

## The Role and Importance of Derivatives in Indian Scenario

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### Abstract

Derivative is a financial asset which derives its value from specified underlying asset. The derivatives derive its value from the performance of something else. That ‘something else’ is often referred to as the underlying asset. It may be shares, debentures, tangible commodities, currencies, indices or long term or short term securities. The derivatives play vital functions like risk reduction through hedging, ensuring market efficiency, deal price discovery of the underlying asset, etc. This paper is an attempt to study the role and importance of Indian derivative contracts. It focuses on theoretical backdrops of the concept.

**Keywords:** Derivative, underlying asset, hedging, risk, participants

### 1.0 Introduction

When investments takes place in the market, there is always the risk of capital loss to the investor through the changes in market price of investments. Investors need a hedging mechanism to offset the risk of investing in shares and debentures. There has been a quest for finding out suitable hedging mechanism. Derivatives play a beautiful role in hedging. Derivatives have a valuable purpose in providing a means of managing financial risk.

#### 1.1 Derivatives

These are contracts which usually derive their value from some underlying asset. A derivative does not have any physical existence but emerges out of a contract between two parties. It does not have any value of its own, but its value, in turn, depends on the value of other physical assets which are called the underlying assets. These underlying assets may be shares, debentures, tangible commodities, currencies, short term or long term financial securities, etc. If the underlying asset is a financial asset, the derivative is called financial derivatives. On the other hand, if the underlying asset is a commodity, the derivative is called commodity derivative. By using derivative contracts, investors can transfer any undesired risk, for a price, to other parties who either want to assume that risk or have risks which offset that risk.

#### 1.2 Features of Derivatives

Derivatives posses the following peculiarities;

- As derivatives are not physical assets, transactions are settled as the difference between spot and future prices in the market.
- Derivatives require little or no initial investments.

- Derivatives are usually traded on screen based computerized exchanges.
- There is no limit on number of units transacted in the derivatives market.
- There is liquidity in the transactions dealing in derivative markets.
- Derivatives provide hedging of various risks of instruments over a certain period.

### 1.3 Derivative Markets

Derivative markets are markets for contractual instruments whose performance is determined by the way in which another instrument performs. Derivative contracts are agreements between a buyer and a seller for monetary considerations. Derivative contracts can either be over-the-counter (OTC) contracts or exchange-traded contracts. OTC contracts are between private parties and the terms of the contract are decided between them initially. These contracts are highly unregulated and less transparent. E.g., forwards, swaps, etc. Exchange traded contracts are traded and regulated on derivative exchanges in order to ensure transparency.

### 1.4 Participants in Derivatives Market

Following are the major participants in a derivative market.

1. Hedgers – Hedgers seek to protect themselves against price change in an asset in which they have an interest. They have risk exposure which they offset by a derivative. In hedging, both the parties enjoy a ‘win-win’ situation.
2. Speculators – Speculators are major players in derivative market without whom, the market probably would not exist. They are the participants who are ready to take a risk for some return. Price differentials of the assets in the same market constitute the profit or loss for speculators.
3. Arbitrageurs – Arbitrageurs try to make profit by taking into account the price differences of two markets. When the price of security is low in one market, they purchase securities and sell the same in an occasion of high security price. An arbitrage opportunity exists when one can make non-zero profit with no net investment or risk.

### 1.5 Types of Derivatives

The type of derivatives usually depends on the type of underlying asset. They may be based on physical commodities or on financial assets.

Commodity derivatives      For different commodities like sugar, pepper, jute, gur, castor seeds, etc.

Financial derivatives    The derivatives in currencies, gilt-edged securities, shares, indices, etc. are financial derivatives.

Basic derivatives      Derivatives on underlying assets like forwards, futures, options, etc.

Complex derivatives    Derivatives on underlying assets like swaps, etc.

Exchange traded derivatives   Standard contracts traded as per the rules and regulations of the exchange. In India, BSE & NSE are online computerized exchanges where financial futures and options are traded.

OTC derivatives      Private contracts between the parties under the law of contracts. All forward contracts are OTC derivatives.

### **1.6 Role and Functions of Derivatives**

Derivatives usually perform the following functions.

#### **1) Price discovery of the underlying asset**

Price discovery is a method of determining the price for a specific commodity or security through basic supply and demand factors related to the market. Price discovery is the general process used in determining the spot price. These prices are dependent upon market conditions affecting supply and demand. For example, if the demand for a particular commodity is higher than its supply, the price will typically increase and vice versa.

Futures market prices depend on a continuous flow of information from around the world and require a high degree of transparency. A broad range of factors (climatic conditions, political situations, debt default, refugee displacement, land reclamation and environmental health, for example) impact supply and demand of assets (commodities in particular) - and thus the current and future prices of the underlying asset on which the derivative contract is based. This kind of information and the way people absorb it constantly changes the price of a commodity. This process is known as price discovery.

#### **2) Techniques of risk management**

Financial derivatives are useful for dealing with various types of risks, mainly market, credit and operational risks. The importance of derivatives has been increasing since the instrument has been used to hedge against price movements. The financial tool assists with the transfer of risks associated with a specific portfolio without requiring selling the portfolio itself. Essentially, derivatives allow investors to manage their risks and so reach the desired risk profile and allocation more efficiently.

The relationship between derivatives and risk management is relatively simple. Derivatives are seen as the tool that enables banks and other financial institutions to break down risks into smaller elements. From this, the elements can be bought or sold to align with the risk management objectives. So, the original purpose of derivatives was to hedge and spread risks. The main motive of the financial tool has aided with the great development and expansion of derivatives.

#### **3) Operational advantages**

Derivative markets entail lower transaction costs. They have greater liquidity compared to spot markets. Derivative markets allow short selling of underlying securities more easily.

#### **4) Market efficiency**

Spot markets for securities probably would be efficient even if there were no derivative markets. A few profitable arbitrage opportunities exist, however, even in markets that are usually efficient. The presence of these opportunities means that the price of some assets is temporarily out of line. Investors can earn returns that exceed what the market deems fair for the given risk level. There are important linkages between spot and derivative prices. The ease and low cost of transacting in these markets facilitate the arbitrage trading and rapid

price adjustments that quickly eradicate these profit opportunities .Society benefits because the prices of underlying goods more accurately reflect the good's true economic values.

### 1.7 Why Derivatives are important?

The uses of derivative instruments are generally attributed to:

- Risk Sharing

Derivatives are mainly used to hedge risk associated with the underlying asset to the willing parties to take risk. The risk comes from several sources and is unavoidable. Derivatives are mainly intended to reduce the risks through transferring, spreading, etc. to the third parties who are risk seekers. The reducible risks include business risk, market risk, interest rate risk, inflation risk, currency risk/exchange rate risk, political risk, credit risk, weather risk, legal and regulatory risks, operational risks, valuation risks, etc. These risks can be reduced in different ways such as,

- By selling the source of it
- By diversification
- By buying insurance against losses
- Implementation of Asset allocation Decisions

Derivatives are useful in implementing the asset allocation strategies on account of their property of low cost of diversification and leverage.

- Information gathering

Derivative markets affect the information structure of the financial system. The economic benefit of the information is that the potential imbalances can be visualized more easily by the higher implied volatilities.

- Price discovery and Liquidity

Derivative markets offer liquidity in their transactions. Futures and forwards markets are the important source of price information.

### 1.8 Methodology

The study is in a descriptive state. The theme is on the role and importance of derivative contracts in the present Indian scenario. The use of derivative contracts for hedging reaches some pace in the last few years. There are cumbersome procedures and formulae for the price discovery and risk measurement of derivatives. The study focuses the narrative part of the role of Indian derivative market.

### 1.9 Conclusion

This paper is an attempt to study the role and importance of derivative contracts and is descriptive in nature. A number of roles were identified in connection with the derivatives. The derivatives play vital functions like risk reduction through hedging, ensuring market efficiency, deal price discovery of the underlying asset, etc. The risk reduction is possible by ways of risk transfer, risk diversification, risk allocation, and risk neutralizing. The utility function with regard to different classes of investors was taken care of. It is preferable for the participants in derivatives market a contract which is suitable to secure a win-win situation.

Altogether wise selection of underlying assets combined with intelligent participation in the derivatives market will surely bring prosperity for the players.

### 1.10 Implications

The implications of this study can be far-reaching. The efficiency of derivatives market is questionable and therefore its ability in hedging and price discovery can be compromised. Traders can spot mispricing with respect to basis and days from maturity and dive away the deviations within the constraints of short selling. All these indicate that use of derivative contracts may undermine the efficacy of hedging. However, the role it plays is unbelievable.

### 1.11 Limitations of the Study

The present study suffers from the limitation that it does not take into consideration the varying aspects in detail and provides only a theoretical background / backdrop to the concept of derivatives. There is dire need to empirically validate the relationships using original data collected using structured questionnaire. The public awareness about the derivative contracts has bearing a hindrance during the study.

### 1.12 Scope for Further Research

As far as derivatives are concerned, only a few research works have been conducted in the past decades. Different scholars have tried to explain derivatives but not in depth. There is dire need to specific study of different aspects.

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