A Study on Impact on Equity Trading Volume on Select Commodities

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Abstract: The study has been emphasized on the growth of the equity volume impact on the growth of the select commodities. The study has considered the equity market historical data from NSE India and the commodities data from MCX India. The study has considered the bivariate correlation between the selected commodities and the equity market volume and the result indicates that the selected metals are having the significant relation with the equity volumes. The ordinary least square method has been applied and the result indicates that the equities are the impact on the Nickel and Aluminum. The vector auto regression indicates that the growth of the selected metals growth will significantly increase the equity markets with higher volume.

Keywords: Commodities, NSE & BSE.

I. INTRODUCTION

In this paper we drive the implications of various assets – market models for volume and quantity their importance using recently available volume data for individual securities from the center for research in security prices (CRSP). Although the volume literature is voluminous we hope to add to this literature in two ways.If price and quantity are the fundamental building blocks of any theory of market interactions, the importance of trading volume in modeling asset market is clear. Although most models of asset markets have focused on the behavior of returns –predictability, variability, and information content- their implications for trading volume have received for less attention. First, we develop the volume implications of popular asset –market model rather than construct more specialized, and often "stylized", models of to explain volume behavior. Given the far-reaching impact of mutual fund separation theorems, the CAPM, and theinter temporal CAPM (ICAPM), the volume implications of these paradigms may have important consequences. In contract to much of the existing volume literatures focus on the time-series behavior of volume-price volume and velocity /volume relations, for example-in this paper we focus instead on the cross-sectional variation in volume. How does trading activity vary from stock to stock, and why? The fact that popular asset market models have strong implications for the cross section of expected returns suggests that they may also have implications for the cross section of volume. By turning our attention to a new set of testable implications for these well-warn models we hope to gain new insights into some old unresolved issues.

Second, we empirically estimate the volume relations suggested by these asset-marketmodels using both cross-section and time-series data for individual securities, examining both the behavior of aggregate and individual volume over the sample period from 1962 to 1966 and across thousands of securities. Until recently, individual volume data for a broad cross section of securities was not readily available. In much the same way that models such as the CAPM and ICAPM have guided empirical investigations of the time-series and cross-sectional properties of asset returns, we show that the volume implications of these models provide similar guidelines for investigating the behavior of volume. The study of commodity is undertaken to analyses the trading practices with special reference to commodity as tool of risk management techniques. The present study is focused on equity and commodities market segmentations from the period of 2012-2018.In the study nifty commodity index will be considered as a benchmark. From the commodity segments 5 metals for considered from the base metal segment. The following are the indices from equity and commodity markets will be considered.

II. RESEARCHER METHODOLOGY

The present study has been emphasized on secondary data by using descriptive statistical tools. The following variables have been considered for the study and applied various statistical tools according to the objectives

A. Sources of Data

Primary data: The primary data will be collected from the personal interaction with authorized members of Angel Broking Limited.

Secondary data: The secondary data will be collected from various websites, journals, books.

B. Statistical Tools Used

1. To satisfy the relationship of equity trade volume with commodity trade volume -correlation method is used

Correlation Method - Views software:

Correlation is statistical tool that shows how strongly variables are related. It is one ofthe most commonly used statistical tool. A correlation describes the degree of relationship between two variables.

$$Yt=\beta 1+\beta 2X2t+\beta 3X3t+\beta 4X4t+\ldots+\beta kXkt+ut$$

2. To identify the influence of equity trade volume on commodity trade volume -Least square method is used

Least square method- Eviews software:

The method of Least Squares is a procedure to determine the best fit line to data; the proof uses calculus and linear algebra. The basic problem is to find the best fit straight-line $y = ax + b$ given that, for $n \in \{1,\ldots,N\}$, the pairs (xn,yn) are observed. The method easily generalizes to finding the best fit of the form

$$y = a1f1(x)+\ldots+ckfk(x);$$

3. To measure the future momentum of equity trade volume - Vector auto regression model is used.

C. Vector Auto Regression- E Views Software

The vector auto regression (VAR) is an econometric model used to capture the linear interdependence among multiple time series. VAR models generalize the unit variant auto regressive model (AR model) by allowing for more than one evolving variable. All variables in a VAR are treated symmetrically in a structural sense. Each variable has an equation explaining its evaluation based on its own lags and the lags of the other model variables.

III. REVIEW OF LITERATURE

Senthil D (2015) has undertaken a study on the investor's behaviour towards investment made in capital market with an objective to study the investment behavior of investors and to study the factors effecting of different investors. The study was carried out with a sample of 150 respondents through structured questionnaire. It was concluded that investor is one who not only make profit but also should study the market and understand the risk taking ability with clear investment objectives. The investor should also determine the rate of return and also the time period of his investment. It is also concluded that technology can also help in improving the awareness level of the investors and in rebuilding investor confidence. It also suggested that investors should take with stop loss and should not encourage over trade. Also the investor should not trade in all the stock of a particular sector, but trade in all the sectors.

Dhiraj Jains &NakulDashora (2012) has carried out a study on impact of market movements on investment decision "An empirical analysis with respect to investors in Udaipur, Rajasthan" with sample of 110 respondents through a structured questionnaire. The study was conducted with an objective to study the influence of age on investment pattern and income level on investment decisions. It also analyzed the investment pattern of investors to various capital market information. The results revealed that the ability to understand the judgment criteria like irrationality and rationality in investment pattern and behavior that enables the investor to be cautious as its consequences affect the lifestyle, asset value and relationship with others. The study also revealed that investors prefer investing in both primary and secondary market instruments. Further most of the decision are rational and influenced by the several information available in market. It was also found that investors prefer the wait and watch policy for taking their decision, and are very cautious and their decisions are influenced by various psychological factors and behavioral dimensions.

Anil Kothari &DeeptiGulati (2015) has carried out a study titled "Investment in Gold and Stock Market: An Analytical comparison" with an objective to find out the relationship between gold rice and stock market index – Sensex and to compare investment returns from Gold and stock market. The study has considered the gold prices and Sensex index for the period from 1979 to 2013.It was concluded that Gold is a safe investment whereas stock market appears to be volatile and risky in nature. As per the granger causality test result indicates a unidirectional relationship from SENSEX to Gold prices indicating SENSEX effects Gold prices. High degree of positive correlation exists between SENSEX and Gold Prices. It also revealed that according to short run and long run return analysis it was observed that returns yielded by stock market were comparatively higher than gold investment returns. It was also suggested that one can use the information of SENSEX to predict Gold prices in the long run. It also recommended that long run information role of open interest is a good indicator for the usefulness of a technical analysis in future market.

Suresh Babu R (2014) has undertaken a study on individual investor's perception on equity investment with a sample of 120 respondents. The study was carried out in Chennai with an objective to find the investors perception towards the equity and tax saving mutual funds and to study the performance of the equity / tax saving mutual funds. It also aimed to find out the consistency of performance confined to selective equity / tax saving mutual funds. The research revealed that major parameters namely, Rate of Return, Liquidity and Market share the elite performance of the Equity/Tax saving mutual fund. The researcher has taken the growth in NAV to arrive at the elite performance of Equity/Tax saving mutual fund. It also revealed that the AMCs plays with the funds of the investment it is the moral responsibility to maximization the wealth of the investor's. Hence it is imperative that the organization should be watchful in making investment towards the various financial instruments which safeguard the interest of the investors.

Sivarethinamohan&Aranganathan P (2013) has carried out a study on investors' perception inIndian Commodities market with an objective to study the investors' preference in commodity market and to understand the relationship between the demographic factors and the various factors influencing the investor's decision regarding the commodity

market. The study was conducted with a sample of200 respondents in the district of Tricky, Tamilnadu. The research concluded with investment behavior of investors and their attitude towards commodities market investments stating that different respondents consider the different factors to take their investment decisions particularly incommodities market investments, such as risk and return factors.

IV. DATA ANALYSIS & INTERPRETATION
Table1. To identify the influence of equity trade volume on commodity trade volume

Dependent Variable: COMINDEX
Method: Robust Least Squares
Sample (adjusted): 2 98
Included observations: 97 after adjustments
Method: M-estimation
M settings: weight=Bisquare, tuning=4.685, scale=MAD (median centered)
Huber Type I Standard Errors & Covariance

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	1007.52	290.61	3.46692	0.0005
DALUMINIUM	2.59892	9.8689	0.26335	0.7923
DCOPPER	-4.8782	2.71138	-1.7992	0.072
DIRON	-0.0414	6.79861	-0.0061	0.9951
NICKEL	3.49332	0.35312	9.89273	0
STEEL	2.448	0.47062	-5.2017	0

Table2. Robust Statistics

Rw-squared	0.581059	Adjust Rw-squared	0.581059
Akaike info criterion	70.55336	Schwarz criterion	90.1868
Deviance	21075691	Scale	579.5971
Rn-squared statistic	100.6911	Prob (Rn-squared stat.)	0

Non-robust Statistics			
Mean dependent var	3016.308	S.D. dependent var	724.123
S.E. of regression	497.0343	Sum squared resid	2248092
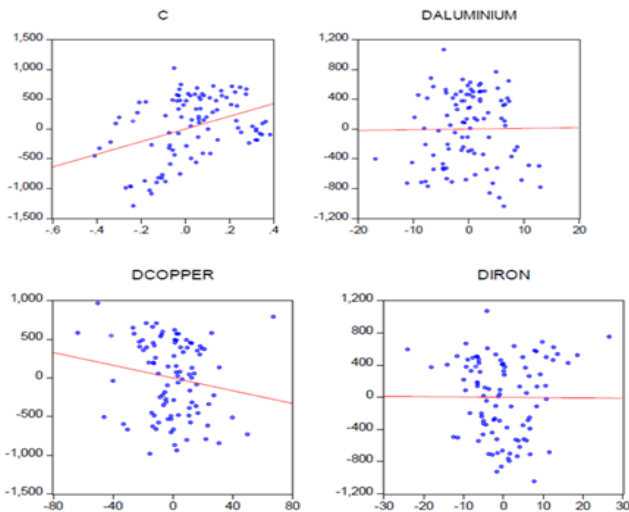
Fig1. Comindex Vs. Variables (Partialled On Regressors).

V. INTERPRETATION
The upstairs desk depicts the impact about commodity index on equity buying and selling volume. Such as much aluminum, copper, iron, nickel and steel. The end result point out to that amount equity career aggregate has shows a superb have an impact on nonaluminum or nickel considering its co-efficient cost so 2.598 yet 3.493, Where as fairness occupation volume has terrible impact of copper, iron yet metal by means of focusing regarding its co-efficient charge as much -4.878, -0.041 and -2.448. The regular R-square observed according to be greater than 0.60. The chance seems according to keep much less than 0.05 indicating statistics is typically allotted @ 5% substantial level.

VI. CONCLUSION
The present education has been focused over the equity trading aggregate have an impact on of the commodities. The lesson has considered the minor information of the equity yet the piece goods investments total along including the prices. The discipline has adopted the vicariate correlation and the end result indicated up to expectation the select metals are lowlife the large bracing together with the equity volume. The least rectangular methodology end result acknowledged up to expectation the Nickel is grudging the higher massive affect on the increase concerning the fairness volume. The Vector auto regression model shows as the among after upward shove about the metal fees will go about the equity want expenditures including the volume. Hence in that place is a need after work further lookup within it region with the aid of thinking about the greater quantity associated commodities lousy than the metals rapport along the equities.

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