

A study on Emerging Trends in Indian Derivative Market

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Abstract:- Derivative markets are found to positively contribute to economic development in the India short run and play a significant role in addressing the risk inborn in financial transactions. They can be used to hedge an existing market exposure, to obtain downside protection to an exposure even while retaining upside potential, to transform the nature of an exposure, and to obtain insurance against events such as default. The derivatives markets all over the world have shown tremendous growth in the recent years. Derivatives also help price discovery, and in efficient capital allocation in the economy;. Given India's experience in informal derivatives trading, the exchange traded derivatives were quick to pick up substantial volumes. This paper attempts to analyse derivative market and its recent developments in the Indian commodity markets.

Keywords: Derivatives, over the counter trade, SEBI forwards, futures,

1. Introduction

Derivatives market in India began in 2000 when NSE and BSE commenced trading in equity derivatives. Since then India has become a huge and vibrant market for derivatives. Equity derivatives play a great role in price discovery. They help to enhance liquidity and also reduce transaction cost. Derivatives in share market gained importance as risk adverse investors wanted to protect themselves against uncertainties due to fluctuations in prices of assets. As the asset prices are locked, derivative products lower the impact of fluctuations in asset prices and thereby serve as tools of risk management. These transfer risk from risk adverse investors to risk takers. Derivatives derive their value from other existing asset classes such as equity, commodity, currency, etc. The participants in the derivatives market are Arbitrageurs, Hedgers and Speculators and there are 4 types of derivative instruments such as forward, futures, option and swap. The derivative market in India, like its counterparts abroad, is increasingly gaining significance. Since the time derivatives were introduced in the year 2000, their popularity has grown manifold. This can be seen from the fact that the daily turnover in the derivatives segment on the National Stock Exchange currently stands at Rs. crores, much higher than the turnover clocked in the cash markets on the same exchange. The paper attempts to study derivative market in India and recent trends.

2. Objectives

The main objectives of this study were:

- To have an overview of derivative market in India
- To understand recent trends in derivative market.
- To identify opportunities ahead in the derivative market

3. Methodology of study

The study has been made on the basis of secondary sources. The different books, journals, newspapers and related websites have been consulted in this regard.

4. Derivatives

Derivative is a financial instrument whose value is based on or value is derived from one or more underlying assets. The underlying asset may be a share, stock market index, a commodity, an interest rate or a currency. When the price of asset changes value of derivative will also change. It is a contract between two parties where one party agrees to buy or sell any asset at specified dates and rate. Derivative is similar to insurance. Insurance protects against specific risk like fire, flood accident, whereas derivatives protect from market risks.

Derivatives are of two categories

- 1) Exchange traded
- 2) Over the counter.

Exchange traded derivatives, as the name signifies are traded through organized exchanges around the world. These instruments can be bought and sold through these exchanges, just like the stock market

Over the counter (popularly known as OTC) derivatives are not traded through the exchanges. They are not standardized and have varied features. Some of the popular OTC instruments are forwards, swaps, swaptions etc.

4.1 Derivatives are used by investors for the following purposes:

- To provide leverage (or gearing), such that a small movement in the underlying value can cause a large difference in the value of the derivative
- To speculate and make a profit if the value of the underlying asset moves the way they expect (e.g., moves in a given direction, stays in or out of a specified range, reaches a certain level)
- To hedge or mitigate risk in the underlying, by entering into a derivative contract whose value moves in the opposite direction to their underlying position and cancels part or all of it out
- To obtain exposure to the underlying where it is not possible to trade in the underlying (e.g., weather derivatives)
- To create option ability where the value of the derivative is linked to a specific condition or event (e.g. the underlying reaching a specific price level).

4.2 Types of derivatives

4.2.1 Forwards

A forward contract is an agreement between two parties – a buyer and a seller to purchase or sell an asset at a later date at a price agreed upon today. A forward contract is a customized contract between two entities, where settlement takes place on a specific date in the future at today's pre-agreed price. Any type of contractual agreement that calls for the future purchase of a good or service at a price agreed upon today and without the right of cancellation is a forward contract.

4.2.2 Futures

A 'Future' is a standardized contract to buy or sell the underlying asset for a specific price at a pre-determined time. The futures contract is a standardized contract written by a clearing house that operates an exchange where the contract can be bought and sold. Clearing Corporation provides guarantees for the contract. It involves margin money and margins are paid market to market every day. Price of contract changes every day there is no counterparty risk number of contracts traded in a year is fixed

4.2.3 Options

Options are contracts that give the owner the right, but not the obligation, to buy or sell an asset like stock, commodity, currency, index, or debt, at a specified price during a specified period of time. The price at which the sale takes place is known as the strike price, and is specified at the time the parties enter into the option. The option contract also specifies a maturity date. Each option has a buyer, called the holder, and a seller, known as the writer. In the case of a security that cannot be delivered such as an index, the contract is settled in cash. For the holder, the potential loss is limited to the price paid to acquire the option. When an option is not exercised, it expires

4.3 Derivative market in India

Derivatives markets in India have been in existence in one form or the other for a long time. In the area of commodities, the Bombay Cotton Trade Association started futures trading way back in 1875. Derivatives trading commenced in India in June 2000 after SEBI granted the final approval to this effect in May 2001 on the recommendation of L. C Gupta committee. SEBI approved trading in index futures contracts based on various stock market indices such as, S&P CNX, Nifty and Sensex. Subsequently, index-based trading was permitted in options as well as individual securities. The trading in BSE Sensex options commenced on June 4, 2001 and the trading in options on individual securities commenced in July 2001. Futures contracts on individual stocks were launched in November 2001. The derivatives trading on NSE commenced with S&P CNX Nifty Index futures on June 12, 2000. The trading in index options commenced on June 4, 2001 and trading in options on individual securities commenced on July 2, 2001. Single stock futures were launched on November 9, 2001. The index futures and options contract on NSE are based on S&P CNX. In June 2003, NSE introduced Interest Rate Futures which were subsequently banned due to pricing issue

4.4 Trading in the derivatives market

Trading in the derivatives market is a lot similar to that in the cash segment of the stock market. The investor need to do the research on various aspects before investing money. Trader requires to constantly maintaining the margin amount. Trader cannot withdraw this amount from trading account at any point in time until the trade is settled. Transaction happens through trading account and Trader should ensure that account allows trading in derivatives. The trader will select stocks and their contracts on the basis of the amount in hand, the margin requirements, the price of the underlying shares, as well as the price of the contracts. Then last step is Settlement. Trader should wait until the contract is scheduled to expiry to settle the trade. In such a case, he can pay the whole amount outstanding, or can enter into an opposing trade. For trading the individual requires demat account which stores the securities in electronic format, trading account through which you conduct trades. The account number can be considered as identity in the markets

4.5 Risks involved in derivative trading

The primary risks associated with trading derivatives are market, counterparty, liquidity and interconnection risks. Derivatives are investment instruments that consist of a contract between parties whose value derive from and depend on the value of an underlying financial asset. Among the most common derivatives traded are futures, options, contracts for difference, or CFDs, and swaps.

4.5.1 Market Risk

Market risk refers to the general risk in any investment. Investors make decisions and take positions based on assumptions, technical analysis or other factors that lead them to certain conclusions about how an investment is likely to perform.

4.5.2 Counterparty Risk

Counterparty risk, or counterparty credit risk, arises if one of the parties involved in a derivatives trade, such as the buyer, seller or dealer, defaults on the contract. This risk is higher in over-the-counter, or OTC, markets, which are much less regulated than ordinary trading exchanges.

4.5.3 Liquidity Risk

Liquidity risk applies to investors who plan to close out a derivative trade prior to maturity. Such investors need to consider if it is difficult to close out the trade or if existing bid-ask spreads are so large as to represent a significant cost.

4.5.4 Interconnection Risk

Interconnection risk refers to how the interconnections between various derivative instruments and dealers might affect an investor's particular derivative trade.

4.5.5 Trading risk

Derivatives product requires a large number of funds. Limited resources mean limited funds and low-risk appetite. Trading derivatives need expert knowledge. A high trading expertise and experience is mandatory with high-risk tolerance. As a derivatives trader, person must therefore carefully consider its suitability depending upon your financial position. Trader should accept the fact that you can lose profits. Even you can incur the loss with the execution of derivatives trade. It is invariably desirable to refer carefully Model Risk Disclosure Document before beginning the derivative trade. For example. If a person purchased 100 Nifty 50 futures @ Rs. 10724 on May 10. The expiry date is May 28. total Investment was INR 10,72, 400. Trader paid the initial margin of INR 1,07,240. On May 28, Nifty 50 index future closes at 10678. The loss is $(1072400 - 1067800) \times 100 = \text{INR } 4,60,000$. In this situation entire initial investment (i.e. INR 1,07,240) is lost. Additionally trader need to pay INR 3,52,760 $(4,60,000 - 1,07,240)$.

4.6 Trends in derivative market India

4.6.1 SEBI rules

- Participation of Eligible Foreign Investors (EFIs) in Commodity Derivatives in IFSC-Sebi made the amendment in rule o participation of foreign investors in derivative market as per the guidelines

- Physical settlement of stock derivatives- it has been decided that physical settlement shall be made mandatory for all stock derivatives. Stocks which are being cash settled shall be ranked in descending order based on daily market capitalization averaged for the month of December 2018. SEBI has said that the bottom 50 stocks in the derivatives segment will move to delivery settlement every quarter in 2019. This means, within nine months the entire equity market will shift to delivery trading. In January 2018, SEBI first announced bringing 42 stocks in the derivatives segment under compulsory delivery settlement. SEBI has now said that entire derivative trading should move to delivery settlement from the current cash system in a phased manner in 2019. The new system is aimed at discouraging excessive speculation and abrupt market volatility
- Trading hours for commodity derivatives segment- trading hours for commodity derivatives segment which are presently fixed between 10:00 am and 11:55 pm starting October

4.6.2 Trading in metal

MCX will start with delivery trading in zinc and nickel. The exchange has been paying hefty fee to the London Metal Exchange and the Chicago Mercantile Exchange for price discovery even as domestic companies that require hedging mostly stay away due to non-availability of local price and speculators dominate, experts say. Commodity derivatives was launched by MCX in 2013 and the exchange never made any attempt to shift to delivery trades until new entrants in the segment, the NSE and the BSE, were not asked to do so. Domestic price discovery is possible if delivery of goods is involved as it could promote local price pooling. Tata Steel, Vedanta and Hindalco are among top global companies exporting base metals.

4.6.3 Trading in crude oil and natural gas

With natural gas demand growing faster than for any other fossil fuel, LNG futures may be finally taking off. Derivatives represented about 2 percent of global LNG production at the beginning of 2017 as an array of contracts around the world struggled to gain traction. But by the end of last year, volumes had grown to almost 23 percent, led by a burgeoning Intercontinental Exchange Inc. contract based on S&P Global Platts' Japan-Korea Marker spot price assessments. While volumes are a long way off established global energy benchmarks such as Brent crude -- where trade dwarfs worldwide oil production many times over -- the accelerating growth in LNG derivatives illustrates how the market is maturing. An explosion in supply, from the U.S. to Australia, is bringing more market participants and a shift away from traditional pricing.

4.6.4 Artificial intelligence in trading

Derivative market is an indispensable part of financial services, it is a large global hut and have enormous space to accommodate the latest of technology. Blockchain, AI and robotics are already targeting it. We know that almost any asset can be traded as futures and options in derivative market. However the complexity of these instrument creates challenges for investors. Due to constantly changing marketplace dynamics and regulatory guidelines, robust pricing solutions are critical.

A proper pricing tool is a requirement from buy-side and sell-side trading desks to compliance, for pricing and accounting teams etc. The most popular options available in market have certain limitations which cannot be ignored. For example the solutions are so complicated that to use them one needs to be trained first. These solutions are so heavily priced that not everyone can afford to be benefited, also due to their large size they are restricted to terminals and can be used with limited devices. Let us consider some scenarios to elaborate further.

5. Conclusion

Financial derivatives have a significant place among all the financial instruments (products), due to innovation and revolutionized the landscape. Derivatives are instrument which helps the dealer to manage risk and earns profit. It helps to transfer risk from one to another. India is one of the most successful developing country in terms of a vibrant market for exchange-traded derivatives. Launch of equity derivatives in Indian market has been extremely encouraging and successful. The growth of derivatives in the recent years has surpassed the growth of its counterpart globally. The equity derivatives market is playing a major role in shaping price discovery. Volatility in financial asset price, integration of financial market internationally, sophisticated risk management tools, innovations in financial engineering and choices at risk management strategies have been driving the growth of financial derivatives worldwide, also in India. Finally we can say there is big significance and contribution of derivatives to financial system and India economy

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