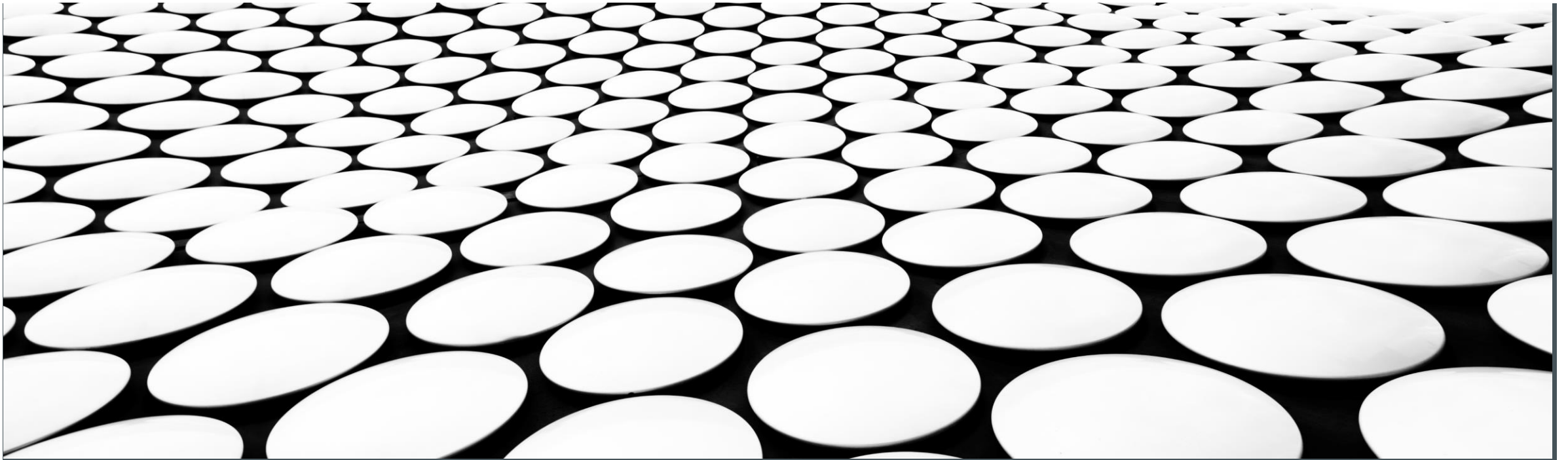# MODULE IX – VALUATION APPLICATION – FIXED INCOME SECURITIES

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VALUATION APPLICATION – FIXED INCOME SECURITIES

VALUATION OF FINANCIAL INSTRUMENTS

❑**Market approach**

In market approach, the value of the financial instrument is determined by considering traded prices of such instrument in an active market; or prices and other relevant information generated by market transactions involving identical or comparable (similar) assets.

❑**Income approach**

In income approach, value of a financial instrument is determined based on the expected economic benefits by way of income, cash flows or cost savings generated by such financial instrument and level of risk associated with such financial instrument. It generally involves discounting future amounts to a single present value after adjusting inherent risks.

❑**Cost approach**

Under this method, the price that would be received from the perspective of a market participant seller, for the asset is based on the cost to a market participant buyer to acquire or construct a substitute asset of comparable utility.

VALUATION APPLICATION
Corporate Debt Instruments

❑ Corporate debt instruments are financial obligations of a corporation that have priority over its equity shares and preference shares in the case of bankruptcy. Corporate debt instruments can be classified as follows:
- ➢ Corporate bonds
- ➢ Medium term notes
- ➢ Commercial paper
- ➢ Bank loans

VALUATION APPLICATION
Corporate Bonds

❑ Corporate bonds are classified as under:
   - (a) public utilities
   - (b) transportations
   - (c) bank/finance
   - (d) Industrials

❑ The features of a corporate bond are:
   - (a) the corporate issuer promises to pay a specified percentage of par value on designated dates at coupon rate, and
   - (b) repay the principal amount at date of maturity.
   - (c) Failure to pay either the principal or the interest is construed as default and the investors can go to court to enforce the claim
   - (d) Bond holders have prior claim over common and preferred stockholders as to both income or assets

VALUATION APPLICATION
Medium Term Notes

❑ It is a corporate debt instrument with the unique characteristic that notes are offered continuously to investors by an agent of the issuer. Medium term notes give a corporation a lot of flexibility for issuing securities on a continuous basis, with several period ranges from nine months to 30 years.

❑ When an organisation contemplates on offering of either MTNs or corporate bonds, two factors affect the decision. These are:
(a) Cost of the funds raised
(b) Flexibility afforded to the issuer in structuring the offering.

❑ MTNs created when the issuer simultaneously interacts in the derivative markets are called structured notes. The most common form of derivative instrument used in creating structured notes is a swap. For example, an investor who buys an MTN the coupon rate of which is tied to the performance of the S&P 500 would actually be participating in the equity market of a foreign country without owning any equity shares.

VALUATION APPLICATION
Commercial Paper

❑ These are short term unsecured promissory note that is issued in the open market and that represents the obligation of the issuing corporation.

❑ The primary purpose of commercial paper is to provide short term funds for seasonal and working capital needs. These are also used for bridge financing also until long term for projects are tied up in favorable terms.

❑ Commercial papers are also encouraged in interest rate swaps, where, one party exchanges a fixed rate for a floating rate, and corporate issuers would issue commercial paper and use the interest rate swap to convert the floating interest rate on commercial paper into a fixed interest rate.

❑ Commercial paper rates are higher than treasury bills for the same maturity.

The reasons are:

(a) investor in commercial paper is exposed to credit risk

(b) interest earned in treasury bills are tax exempt, hence commercial papers have to offer higher yields to offset tax advantage

(c) Commercial papers are less liquid than treasury bills.

❑ The yield of commercial papers is higher by a few basis points than the yield on certificates of deposit for the same maturity. The higher yield is attributable to the lesser liquidity in comparison with certificates of deposit.

VALUATION APPLICATION
Bank Loans

❑ Bank loans to enterprises are categorised into two categories, namely,

(a) Investment grade loans – provided to borrowers having investment grade rating and

(b) Leveraged loans – provided to borrowers with below investment grade rating. A leverage loan has a maturity, and the interest rate is a floating rate with the reference rate being LIBOR.

❑ A syndicated bank loan is one in which a group of banks provides funds to the borrower. The requirement of a group of banks arises because the funds required may be too large for a single bank to provide and expose itself to credit risk of the borrower.

VALUATION APPLICATION
Bond Rating

❑ A grade given to bonds that indicates their credit quality. Private independent rating services such as Standard & Poor's, Moody's and Fitch provide these evaluations of a bond issuer's financial strength, or it's the ability to pay a bond's principal and interest in a timely fashion.

❑ In investment, the **bond credit rating** assesses the credit worthiness of a corporation's or government debt issues. It is analogous to credit ratings for individuals.

❑ The credit rating is a financial indicator to potential investors of debt securities such as bonds. These are assigned by credit rating agencies such as Moody's, Standard & Poor's, and Fitch Ratings to have letter designations (such as AAA, B, CC) which represent the quality of a bond. Bond ratings below BBB-/Baa are considered not investment grade and are colloquially called junk bonds.

VALUATION APPLICATION

Valuation of Bonds

❑The value of any financial instrument is equal to the present value of the expected cash flows from the financial instrument.

❑Therefore, determining the value requires,
  (a)   An estimate of the expected cash flows. This is worked out based on
   − The present value of the semi-annual coupon payments and
   − The present value of the par or maturity value at the maturity date
  (b)   An estimate of the appropriate required yield.

VALUATION APPLICATION

Illustration I - Valuation of Bonds

A 20-year 10% coupon bond with a par value of Rs.1000. The required yield of the bond is 11%. The cash flows from the bond are:

(a)   40 semi-annual coupon payments of Rs.50

(b)   Rs.1000 to be received after 40 six months periods from now.

Calculate price of the bond.

VALUATION APPLICATION
Illustration I - Valuation of Bonds

Solution

(A)   Calculation of present value of the semi-annual coupon payments similar to treatment of ordinary annuity:

$$= C' \frac{1 - (1/(1 + r) n)}{r}$$

where,

C = semi-annual coupon payment

r = periodic interest rate

n = number of periods

Transposing the values,

$$= Rs.50 \; ' \; \frac{1 - \left(1/(1 + 0.055)^{40}\right)}{0.055 *}$$

*11% rate of interest/2 = 0.055.

$$= Rs.50' \; \frac{1 - (1/8.51332)}{0.055}$$

$$= Rs.50' \; \frac{1 - 0.117463}{0.055}$$

$= Rs.50 \times 16.04613$

$= Rs.802.31$ (A)

VALUATION APPLICATION
Illustration I - Valuation of Bonds

(B) Present value of the par or maturity value of Rs.1000 received after 40

six months periods from now.

= Rs.1000 / $(1.055)^{40}$

= Rs.1000/8.51332

= Rs.117.46(B)

Hence price of the bond is (A + B)

= (Rs.802.31 + Rs.117.46)

= Rs.919.77

VALUATION APPLICATION
Valuation of Zero Coupon Bonds

There are certain bonds which do not make periodic coupon payments. Instead, the investor realises interest as the difference between the purchase price and the maturity value. These kinds of bonds are called zero coupon bonds. The price of zero-coupon bonds is calculated as under:

$$P = \frac{M}{(1+r)n}$$

Where,

P = Price of the bond

M = Maturity value

r = Rate

n = Period

VALUATION APPLICATION

Illustration II - Valuation of Zero Coupon Bonds

The price of a zero-coupon bond that matures 15 years from now, the maturity value is Rs.10000 and the required yield is 9.4%. Calculate price of the bond.

Solution

Using the formula

$$P = \frac{M}{(1+r)n}$$

Where,

P = Price of the bond

M = Maturity value = Rs.10000

n = Period = (15 years × 2) = 30

r = 0.094/2 = 0.047

Transposing the values in the formula:

$$P = \frac{Rs.10000}{(1+0.047)_{30}}$$

P = Rs.10000/(1.047)30

    = Rs.10000/3.9644

    = Rs.2521.45

Hence the price of the bond would be nothing but the present value of Rs.10000 payable after 15 years as of today. In the present value computation, the number of periods used for discounting is not the number of years to maturity but the number of periods, which is double the number of years. Also, the annual yield is divided by 2.

VALUATION APPLICATION

Conventional Yield Measures on Bonds

The yield measures of bonds commonly quoted by dealers and used by portfolio managers are:

(a) Current yield, where yield relates to annual coupon interest to the market price.

The formula for current yield

$$\text{Current yield} = \frac{\text{Annual coupon interest}}{\text{Price}}$$

(b) Yield to maturity. It is computed in the same way as the yield (internal rate of return), the cash flows are those that the investor would realise by holding the bond to maturity. The formula for yield to maturity

$$P = n \text{ Sigma } t = 1 \frac{C}{(1+y)t} + \frac{M}{(1+y)n}$$

Where,
P = Price of the bond
C = semi-annual coupon interest
M = Maturity value (in rupees)
n = Number of period

VALUATION APPLICATION
Illustration III - Convertible Bonds

Pineapple Ltd has issued fully convertible 12 percent debentures of Rs.5000 face value, convertible into 10 equity shares. The current market price of the debentures is Rs.5400. The present market price of equity shares is Rs.430.

Calculate:

(a)   Conversion percentage premium
(b)   The conversion value

VALUATION APPLICATION
Illustration III - Convertible Bonds
Solution

(a) As per conversion terms 1 debenture = 10 equity share and since face value of one debenture is Rs.5000 the value of equity share becomes Rs.500 (Rs.5000/10).

The conversion terms can also be expressed as: 1 debenture of Rs.500 = 1 equity share.

The cost of buying Rs.500 debenture (one equity share) is:

$$Rs.5000 \times \frac{5400}{5000} = Rs.540$$

Market price of share is Rs.430. Hence conversion premium in percentage is:

$$= \frac{540 - 430}{430} \times 100$$

$$= 25.58\%$$

(b) Conversion value can be calculated as follows:

Conversion value = Conversion ratio x market price of equity shares

= 10 × Rs.430

= Rs.4300.

VALUATION APPLICATION
Illustration III – Commercial Paper

XYZ Ltd issued commercial paper worth Rs.10 crores as per following details:

Date of issue   :   16th January 2023
Date of maturity   :   17th April 2023
No. of days   :   91
Interest rate   :   12.04% p.a.

What was the net amount received by the company on issue of CP? Charges of intermediary may be ignored.

Solution

The company has issued commercial paper worth Rs.10 crores
No. of days involves   = 91 days
Interest rate applicable =12.04%
Interest for 91 days   = 12.04% x (91/365) = 3.001%
Hence rate of interest   = Rs.10 crores x 3.001/(100 + 3.001) = Rs.29.1356 lakhs
Net amount at the time of issue = Rs.10 crores – Rs.29.1356 lakhs = Rs.9.7087 crores

VALUATION APPLICATION
Amortized cost measurement

❑ *Effective interest method*

Interest revenue shall be calculated by using the *effective interest method*. This shall be calculated by applying the *effective interest rate* to the *gross carrying amount of a financial asset* except for:

- *purchased or originated credit-impaired financial assets.*
  For those financial assets, the entity shall apply the *credit adjusted effective interest rate* to the *amortised cost of the financial asset* from initial recognition.

- financial assets that are not purchased or originated credit impaired financial assets but subsequently have become *credit-impaired financial assets*. For those financial assets, the entity shall apply the effective interest rate to the amortised cost of the financial asset in subsequent reporting periods.

VALUATION APPLICATION

Illustration IV - Amortized cost measurement for convertible bonds

An Aircraft Company has issued 8 percent convertible bonds that mature in 2041. Suppose the bonds were dated Oct.1, 2021, and pay interest each April 1 and
Oct. 1.
Complete the following effective amortization table through Oct. 1, 2021
Bond data:

Maturity Value-   Rs.100,000
Contract interest rate-   8%
Interest paid- 4% semi-annually,   Rs.4000(Rs.100000 x .04)
Market interest rate at time of issue-   9% annually, 4.5% semi-annually
Issue price-   9%
Required Amortization Table

VALUATION APPLICATION
Illustration IV - Amortized cost measurement for convertible bonds
Solution

A	B	C	D	E	F
Semi-annual interest date	Interest payment @ 4%	Interest expense (4.5% of preceding carrying value)	Discount Amortization (B-A)	Discount Account Balance (D–C)	Bond carrying value (100000 – D)
10.01.21				9250	90750
04.01.22	4000	4084	84	9166	90834
10.01.22	4000	4088	88	9078	90922
04.01.23	4000	4091	91	8987	91013
10.01.23	4000	4096	96	8891	91109

VALUATION APPLICATION
Derivatives – How do we define them?

❑ A derivative is a financial instrument which has all the characteristics as highlighted below

   (a)   its value changes in response to a change in specified interest rate, financial instrument price or other variable

   (b)   no initial net investment or lower initial net investment

   (c)   settled at a future date

An example of a derivative is a Forward contract to purchase Rs.10,000 of Euros at an agreed rate in 3 months' time.

VALUATION APPLICATION
Derivatives - Characteristics

- it creates a contractual right
- to exchange financial assets or financial liabilities with another party
- under conditions that are potentially favourable or unfavourable
- because the instrument's fair value changes in accordance with changes in financial markets.
- The basis on which the value of a derivative changes is often referred to as the instruments 'underlying'.

VALUATION APPLICATION
Derivatives - Examples

- *Forwards* – contracts to purchase or sell a specific quantity of a financial instrument with delivery or settlement on pre-agreed future date. These are over-the-counter contracts
- *Futures* – similar to forward contracts. These are exchange-traded contracts.
- *Options* – contracts that give the purchaser the right, but not the obligation to buy or sell a specified quantity of a particular financial instrument.
- *Interest rate swaps* – are contracts to exchange cash flows as of specified dates based on a notional amount.

VALUATION APPLICATION
Embedded Derivatives

❏ An embedded derivative (sometimes called compound financial instrument) is a component of a hybrid contract that also includes a non-derivative host—with the effect that some of the cash flows of the combined instrument vary in a way similar to a standalone derivative.

❏ An embedded derivative causes some or all of the cash flows that otherwise would be required by the contract to be modified according to a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index of prices or rates, credit rating or credit index, or other variable, provided in the case of a non-financial variable that the variable is not specific to a party to the contract.

❏ A derivative that is attached to a *financial instrument* but is contractually transferable independently of that instrument, or has a different counterparty, is not an embedded derivative, but a separate financial instrument

VALUATION APPLICATION
Illustration V – Valuation of embedded derivatives

At the beginning of year 1, an enterprise issued 20000 convertible debenture with face value Rs 100 per debenture at par. The debentures have six-year term. The interest at annual rate of 9% is paid half-yearly.

The bond holders have an option to convert half of the face value of debentures into 2 equity shares at the end of year 3.

The bond holders not exercising the conversion option will be repaid at par to the extent of Rs. 50 per debenture at the end of the year 3.

The non-convertible portion will be repaid at 10% premium at the end of the year 6. At the time of issue the prevailing market interest rate for similar debt without conversion option was 10%.

Compute the value of embedded derivative.

VALUATION APPLICATION
Illustration V – Valuation of embedded derivatives

Solution

Computation of value of embedded derivative:

Half year	Cash flow Rs'000	DF (5%)	PV Rs'000
1- 6	90	5.076	456.84
7 – 12	45	3.787	170.41
12	1,100	0.557	612.70
Value of host (liability component)			1239.95
Value of embedded derivative (equity component)			760.05
Issue proceeds			2000.00

VALUATION APPLICATION
Treasury Shares

- ❑ According to para 33 of Ind AS 32, if an entity re-acquires its own equity instruments, those instruments (treasury shares) shall be deducted from equity.

- ❑ No gain or loss shall be recognised in profit or loss on the purchase, sale, issue or cancellation of an entity's own equity instruments.

- ❑ Such treasury shares may be acquired and held by the entity or by other members of the consolidated group. Consideration paid or received shall be recognised directly in equity.

VALUATION APPLICATION
Interest rate swaps

❑Interest rate swap can be defined as a financial contract between two parties (called counter parties) to exchange on a particular date in the future, one series of cash flows (fixed interest) to another series of cash flows (variable or floating interest) in the same currency on the same principal (an agreed amount called notional principal) for an agreed period of time.

❑The contract will specify the interest rates, the benchmark rate to be followed the notional principal amount for the transaction etc.

❑Interest rates are of two types, fixed interest rates and floating interest rates which vary according to changes in a standard benchmark interest rate.

❑An investor holding a security which pays a floating interest rate is exposed to interest rate risk. The investor can manage this risk by entering into a interest rate swap.

VALUATION APPLICATION
Options

Options are financial instruments that convey the right, but not the obligation, to engage in a future transaction on some underlying security at a pre negotiated price.

VALUATION APPLICATION
Valuation of Options

❑ This is a valuation model used to value assets the cash flows of which are contingent on occurrence of a future event. The examples are, an unknown oil rig, development of pharmaceutical drug, development of new product, innovation. In each of these cases there is high risk and uncertainty involved.

❑ This method uses option pricing models to measure the value of assets that have share option characteristics also. Some of these assets are traded financial assets like warrants and some of these options are not traded and are based on real assets e.g. projects, patents and oil reserves as mentioned above.

VALUATION APPLICATION
Valuation of Options

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VALUATION APPLICATION
Valuation of Options - benefits

❑The benefits of carrying out earnings-based valuation and/or contingent valuations are:

(a)They allow firms that are going concerns to value their ability to generate free cash flows in the near and far term,

(b)They make an estimate of the WACC and the ability of future free cash flows to create wealth,

(c)They estimate terminal value of the enterprise and capture the effect of enterprise's intangible assets like intellectual capital, branding etc

(d)They provide the owners an intelligent exit route out of the business

VALUATION APPLICATION
Valuation of Options - Areas

❑ **Real options valuation**

These options are valued as managerial rights and not obligations connected with projects to ensure that grow and expand with time and also abandon projects or assets after the investments are made.

❑ **Valuations of intangibles and brands**

These valuations presuppose Identifiability and being separable. The three main approaches are:

    (a) Cost

    (b) Market value

    (c) Economic value

❑ **Valuation of warrants**

A warrant represents an option issued by a company to buy a stated number of shares of stock at a specified price. Warrants are generally distributed with debt or preferred stock to induce investors to buy those securities at lower cost. Most warrants are detachable – this signifies that these can be detached from the underlying security and traded separately.

VALUATION APPLICATION
Difference between convertible securities and warrants

Convertible securities	Warrants
Convertible securities are debentures or preferred stock which is converted to equity at a future date at the discretion of the owner.	A warrant is a long term right given to the owner to purchase common stock at a stated price
When conversion is exercised by the owner it is exchanged directly for common stock	With respect to warrants, both money and the warrant are exchanged for the common stock
Convertible securities have a face value and a coupon rate	Minimum price of a warrant is equal to zero until the price of the stock rises above the warrant's exercise price. After that warrant's minimum price shows positive values. The degree to which the warrant price rises with increases in the common stock price depends on the exercise ratio.

VALUATION APPLICATION
Valuation of Warrants

The formula is as under:

Minimum price = (Market price of common stock – Exercise price) × Exercise ratio

Warrant premium = Market price of warrant – Minimum price of warrant

❑ The factors that affect the warrant premium are:

(1) The stock price/exercise price ratio – as the ratio of stock price to exercise price rises, the warrant premium falls, as the leverage effect of warrants declines

(2) As the warrant expiry date approaches near, the size of premium goes down

(3) If investors feel strongly about the stock, the warrant premium goes up

(4) The more volatile the common stock the higher the warrant premium.

VALUATION APPLICATION
Components of Option Pricing

❑**Intrinsic value**

The intrinsic value of an option is the economic value of the option if it is exercised immediately, except that if there is no positive economic value that will result from exercising it immediately, then the intrinsic value is zero. The intrinsic value of a call option is the difference between the current price of the underlying and the exercise price if positive; it is otherwise zero.

Illustration

if the exercise price for a call option is Rs. 80 and the current asset price is Rs. 87, the intrinsic value is Rs.7. That is, an option buyer exercising the option and simultaneously selling the underlying asset would realize Rs. 87 from the sale of the underlying, which would be covered by acquiring the underlying from the option writer for Rs. 80, thereby netting Rs. 7 gain.

VALUATION APPLICATION
Components of Option Pricing

❑**Time Premium**

The time premium of an option is the amount by which the option price exceeds its intrinsic value.

Illustration

If the price of a call option with an exercise price of Rs. 80 is Rs. 9 when the current price of the underlying is Rs. 85, the time premium of this option is Rs. 4 (Rs. 9 minus its intrinsic value of Rs. 5). Had the current price of the underlying been Rs. 70 instead of Rs. 85 then the time premium of this option would be the entire Rs. 9 because the option has no intrinsic value.

VALUATION APPLICATION
Option Pricing Models

❑ *Binomial model*

It is a discrete-time model for pricing option in which it is assumed that price change in the underlying asset occurs only after a regular time interval. It involves constructing a tree which represents different possible paths that the price of the underlying asset might follow.

Option valuation using this method is, a three-step process as under:
- (a) The price tree generation
- (b) The option value is calculated at each node.
- (c) Progressive calculation of option value at each earlier node is done.
- (d) The value derived at the first node gives the value of the option.

VALUATION APPLICATION
Option Pricing Models

> ❑ **_Black Scholes model_**
>
> This model was designed to value European options, which were dividend-protected. Thus, neither the possibility of early exercise nor the payment of dividend affects the value of options in this model to value European options, which were dividend-protected. Thus, neither the possibility of early exercise nor the payment of dividend affects the value of options in this model.

VALUATION APPLICATION
Valuation of preferred stock

❑A preferred stock has the characteristics of both equity as well as debt. Preferred stockholders have preferential rights over common stockholders in right to dividend, and advantages in the event of dissolution, liquidation, or bankruptcy.

❑ Since preference shares generally pay a constant dividend over its lifetime the value of a preferred stock is equivalent to

Value of preferred stock
= Preference dividend / Required rate of return.

VALUATION APPLICATION
Valuation of preferred stock - Characteristics

Characteristic	Increase in value	Decrease in value
Cumulative or non-cumulative	Cumulative	Non-cumulative
Convertible or non-convertible	Convertible	Non-convertible
Put option	Yes	No
Participating vs non-participating	Participating	Non-participating
Voting vs Non-voting	Voting	Non-voting
Redeemable vs irredeemable	Call price high	Call price low

VALUATION APPLICATION
Valuation of convertible preference shares

The formulae on convertible preference shares are as under:

❖ Conversion ratio = Par value of convertible security/conversion price

❖ Conversion value = Conversion ratio x Market value per share of common stock

❖ Value of preferred stock = Preference dividend/expected rate of return

❖ Conversion premium (in absolute terms) = Market price of convertible preferred stock – higher of the security value and conversion value

VALUATION APPLICATION
Valuation of convertible preference shares

Illustration VI

Alpha Ltd is issuing 5% Rs.25 preference shares at par that would be convertible after three years to equity shares at Rs.27. If the current market price of equity shares is Rs.13.25, what is the conversion value and conversion premium? The convertibles are trading at Rs.17.75 in the market.

Assume expected rate of return as 8%.

VALUATION APPLICATION
Valuation of convertible preference shares
Illustration VI

Solution

(a) Conversion ratio   = Par value of convertible security/conversion price

                                            = Rs.25/Rs.27 = 0.9259

(b) Conversion value   = Conversion ratio x Market value per share of common stock

                                            = 0.9259 x Rs.13.25 = Rs.12.27

(c) Value of preferred stock   = Preference dividend/expected rate of return

                                            = (Rs.25 x 0.05)/0.08

                                            = 1.25/0.08

                                            = Rs.15.625

(d) Conversion premium (in absolute terms) = Market price of convertible preferred stock – higher of the security value and conversion value

                                            = Rs.17.75 – Rs.15.625

                                            = Rs.2.125

VALUATION APPLICATION
Impairment

❑ **Recognition of expected credit losses**

▪ An entity shall recognise a loss allowance for *expected credit losses* on a financial asset that is measured in accordance with this Standard, a lease receivable, a *contract asset* or a loan commitment and a financial guarantee contract to which the impairment requirements apply.

▪ An entity shall measure the loss allowance for a financial instrument at an amount equal to the *lifetime expected credit losses* if the credit risk on that financial instrument has increased significantly since initial recognition.

▪ If, at the reporting date, the credit risk on a financial instrument has not increased significantly since initial recognition, an entity shall measure the loss allowance for that financial instrument at an amount equal to *12-month expected credit losses*.

For loan commitments and financial guarantee contracts, the date that the entity becomes a party to the irrevocable commitment shall be considered to be the date of initial recognition for the purposes of applying the impairment requirements.

▪ An entity shall recognise in profit or loss, as an *impairment gain* or loss, the amount of expected credit losses (or reversal) that is required to adjust the loss allowance at the reporting date to the amount that is required to be recognised in accordance with this Standard.

VALUATION APPLICATION
Impairment

❏ **Measurement of expected credit losses**

An entity shall measure expected credit losses of a financial instrument in a way that reflects:

- an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes.
- the time value of money; and
- reasonable and supportable information that is available without undue cost or effort at the reporting date about past events, current conditions, and forecasts of future economic conditions.

VALUATION APPLICATION
Impairment

❑**Determining significant increases in credit risk**

▪ At each reporting date, an entity shall assess whether the credit risk on a financial instrument has increased significantly since initial recognition.

▪ When making the assessment, an entity shall use the change in the risk of a default occurring over the expected life of the financial instrument instead of the change in the amount of expected credit losses.

▪ To make that assessment, an entity shall compare the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition and consider reasonable and supportable information, that is available without undue cost or effort, that is indicative of significant increases in credit risk since initial recognition.

VALUATION APPLICATION
Impairment

❑**Modified financial assets**

If the contractual cash flows on a financial asset have been renegotiated or modified and the financial asset was not derecognised, an entity shall assess whether there has been a significant increase in the credit risk of the financial instrument by comparing:

- the risk of a default occurring at the reporting date (based on the modified contractual terms); and

- the risk of a default occurring at initial recognition (based on the original, unmodified contractual terms).

VALUATION APPLICATION
Impairment

❑**Purchased or originated credit-impaired financial assets**

▪ At the reporting date, an entity shall only recognise the cumulative changes in lifetime expected credit losses since initial recognition as a loss allowance for purchased or originated credit-impaired financial assets.

▪ At each reporting date, an entity shall recognise in profit or loss the amount of the change in lifetime expected credit losses as an impairment gain or loss.

▪ An entity shall recognise favourable changes in lifetime expected credit losses as an impairment gain, even if the lifetime expected credit losses are less than the amount of expected credit losses that were included in the estimated cash flows on initial recognition.

VALUATION APPLICATION
Impairment

❑ **Trade receivables and contract assets**

▪ Trade receivables or contract assets that result from transactions that are within the scope of Ind AS115, and that do not contain a significant financing component in accordance with Ind AS 115 (or when the entity applies the practical expedient in accordance with paragraph 63 of Ind AS 115); or

▪ contain a significant financing component in accordance with Ind AS 115, if the entity chooses as its accounting policy to measure the loss allowance at an amount equal to lifetime expected credit losses. That accounting policy shall be applied to all such trade receivables or contract assets but may be applied separately to trade receivables and contract assets.

VALUATION APPLICATION
Impairment

❑**Lease receivables**

▪ Lease receivables that result from transactions that are within the scope of Ind AS 116, if the entity chooses as its accounting policy to measure the loss allowance at an amount equal to lifetime expected credit losses.

▪ That accounting policy shall be applied to all lease receivables but may be applied separately to finance and operating lease receivables.

THANK YOU!