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PARTICIPANTS IN THE DERIVATIVE MARKETS IN INDIA

(A study on Hedgers Speculators Arbitrageurs)

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ABSTRACT

Financial derivatives are difficult to trace out origin of futures trading since it is not clearly established as to where and when the first forward market came into existence. Historically, it is evident that futures markets were developed after the development of forward markets. It is believed that the forward trading was in existence during 12th century in England and France. Forward trading in rice was started in 17th century in Japan, known as Cho-at-Mai a kind (rice trade-on-book) concentrated around Dojima in Osaka, later on the trade in rice grew with a high degree of standardization. In 1730, this market got official recognition from the Tokugawa Shogurate. As such, the Dojima rice market became the first futures market in the sense that it was registered on organized exchange with the standardized trading norms. The butter and eggs dealers of Chicago Produce Exchange joined hands in 1898 to form the Chicago Mercantile Exchange for futures trading. The exchange provided a futures market for many commodities including pork bellies (1961), live cattle (1964), live hogs (1966), and feeder cattle (1971). The International Monetary Market was formed as a division of the Chicago Mercantile Exchange in 1972 for futures trading in foreign currencies. In 1982, it introduced a futures contract on the S&P 500 Stock Index. Many other exchanges throughout the world now trade futures contracts. Among these are the Chicago Rice and Cotton Exchange, the New York Futures Exchange, the London International Financial Futures Exchange, the Toronto Futures Exchange and the Singapore International Monetary Exchange. During 1980's, markets developed for options in foreign exchange, options on stock indices, and options on futures contracts.

Key words: Indian derivative market's

Introduction:

The participants in the derivative markets can be broadly classified in three depending upon their motives. These are:

1. Hedgers
2. Speculators
3. Arbitrageurs

Hedgers:

Hedgers are those who enter into a derivative contract with the objective of covering risk. Farmer growing wheat faces uncertainty about the price of his produce at the time of the harvest. Similarly, a flour mill needing wheat also faces uncertainty of price of input. Both the farmer and the flour mill can enter into a forward contract, where the farmer agrees to sell his produce when harvested at predetermined price to the flour mill. The farmer apprehends price fall while the flour mill fears price rise. Both the parties face price risk. A forward contract would eliminate price risk for both the parties. A forward contract is entered into with the objective of hedging against the price risk being faced by the farmer as well as the flour mill. Such participants in the derivatives markets are called hedgers. The hedgers would like to conclude the contract with the delivery of the underlying asset. In the example the contract would be settled by the farmer delivering the wheat to the flour mill on the agreed date at an agreed price.

Speculators:

Speculators are those who enter into a derivative contract to make profit by r assuming risk. They have an independent view of future price behavior of the underlying asset and take appropriate position in derivatives with the intention of making profit later. For example, the forward price in US dollar for a contract maturing in three months is ` 48.00. If one believes that three months later the price of US dollar would be ` 50, one would buy forward today and sell later. On the contrary, if one believes US dollar would depreciate to ` 46.00 in 1 month one would sell now and buy later. Note that the intention is not to take delivery of underlying, but instead gain from the differential in price.

If only hedgers were to operate in the derivative markets, the number of participants in the market would be extremely limited. A farmer would find it difficult to locate a flour mill with perfectly matched and complimentary requirements in terms of quantity, quality, and timing of the delivery of the asset (wheat in this case).

Similarly, a flour mill would also find it difficult to locate a suitable farmer to

supply the exact requirements. If middlemen are permitted to operate, the hedgers need not look for exact match, and instead they can deal with the middlemen who would buy the produce from the farmer in advance with anticipation of higher price in the future at the time of harvest. Such middlemen will be speculating on the future price and bid a current price in a manner that is likely to result in gain for them. By entering into a contract on the derivatives the speculators are assuming risk of price in future.

Speculators perform an extremely important function. They render liquidity to the market. Without speculators in the market not only would it be difficult for hedgers to find matching parties but the hedge is likely to be far from being efficient. Presence of speculators makes the markets competitive, reduces transaction costs, and expands the market size. More importantly, they are the ones who assume risk and serve the needs of hedgers who avoid risk. With speculators around, hedgers find counterparties conveniently.

Arbitrators:

It would seem that hedgers and speculators would complete the market. Not really so because we assume that different markets are efficient by themselves and they operate in tandem. We describe derivative as the one that derives its price from the underlying asset. Structurally the markets for derivatives and the underlying are separate. For example, agricultural products would b€ bought and sold in the physical market (mandis), while futures on them are traded on the commodity exchange.

However, there has to be complete harmony between the mandis and commodity exchange. There cannot be any disparity in the prices in the mandis and the commodity exchange.

The third category of participants, i.e. arbitrageurs, performs the function of making the prices in different markets converge and be in tandem with each other. While hedgers and speculators want to eliminate and assume risk respectively, the arbitrageurs take riskless position and yet earn profit. They are constantly monitoring the prices of different assets in different markets and identify opportunities to make profit that emanate from mispricing of products. The most common example of arbitrage is the price difference that may be prevailing in different stock markets. For example, if the share price of Hindustan Unilever is ` 175 in National Stock Exchange (NSE) and ` 177 in Bombay Stock Exchange (BSE), the arbitrageur will buy at NSE and sell at BSE simultaneously and pocket the difference of ` 2 per share.

An arbitrageur takes risk neutral position and makes profits because markets are imperfect. Naturally, such imperfections cannot exist for long. These imperfections are extremely short-lived. The arbitrageur cashes upon these short-lived opportunities. Such actions restore the balance in prices and remove distortions in the pricing of assets.

Fundamentally the speculators and arbitrageurs fall in the same category in as much as that both are not looking at owning or disowning the underlying asset by delivery like hedgers. Both speculators and arbitrageurs are also trying to render competitiveness to the market, thereby helping the price discovery process. Difference between the two lies in the amount of risk they assume.

While speculators have their opinions about the future price of the underlying asset by making investment, the arbitrageur is concentrating on the mispricing in different markets by taking riskless position with no investment of his own. By his actions an arbitrageur is restoring the balance and consistency among different markets, while speculators only hope for the desirable movement in prices. Arbitrageurs are the ones who prohibit speculators to overbid or underbid the prices in the derivatives as compared to the physical markets.

Functions of Derivative markets:

Derivatives were invented to fulfill the need of hedging against the price risk. It enables transfer of risk from those wanting to avoid it to those who are willing to assume it. Besides hedging, derivatives perform many other important functions which are discussed below.

Enable Price Discovery:

First, the derivatives and their market increase the competitiveness of the market as it encourages a greater number of participants with varying objectives of hedging, speculation, and arbitraging. With broadening of the market, the changes in the price of the product are watched by many who trade on the slightest of reasons. Even a minor variation in price prompts action on the part of speculators. Active participation by large number of buyers and sellers ensures fair price. The derivative markets, therefore, facilitate price discovery of assets due to increased participants, increased volumes, and increased sensitivity of participants to react to smallest of price changes. By increased depth in the market, faster and smooth dissemination of information among different participants, the process of discovery of price becomes more efficient.

Facilitate Transfer of Risk:

Hedgers amongst themselves could eliminate risk if two parties face risk from opposite movement of price. As seen earlier, the wheat farmer needing to sell his produce faced a risk from the fall in price, while the flour mill needing to buy wheat was worried about the rise in price. Since risk was emanating from opposing directions of price movement, the convergence of the two was possible. If both the farmer and the flour mill wanted to hedge against price rise the two would not meet. When speculators enter the market they discharge an important function and help transfer of risk from those wanting to eliminate to those wanting to assume risk.

Provide Leveraging:

Taking position in derivatives involves only fractional outlay of capital when compared with the position in the underlying asset in the spot market. Assume a speculator is convinced that price of wheat will be ` 16 per kg in six months and a farmer agrees to sell at ` 15.50 per kg. To take advantage the speculator will have to pay the full price of ` 15.50 now and realize ` 16.00 six months later. Instead, if a mechanism is available by which he can absolve himself of making the full payment, he will be too glad to enter into a contract. Derivatives, as products, and their markets provide such exit route by letting him first enter into a contract and then permitting him to neutralize position by booking an opposite contract at a later date. This magnifies the profit manifolds with the same resource base. This also helps build volumes of trade, further helping the price discovery process.

Other Benefits:

The function of leveraging and risk transfer helps in efficient portfolio management. With a smaller fund at disposal, better diversification can be achieved with part of the fund allocation to derivatives assets. Derivatives provide a much wider menu to portfolio managers who constantly seek better risk return trade off. The range of choices would be far more restricted in the absence of derivatives.

Since very large number of participants become active in the market (due to leveraging), the transaction costs are likely to be lower and lower with derivative markets. Shrinking transaction cost reflected in spread of sell and buy prices is a sure sign of free market economy, and therefore efficient allocation of resources. Faster and efficient dissemination of information also helps in removing price disparities across geographies.

Derivatives can be extremely useful in smoothening out the seasonal variations in the prices of the underlying assets. Hoarding is viewed as a social stigma. Hoarding used for speculative purposes require scanty trading with large price variation among

financially powerful persons acting in concert. Derivatives can help curb hoarding by continuous trading and increasing participation as it requires little capital outlay, leaving the field open to large number of participants reducing the financial muscle power of few engaged in hoarding.

Misuses, Criticism of Derivatives:

Derivatives act like a double-edged sword. When used properly and conservatively they are highly effective but when used with indiscretion they are capable of causing miseries. Unfortunately, there is no pragmatic way to demarcate the discretion with indiscretion. There is a very fine line that separates calculated risk taking and gambling. The following are often cited as demerits of derivatives.

Increased Volatility:

Since derivatives offer extremely leveraged position, a large number of participants are attracted towards the market with nominal capital available with them. Giving rise to speculative tendencies derivative markets are often blamed for causing extreme volatilities in the prices, which are also seen in the spot markets. However, it remains to be seen that such volatility in price would be absent in the spot markets if derivatives were not to exist.

There are several instances in India, especially in the commodities, where the trading in derivatives has been banned. The reason cited for such ban is often the wide and unexplainable divergence between the prices in the spot market for the underlying and in derivatives markets. In such circumstances it is often stated that it is the derivatives market that is distorting the prices in the spot market. The notion that derivatives markets can influence the price in the physical markets at best seems misplaced and lacks conviction. In fact trading in derivatives should be seen as a precursor to what may happen in the spot market. With highly leveraged position it is natural that the volatility in prices would be more than in the spot market, but it would be wrong to state that volatility in derivative will get transferred to physical markets. In fact, volatility in markets is inherently caused by the mismatch of demand and supply.

Increased Bankruptcies:

Inherent leverage in derivatives may very easily cause bankruptcies when one assumes a position in derivatives that is totally out of sync with the financial position. Since positions in the financial markets are taken in sequentially one default may trigger a chain and can cause market failure.

Burden of Increased Regulation:

With increasing derivative activity, it is opined that there in an increasing need for regulation. Since derivatives allow accumulation of large positions with little capital, the disclosure of identities and positions taken is imperative. Also, there is increasing need to discourage overly speculative positions to prevent bankruptcies and letting the chain of defaults to set in. Disclosure requirements and need to control has placed onerous responsibilities on the monitoring and regulating agencies. Such requirements and control mechanisms are often disliked by some of the participants in the market because they are seen as impediments in the development of free markets.

Recent failures of some of the financial leaders in the USA in 2008 and 2009 due to excessive and innovative derivatives positions by some investment and commercial banks, leading to their failures, has emphasized the need of government intervention. It may be noted that positions of these financial institutions were in OTC derivatives that did not warrant any disclosures. These positions surfaced only when they assumed disastrous proportions. The actions of government to bail out these institutions are criticized for extreme burden on society as the bail outs are essentially seen as evil of 'privatizing profit and socializing losses.

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