

# The Impact of Hedge Funds on Indian Capital Market

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**Abstract:** *Hedge funds, including fund of funds are unregistered private investment partnerships, funds or pools that may invest and trade in many different markets, strategies and instruments (including securities, non-securities and derivatives) and are not subject to the same regulatory requirements as mutual funds, including mutual funds, requirements to provide certain periodic and standardized pricing and valuation information to investors.*

**Keywords:** Hedge funds

## I. INTRODUCTION

Hedge funds, including fund of funds are unregistered private investment partnerships, funds or pools that may invest and trade in many different markets, strategies and instruments (including securities, non-securities and derivatives) and are not subject to the same regulatory requirements as mutual funds, including mutual funds, requirements to provide certain periodic and standardized pricing and valuation information to investors.

### Most Commonly associated with hedge funds:

- Are organized as private investment partnerships of offshore investment corporation:
- Use a wide variety of trading strategies involving position-taking in a range of markets:
- Employ as assortment of trading techniques and instruments, often including short- selling, derivatives and leverage:
- Pay performance fees to their managers; and
- Have an investor base comprising wealthy individuals and institution and relatively high minimum investment limit

A hedge fund can be defined as an actively managed, pooled investment vehicle that is open to only a limited group of investors and whose performance is measured in absolute return units. However, this simple definition excludes some hedge funds and includes some funds that are clearly not hedge funds. There is no simple and all-encompassing definition.

Hedge funds are clearly recognizable by their legal structures. Many people think that hedge funds are completely unregulated, but it is more accurate to say that hedge funds are structured to take advantage of exemptions in regulations. Fung and Hsieh (1999) explain the justification for these exemptions is that the regulations are meant for the general public and that hedge funds are intended for well-informed, well-financed, private investors. The legal structure of hedge funds is intrinsic to their nature. Flexibility, opaqueness, and aggressive incentive compensation are fundamental to the highly speculative, information-motivated trading strategies of hedge funds. These features are in conflict with a highly regulated legal environment.

Hedge fund is a private investment partnership and funds pool that uses varied and complex proprietary strategies and invests or trades in complex products, including listed and unlisted derivatives.



## **II. LITERATURE REVIEW OF HEDGE FUND ON INDIAN CAPITAL MARKET**

Economics experts and various studies conducted across the globe envisage India and China to rule the world in the 21st century. For over a century the United States has been the largest economy in the world but major developments have taken place in the world economy since then, leading to the shift of focus from the US and the rich countries of Europe to the two Asian giants- India and China.

The rich countries of Europe have seen the greatest decline in global GDP share by 4.9 percentage points, followed by the US and Japan with a decline of about 1 percentage point each. Within Asia, the rising share of China and India has more than made up the declining global share of Japan since 1990. During the seventies and the eighties, ASEAN countries and during the eighties South Korea, along with China and India, contributed to the rising share of Asia in world GDP.

According to some experts, the share of the US in world GDP is expected to fall (from 21 per cent to 18 per cent) and that of India to rise (from 6 per cent to 11 per cent in 2025), and hence the latter will emerge as the third pole in the global economy after the US and China.

### **Albert Ballinger, Gerald P. Dwyer Jr., and Ann B. Gillette (2004):**

This article gives considerable data and empirical evidence that the futures market for West Texas Intermediate crude oil increased the short-term volatility of the cash price of crude oil. The authors show that the variability of prices increased using both published posted prices and transaction prices for producers. This article supports the view that information not previously aggregated into the cash price for crude oil is at least part of the reason for the greater variability of the cash price after the opening of the futures market. It provides an example in which futures market increased the volatility of the cash market, and prices became more efficient.

### **Brajesh Kumar, Priyanka Singh and Ajay Pandey (2008):**

Hedge Ratio is a ratio of total futures position to the total present position that needs to be hedged. In this article the authors have examined the hedging effectiveness of futures contracts in Indian stock and Commodity Markets. The authors state that understanding optimal hedge ratio is essential for devising effective hedging strategies for risk management. They have estimated dynamic and constant hedge ratios for S&P CNX Nifty index futures, Gold futures and Soybean futures. For this purpose various statistical models have been used.

### **Christos Floros and Dimitrios V. Vougas, (2007):**

This paper examines the lead-lag relationship between futures and spot markets in Greece. Authors have used a Bivariate GARCH model in case of both available stock index futures contracts (FTSE/ASE-20 and FTSE/ASE Mid 40) of the Athens Derivatives Exchange (ADEX). The authors use the model to explain price discovery of futures market over the crisis period 1999 to 2001. Empirical analysis confirms that futures market plays a price

discovery role, implying that futures prices contain useful information about spot prices (in line with similar findings in the literature). These findings would be helpful to financial managers and traders who are dealing or planning to deal with Greek stock index futures.

**Delphine Lautier (2010):**

In this article, the author has defined convenience yield and its role in the connect between spot price and futures price. The author has dealt with various sources of imperfections that usually lead to arbitrage in commodity markets. Existence of convenience yield can be explained with empirical studies since direct evidence of convenience yield cannot be available.

**Garbade, K.D., and Silber, W.L. (1983):**

In this article, authors have tried to establish the connect between live cattle cash and futures markets. Empirical data on cattle futures and spot prices obtained from CME has been analyzed to show the relationship between the two.

**Gary Gorton, Fumio Hayashi and K. Geert Rouwenhorst (2005):**

In this article, the researchers have dealt with basic properties of an equally weighted index of U.S. commodities futures from the perspective of a Japanese investor. It was found that the returns on the U.S. equally-weighted commodity futures index maintain their basic properties documented in Gorton and Rousenhorst (2005), when translated into Yen. In particular, looking at returns on Japanese stocks and bonds, the commodity futures index, translated into Yen, continues to display equity-like returns, but with slightly less volatility. In addition, the Yen-based commodity futures returns show essentially zero correlation with Japanese equities and negative correlation with bonds.

**Vashist and Ashutosh (2002)**

Attempted to find out the determination of equilibrium price of future contract of an agricultural commodity along with relationship of future contract with the expected spot market at maturity of the contract. They identified three determinations of the equilibrium price i.e. risk aversion of hedgers, demand and supply conditions expected by hedgers in the spot market and expectations and responsiveness of speculators about current spot market. In case of relationship between future contract and spot market, existence of excess demand was observed. Speculator's expectation of increase in spot prices resulted in high demand for future and in opposite situation of low prices the speculators by doing reverse trade creates off setting positions.

**Basab (2004)**

Described the monopolistically competitive nature of the Indian Commodity Derivative market which stabilizes the spot price. Outcome showed the co movement among future prices, production decision and inventory decisions.

**Shahi, Singh, Raizada and Gaurav (2006)**

Observed the dependence of commodity future market on spot market for price determination along with increasing inflation due to trade volume of commodity futures. They concluded that futures market is not performing the function of price discovery and futures market as a weak market in short run.

**Ramaswami, Bharat, Singh and Bir (2007)**

Suggested that growth of commodity spot market depends upon the growth of commodity futures market in developing countries and certified warehouses, centralized spot prices and effective margin system were found as the important institutional factors for successful commodity futures market.

**Nath, Golka, Lingareddy and Tulsi (2008)**

Emphasized that trading in commodity futures contributed to an increase in inflation as result showed that during the time period of future trading the spot price of selected commodities and their volatilities had posted remarkable increase.

**Mukherjee (2008)**

Discussed the significance of price discovery and risk management by commodity futures for the development of commodity spot market in India. The result of interdependence between commodity future and spot market in agricultural commodities also supported the relevance of commodity future trading in Indian commodity market.

**Kaur and Rao (2009)**

Mentioned the commodity spot and future prices had closely tracked each other in selected agricommodities and no significant volatility has been found in the prices of future and spot contracts of those agricultural commodities.

**III. RESEARCH METHODOLOGY**

According to (Silverman, 2000) methodology is how one will go about studying any phenomenon. In social research, methodology is defined very broadly (e.g. qualitative or quantitative) or narrowly (e.g. grounded theory or conversation analysis). Like theories, methodologies cannot be true or false, only more or less useful.

**Type of Study:**

In the study carried out the exact problem is not known. The study has been done to get an insight into the Hedge Funds and their investment strategies, so as to make an analytical study about their impact on Indian Capital markets. Hence, the research type is Exploratory.

**Type of Data:**

The type of data collected is mainly secondary data.

**Technique of Analysis:**

First the relationship between the key Index and the Hedge Fund inflows is established so as to justify whether there is any impact of Hedge Funds is there in Indian capital markets. After the relationship is established, a detailed analysis of the hedge fund strategies of investment is done. Also, an analytical study of Hedge funds impact on Indian Capital markets is done based on individual investment strategy.

**3.1 QUALITATIVE VS. QUANTITATIVE METHOD:**

The two most common types of research method are Qualitative and Quantitative. Qualitative and Quantitative research can be seen to represent two paradigms, each historically assuming different ontology and epistemologies, assumptions, values, and philosophy underlying methods and techniques, and their use are inherent in these paradigms (Evans, 2000). A Qualitative research is defined by Strauss and Corbin (1990) as "any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification". On the other hand, a "Quantitative data is numerical in form...in the form of numbers...Questionnaires and structured interviews are the usual research methods...some researchers claim that unless human behaviors can be expressed in numerical terms, it cannot be accurately measured." (Taylor et. al., 1995). For our analysis and interpretation, we have used Qualitative research.

**IV. DATA ANALYSIS AND INTERPRETATION OF PRESENTATION**

**Absolute and Relative Return**

Although mutual funds and hedge funds can be analyzed using very similar metrics and processes, hedge funds do require an additional level of depth to address their level of complexity and their a systematic expected returns.

Hedge funds are generally only accessible to accredited investors as they require compliance with fewer SEC regulations than other funds.

This article will address some of the critical metrics to understand when analyzing hedge funds, and although there are many others that need to be considered, the ones included here are a good place to start for a rigorous analysis of hedge fund performance.

### **Measuring Risk**

Doing quantitative analysis without considering risk is akin to crossing a busy street while blindfolded. Basic financial theory indicates that outsized returns can be generated only by taking risks, so although a fund may exhibit excellent returns, an investor should incorporate risk into the analysis to determine the risk-adjusted performance of the fund and how it compares to other investments.

There are several metrics used to measure risk:

### **Standard Deviation**

Among the advantages of using standard deviation as a measure of risk are its ease of calculation and the simplicity of the concept of a normal distribution of returns. Unfortunately, that is also the reason for its weakness in describing the inherent risks in hedge funds. Most hedge funds do not have symmetrical returns, and the standard deviation metric can also mask the higher-than-expected probability of large losses.

### **Value at Risk (VaR)**

Value at risk is a risk metric that is based on a combination of mean and standard deviation. Unlike standard deviation, however, it does not describe risk in terms of volatility, but rather as the highest amount that is likely to be lost with a five percent probability. In a normal distribution, it is represented by the leftmost five percent of probable results. The drawback is that both the amount and probability can be underestimated because of the assumption of normally distributed returns. It should still be evaluated when performing quantitative analysis, but an investor should also consider additional metrics when evaluating risk.

### **Beta**

Beta is called systematic risk and is a measure of a fund's returns relative to the returns on an index. A market or index being compared is assigned a beta of 1. A fund with a beta of 1.5, therefore, will tend to have a return of 1.5 percent for every 1 percent movement in the market/index. A fund with a beta of 0.5, on the other hand, will have a 0.5 percent return for every 1 percent return on the market.

Beta is an excellent measure of determining how much equity exposure — to a particular asset class — a fund has and allows an investor to determine if and/or how large an allocation to a fund is warranted. Beta can be measured relative to any benchmark index, including equity, fixed-income or hedge fund indexes, to reveal a fund's sensitivity to movements in the particular index. Most hedge funds calculate beta relative to the S&P 500 index, since they are selling their returns based on their relative insensitivity/correlation to the broader equity market.

### **Alpha**

Many investors assume that alpha is the difference between the fund return and the benchmark return, but alpha actually considers the difference in returns relative to the amount of risk taken. In other words, if the returns are 25 percent better than the benchmark, but the risk taken was 40 percent greater than the benchmark, alpha would actually be negative.

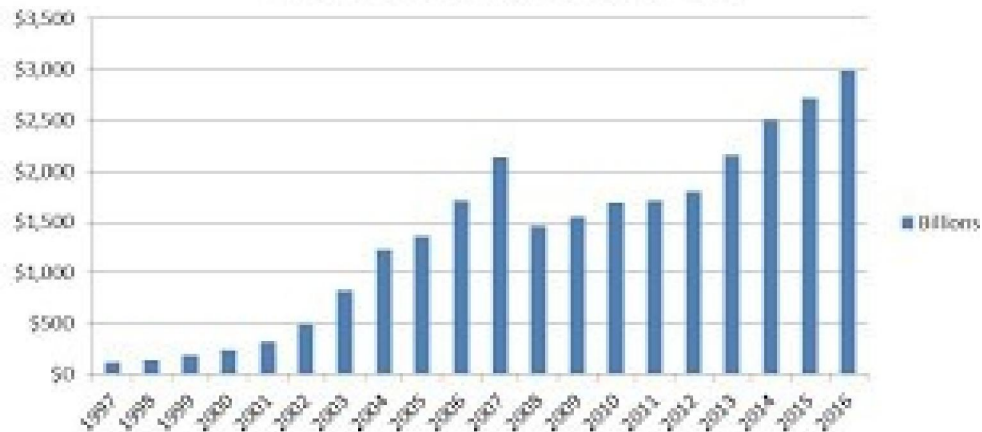
Since this is what most hedge fund managers claim to add to returns, it's important to understand how to analyze it.

**Alpha is calculated using the CAPM model:**

**Expected Return** = Risk-Free Rate + Beta \* (Expected Return of the Market - Risk-Free Rate)

To calculate whether a hedge fund manager added alpha based on the risk taken, an investor can simply substitute the beta of the hedge fund into the above equation, which would result in an expected return on the hedge fund's performance. If the actual returns exceed the expected return, then the hedge fund manager added alpha based on the risk taken. If the actual return is lower than the expected return, then the hedge fund manager did not add alpha based on risk taken, even though the actual returns may have been higher than the relevant benchmark. Investors should want hedge fund managers who add alpha to returns with the risk they take, and who do not generate returns simply by taking additional risk.

### Growth of Hedge Fund AUM



## V. FINDING, CONCLUSION, SUGGESTION AND BIBLIOGRAPHY

### FINDING

After doing a detailed analysis of Hedge funds and their investing strategies, one can infer that Hedge funds are both a boon and bane for any capital markets. Some of the advantages and disadvantages associated with these funds are listed below:

Research and trading strategies of a large number of hedge funds are aimed at deriving profits from the perceived mispricing of securities. Mispricing between assets arises because market traders do not have costless and immediate access to all publicly available markets, exchanges and information while trading. For example, an option on the S&P-500 index trades in Chicago, while the underlying stocks trade on various exchanges, like NASDAQ and NYSE. If the derivatives price and the underlying stock prices do not properly reflect each other (e.g. do not satisfy the relevant no-arbitrage relationships), mispricing occurs. Of course, very few mispricing is quite so obvious, perhaps exactly because hedge funds by their trading push prices towards and inside the no-arbitrage set.

Traders profiting from the resulting arbitrage opportunities induce prices to move towards the true price, and hence allow trades to happen that otherwise would not have taken place. Such activities can further aid efficiency by increasing the competitive pressures on market makers or intermediaries, whose bread and butter are the various spreads. To cite the regulator (SEC, 2003b), "The absence of hedge funds from these markets [of innovative financial instruments] could lead to fewer risk management choices and a higher cost of capital."

Traditional fund managers are usually constrained by their mandates in choosing trading strategies, while individual investors are usually constrained both by transaction costs and technological know-how. Hedge funds are not subject to such constraints and so may provide investment strategies preferred by investors, but otherwise unobtainable.

Considerable empirical and theoretical evidence demonstrates that hedge funds provide investors with risk-return tradeoffs not available from traditional funds. Caution should, however, be applied to any such analysis due to

the inherent biases and non-linearities in hedge fund data. Patton for instance studies the empirical properties of so-called “market-neutral” hedge funds, in particular in view of the fact that hedge funds self-classify themselves into categories such as market-neutral.

### **SUGGESTIONS**

In view of the increasing popularity among the institutions as well as their increasing interest in the Indian market, it might be time to provide a limited window to this growing segment of asset management industry within the existing framework of the SEBI (Foreign Institutional Investors) Regulations. While opening up our market one cannot be oblivious to the special concerns associated with the creative fund management strategies used by these funds.

In this context, following additional provisions have been suggested with respect to hedge funds seeking registration as FII:

The investment adviser to the hedge funds should be a regulated investment advisor under the relevant Investor Advisor Act or the fund is registered under Collective Investment Fund Regulations or Investment Companies Act.

At least 20% of the corpus of the fund should be contributed by the investors such as pension funds, university funds, charitable trusts or societies, endowments, banks and insurance companies. The presence of institutional investors in the fund is expected to ensure better governance on the part of the fund manager and fund administrators. Further, institutional investors may help fund managers to take a long-term perspective of the market.

The fund should be a broad-based fund in terms of the SEBI (Foreign Institutional Investors) Regulations, particularly in terms of the explanation to Regulation 6 (1) (d).

The fund manager or investment adviser must have experience of at least 3 years of managing funds with similar investment strategy that the applicant fund has adopted. This provision is expected to allow well managed funds to access our market and at the same time, keep our markets insulated from the possible adverse effects of ‘trial and errors’ by uninitiated rookies.

The fund should have a stipulated lock-in period so as to avoid any adverse impact like increase in volatility. The conditions for minimum period of investment should be clearly stipulated

### **CONCLUSION**

Hedge funds as a whole are becoming an important segment of the asset management industry and gaining popularity from investors particularly from the high net worth investors, universities, charitable funds, endowments, pension funds, insurance and other institutional investors. The assets under management of the hedge funds are growing on a double-digit rate. All hedge funds are not necessarily speculative funds though most of them provide an alternative investment options for the investors through innovative investment strategy.

Based on the dissertation I can conclude by saying that though Hedge funds investments have a direct bearing to the culmination of some of the worst crisis in the world, they bring with them a lot of advantages too. If SEBI is considering allowing of Hedge Funds to directly invest in Indian markets it should bring in some regulations as mentioned in the suggestions part, so that their investments may add to shareholder value appreciation. Also, the fact of current account convertibility should be taken into account, because if Hedge Funds are freely allowed into Indian Capital markets, there is also a possibility of free flight of money outwards thus created mayhem in the markets as well in the whole Economy.

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