RISK PERSPECTIVE STUDY BETWEEN DHAANYA AND NIFTY IN INDIA

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Abstract

An average investor uses the concept of risk and return in the process of selecting a stock. The Indian commodity derivatives segment and the Equity trading segment witnessed mixed trends during 2016-17.This Paper examines the stock prices of NCDEX Dhaanya which is represented by 10 agri commodities. and Nifty indices, by analysing the Mean, Risk (Standard Deviation), and the correlation among the indices. A period of one year is taken for this study ranging from April 1, 2016 to March 31, 2017.

Key Words: Risk, Volatility

Introduction

The general trend of the markets were influenced by a multitude of global events in 2016-17 including the slowdown in Chinese economy, weak global trade growth, the Brexit, US presidential elections, policy normalization by the Federal Reserve and the attendant uncertainties around each of these events. Nonetheless, the domestic macro-economic and political conditions remained favourable. In this paper we discuss about Nifty and Dhaanya prices from April 2016 to March 2017. The Nifty registered an increase of 1,435 points to close at 9,174 on March 31, 2017 over 7,738 at the end of March 31, 2016. . For NIFTY, the volatility went down to 12.3 in 2016-17 as compared to 17.1 in 2015-16. NCDEX Dhaanya gained 7.8 per cent over March 31, 2016.NCDEX Dhaanya increased by 224 points and closed at 3,081 on March 31, 2017 over 2,857 as on March 31, 2016.

Literature Review

Bhowmik.D (2013) evaluated the framework of stock market volatility at the country level. According to the study volatility would be spurred by political turmoil or instability and high volatility reduces growth rate of the economy and proved that Volatility also influences the volume of international trade and increases current account deficits. Shu (2010)

studied the influence of mood on financial market behaviour and shows how investor mood variations affect equilibrium asset prices and expected returns. The results indicated that both equity and bill prices correlate positively with investor mood, with higher asset prices associated with better mood. Gupta (2002) 25 studied the Performance Evaluation of National Stock Exchange of India and found that National Stock Exchange (NSE) played the catalytic role in bringing about these transformations. The processes and procedures set by National Stock Exchange marked a paradigm shift in the securities market. The relative importance of various stock exchanges in the market has undergone dramatic change during last decade (1990's). National Stock Exchange in October 1995, within the first year of its operations became the largest exchange in terms of volume transacted.

Objective of this Study

This paper aims to study the nature of risk within markets (Commodity and Stock markets) and to study the relationship between Nifty and Dhaanya indices.

- Calculation of mean and standard deviation among the indices

- Correlation between Nifty and Dhaanya indices

METHODOLOGY

Data & Sample

Table 1: Selected Units in the sample

Name of the Unit	Launched by	Segment
Dhaanya	NCDEX	Commodity
Nifty	NSE	Security

The required sample data for two indices have been collected from the National Stock Exchange and NCDEX websites. The daily adjusted closing prices for ten years (01-04-2016 to 31-03-2017) of each Index from have been used for this study.

Study Area

The study is concerned with the indices selected from the Indian commodity and share segment. One index (Dhaanya) is selected from the National Commodity and Derivatives Exchange Ltd (NCDEX) and another index (Nifty) taken from National Stock Exchange (NSE). Both markets (NCDEX and NSE) were matched for their technology, transparency, independent board of directors and professional management. Unit Profile: Unit wise profile of the selected units is given below: The NIFTY 50 index is National Stock Exchange of India's benchmark stock market index for Indian equity market, launched on 21st April 1996. The NIFTY

50 index is a free float market capitalisation weighted index. The index was initially calculated on full market capitalisation methodology. From June 26, 2009, the computation was changed to free float methodology. Dhaanya: Dhaanya is an agricultural commodities index computed by National Commodity and Derivatives Exchange Ltd. The index values are calculated using the prices of 10 agricultural commodities traded on the NCDEX platform. The components of Dhaanya are selected from diverse sub sectors of the Indian agri industry and account for nearly 70% of trading on the NCDEX platform.

Table 2: Month wise Mean, Standard Deviation of Indices and Correlation between them

TIME	NIFTY Mean	DHAANYA Mean	NIFTY S.D	DHAANYA S.D	Correlation between month wise Dhaanya and Nifty Indices
Apr-16	7786.517	2968.184	142.678	38.115	0.593
May-16	7871.857	2982.463	146.287	28.589	0.593
Jun-16	8191.198	3148.519	59.430	59.388	-0.186
Jul-16	8505.613	3338.606	110.426	48.425	0.734
Aug-16	8640.423	3261.713	60.043	66.228	-0.266
Sep-16	8783.325	3171.730	96.548	20.857	0.554
Oct-16	8666.747	3146.082	64.686	28.475	0.123
Nov-16	8250.75	3216.319	223.143	39.592	-0.219
Dec-16	8114.027	3192.988	89.540	51.815	0.579
Jan-17	8386.205	3114.563	141.649	21.532	-0.167
Feb-17	8813.339	3037.562	70.614	29.338	-0.777
Mar-17	9047.057	3045.248	98.178	20.002	-0.210

(i) Mean and Standard Deviation

Ben Graham in his first edition of Security Analysis in 1934, argues against measures of risk based upon past prices (such as

volatility), noting that price declines can be temporary and not reflective of a company's true value. He argued that risk comes from paying too high a price for a security, relative to its value and that investors should maintain a "margin of safety" by buying securities for less than their true worth. This is an argument that value investors from the Graham school, including Warren Buffett, continue to make to this day. Kohers, N. et al (2005) examined the changes in stock price fluctuations in the world's emerging stock markets over the period from 1988 through June 2004. They concluded that the emerging stock markets exhibit some common notable trends over time. Given the diverse nature of emerging stock markets, the common risk/return relationships found for many of these markets overtime is notable. Specifically, volatility for most country indices remained relatively steady from 1988 through 1996. In contrast, from 1997 through June 30, 2004, market variances have increased noticeably for the majority of emerging markets. Furthermore, the mean percentage daily returns for more emerging market indices were consistently lower during the 1997 through June 2004 time frame. Among the indices taken for the study, Nifty has got highest mean in

March 2017 and lowest deviation in prices in June 2016 and August 2016, while Dhaanya has highest returns in July 2016 and August 2016 and lowest deviation in prices in September 2016 and March 2017.

(ii) Correlation

Kelly, Martins and Carlson (1998) is one of the few studies to focus on the relationship between stock and bond returns They reveal that there are greater degrees of co-movement in emerging markets than in mature financial markets because country risk in emerging economies makes domestic bond returns more 'equity like'. The intra-market stock-bond correlation is reinforced by Erb, Harvey and Viskanta (1999) in using institutional investor ratings. More recently, Li and Zou (2008) have captured the asymmetric responses in stock bond correlations to recent government policy decisions in China. Here, the association between the movements of Nfty and Dhaanya indices the daily closing prices of monthly nature were analyzed with the help of Pearson's coefficient of correlation and then it was found that the prices of both indices were negatively correlated in many months. High level of negative association was found in the month of February 2017 only, and low level of negative correlation was found in the

months of June 2016 and January 2017. There was no High level of positive correlation found in the prices of both

(iii) Volatility

Table 3: Annualised Volatility

Index	2015 - 2016	2016 – 2017	Percentage variation over the previous year
Nifty	17.1	12.3	-27.9
Dhaanya	12.7	10.5	-17.3

Source: SEBI Annual Report 2016 - 2017

Nath (2003) studied the behaviour of stock market volatility after derivatives and arrived at the conclusion that the volatility of the market as measured by benchmark indices like S&P CNX Nifty and S&P CNX Nifty Junior has fallen during the post-derivatives period. Global equity markets across the world recorded an uptrend during 2016-17. For NIFTY, the volatility went down to 12.3 in 2016-17 as compared to 17.1 in 2015-16.. The annualized volatility was 10.5 per cent for NCDEX Dhaanya in 2016 – 2017.

Findings

The risk trend in the value of Nifty shows increase and decrease in price movements. The risk in the value of Dhaanya index also shows a mixed nature. Relationship between both the indices was found negatively correlated in many of the months.

Conclusion

indices, but moderate positive correlation was found in the months April and May 2016.

During 2016-17, the all-India turnover at the stock exchanges in terms of number of shares traded increased by 12.4 per cent. In terms of the total quantity of shares traded, NSE had a share of 78.7 per cent in 2016-17. The Commodity prices showed an uptrend during 2016-17.The Indian securities market has evolved manifold in terms of size, reach, diversity of investors and product complexity.Indian securities markets performed well amid external headwinds as indicated by soaring indices, expansion of market capitalization of the exchanges and assets under management in the mutual funds industry.

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