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# A STUDY ON DEVELOPMENT OF DERIVATIVES MARKET IN INDIA

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## Abstract

The derivatives market is relatively new in India. They supply what the financial and product markets require in terms of investment risk management. To make sure that the products offered by these changes satisfy investors' needs for risk management, a number of committees have been established to review the operation of the financial and derivative markets. Indian markets currently trade in both exchange traded and over-the-counter derivatives on a variety of asset classes, including securities, commodities, currencies, stock indices, and more. The derivative markets in India are expanding right now.It is well known that the growth of the free-market system can coincide with that of the financial markets, particularly the development of derivatives. Global economic integration has facilitated the free flow of products, services, capital, and human capital. While assuring the best possible use of the world's limited resources, this phenomenon rejects instability and risk in all areas of the organization. The management of this risk volatility becomes a difficult task since it calls for new goods and procedures-derivatives products. Derivatives are viewed as the hedging mechanism and risk management tools all over the world.

Several economic elements influence the economy's value. The best measure of a healthy economy is the performance of the stock market and secondary market. In recent years, the Indian stock market has experienced increasing volatility and warning signs of disaster. In order to draw in the community of new investors, some degree of market volatility is desirable. Nonetheless, a number of studies show that the Indian stock market has too much volatility. Investors will be blamed unless market regulators take proper action to reduce the excessive volatility. In order to reduce the excessive volatility, derivatives trading was established in India. In order to reduce the risk associated with an investor's investment, derivatives are financial instruments that hedge the risk of a certain financial asset. It is often believed that derivatives are the best solution for reducing the excessive volatility in the stock market. The evolution of the derivatives market in the Indian setting is being carefully examined at this point.

**Key words:** Stock market, volatility, derivatives, risk and return, hedge the risk

## Introduction

Although derivative markets have been formalized just recently (since the 1970s), the idea has been around for a while. Asian traders have noticed and utilized the forward, future, and option derivative instruments for their advantages and development processes. Venetian spice merchants waited for cargo throughout the Renaissance, for which they signed contracts establishing a price for upcoming delivery. The Japanese rice farmers have used the futures markets to guarantee the future value of their output for hundreds of years. This was accurate for several commodities in India. If we look back not so long ago, Mumbai's unorganized markets were where options of all types (known as Teji, Mandi, and Fatak) were first exchanged (Aggarwal, 2001). Commodity-based derivatives have been traded off exchange for a very long time, but how they are constructed and traded today is very different from how they were done in the past. Vashishtha, A., & Kumar, S. (2010)

Our financial institutions, banks, are more susceptible to market risk as a result of the financial markets' ever-increasing market integration brought on by globalization. Increased cross-board financial flow has undoubtedly made the situation more complex. Over the past 15 years, India's derivative markets have undergone major reforms, growing significantly in size, product profile, type of participant, and market infrastructure across all market categories, including the equities, debt, and FX markets. Bhattacharya, H. (2007). Currently, the Indian market offers a wide range of derivatives, including options, swaps, and forwards. The markets for these products are relatively deep and liquid, and their primary goals are to hedge interest rate and currency risk. The year 2000 saw the introduction of interest rate derivatives including Interest Rate Swaps (IRS) and Future Rate Agreements (FRA). From June 2000, trading in equity derivatives, such as stock index futures and options, underlying stock futures and options, etc., has been available. The magnitude of equity linked derivatives is currently much larger than the cash component. Masood, S., & Chary, T. S. (2016) The forex derivative markets in India have also grown tremendously over time. From roughly 5 billion dollars per day in 1998 to more than 50 billion dollars per day in 2008, that is the increase in the daily average turnover. Introduction of derivative markets into any financial market has as its primary goal hedging the risk associated with a certain investment. According to several studies, there is no stronger influence on financial markets to reduce the risk associated with a financial asset. Nonetheless, several research revealed that the risk in investments was being successfully hedged by derivatives. We keep everything the same in this situation. Rubani, M. (2017).

**Concept of Derivatives Market**

The term "derivatives" refers to a large group of financial instruments, primarily futures and options. These instruments' value is derived from the underlying asset's price and other pertinent factors. They lack intrinsic value and derive their worth from the claim they make on the ownership of other financial assets or securities on behalf of their owners. Butter is a straightforward example of a derivative because it is made from milk. Butter costs are influenced by milk costs, which are in turn influenced by milk supply and demand. Deriving something from another item is the general definition of a derivative. A commodity or a financial asset may be the underlying asset of a derivative. Derivatives are defined as follows in Section 2(ac) of the Securities Contract Regulation Act (SCRA) of 1956: a) securities derived from debt instruments, shares, loans, whether secured or unsecured, risk instruments, contracts for differences, or any other form of security; and b) contracts whose value is derived from the prices, or index of prices, of underlying securities. Malhotra, M. (2012).

**Genesis of derivatives market in India**

The derivatives concept is not new to the Indian financial market. It has existed in some capacity for a very long period. During the early 1900s, India had one of the greatest futures industries in the world. The Bombay Cotton Trade Association began futures trading in the commodities sector in 1875. The government outlawed cash settlement in 1952, which caused the trade of options and derivatives to move to unofficial forwarding markets. Recent changes in government policy have made it possible for market-based pricing to play a larger role and for the trading of derivatives to be viewed less suspiciously. Karamala, P. (2013).

The Securities Laws (Amendment) Ordinance, 1995 was passed in 1995, and it was this act that gave rise to the current form of derivatives trading in India. It stipulated the lifting of the ban on options on securities. From the year 2000, many commodities' futures trading restrictions have been lifted. During this time, national electronic commodity exchanges were also established. After SEBI gave its final clearance in May 2001 on the proposal of the L. C. Gupta committee, derivatives trading began in India in June 2000. The clearing house/corporation of two stock exchanges, the NSE and BSE, as well as its derivative divisions were granted permission by the Securities and Exchange Board of India (SEBI) to start trading and settlement in authorized derivatives contracts. At first, SEBI authorized the trading of index futures contracts based on a number of stock market indexes, including S&P CNX, Nifty, and Sensex. Hence, trading in options and individual securities on an index became possible. Raghavan, M. S., & Tomar, A. S. (2017).

Trading in options on the BSE Sensex started on June 4, 2001, while trading in options on specific securities started in July 2001. In November 2001, individual stock futures contracts were introduced. On June 12, 2000, S&P CNX Nifty Index futures were the first derivatives to trade on the NSE. The trading of index options began on June 4, 2001, and the trading of options on specific stocks began on July 2. On November 9, 2001, one-stock futures went live. S&P CNX serves as the basis for the index futures and options contract on NSE. NSE offered Interest Rate Futures in June 2003, however they were later outlawed because of a pricing problem. Gahlot, R., & Datta, S. K. (2011).

**Kinds of derivative products**

A variety of products related to the main aspects influencing financial and commercial success are available in the modern derivatives market (Ross, 1999). For all of these players, including small domestic importers, massive global manufacturers, and security traders, external risk exists. Interest rates, currency exchange rates, equity values, and commodity prices are a few of these variables. Derivative instruments' strength is in controlling risks and looking for opportunities inside them. Dhanaiah, G. (2017)

**Development of derivatives market in India**

The Indian equity derivatives market has experienced "explosive expansion" and is predicted to do so in the years to come. Established in 2000, the Indian financial derivatives market has had impressive growth in terms of both volumes and the number of traded contracts. Ninety nine percent of derivatives trading in Indian markets is conducted solely through NSE. Players on the stock market have reacted favourably to the introduction of derivatives. Soon after its inception, trading in derivatives became widely used. Gautam, I., &Kavidayal, P. C. (2016) The NSE futures market eventually saw greater turnover than the NSE cash market. For instance, in 2008, the NSE's derivatives markets had a value of Rs. 130, 90,477.75 Cr., whilst the NSE's cash markets only had a value of Rs. 3,551,038 Cr. In terms of volumes and contracts traded across all product categories, the performance of the BSE is not encouraging when we compare the trading figures of NSE and BSE. Single stock futures, commonly known as equity futures, are the most common commodity traded on NSE in the F& O segment in terms of volume and number of contracts traded. Index futures are second, with turnover shares of 52% and 31%, respectively. Index futures perform better than stock futures in the BSE market. The vast difference between the average daily transactions of the NSE's derivatives segment and cash segment is a significant characteristic of the segment, which can be seen in Tables. The scenario at BSE is completely the reverse of NSE, as shown in Table, with its cash segment outperforming the derivatives section. The derivatives market, according to industry analysts, has not yet reached its full potential in terms of growth and trade, despite significant growth and developments. Dhandhayuthapani, S. P. (2016) Experts point out that the BSE and NSE equity derivative markets are now only offering four products: index futures, index options, individual stock futures, and individual stock options, all of which are restricted to a small number of carefully chosen equities. Even while NSE and BSE recently increased the number of products in their derivatives category (weekly options, currency futures, mini-index, etc.), this still pales in comparison to the breadth and range of goods offered by many major capital markets. Gautam, I., &Kavidayal, P. C. (2016)

**Table 1: Development of Derivative Trading in India**

| 12 | Date | Event |
|---|---|---|
| 1. | July 1999 | 1995 NSE asked SEBI for permission to trade index futures. |
| 2. | October 2000 | SEBI setup L. C. Gupta Committee to draft a policy framework for |
| 3. | June 2001 | index futures. |
| 4. | July 2002 | L. C. Gupta Committee submitted report. |
| 5. | May 2003 | RBI gave permission for OTC forward rate agreements (FRAs) and |
| 6. | May 2004 | interest rate swaps |
| 7. | June 2005 | SIMEX chose Nifty for trading futures and options on an Indian index. |
| 8. | June 2006 | SEBI gave permission to NSE and BSE to do index futures trading. |
| 9. | August 2007 | Trading of BSE Sensex futures commenced at BSE. |
| 10. | July 2008 | Trading of futures and options on Nifty to commence at SIMEX. |
| 11. | June 2009 | Trading of Nifty futures commenced at NSE. |
| 12. | October, 2010 | Trading of Equity Index Options at NSE |
| 13. | November 2011 | Trading of Stock Options at NSE |
| 14. | September, 2012 | Trading of Single Stock futures at BSE |
| 15. | February, 2013 | Trading of Interest Rate Futures at NSE |
| 16. | March, 2014 | Weekly Options at BSE |
| 17. | August 2015 | Trading of Chhota(Mini) Sensex at BSE |
| 18. | October 2016 | Trading of Mini Index Futures & Options at NSE |

**Source: NSE and BSE**

**Table 2: Trade Details of Derivatives Market during 2010-2015**

| Year | NSE | | BSE | | Total | |
|---|---|---|---|---|---|---|
| | No. of Contracts Traded | Turnover (Rs. mn) | No. of Contracts Traded | Turnover (Rs. mn) | No. of Contracts Traded | Turnover (Rs. mn) |
| 2010 | 57,886,776 | 23,307,482 | 372,243 | 125,533 | 54,263,134 | 23,331,143 |
| 2011 | 76,016,174 | 35,370,425 | 571,746 | 171,125 | 66,543,714 | 24,531,723 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2012 | 147,528,362 | 38,232,406 | 113 | 73 | 173,719,293 | 58,442,663 |
| 2013 | 345,8792,464 | 63,463,624 | 1,671,543 | 490,263 | 219,565,273 | 77,192,863 |
| 2014 | 325,014,230 | 120,803,688 | 6,463,391 | 2,313,080 | 532,4763,473 | 144,227,948 |
| 2015 | 557,380,382 | 130,103,732 | 483,585 | 177,673 | 756,986,787 | 113,233,541 |

**Source:** www.nseindia.com

**Business growth in Currency derivatives segment**

Since its launch in September 2014 to June 2015, the Currency Derivatives Segment (CDS) on the NSE has experienced rapid expansion. On the NSE, Table 3 shows the growth in CDS volumes and open interest. In June 2016 compared to September 2014 levels, the volume in this segment surged by 1200%. The NSE's average daily turnover in June 2016 was Rs 41,383 million.

**Table 3: Business Growth of Currency Futures**

| Month/Year | No. of Contracts Traded | Trading volume | Average daily trading Volume |
|---|---|---|---|
| September 2014 to June 2015 | 42,572,868 | 1,523,724 | 12,563 |
| June-July 2016 | 46,263,493 | 1,617,983 | 41,383 |

Source: Compiled by author on various sources

**Conclusion**

In the past decades, India's derivatives industry has experienced tremendous expansion. Derivatives are a tool for risk management that supports successful risk management by a variety of stakeholders. The ability to transfer risk from those who want to avoid it to those who want to take it is made possible by derivatives. The introduction of the equity derivatives market in India has been a resounding success. When the mainstream market adopted derivatives, it is clear that stock price volatility has significantly decreased in comparison to other markets around the world. The NSE's derivatives turnover has overtaken that of the equities market. Remarkably, its rise over the past few years has outpaced that of its equivalent globally. India has established itself as one of the top developing nations for the derivatives industry. There is a growing perception that price discovery is being significantly influenced by the equity derivatives market. Negative aspects also hinder the movement of the stock market's development in contrast to the derivatives market's quick growth. By establishing sound policies, our market is able to instantly avoid all the dangers associated with the derivatives market. As a result, responsible authorities need to take the necessary actions to better educate investors. The derivatives market and its regulatory agencies should be continuously evaluated.

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