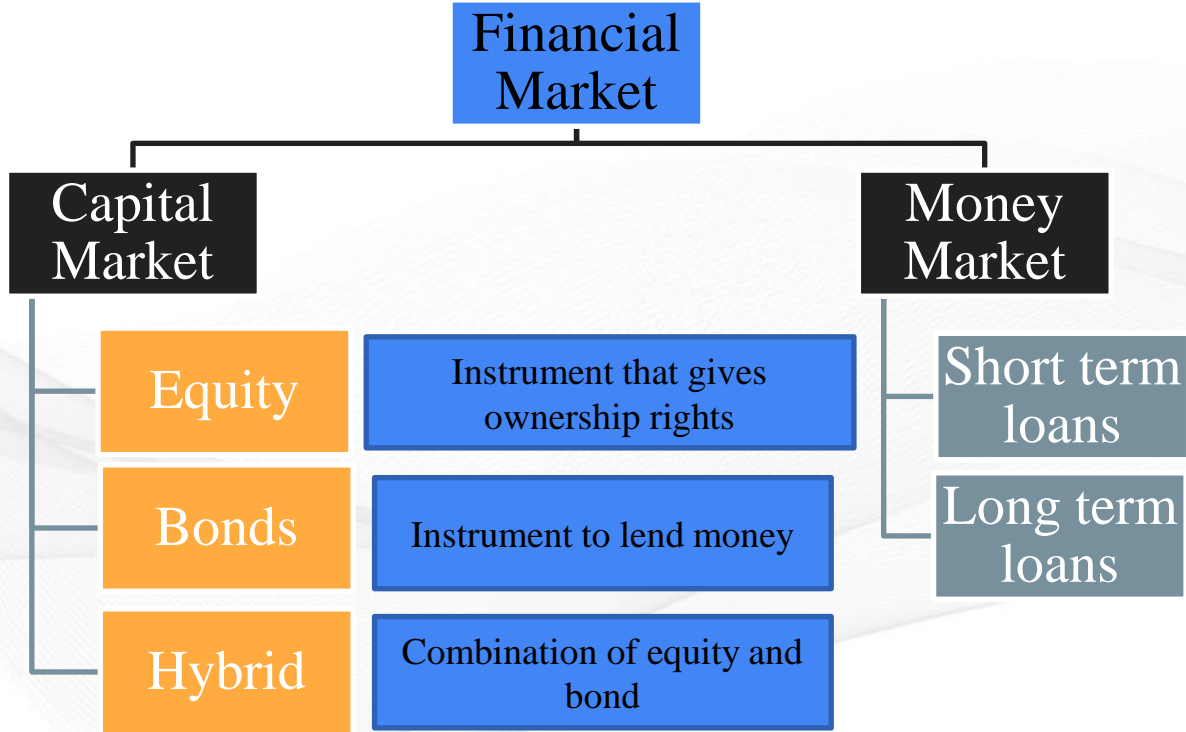
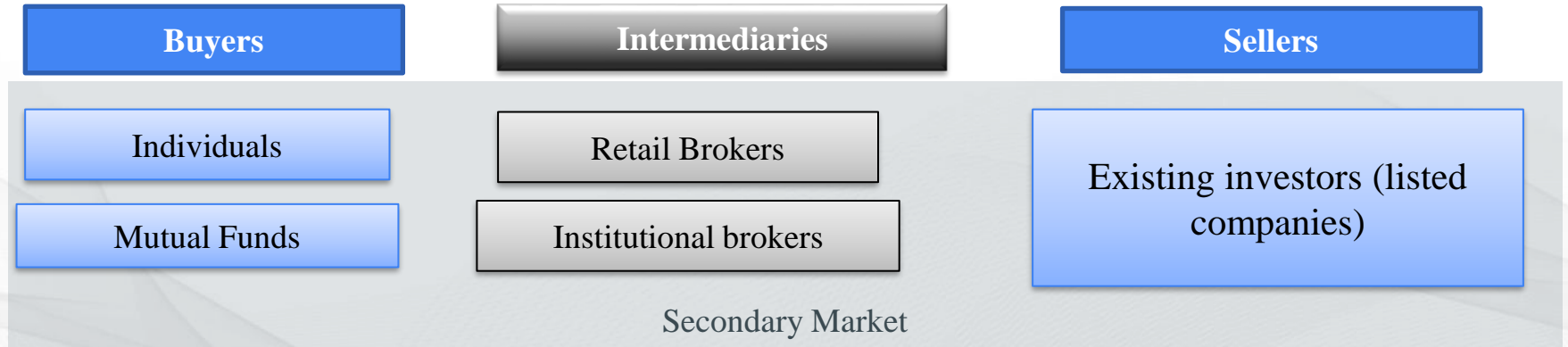


CIIB

CERTIFICATE IN INVESTMENT BANKING

Certification in Investment Banking





**Research Analysts
Stock Exchange
Regulators**

Where are the products traded?

OTC Markets

Unregulated market

Has no overseeing authority to prevent default risk

Transactions are privately agreed upon by buyers and sellers

Allows flexible terms and conditions

Regulated Exchanges

Regulated market

Intermediaries overseeing transaction and prevent default risk

Transactions carried out through public platform

Standardized transactions

Bonds

Bonds are instruments that are used to raise funding in the form of debt

Bond investors received a fixed coupon payment till the date of maturity of the bond

At maturity, bond investors receive the maturity value of the bond along with coupon for the last term

Investment Banking Divisions

- Equity capital market (ECM)
- Debt capital market (DCM)
- Mergers and Acquisitions, and Private Equity

Capital market instruments

- Equity Shares
- Fixed income securities
- Hybrid securities



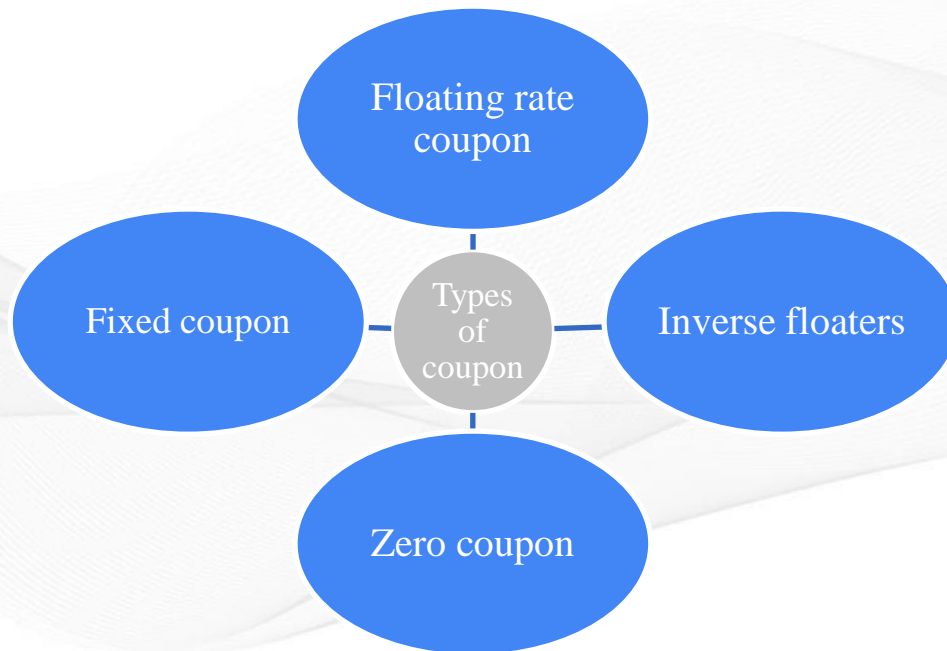
Equity

- Represents ownership rights in the company
- Entitled to dividends and voting rights
- Has limited liability; has to bear loss only to the extent of value of shares subscribed
- Returns earned included dividend and capital gains

Overview of fixed income securities

- Instruments used to raise debt from capital market
 - Investor received interest and principal back
 - They do not have any ownership stake

Types of bond coupons





Interest rate risk

Reinvestment risk

Timing / Call risk

Uncertain cash flow

Reinvestment risk

Low appreciation potential

Inflation risk



Credit risk

Default risk

Downgrade risk

Spread risk

Yield curve risk

Inflation risk

Liquidity risk



Fx Risk

Volatility Risk

Event risk

Sector Risk

Value of a bond is derived as the present value of future payments to be received under the bond


$$V_B = \left(\sum_{i=1}^n \frac{\text{Coupon}_i}{(1 + YTM)^i} \right) + \frac{\text{Maturity value}}{(1 + YTM)^n}$$

Where V_B is the value of the bond, YTM is the rate of return available in the market for bonds with same risk and n is the number of years to maturity

Using YTM for bond valuation is easier said than done
It is very difficult to find another bond with identical risk; maturity,
and coupon rate may vary between bond to bond

Therefore, bond valuation often uses spot rates
Spot rate for a given maturity refers to YTM on a zero coupon bond
with the same maturity
Each cash flow (coupons and principal) is assumed to be a separate
zero coupon bond and is valued using the spot rate for that
particular maturity.

$$V_B = \left(\sum_{i=1}^n \frac{\text{Coupon}_i}{(1 + r_i)^i} \right) + \frac{\text{Maturity value}}{(1 + r_i)^n}$$



Two bonds with same risk profile and cash flows should trade at the same price

A fixed amount invested in two bonds with same default risk profile should generate same returns

If these condition does not match, it can result in arbitrage opportunity

(Refer to Illustration 2.5 in the excel file)



Derivatives

Derivatives are assets that derive its value based on the value of another asset

Futures/Forwards: An agreement to buy or sell at a given price at a given date

Options: A right to buy (call option) or a right to sell (put option) at a given price at a given date without any obligation to do so

Swaps: An agreement to exchange one series of cash flow against another series of cash flow

Not traded in any markets

Privately arranged by bankers for institutional and corporate clients



Futures and forwards are similar contracts

Futures contracts are traded in a regulated stock exchange

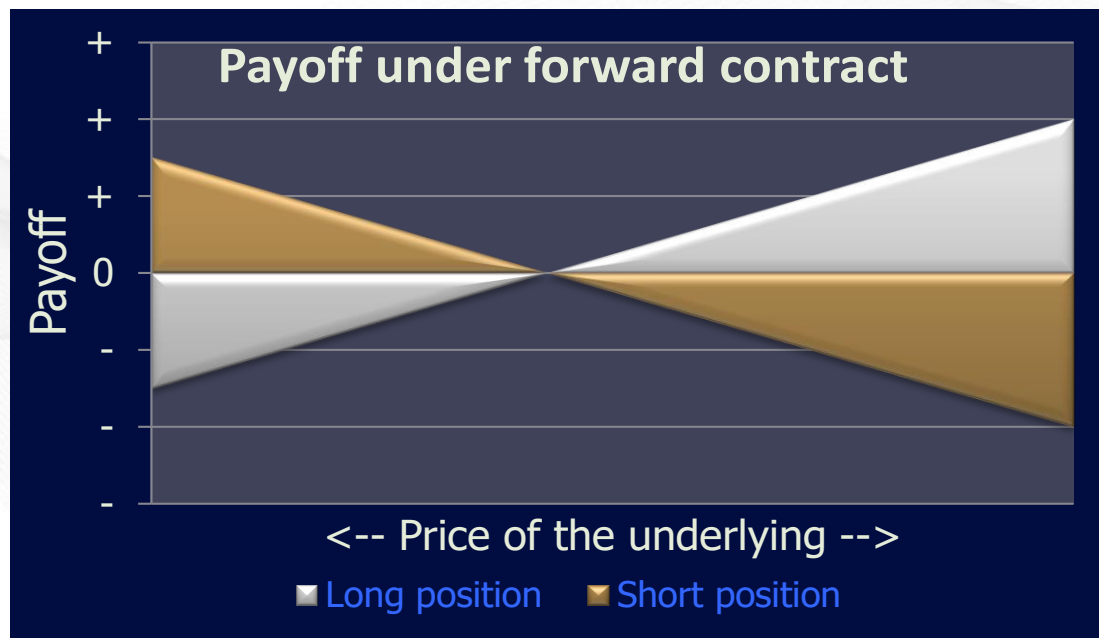
Thus, have standardized terms and conditions

Of which, one is margin requirements

Forward contracts are traded in OTC markets

For buyer: Spot price on maturity – contract price

For seller: Contract price – spot price on maturity





Call option represents a right to buy an underlying at a given price at a given date without an obligation to do so

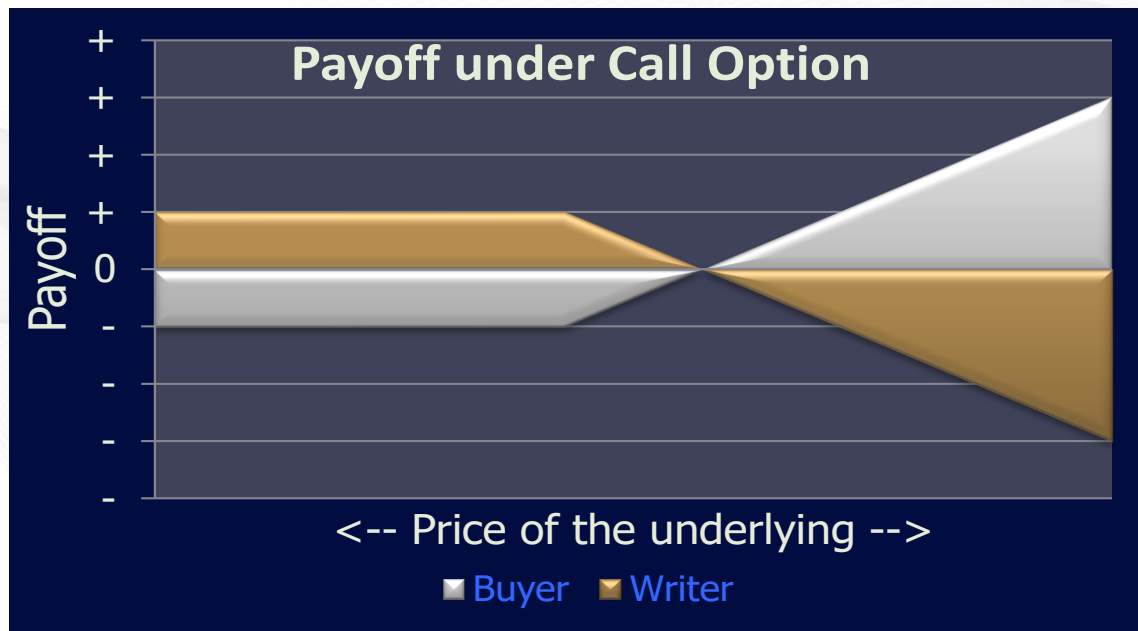
Put option represents a right to sell an underlying at a given price at an given date without an obligation to do so

The option buyer pays a premium to the writer for buying an option

The price at the which the contract is entered is referred as strike price

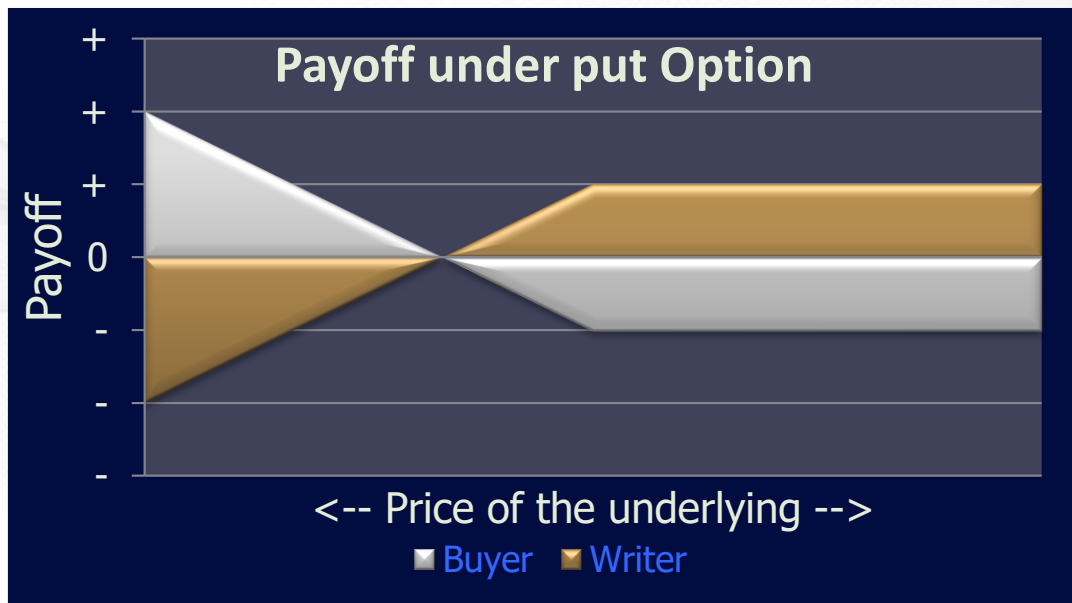
For buyer: $\text{Max}(\text{Spot} - \text{strike price}, 0) - \text{Option premium}$

For seller: $\text{Option premium} - \text{Max}(\text{Spot} - \text{strike price}, 0)$



For buyer: $\text{Max}(\text{Strike price} - \text{Spot price}, 0) - \text{Option premium}$

For seller: $\text{Option premium} - \text{Max}(\text{Strike price} - \text{Spot price}, 0)$



ABC corp, based in India, has to repay \$1 million in six months time

As a CFO, you are worried that the financial obligation in INR could go up if INR depreciates; what would you do?

Enter into a futures contract to buy \$1 million six months from now
Buy a call option to buy \$1 million six months from now

Derivatives help take position on an asset at a fraction of cost

Entering into a derivative without an underlying obligation creates huge speculative opportunity with high risk and high reward scenario

Discuss, the outcome of a call option, expiring in one month, on INFY with a strike price of Rs.2,200 and premium of Rs.100;
Assume current price is Rs.2,150 and the price can be anywhere between Rs.2,000 to Rs.2,600

Arbitrage opportunity arises when there is an anomaly between price of the underlying and price of futures

Example:

INFY shares are trading at Rs.2,200; one month future contract is trading at Rs.2,275 and prevailing interest rate is 1.75% per month

Discuss the arbitrage strategy?

Borrow 2,200 and buy INFY in spot market

Sell futures at Rs.2,275

At the end of contract receive 2,275 and pay Rs.2,233 along with interest to bankers (earning profit of Rs.42)

Thank You