

## A STUDY ON EVOLUTION AND CHALLENGES OF DERIVATIVES MARKET IN INDIA

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### Abstract

*Due to the fact that they enable participants to manage risks associated with uncertain events, derivatives markets are an essential component of the financial ecosystem. Since its inception in the early 2000s, the derivatives market in India has undergone significant transformations. The goal of this study is to look at how the Indian derivatives market has changed and the problems it faces. The concentrate initially gives an outline of the set of experiences and advancement of the subsidiaries market in India, featuring the administrative structure and vital participants engaged with the market. Then, it looks at how the derivatives market in India has grown and grown in size, including the kinds of instruments traded, the amount of trading, and the market share of different players. The study also talks about the problems that the Indian derivatives market has to deal with, like how to comply with regulations, how the market works, and how to educate investors. According to the study, essential steps for the expansion and development of the derivatives market in India include expanding investor education, enhancing the market infrastructure, and strengthening the regulatory framework.*

**Keywords:** Derivatives market, financial ecosystem, challenges.

### Introduction

India, one of the non-industrial nations is on the approach to overseeing and alleviating the dangers in different structures. Trading in financial derivatives is one free method that can be used for this purpose. Monetary subordinates are one kind of monetary instrument whose principal object is to give responsibilities of costs to future dates. Responsibility is given to safeguard one against the unfavorable developments or variances in the cost. One more part of monetary subordinate is the part of procuring benefit. Overall, it is a tool that can be used to hedge risk for those who don't like taking risks and make money for those who do. The Indian economy entered the global market in 1991, when economic policy was liberalized. Portfolio values, the prices of securities, and the prices of various goods and services all showed signs of volatility and instability in the Indian economy. Thus, derivative trading became necessary in India to control price volatility and instability. The subordinate business sectors have turned into a vital piece of current monetary framework in under thirty years of their rise. Yet at the same time the Indian subsidiaries market isn't so well developed when contrasted with the other country's subordinates market. Therefore, it is necessary to comprehend the current rate of expansion and development of India's financial derivatives markets.

### Literature review

**Suman Mishra et al (2022)** Hazard is a trademark component of most product and capital business sectors. In the present profoundly vague business circumstance, the significance of chance administration is a lot more prominent than at any other time. The rise of the derivatives market is a financial engineering achievement that provides a cost-effective and efficient solution to the problem of risk caused by the underlying asset's price volatility. The

derivatives market's growth and development in India is relatively recent. The derivatives market has experienced rapid expansion in terms of volume and traded contracts ever since its inception in June 2000. Financial instruments and products whose prices are derived from the prices of their underlying assets are referred to as financial derivatives.

**Mandeep Singh (2021)** Generally, it's obviously true that the unregulated economy system can develop corresponding with the improvement of the monetary business sectors, particularly subordinates. The free flow of goods, services, capital, and human resources has resulted from the integration of global economies. This phenomenon avoids volatility and risk in all business facets while maximizing utilization of the world's limited resources. Because it necessitates novel products and processes—derivatives products—management of this risk volatility becomes an enormous challenge. Across the globe, subsidiaries are viewed as chance administration devices, the supporting instrument.

**Mohammed Rubani (2017)** states that the Indian economy has entered an era in which Indian businesses cannot ignore global markets since 1991, when economic policy was liberalized. Before the nineties, costs of numerous wares, metals and different resources were controlled. Others, which were not regulated, primarily relied on regulated input prices. As a result, prices were less likely to fluctuate as a result of the lack of uncertainty. However, the majority of commodities' prices are no longer regulated after 1991, when the process of deregulation began.

### **Financial derivatives**

Financial derivatives are a few of the fundamental instruments that are required for the operation of effective markets. Price discovery and risk management are vitally important economic functions they perform. Through a large participation base, exchange-traded derivatives' transparency encourages sound price discovery in the underlying market. In addition, they are tools for risk sharing because they make it easier for market participants to share risks. In the world's leading economies, derivatives have become an essential part of the financial system. Economic efficiency has increased as a result of the variety of derivative products that have been developed in recent years. These contracts serve an economic purpose by allowing risks that were previously combined to be unbundled and distributed to those who are most willing to assume and manage each component of the risk (Greenspan, 1998). In mathematics, a variable that derives from another variable is called a derivative. Similarly, in terms of finance, a derivative is a financial product derived from another product on the market. Derivatives have no independent market existence without the underlying product. Hedgers are market participants who control risks. Risk-taking is part of the business for some organizations. The speculators are represented by such entities. The arbitrageurs, the third player in the market, profit from market blunders.

The Worldwide Money related Asset (2001) characterizes subsidiaries as "monetary instruments that are connected to a particular monetary instrument or marker or product and through which explicit dangers can be exchanged monetary business sectors by their own doing. The price of an underlying item, such as an asset or index, determines the value of a financial derivative. In contrast to debt securities, there is no accrual of investment income and no advance of principal to be repaid.

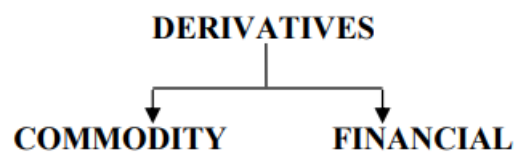
According to SCRA (Securities Contract Regulation Act) act 1956, Section 2(ac) derivative comprises:

A security derived from a debt instrument, share, loan whether secured or unsecured, risk instrument or contract for differences or any other form of security.

A contract which derived its value from the price, or index of price at underlying securities. A subsidiary instrument, comprehensively, is a monetary agreement whose result not set in stone by the worth of a hidden ware, security, loan cost, share cost record, conversion scale, oil cost, and such. Subsequently, a subsidiary instrument gets its worth from some fundamental variable. It is rather a guarantee to convey proprietorship.

### Types of Derivatives

The derivatives can be classified in a number of ways. One way of classifying derivatives is as,

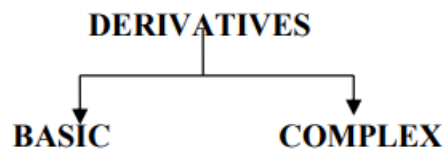


### Commodity Derivatives

These deals with commodities like sugar, gold, wheat, pepper etc. thus, futures or options on gold, sugar, pepper, jute etc are commodity derivatives.

### Financial Derivatives

Futures or options or Swaps on currencies, gilt edged securities, stocks and shares, stock market indices, cost of living indices etc are financial derivatives. Another way of classifying Derivatives is



### Basic Derivatives

They are forward / futures contracts and option contracts.

### Complex Derivatives

Other derivatives, such as SWAPS are complex ones because they are built up from either forward / future contracts or options contracts or both.

### Globalisation of Markets

Managers had to deal with domestic economic issues in the past; In most cases, what transpired in other parts of the world was irrelevant. As a result of globalization's expansion of markets and intensification of competition, consumers who are unable to obtain goods of a higher quality at a lower price have benefited. It has likewise uncovered the advanced business to huge dangers and, as a rule, prompted cut net revenues In Indian setting, south East Asian monetary forms emergency of 1997 had impacted the seriousness of our items opposite devalued monetary standards. India's export of some goods decreased as a result of the crisis. Steel industry in 1998 experienced its most awful hindered because of modest import of steel from south East Asian nations. Out of nowhere blue chip organizations had

gone in to red. Indian exports became unstable as a result of the concern that China would devalue its currency. Therefore, it is evident that the use of derivatives to safeguard against future losses is required by globalization of financial and industrial activities.

### **Evolution Of Derivatives**

Although derivative markets have only been formalized since the 1970s, the general idea has been around for a long time. The derivative instruments have been observed and utilized by traders in Asian economies for their advantages and development processes. During the Renaissance, Venetian Flavor brokers sat tight for freight on the high oceans for which they went into future agreements consenting to a cost for future conveyances. Also, Japanese rice farmers have used futures markets to guarantee the value of their produce in the future for hundreds of years. With a variety of commodities, this was the case in India. If we look at the past, options of all kinds were traded in Mumbai in unorganized markets as early as that. Commodity-based derivatives have been around for a long time off the exchange, but the way they are structured and traded now is quite different.

### **History of Derivatives Market in India**

The need for farmers to safeguard themselves against fluctuations in the price of their crops is where derivatives got their start. Farmers would face price uncertainty from the time it was sown until it was ready for harvest. Using straightforward subordinate items, it was workable for the rancher to some degree or completely move cost takes a chance by securing in resource costs. These were straightforward contracts designed to meet the requirements of farmers and primarily served as a means of lowering risk. In one form or another, derivative markets have been around for a long time in India. In the field of commodities, future trading was initiated in 1875 by the Bombay Cotton Trade Association. The first organized futures market was here. After that, futures trading was established by Bombay Cotton Exchange Ltd. in 1893, Gujarat Vyapari Mandall in 1900, and Calcutta Hesstan Exchange Ltd. in 1919. The derivative market went from banning all kinds of derivative trades to recently reintroducing them after the nation gained independence. Cash settlement and options trading were outlawed by the Indian government in 1952, and derivatives trading was moved to informal forwards markets. Government policy has changed over the past few years to favor more market-based pricing and less suspicious derivatives trading.

### **Challenges of Derivatives Market in India**

With the introduction of new products and new players, the derivatives market in India has grown significantly in recent years. For the market to continue expanding and developing, however, a number of obstacles must be overcome. These difficulties incorporate the absence of mindfulness and schooling among financial backers, the developing administrative system, low liquidity, counterparty risk, absence of normalization, and complex tax assessment. Market participants, regulators, and policymakers will need to work together to overcome these obstacles in order to establish a derivatives market that is open, efficient, and well-regulated, meets investor needs, and contributes to the Indian economy's overall growth.

The Indian derivatives market faces a number of obstacles, some of which are as follows: Many Indian investors are still unaware of the advantages and disadvantages of derivatives trading. Investors may suffer losses as a result of their improper utilization of derivatives due to this lack of awareness and education.

The Indian derivatives market's regulatory framework is still developing. This can prompt disarray among financial backers and can impede the development of the market.

The Indian derivatives market lacks the liquidity of developed nations, resulting in wider bid-ask spreads and price slippage. This makes it challenging for financial backers to enter or leave positions at their ideal costs.

In the derivatives market, counterparty risk is a major concern, as the value of the contract is dependent on the creditworthiness of the counterparty. In India, there is a lack of a central counterparty clearing mechanism, which can increase counterparty risk.

The tax treatment of derivatives in India is complex and can be a deterrent for investors. For example, short-term capital gains on derivatives are taxed at a higher rate than long-term capital gains, which can discourage investors from holding positions for a longer period.

### Methodology

It is always important to be critical of the information presented in sources, especially since the material might have been gathered to address a different problem area. Moreover, many secondary sources do not clearly describe issues such as the purpose of a study, how the data has been gathered, analysed and interpreted making it difficult for the researcher to assess their usefulness. In order to address this problem I have tried to triangulate the secondary data by using numerous independent sources.

Research Journals, Trade Magazines, Annual Reports of Banks, and the Internet are used to gather data on the issue. For the purpose of evaluating "Evolution of derivatives and important factors!", I have concentrated on the most recent available data. To gain admittance to the most recent improvements in this space I have utilized various articles distributed in scholarly diaries and exchange magazines.

### Results and Discussion

#### Derivatives products traded in derivatives segment of BSE

When it first began trading Sensex-based futures contracts on June 9, 2000, the Bombay Stock Exchange (BSE) made history. On June 1, 2001, it was followed by index option trading; on July 9, 2001, and November 9, 2002, in single stock futures (31 stocks) and stock options, respectively. It made it possible to trade the stocks of four major businesses, namely; Reliance Industries, Satyam, State Bank of India, and TISCO (now Tata Steel) Chhota (small scale) SENSEX7 was sent off on January 1, 2008. With a little or 'scaled down' market parcel of 5, it takes into consideration relatively lower capital expense, lower exchanging costs, more exact supporting and adaptable exchanging. On October 1, 2008, currency futures were made available so that participants could hedge their currency risks by trading on U.S. dollar rupee future platforms.

**Table 1 Trade Details of Equity Derivatives Segment at BSE**

Year	No. of contracts traded	Turnover (Rs in million)
2021-22	285,640,217	92,194,346
2020-21	262,443,366	71,635,180
2019-20	32,222,825	8,084,770

2018-19	5623	1,540
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### Derivatives products traded in derivatives segment of NSE

The National Stock Exchange of India Limited (NSE) commenced trading in derivatives with the launch of index futures on June 12, 2000. The futures contracts are based on the popular benchmark Nifty 50 Index. The Exchange introduced trading in Index Options (also based on Nifty 50) on June 4, 2001. NSE also became the first exchange to launch trading in options on individual securities from July 2, 2001. Futures on individual securities were introduced on November 9, 2001. Futures and Options on individual securities are available on 162 securities stipulated by SEBI.

**Table 2 Trade Details of Equity Derivatives Segment at NSE**

Year	No. of contracts traded	Turnover (Rs in million)
2021-22	1,284,424,321	382,114,077
2020-21	1,131,467,418	315,330,040
2019-20	1,205,045,464	313,497,318
2018-19	1,034,212,062	292,482,211

**Table 3: Various Types of Equity Derivative Contracts Traded at NSE in the Fiscal Year  
2021-22**

Indices	No. of contracts traded	Percentage of Contracts to the total contracts
<b>Index Futures</b>		
BANKNIFTY	28,871,553	2.79
CNXINFRA	128	0.00
CNXIT	85,062	0.01
CNXPSE	96	0.00
DJIA	174,060	0.02
FTSE100	10,150	0.00
NFTYMCAP50	26,351	0.00
NIFTY	76,007,830	7.35
S&P500	77,753	0.01
<b>Index Options</b>		
BANKNIFTY	62,656,511.00	6.06
CNXINFRA	5.00	0.00
CNXIT	411.00	0.00
CNXPSE	0.00	0.00
FTSE100	40.00	0.00
NFTYMCAP50	2.00	0.00
NIFTY	865907783.00	83.76
S&P500	423.00	0.00
Total of all Indices	1,033,818,158	100.00

Total of Nifty Index Futures and Options	941,915,613	91.11
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### Indian Derivatives Market

India's experience with the equity derivatives market has been extremely positive. The turnover of derivatives increased from 24 billion rupees in 2008-09 to 313,497 billion rupees in 2019-20 and further to 315,330 billion rupees in 2020-21. In 2021-22, the figure reached 382114.1 billion rupees. The average daily turnover in the equity derivatives segment of NSE was 1522.37 billion rupees in 2021-22 as compared to 1266.4 billion rupees in 2021-22.

The year wise growth in the derivative segment of NSE is shown in the table below

**Table 4: Year wise Growth in the Derivative Segment of NSE**

Year	Total No. of Contracts	Total Turnover (Rs. Cr.)	Average Daily Turnover (Rs. Cr.)
2021-22	1284424321	38211408.1	152236.7
2020-21	1131467418	31533004	126638.6
2019-20	1205045464	31349731.7	125902.5
2018-19	1034212062	29248221.1	115150.5
2017-18	679293922	17663664.6	72392.07
2016-17	657390497	11010482.2	45310.63
2015-16	425013200	13090477.8	52153.3
2014-15	216883573	7356242	29543
2013-14	157619271	4824174	19220
2012-13	77017185	2546982	10107
2011-12	56886776	2130610	8388
2010-11	16768909	439862	1752
2009-10	4196873	101926	410
2008-09	90580	2365	11

Even though the derivatives market has shown good progress in the last few years, the real issues facing the future of the market have not yet been resolved. The number of products allowed for derivative trading have increased and the volume and the value of business has zoomed, but the objectives of setting up different derivative exchanges may not be achieved and the growth rates witnessed may not be sustainable unless these real issues are sorted out as soon as possible.

### Conclusion

The Indian derivative market has experienced rapid expansion over time and a long history of derivatives product trading. The derivatives market has experienced fluctuation. In order to satisfy the various requirements of the various kinds of investors, new and innovative derivative products have emerged over time. Despite the diverse products on the derivative market's growth, there are numerous issues. Lack of economies of scale, tax and legal

bottlenecks, increased off-balance sheet exposure of Indian banks, the requirement for an independent regulator, and other issues all require immediate attention. If these issues are resolved, investors' confidence in the Indian derivatives market will undoubtedly rise, and the market as a whole will expand.

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