in bracket

Source: Compiled from the respective Index/share prices at NSE after adjusting stock actions.

TABLE2
BETA COEFFICIENT, SYSTEMATIC RISK AND UNSYSTEMATIC RISK OF SELECT PHARMACEUTICAL COMPANIES

S. No.	Items	CNX Bank Index	SBI Stock	CNX Pharma Index	Dr.Reddy Laboratories Ltd.	CNX Metal Index	SAIL Ltd.	CNX Realty Index	DLF Ltd	CNX Energy Index	Reliance Ltd
1	Beta Coefficient	0.79	1.36	0.64	0.67	0.73	0.94	1.13	0.85	0.67	1.10
2	Variance	0.0139	0.0292	0.0077	0.0429	0.0287	0.0429	0.0263	0.0465	0.0989	0.0408
3	R ²	0.24	0.30	0.26	0.05	0.09	0.11	0.26	0.08	0.02	0.15
4	Systematic Risk	0.0032	0.0087	0.0019	0.0023	0.0028	0.0046	0.0066	0.0038	0.0023	0.0063
5	Unsystematic Risk	0.0107	0.0205	0.0058	0.0406	0.0259	0.0383	0.0197	0.0427	0.0966	0.0345

Source : Compiled from the respective Index/share prices at NSE

Derivatives Market and Currency Futures & Options

The emergence and growth of the market for derivative instruments can be traced back to the willingness of risk-averse economic agents to guard themselves against uncertainties arising out of fluctuations in asset prices. Derivatives are meant to facilitate the hedging of price risks of inventory holdings or a financial/commercial transaction over a certain period. By locking in asset prices, derivative products minimize the impact of fluctuations in asset prices on the profitability and cash flow situation of risk-averse investors, and thereby, serve as instruments of risk management. By providing investors and issuers with a wider array of tools for managing risks and raising capital, derivatives improve the allocation of credit and the sharing of risk in the global economy, lowering the cost of capital formation and stimulating economic growth. Now that world markets for trade and finance have become more integrated, derivatives have strengthened these important linkages between global markets, increasing market liquidity and efficiency, and have facilitated the flow of trade and finance. India is also introduced exchange-traded derivatives and currency futures and options. The currency futures and options turnover on the NSE increased by 12.8 percent from Rs. 46,750 billion in 2011-12 to Rs. 52,745 billion in 2012-13. **With is this evidence, the 3rd hypothesis is accepted. It means that there is high possibility of diversification of portfolio in Indian Capital Market.**

Conclusion

At present global market conditions, Indian capital market is the safest investment destination. Here corporate governance standards are also maintained at high level which integrate corporations, financial institutions and markets and stabilize the economy. Over the past decade, India has made significant strides in the areas of corporate governance reforms, which have improved public trust in the market. These reforms have been well received by the investors, including the foreign institutional investors (FIIs). According to a World Bank study "Doing Business 2014", India ranks 34th worldwide in terms of investor protection— an important indicator of corporate governance—across all countries considered. It has fared better than China, Brazil and Russia. With the above study, it can be concluded that Indian capital market is well structured and there is high possibility for maintaining diversified portfolios and get more returns. Investors can depend on market trends for finding systematic risk.