INTRODUCTION TO DERIVATIVES

DERIVATIVES MEANING

•A contract between two or more parties whose value is based on an agreed upon underlying financial asset, index or security.
•Common underlying instruments include: bonds, commodities, currencies, interest rates, market indexes and stocks.
•A derivative is a contract and not a physical asset; it derives value from underlying asset.

Example

If a discount coupon offers a 10% discount on the price of a laptop purchased, the person who holds the discount coupon may purchase a laptop costing 50,000.00, 60,000.00, 1,00,000.00 or any amount as he/she wishes. While doing so, the discount he/she avails will also change from 5,000.00, 6,000.00, or 10,000.00 accordingly.
Here, the laptop can be seen as the underlying asset and the discount coupon as derivative. As the value of the laptop changes, the value of the discount coupon changes as well.

Derivative

Underlying asset

Laptop costing Rs. 50,000.00

Value of discount coupon = 10% of 50,000.00

= Rs. 5000.00

Laptop costing Rs. 60,000.00

Value of discount coupon = 10% of 60,000.00

= Rs. 6000.00

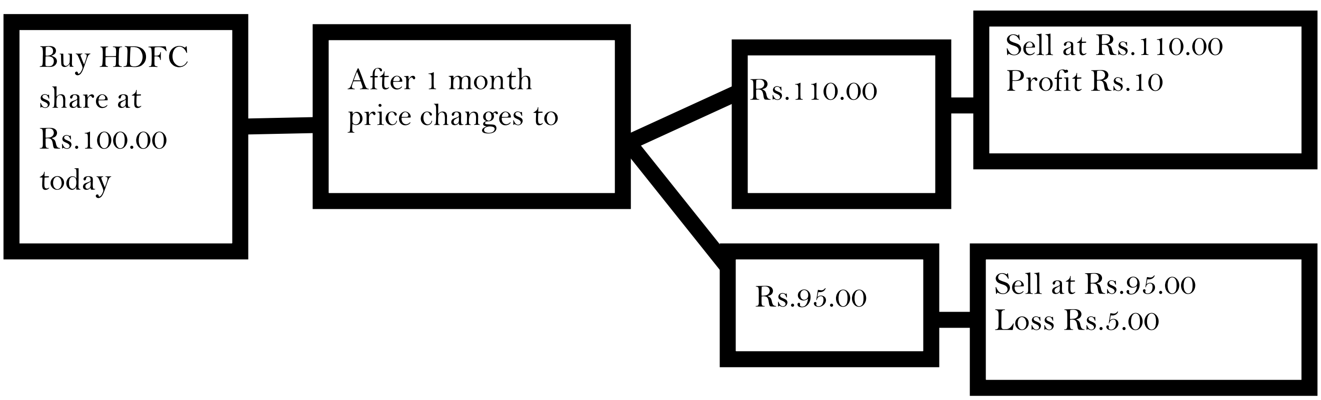
FEATURES OF DERIVATIVES

•Settled at a future date.
•Value will change in response to underlying asset.
•Requires no investment or minimal investment as compared to underlying asset.

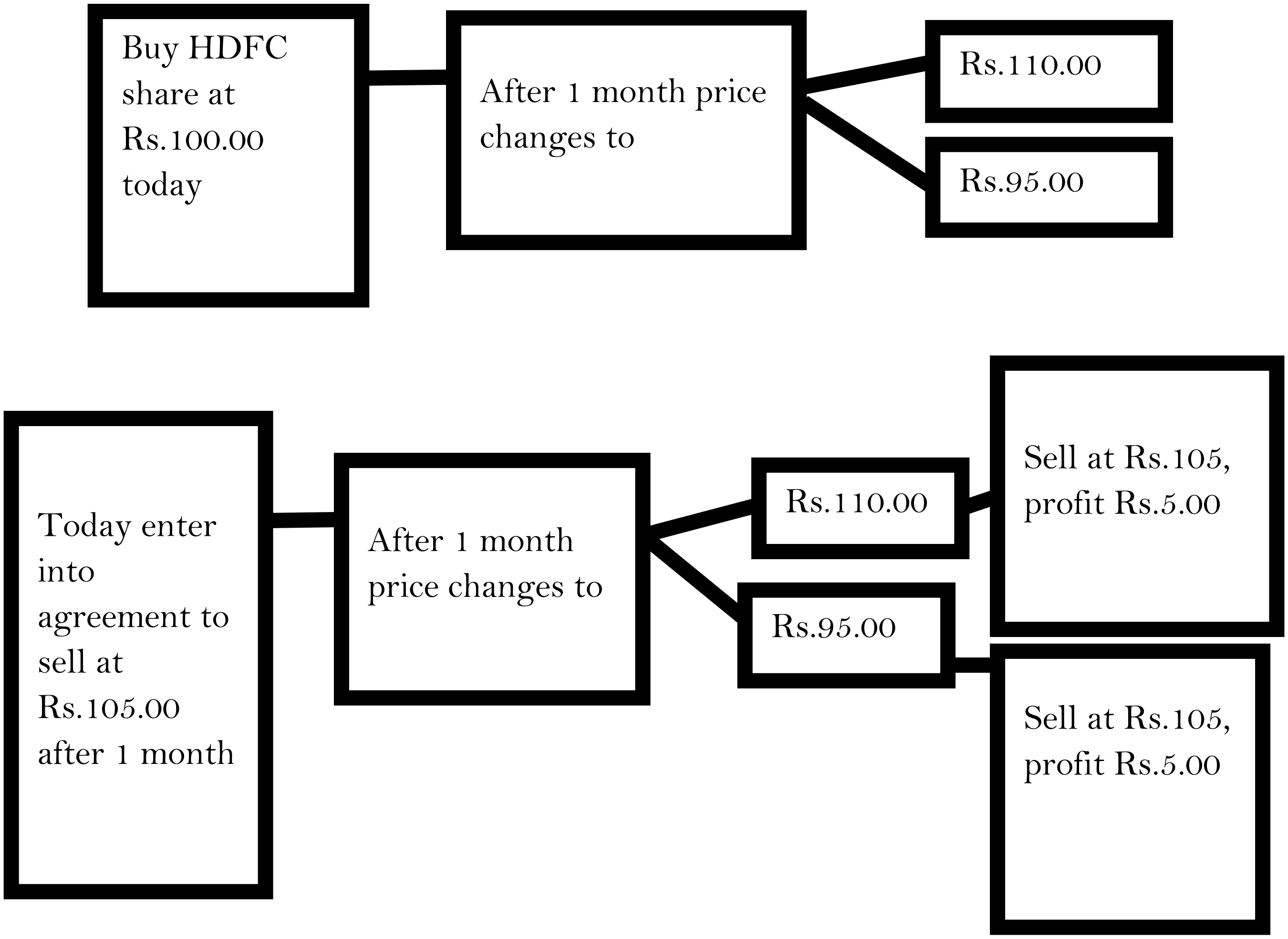
PURPOSE OF DERIVATIVES

•**Speculation**: Seek to profit from changing prices in underlying asset, index or security.
•**Hedging:** Used as tool to cover risk against change in prices of underlying asset.
•**Arbitrage:** Making riskless profit through taking advantage in imperfect market prices.

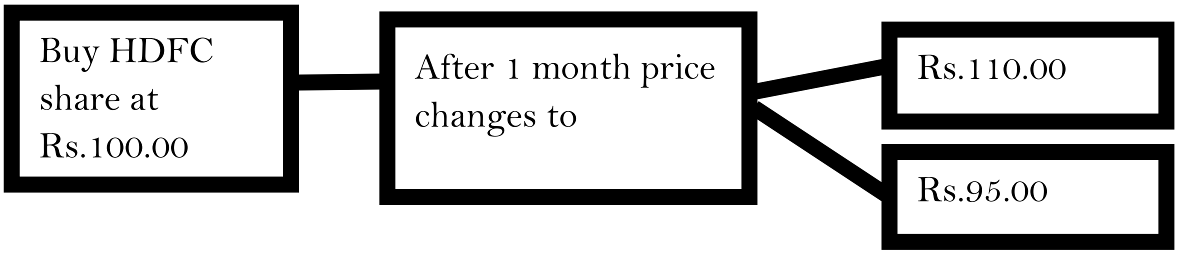
TRADING-INTRODUCTION
SPOT MARKET

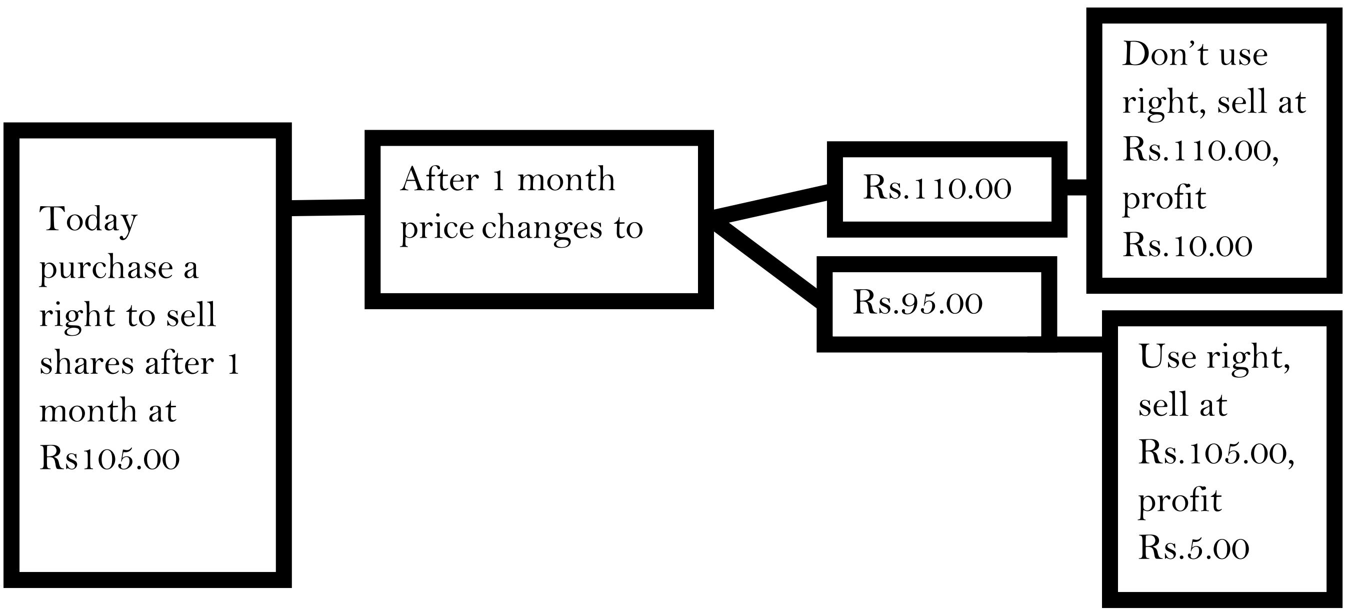


FUTURE MARKET



OPTION MARKET





EXAMPLES OF DERIVATIVES

- Forward contracts
- Future contracts
- Options

FORWARD CONTRACTS

A forward contract is a customizable derivative contract between two parties to buy or sell an asset at a specified price on a future date. Forward contracts can be tailored to a specific commodity, amount, and delivery date. Forward contracts do not trade on a centralized exchange and are considered over-the-counter (OTC) instruments.

FUTURES

- A financial asset obligating the buyer to purchase an asset (or seller to sell an asset), such as a physical commodity or a financial instrument, at a predetermined future date and price.

- Underlying assets can be shares, indices, commodity prices etc.

MARGIN

- One has to maintain account with stock exchange to deal in futures.
- Difference in future price is debited or credited to this account on daily basis.
- Types of margin

a. Initial margin: When contract is entered into.

b. Maintenance margin: Minimum amount to be maintained.

c. Call money: Amount to be deposited if balance goes below minimum.

d. Variation margin: Amount to be paid or received on MTM basis.

FEATURES OF FUTURES

- Contract signed today, settled at later date
- Price for transaction is predetermined
- Settlement date is predetermined

- Both parties to contract have obligation, one will have obligation to buy and another obligation to sell
- Standard expiry date
- Standard lot size
- Initial margin money or deposit
- Square off settlement
- Market to market settlement

DIFFERENCE BETWEEN FORWARDS AND FUTURES

Basis	Forward contract	Future contract
Trading	Traded on personal basis or on telephone.	Traded in a competitive arena.
Size of contract	Individually tailored and have no standardised size.	Standardised in terms of quantity or amount.
Organised exchanges	Traded in an over the counter markets.	Traded on organised exchanges with a designated physical location.
Settlement	Takes place on the date agreed upon between the parties.	Made daily via exchange's clearing house.
Marking to market	Not subject to marking to market.	Subject to marking to market in which loss or profit is debited or credited to margin account on a daily basis.
Margin	Not required.	Participant is subject to maintain margin.

OPTIONS

- An option contract offers the buyer the opportunity to buy or sell the underlying asset depending on the type of contract they hold.
- The holder is not required to buy or sell the asset if they choose not to.

TYPES

Based on period of expiry

i)An option that can be exercised only on expiry is called as European option.

ii)An option that can be exercised any time before expiry is called as American option.

Based on type of right

i) Call option: Where holder gets the right to buy the underlying asset at a later date.
ii) Put option: Where holder gets the right to sell the underlying asset at a later date.

CALL OPTION

- Option to buy the share in future at a price today.
- It is an instrument or a contract which is signed today for a settlement at a later date at fixed price called as strike price and provides holder right to buy the underlying asset and puts obligation on writer to sell the underlying asset.
- Since holder enjoys the right of exercise, he pays option premium as consideration for risk of obligation to the writer.

PUT OPTION

- Option to sell the share in future at a price today.
- It is an instrument or a contract which is signed today for a settlement at a later date at fixed price called as strike price and provides holder right to sell the underlying asset as well as puts obligation on writer to buy the underlying asset.
- Since holder enjoys the right of exercise, he pays option premium as consideration for risk of obligation to the writer.

VARIOUS PARTIES IN OPTIONS

- Person who has the right to buy underlying asset is called as **call option holder.**
- Person who has the obligation to buy the underlying asset is called as **put option writer.**
- Person who has the right to sell the underlying asset is called as **put option holder.**
- Person who has the obligation to sell the underlying asset is called as **call option writer.**

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