

# Risk Management practices: Derivatives activities in Banking Sector

Chetna Verma

Astt. Professor, Pt. N.R.S. Govt. College, Rohtak

---

## ABSTRACT

Banking sector has played a vital role in fuelling and at the bottom of growth in the economy of country like India. It helps in mobilizing the nation's savings and in channelizing these into high investment priorities. Modern banking is different from lending and borrowing in a way that it accepts risk in order to earn profits, because risk is an unavoidable element of any financial activities and is a distinctive feature of most commodity and capital markets. In the present highly uncertain business set-up the importance of risk management is much higher than ever before. While risk is the potential that events, expected or unanticipated, may have an adverse impact on the bank's capital and earnings. Today banks use derivative product in order to manage their risks, such as reputation, price, foreign exchange, liquidity, interest rate, credit, transaction, compliance etc. This paper is an attempt to study credit risks associated to the derivative activities so that banking sector may better utilize available resources.

**Keyword: Risk Management, Derivatives.**

---

## INTRODUCTION

The economic value of financial institutions depends on their exposure to market risk. A traditional bank borrows short term via deposits and lends long term via loans. Modern institutions have increasingly borrowed short term in the money market, for example via repurchase agreements and lent long term via holding securities such as mortgage bonds. Now a day banks play a prominent role in derivatives markets. Measuring financial institutions' risk exposure is clearly important for regulation, but it is also relevant for economic analysis more broadly. Institutions are the main players in markets for fixed income instruments.

### Concept of Derivatives

The term 'derivatives, refers to a broad class of financial instruments which mainly include options and futures. These instruments derive their value from the price and other related variables of the underlying asset. They do not have worth of their own and derive their value from the claim they give to their owners to own some other financial assets or security. For example butter, which is derivative of Milk. The price of butter depends upon price of milk, which in turn depends upon the demand and supply of milk. In general derivatives means to derive something from something else. Financial derivatives may be defined as an instrument that primarily derive their value from the performance of underlying interest or foreign exchange rates, equity, or commodity prices. A financial derivative is a contract whose value depends upon the value of some underlying asset, such as a stock (Wilmott, P. and Dewynne, J. and Howison, S. (1993). The contract specifies the rights and obligations between the buyer and the seller to receive or deliver future cash flows based on some future event (Wilmott, P. and Dewynne, J. and Howison, S. (1993).

Section 2(ac) of Securities Contract Regulation Act (SCRA) 1956 defines Derivative as:

- a) "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;
- b) "A contract which derives its value from the prices, or index of prices, of underlying securities". A security whose price is depends upon or derived from one or more underlying assets. The derivative itself is merely a contract

between two or more parties. Its value is determined by fluctuations in the underlying asset. The most common underlying assets include stocks, bonds, commodities, currencies, interest rates and market indexes.

In sum, derivative is a financial instrument that derives its value from an underlying asset, indexes, or event—it has no intrinsic value itself. For example, an interest rate futures contract is a derivative that commits the parties to exchange a debt security, say a Treasury bond, at a future date for a predetermined price. The value of the futures contract depends on the value of the Treasury bond that underlies it.

Financial derivatives come in many shapes and forms, including futures, forwards, options, structured debt obligations and deposits, and various combinations thereof. In India, the emergence and growth of derivatives market is relatively a recent phenomenon. Derivatives trading commenced in India in June 2000. Derivatives have become an integral part of the financial markets because, It can be used to reduce business risks, expand product offerings to customers, trade for profit, manage capital and funding costs, and alter the risk-reward profile of a particular item or an entire balance sheet. Major economic functions of Derivative include following:

- Risk sharing and market completion,
- Implementation of asset allocation decision.
- Information gathering

#### **Applications of Financial Derivatives**

- Management of risk
- Efficiency in trading
- Speculation
- Price discover

#### **Benefits of Derivatives**

Derivatives can be used to reduce business risks, expand product offerings to customers, trade for profit, manage capital and funding costs etc. Derivatives are useful for hedging, speculating, arbitraging price differences, and adjusting portfolios at low cost. Derivatives products such as option, future or swaps contracts have become a standard risk management tool that enable risk sharing and facilitates efficient allocation of capital to productive investment opportunities. For example derivatives are zero-sum monetary games: the amount paid to one side of the contract is the amount received by the other side. Derivative offer following benefits:

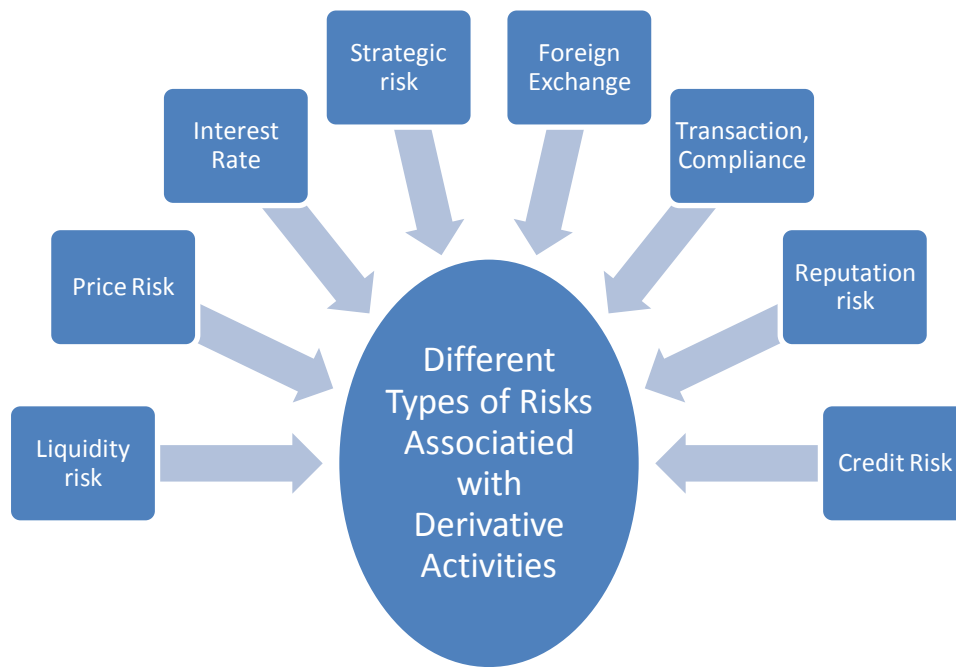
- Transferring risks ( from risk-averse people to risk-oriented people)
- Aid business growth.
- Enhance savings and investment in the long run.
- Efficient allocation of capital • Increase the volume traded in markets
- Derivatives catalyze entrepreneurial activities.

#### **Apart from of benefits, derivatives pose some risk.**

Derivative security markets have shown extraordinary growth over the past 10 years. But certain events have raised concern about the risks associated with derivatives trading. The stock market crash of October 1987 has, in part, been blamed on portfolio insurance strategies that used futures markets. Large losses associated with the use of derivatives by firms such as Procter & Gamble (\$137 million), Metallgesellschaft (\$1 billion), and Barings PLC (\$1.3 billion), and by Orange County, California (\$1.7 billion) have led to fear among some market participants that derivatives trading is a very risky activity that could lead to a widespread disruption of the financial system. The growth in the use of derivative instruments has led to the concentration of risk management. Though derivatives are justifiable and valuable

tools for banks, like all financial instruments they contain risks that must be managed. Managing these risks should not be considered unique or remarkable should be integrated into the hank's overall risk management structure.

Risks associated with derivatives are not new or unusual. They are basically the same as those faced in traditional banking activities (e.g., price, interest rate, liquidity, credit risk). Fundamentally, the risk of derivatives (as of all financial instruments) is a function of the timing and inconsistency of cash flows. The OCC has defined nine categories of risk for bank supervision purposes. These risks are: strategic, reputation, price, foreign exchange, liquidity, interest rate, credit, transaction, and compliance. These categories are not mutually exclusive. Derivative activities must be managed with consideration of all of these risks.



(DIFFERENT TYPES OF RISKS ASSOCIATED WITH FINANCIAL DERIVATIVE ACTIVITIES)

**Strategic Risk :** Strategic risk is the risk to earnings or capital arising from undesirable business decisions or inappropriate implementation of those decisions. This risk is a function of the compatibility between an organization's strategic goals, the business strategies developed to accomplish those goals and the resources (resources may be tangible or intangible i.e operating systems, communication channels, managerial capabilities etc.) deployed in hunt of these goals, and the excellence of implementation.

**Reputation Risk :** Reputation risk is the risk to earnings or capital arising from negative public opinion. Derivative activities carry a higher degree of reputation risk because they are generally more multifaceted and less understood by the public than other financial products. For example a bank start to deal in inappropriate derivative transaction which are incompatible for the customer or that the customer does riot understand, there is greater potential for customer non-payment and it will damage the bank's reputation.

**Liquidity Risk :** Liquidity refers to the ease of transacting and little price perturbation as a result of trading. Liquidity risk is the risk that a given security or asset cannot be traded quickly enough in the market to prevent a loss (or make the required profit). It is the risk to earnings or capital from a bank's inability to meet its obligations when they come due, without incurring unacceptable losses.

**Foreign Exchange Risk :** Foreign exchange risk also known as translation risk, is the risk to earnings or capital arising from movement of foreign exchange rates.

**Interest Rate Risk :** Interest rate risk is the risk to earnings or capital arising from movements in interest rates. Interest rate risk arises from differences between the timing of rate changes and the timing of cash flows ( repricing risk); from changing relationships among different yield curves affecting bank activities (basis risk); from changing rate relationships

across the spectrum of maturities (yield curve risk); and from interest-related options embedded in bank products (options risk).

**Price Risk :** Market risk can be defined as the risk of loss from adverse movements in financial market rates and prices. Many banks use the term of price risk interchangeably with market risk. Price risk is defined as risk of loss arising from the adverse changes in the Market rates and prices SLIM as the interest rates, currency exchange rates, commodity prices, or equity prices. Derivatives are an integral part of firms' market risk. Price risk is the risk to earnings or capital arising from changes in the value of portfolios of financial instruments. This risk arises from market-making, dealing, and position-taking activities for interest rate, foreign exchange, equity and commodity markets.

**Credit Risk :** Credit risk is an important consideration for banks. Credit risk is the probability that a borrower will default on a commitment to repay debt or bank loans. Default occurs when the borrower cannot fulfill key financial obligations, such as making interest payments to bondholders or repaying bank loans. In the event of default, lenders bondholders or banks suffer a loss because they will not receive all the payments promised to them. Simply Credit risk is one where one party may default on the contract, which is called credit risk.

Credit risk is most simply defined as the likelihood that a borrower or counterparty will not honor its obligations in accordance with the terms of agreement. The goal of credit risk management is to maximize a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. A comprehensive credit risk management program should address these four areas (Basel Committee 1999). These practices should also be applied in combination with sound practices related to the assessment of asset quality, the adequacy of provisions and reserves and the disclosure of credit risk.

- Establishing an appropriate credit risk environment;
- Operating under a sound credit granting process;
- Maintaining an appropriate credit administration, measurement and monitoring process;
- Ensuring adequate controls over credit risk.

Principles of Credit Risk Management (Basel Committee 2000)

- Establishing an Appropriate Credit Risk Environment • Maintaining an Appropriate Credit Administration,
- Measurement and Monitoring Process

### **Ensuring Adequate Controls Over Credit Risk**

- Proper implementing the credit risk strategy for developing policies and procedures for identifying, monitoring and controlling credit risk.
- Operating Under a Sound Credit Granting Process establish overall credit limits establish systematic process for approving new credits as well as the extension of existing credits.
- Develop and utilize internal risk rating systems in managing credit risk.
- Develop sound management information systems and 'analytical techniques that enable management to measure the credit risk inherent in all on- and off-balance sheet activities.
- Consideration potential future changes in economic conditions system in place for managing problem credits and various other workout situations.
- Ensuring Adequate Controls Over Credit Risk
- Supervisors should conduct an independent evaluation of a bank's strategies, policies, practices and procedures related to the granting of credit and the ongoing management of the portfolio.

### **Principles of Credit Risk Management**

- Establishing an appropriate credit risk environment



- Operating under a sound credit granting process
- Maintaining an appropriate credit administration, measurement and monitoring process
- Ensuring adequate controls over credit risk.

#### **BIBLIOGRAPHY**

- [1]. Wilmott, P. and Dewynne, J. and owison, S. (1993), Option Pricing, Oxford Unievrstity.
- [2]. Basel Committee on Banking Supervision (1999) Principles for Management of Credit Risk, Bank for International Settlements.
- [3]. Basel Committee on Banking Supervision (MUD) Principles for [Management of Credit Risk. Bank for International Settlements

#### **Websites :**

**[www.bis.org](http://www.bis.org),**

**[www.hdfcbank.com](http://www.hdfcbank.com),**[www.standardchartered.co.in](http://www.standardchartered.co.in),****

**[www.statebankofindia.com](http://www.statebankofindia.com),**

**[www.unionbankofindia.com](http://www.unionbankofindia.com),**

**[www.icicibank.com](http://www.icicibank.com), [www.rbi.org.in](http://www.rbi.org.in)**