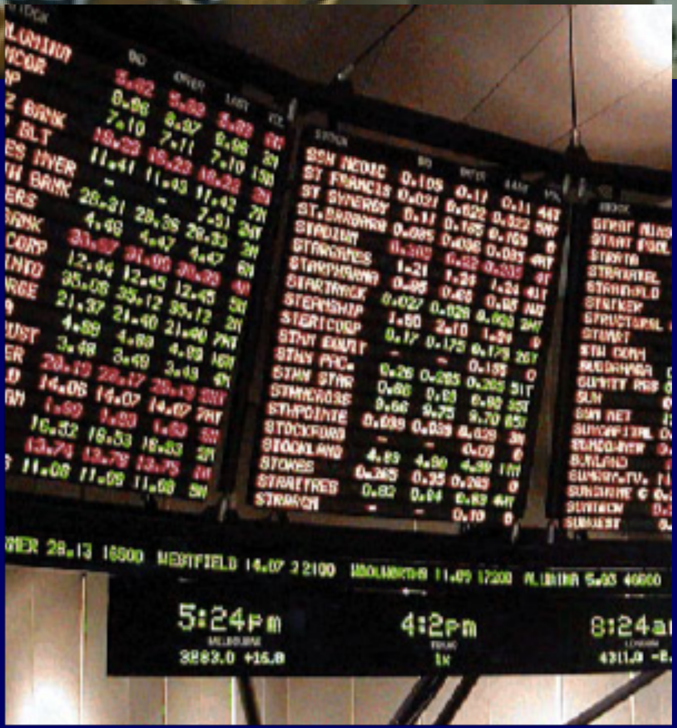
DECIPHERING DERIVATIVES



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DEFINING DERIVATIVE

Derivatives are financial instruments whose price is determined or derived from one or more underlying assets.

It’s a contract between two or more parties.

Its value is determined by the fluctuations in the underlying asset.

EXAMPLE

Actual price of ticket = 1,000 Rs

With the reference letter 1 ticket can be bought at Rs 1,000

Price of ticket in grey market Value of reference letter

(Rs)

1000 0

1250 250

1500 500

900 worthless

EXAMPLE (cont…)

- The reference letter is not a ticket,
- Its value depends on the price of the ticket.
- Here reference letter is a derivative
- Underlying asset is the ticket

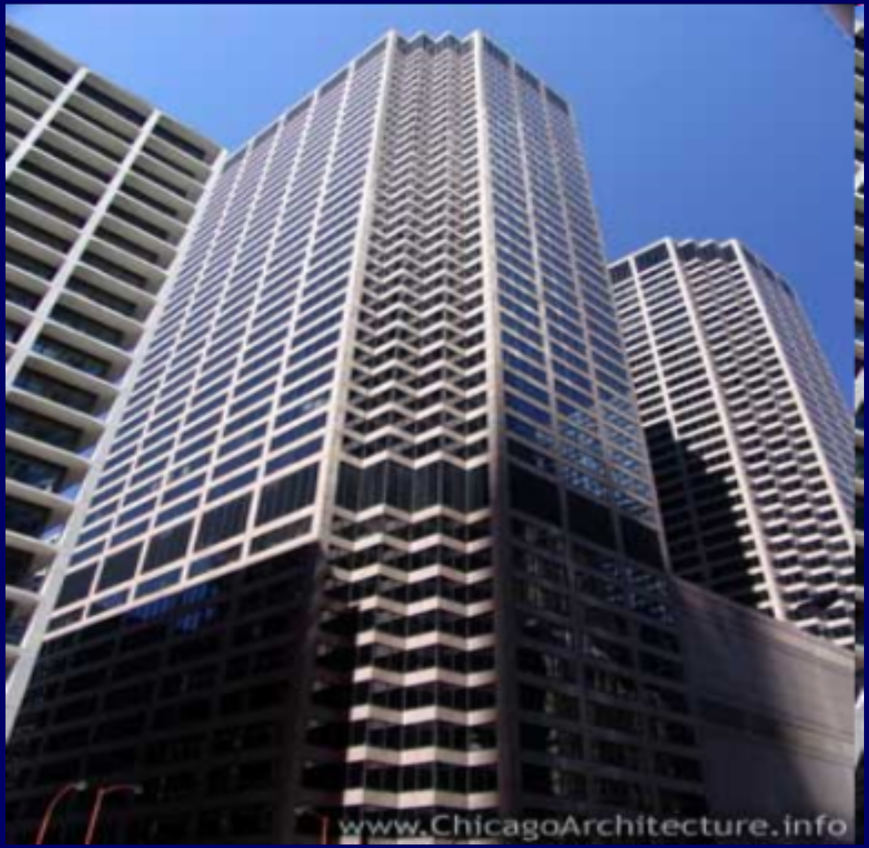
Derivatives are financial instruments whose price is determined or derived from one or more underlying assets.

DERIVATIVES ARE MAINLY OF 4 TYPES.

DERIVAIVES

- FORWARD CONTRACT
- FUTURES CONTRACT
- OPTIONS CONTRACT
- SWAP CONTRACT

HISTORY



Chicago Mercantile Exchange

A scene on the floor of the Chicago Board of Trade

HISTORY (cont…)

Bombay cotton market

FORWARD CONTRACT

A Forward Contract is an agreement entered today under which one party agrees to buy and the other agrees to sell an asset on a specified future date on an agreed price.

Example – A contract to sell 100 kg of wheat at Rs10/kg after 2 months.

Delivery of commodity and payment of money take place after 2 months.

MAIN FEATURES OF FORWARD CONTRACTS

- **Unique**
- Traded Over The counter(**OTC**) i.e. not through an exchange. (Markets where there is no organized exchanges are known as OTC Markets)
- **Not negotiable**, so illiquid.
- Both parties **obliged** to perform
- There is a chance of **default**

FUTURES CONTRACT

- Its **negotiable** ie a person can sell his right or obligation
- So its **liquid**
- A **commodity exchange** guarantees performance
- The contract is **standardized** as to minutest detail

- A **margin (deposit)** should be deposited with exchange.
- This amount changes with change in price of futures. This is called **Mark To Market** margin **(MTM)**

EXAMPLE

The futures contract requires farmer to deliver 50,000kg of wheat to baker @ 20/kg after 2 months.

Price of Farmer Baker

wheat futures

initial deposit 1,00,000 1,00,000

21 Rs (50,000) 50,000

20.5 Rs 25,000 (25,000)

closing position 75000 1,25,000

ECONOMIC IMPORTANCE OF FUTURES

Market price discovery

- Futures market- a good source of market information & sentiment indicator
- Prices depend on continuous flow of information.
- Price discovery more transparent

Risk Reduction

- Manufacturers can lock in price of input materials.
- Because the price is preset the participants can know how much they will need to buy or sell

MAIN PLAYERS IN FUTURES

- HEDGERS
- SPECULATORS
- ARBITRAGEURS

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HEDGERS

- **genuinely aimed at reducing the risk caused by price volatility**
- **want to lock in a fixed price or return**
- **In the example**
  - the baker wants to fix a price for purchasing wheat after 2 months.
  - Farmer wanted to fix a selling price for wheat which he is going to sell after 2 months

MAIN PLAYERS IN FUTURES

- HEDGERS
- SPECULATORS
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SPECULATORS

Not aimed at minimizing risk

Aimed to profit from very price change hedgers are trying to protect themselves

- They can make market & price discovery complex.
- Huge speculators can control prices of commodities

- But a succesful derivative market need speculators
- They can provide cautious people like farmers with protection they need.

MAIN PLAYERS IN FUTURES

- HEDGERS
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- ARBITRAGEURS

ARBITRAGEURS

- They try to profit from discrepancies in the relationship of spot and derivatives prices
- They buy in one market and sell in another market.
- They help to keep markets efficient.

LEVERAGE

With relatively small amount of cash one can enter into a **huge** futures contract.

Slight change in futures market price can translate into huge loss or gain.

In the example.

Initial deposit=1,00,000

Contract size= 50,000X20=10,00,000

When price of wheat futures increased from 20 to 20.5Rs in 2months

Profit = 25,000 Rs

When one person make huge profit

The other person makes huge loses

Leverage is a **Double Edged Sword**

OPTIONS

An OPTION is the **right**, not the obligation to buy or sell an underlying instrument.

Strike Price **- The price at which you buy or sell the security.**

Expiration Date **- The last date on which the option can be exercised.**

- The buyer of the option will have to pay a fixed premium to the option seller
- Premium is payable even if the buyer didn't exercise his option

2 TYPES OF OPTIONS

Call Option

Right to buy an asset at a specified exercise price on or before the exercise date.

Put Option

Right to sell an asset at a specified exercise price on or before the exercise date.

Option Obligations

	Buyer	Seller
Call option	Right to buy asset	Obligation to sell asset
Put option	Right to sell asset	Obligation to buy asset

Options are usually traded through an exchange

OPTIONS TERMINOLOGY

American Option **- Can be exercised at any time prior to and including the expiration date.**

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European Option **- Can be exercised only on the expiration date.**

SWAP

Swap is a contract by which 2 parties exchange, the cash flow linked to their liability.

It is traded OTC.

EXAMPLE

A has variable rate loan.He wants fixed rate loan

B has Fixed rate loan. He want variable rate loan.

A & B swaps their interest.

THANK YOU

By

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