

10th Capacity Building Seminar on Retirement Benefits (10th CBRB)

The Pllazio Hotel, Gurugram

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**Valuations under Ind AS 102 – Share Based Payments
(ESOP Valuations)**

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Agenda

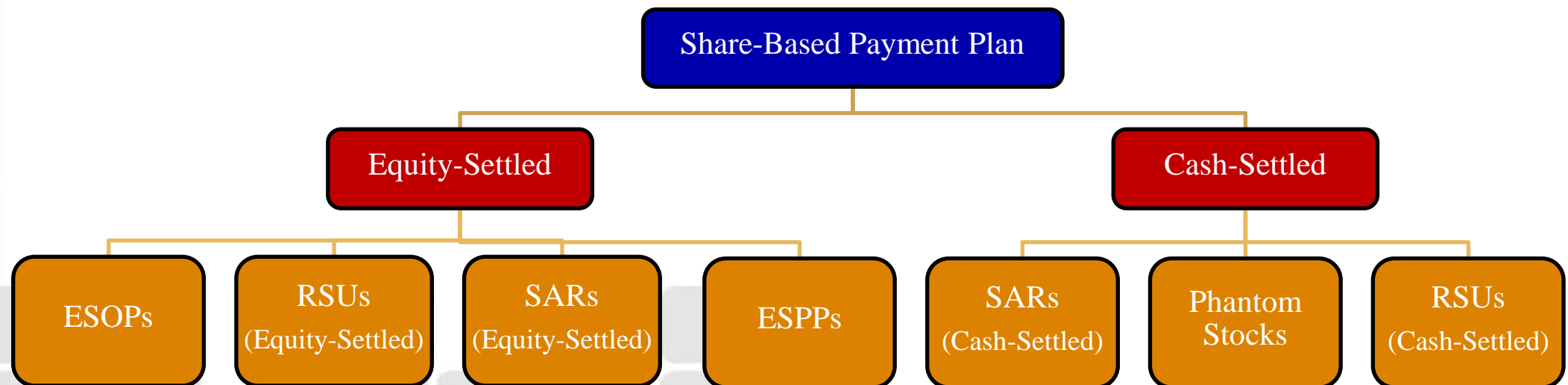


- **Share-Based Payment Plans and its types?**
- Brief on Ind AS 102: Share-Based Payment
- Fair Valuation of Options: Choice of Model
- Key assumptions and how are they determined?
- Live Examples – Measurement of ESOPs
- Questions

Share-Based Payment Plans and its Types



- Share-Based Payment Plans are essential tools utilized by companies to reward employees with ownership interests in the company.
- These plans aim to align the interests of employees with shareholders, fostering a sense of ownership and incentivizing contribution to the company's performance and growth.
- Issuance of such instruments is required to be accounted under IND AS 102 or Guidance Note on Share based Payments (2020), as may be applicable to the Company



Key differences between Equity-Settled and Cash-Settled Options



	Equity Settled	Cash Settled
Equity or Debt	Results in creation of Equity or Dilution of Control	Results in creation of Liability
Determining Fair Value	Only at the Grant Date	At each Reporting Date till the date of settlement of the liability
Expense Determination	Valuation re-stated based on change in number of units expected to vest only	Valuation re-stated based on change in units expected to vest & change in fair value
Volatility of Charge to Income Statement	Relatively Stable	Relatively Volatile
Overall Charge over the entire vesting period	Expected to be higher	Expected to be lower (but can be either way depending upon ultimate settlement price)
Disclosure in Balance Sheet	Under Equities	Under Current Liabilities and Provisions

Agenda



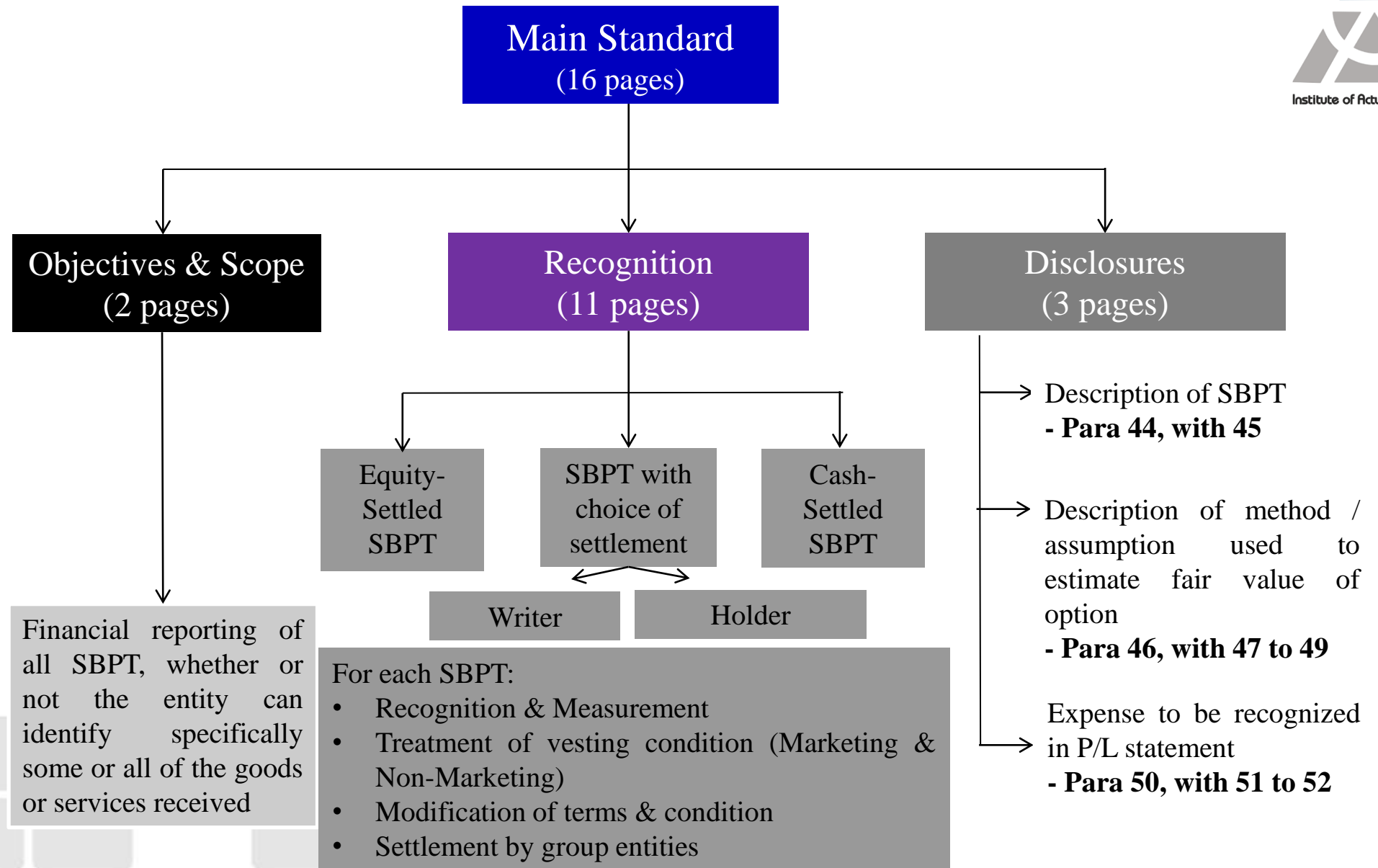
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Ind AS 102: Share Based Payments (1/4)



- 35 page Standard covering Share Based Payments.
- Specifies Recognition, Measurement and Disclosure with regards to share based transactions.
- Standard is divided into 3 main parts:
- **Main Standard**, containing Scope, Recognition, Measurement and Disclosure Requirements.
- **Appendix A**, giving major definitions
- **Appendix B**, which provides guidance on application of the standard
- Appendices are an integral part of the Standard.
- Overview of above parts given in the following slides.

Ind AS 102: Share Based Payments (2/4)



Ind AS 102: Share Based Payments (3/4)



Appendix A (5 pages)

Appendix A defines following items:

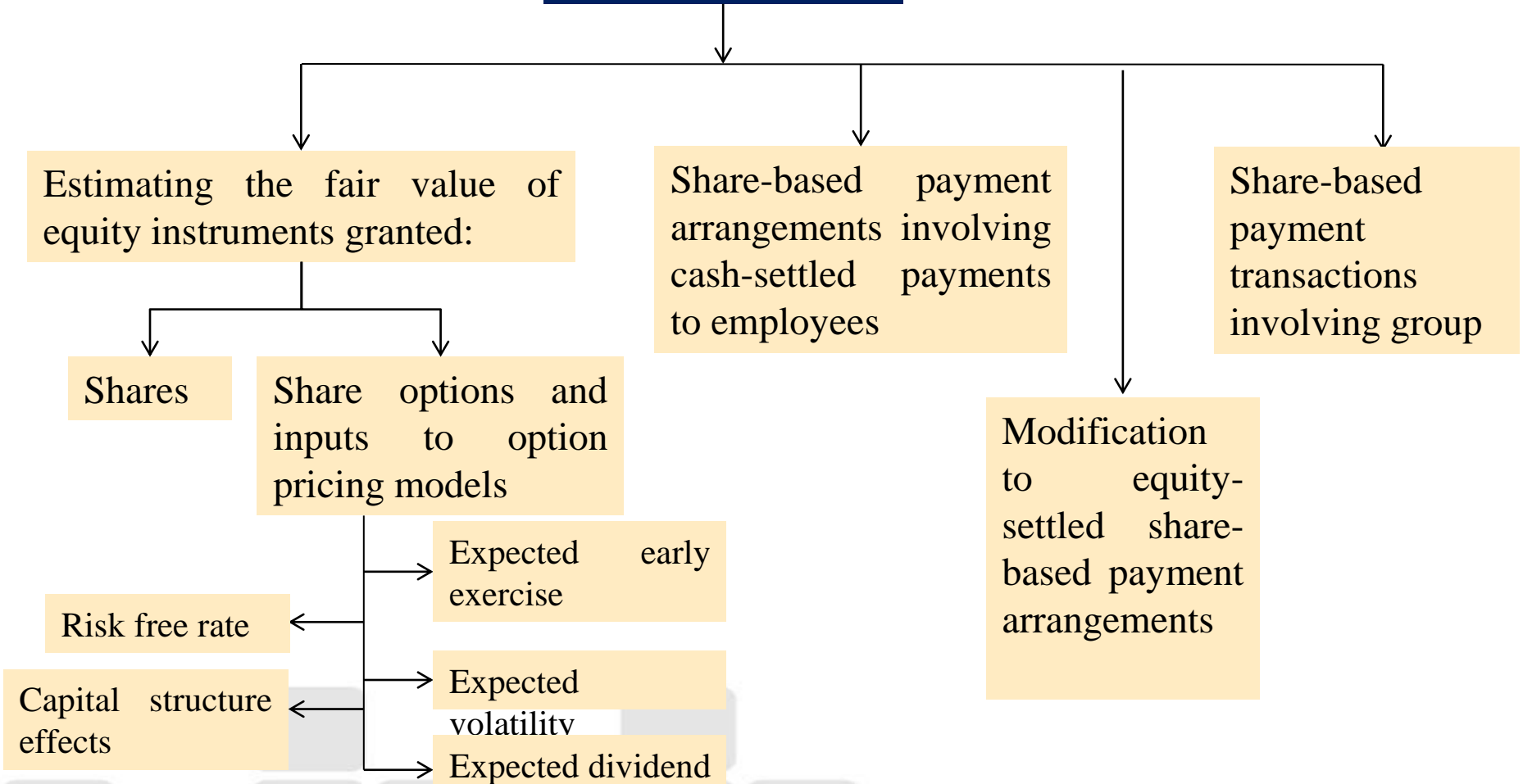
- Cash-settled SBPT
- Employees and others providing similar services
- Equity instrument
- Equity instrument granted
- Equity-settled SBPT
- Fair Value
- Grant Date
- Intrinsic Value
- Market condition
- Measurement Date

- Performance condition
- Reload feature
- Reload option
- Service condition
- Share-based payment arrangement
- Share-based payment transaction
- Share option
- Vest
- Vesting condition
- Vesting period

Ind AS 102: Share Based Payments (4/4)



Appendix B (14 pages)



GN on Share Based Payments (1/2)



- Largely similar to Ind AS 102: Share Based Payments
- Para 40 in GN permits Intrinsic Value Method to value the SBPT. Quoted below:

*Para 40 – “There is another method known as the ‘Intrinsic Value Method’ for valuation employee share based payment plans. Intrinsic value, in the case of a listed company, is the amount by which the quoted market price of the underlying share exceeds the exercise price of an option. For example, an option with an exercise price of ` 100 on an equity share whose current quoted market price is ` 125, has an intrinsic value of ` 25 per share on the date of its valuation. If the quoted market price is not available on the grant date then the share price nearest to that date is taken. **In the case of a non-listed company, since the shares are not quoted on a stock exchange, value of its shares is determined on the basis of a valuation report from an independent valuer. For accounting for employee share-based payment plans, the intrinsic value may be used, mutatis mutandis, in place of the fair value as described in paragraphs 10 to 39.”***

GN on Share Based Payments (2/2)



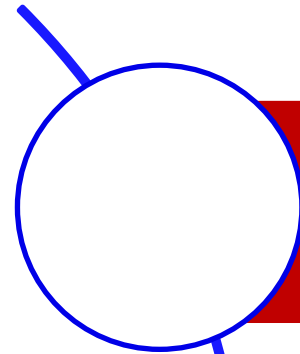
- Runs into 30 pages, divided into:
 - **Main regulations (22 pages):** Guidance Note on Accounting for Employee Share-based Payments
 - **Appendix 1 (10 pages):** Estimating the Fair Value of Shares or Stock Options Granted
 - **Appendix 2 (16 pages):** Equity-settled Employee Share-based Payment Plans
 - **Appendix 3 (4 pages):** Modification to the Term and Conditions of Equity-settled Employee Share-based Payment Plans
 - **Appendix 4 (7 pages):** Cash-settled Employee Share-based Payment Plans
 - **Appendix 5 (4 pages):** Employee Share-based Payment Plans with Cash Alternatives
 - **Appendix 6 (4 pages):** Graded Vesting
 - **Appendix 7 (12 pages):** Accounting for Employee Share-based Payment Plans Administered Through a Trust
 - **Appendix 8 (6 pages):** Accounting for Employee Share-based Payment Plans Administered Through a Trust

Agenda

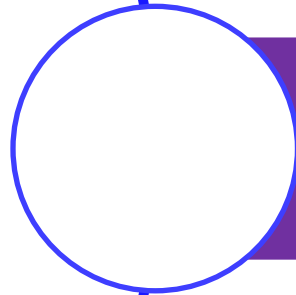


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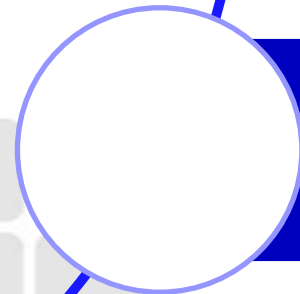
Below are the three common option pricing models used to determine the fair valuation of the options.



Black-Scholes Option Pricing Model



Monte-Carlo Simulation Model



Binomial Lattice Option Pricing Model

❑ Black-Scholes Option Pricing Model

- It is a **mathematical model** used to calculate the theoretical price of the option. It assumes that **share prices follow a log-normal distribution**, meaning they have a constant volatility and are independent of each other.
- The Black-Scholes model is relatively **easy to use** and is widely used by companies to estimate the fair value of options. However, it's important to note that the model has its limitations and **may not perfectly capture the complexities of real-world financial markets**, especially for options with features such as market-based vesting conditions.

Price of Call Option (C) =

$$S_0 \times N(d_1) - K \times N(d_2) \times e^{-r \times (T-t)}$$

Where:

$$d_1 = \frac{\ln\left(\frac{S_0}{K}\right) + \left(r + \left(\frac{\sigma^2}{2}\right)\right) \times (T-t)}{\sigma \times \sqrt{T-t}}$$

$$d_2 = \frac{\ln\left(\frac{S_0}{K}\right) + \left(r + \left(\frac{\sigma^2}{2}\right)\right) \times (T-t)}{\sigma \times \sqrt{T-t}} = d_1 - \sigma \times \sqrt{T-t}$$

S_0 = Stock Price on the Date of Valuation

r = Risk Free Rate of Return

T = Expiry Time in Years

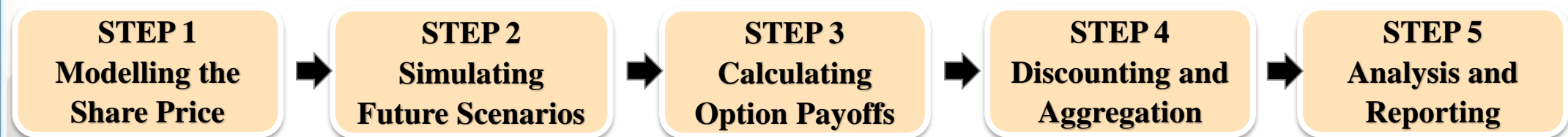
K = Strike Price of Call Option

σ = Annualised Volatility of the Stock

t = Current Time in Years

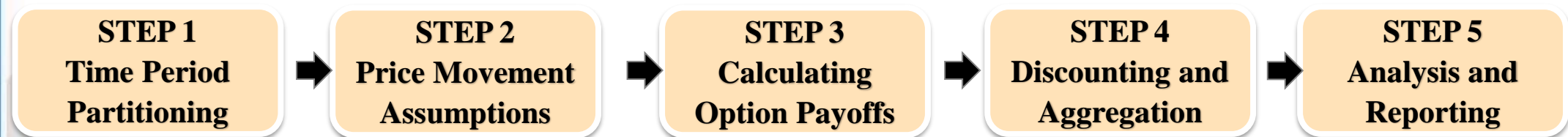
□ Monte-Carlo Simulation Model

- It is a technique used to value options by **simulating the various possible paths of the underlying share price** over time.
- For each simulated scenario, an **expected payoff**, i.e., the difference between the simulated share price and the exercise price is determined, which is **then discounted** to determine the fair value of the option.
- It provides a **more flexible and realistic framework** for option valuation.
- It allows for the incorporation of various sources of uncertainty and volatility in the valuation process, which **can provide a more realistic and robust estimate** of the options' value compared to more simplistic valuation methods.



□ Binomial Lattice Option Pricing Model

- It is based on the assumptions that the **share price can move up or down over time** according to a binomial distribution.
- It is **represented by a binomial tree**, where **each node represents the possible share price** at a particular point in time.
- For each node, an **expected payoff** which is the difference between the share price at that node and the exercise price is determined. This is then **discounted** to determine the fair value of the option.
- It provides a **flexible** framework to value ESOPs, however, it is **complex to implement and understand**, and **requires significant computational resources**, especially with long-time periods



Key differences between different types of option pricing model



	Black-Scholes	Simulation	Binomial
Underlying Assumption	Constant assumption over the option term	Incorporate randomness and volatility fluctuations	Assumes discrete time periods and possible price movements
Computational Complexity	Simple to use	Involves random simulation	Utilizes iterative calculations based on probability distributions
Accuracy	Accurate for options with known parameters	Accuracy increases with number of simulations	Accuracy improves with finer time steps and larger binomial trees
Flexibility	Limited Flexibility	Highly flexible and can incorporate various complex features	Moderate flexibility but may require adjustments for complex scenario
Time Efficiency	Fast computation time for straightforward options.	Computation time increases with complexity and number of simulations	Computation time increases with the size of the binomial tree

Which type of Option Pricing Model is appropriate?



Scenario 1: A tech start-up has granted ESOPs to its employees with vesting linked to an exit event of the Promoters. At the time of exit, the vesting proportion depends on the IRR % achieved by the Promoter at the time of such exit.

Answer: The Monte Carlo Simulation Model

Why: It can incorporate the complexity of the exit event, including the dependence on the Promoters' IRR percentage at the time of exit.

Scenario 2: A renewable energy firm is offering stock options to its employees, with vesting conditions tied to the achievement of specific environmental targets over time.

Answer: The Binomial Option Pricing Model or the Black-Scholes Option Pricing Model

Why Binomial: It allows for the modeling of discrete time periods and can reflect the progression of environmental targets over time, thus aligning with the vesting conditions of the options.

Why Black-Scholes: If specific probability of achieving the environmental targets is known then Black-Scholes can be applied.

Scenario 3: A publicly traded company is offering ESOPs to its employees, but the share price is influenced by external factors such as macroeconomic conditions and industry trends.

Answer: The Black-Scholes Option Pricing Model

Why: No market-based vesting conditions, thus Black-Scholes can be applied easily

Which type of Option Pricing Model is appropriate?



Scenario 4: A well-established company with stable growth is issuing ESOPs with vesting periods linked to specific performance milestones of the employees.

Answer: The Binomial Option Pricing Model or the Black-Scholes Option Pricing Model

Why Binomial: It allows the company to model discrete vesting periods and performance milestones effectively, providing a fair valuation of the ESOPs based on these factors.

Why Black-Scholes: If specific probability of achieving the performance criteria is known then Black-Scholes can be applied.

Scenario 5: A start-up company with uncertain future cash flows is offering ESOPs to its employees. The vesting of these options depends on the company achieving certain revenue targets within a specified timeframe.

Answer: Black Scholes Model

Why Black-Scholes: If specific probability of achieving the revenue targets is known then Black-Scholes can be applied.

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Below are the key assumptions used in option pricing, more specifically in the Black-Scholes Option Pricing Model:



Expected Volatility

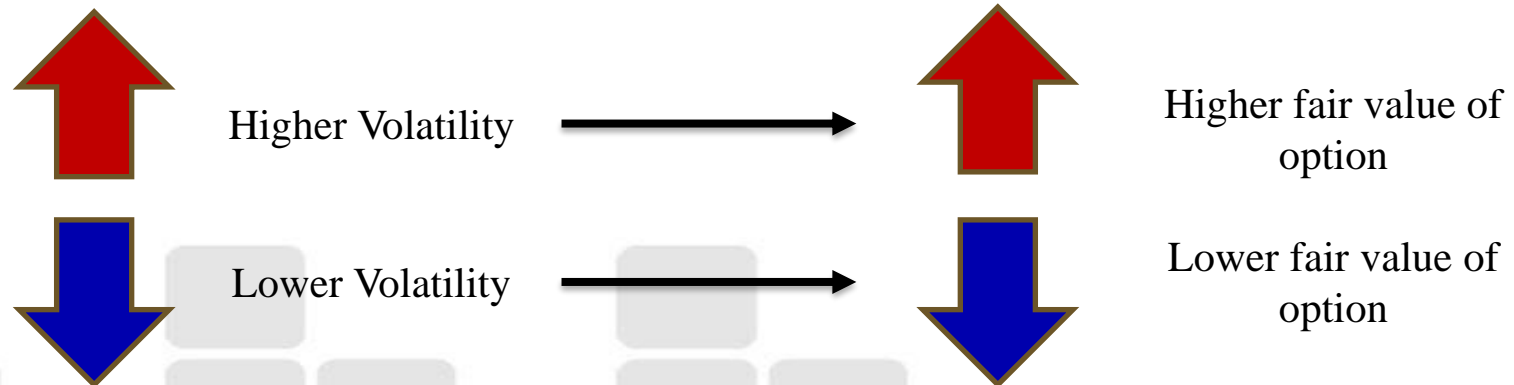
- Expected volatility is the measure of the amount by which share price of Company is expected to fluctuate during a given period.
- Volatility used in option pricing models is the annualized standard deviation of continuously compounded rates of return on the share.

- This is calculated using the formula:

$$\text{Daily } \sigma = \text{Standard Deviation (LN } (\Delta \text{ Share Price))}$$

The above estimate is then annualised using

$$\sqrt{252} \times \text{Daily Volatility}$$



Setting Volatility assumption for **Unlisted Companies**



IND AS 102 Requirements

IND AS 102 requires volatility assumption for unlisted companies to be set:

- **Considering historical / implied volatility of similar listed companies** over expected term of option or **considering volatility of Company's own share price in past** if same has been estimated internally.
- **Using consistent methodology** as used by Company in determining its own share price i.e.:
 - If share price has been estimated referring to share price of similar listed company, volatility should be set on same basis.
 - If Company's share price has been set using other approaches, volatility on same approach may be considered such as factor expected volatility of net assets or earnings

In setting the volatility assumption, following practical aspects must be considered:

- **Choosing comparable companies** requires considering various factors such as **Industry in which Company operates, market capitalization, business model** etc.
- Like for like comparable data set **may not be available** for many **new age companies**. **Resultant volatility to be adjusted** for:
 - **Illiquidity consideration** of private company versus listed companies;
 - **Business model** of company where like for like comparable data set is not available.
- Practically **difficult to assess volatility of net assets and earnings** where Company has used this approach in setting its share price.

Practical Considerations

Setting Volatility assumption for **Listed Companies**



IND AS 102 Requirements

IND AS 102 requires volatility assumption to be:

- **Consistent with market data available at date of grant** i.e. to reflect market conditions at date of grant using:
 - Implied volatility of Company's traded share options or other instruments such as Convertible debt; or
 - Historical volatility of Company's share price over expected option term or generally over the period the share has traded.
- **Consistent** with volatility seen over **expected term of option**.
- **Adjusted where future volatility is expected to differ from past** due to market or Company specific factors and suitable adjustments should be made for this.

In setting the volatility assumption, following practical aspects must be considered:

- **Expected Term of Option** should be determined after allowing for:
 - Expected exercise period post the vesting schedule. Thus, different **vesting tranches** may be valued at **different expected term** and have **different option price**.
 - Overall scheme rules such as **early exercise or exercise by terminating employee** need to be allowed for at an overall level.
- **Newly listed Companies** may not have sufficient data and analysis may need to factor data of similar (peer) companies in initial years of listing.
- **Data** may need to be adjusted to **remove high volatility of Covid years** if same is not expected to repeat in future.



Practical Considerations

How to evaluate expected volatility assumption?

**Paste in ascending order always*

Date	Close Price	% Change
30-May-22	42.10	
31-May-22	42.10	0.00%
01-Jun-22	42.50	0.95%
02-Jun-22	42.10	-0.95%
03-Jun-22	44.15	4.75%
06-Jun-22	43.60	-1.25%
07-Jun-22	42.65	-2.20%
08-Jun-22	42.30	-0.82%
09-Jun-22	42.60	0.71%
10-Jun-22	42.25	-0.82%
13-Jun-22	41.15	-2.64%
14-Jun-22	41.15	0.00%
15-Jun-22	41.50	0.85%
16-Jun-22	40.20	-3.18%
17-Jun-22	38.90	-3.29%
20-Jun-22	38.75	-0.39%
21-Jun-22	39.20	1.15%
22-Jun-22	38.15	-2.72%
23-Jun-22	37.85	-0.79%
24-Jun-22	37.65	-0.53%

Daily Volatility	2.61%
Annualised Volatility	41.4%

Daily Volatility =
Standard Deviation (..LN (Δ Share Price)..)

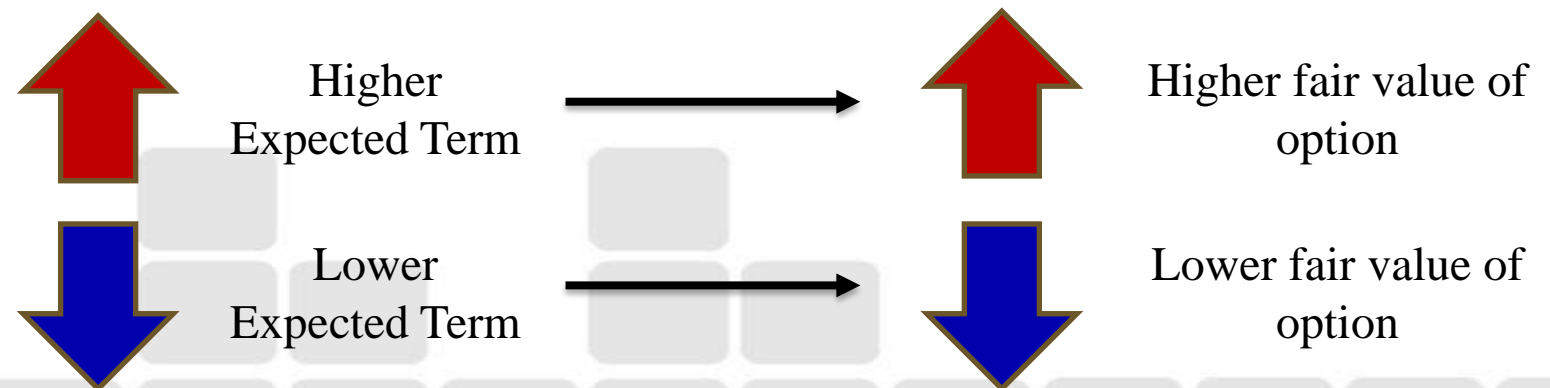
Annualised Volatility =
 $\sqrt{252} \times \text{Daily Volatility}$

Daily % Change =
 $LN (\Delta \text{ Share Price})$

**Historical
Share Price**

Expected Term to Exercise?

- The expected term to exercise represents the duration the company anticipates options to remain active. The minimum life is the earliest exercise-eligible period, while the maximum life is the point beyond which options cannot be exercised.
- Variables affecting the expected term of the option grant, including but not limited to, are as follows:
 - Historical exercise patterns
 - Employee demographics
 - Termination rates
 - Expected volatility of the underlying stock
 - Price of the underlying stock
- Other factors causing early exercise are risk aversion and lack of wealth diversification.



Factors to Consider as per IND AS 102



Note that **IND AS 102** only talks about the **early exercise of options** in the context of setting the assumption for expected term to exercise. **Factors to consider in estimating early exercise include:**

Vesting Period

Share options **can not** be exercised until the end of the vesting period. Determining the valuation implications of **expected term** is based on the assumption that the **options will vest**.

Expected volatility of the underlying shares

Employees might tend to **exercise options on highly volatile shares earlier than on shares with low volatility**.

Price of underlying shares

Experience may indicate that the employees tend to **exercise options when the share price reaches a specified level above the exercise price**.

Employee's level within the organization

Experience might indicate that **higher-level employees tend to exercise options later than lower-level employees**.

Historical experience of similar options

The average length of time **similar options have remained outstanding in the past**.

Practical consideration while determining expected term to exercise



Listed Company:

The expected term can be considered based on the below approaches:

- is pre-defined in the Company's ESOP scheme
- based on the historical trend of the Company
- taken as an average of the vesting period & contractual term
- Since there is an exit route for the employees in a listed organization, term is expiry can be considered equivalent to the vesting period and hence the employees can exercise immediately after vesting.

Common ways to calculate expected term:

$$\text{Weighted Average}^{\#} \left(\frac{\text{Vesting Term} + \text{Contractual Term from Grant Date}}{2} \right)$$

Assuming exercise to occur anytime from vesting till expiry.

$$\text{Weighted Average}^{\#} (\text{Vesting Term})$$

Assuming exercise to occur immediately after vesting.

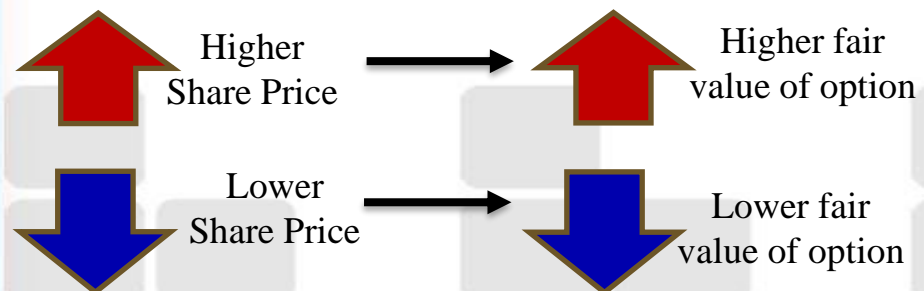
Vesting Proportion as Weights

Private Company:

- The expected term is often based on the expectation of the company for to a liquidity event. A liquidity event can be considered as follows:
 - a corporate transaction like listing of Equity shares,
 - Strategic Sale event,
 - Offer of purchase of equity Shares underlying the Options by an Investor or any other event.

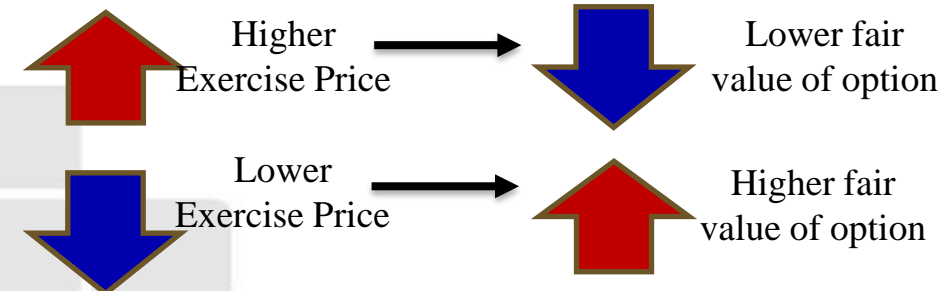
Share Price

- For **listed companies**, accessing the market price is straightforward as they are traded on stock exchanges. Typically, the closing price from the stock exchange with the highest trading volume serves as the reference point.
- For **unlisted companies**, the absence of a stock exchange listing presents challenges in determining the stock price. In such cases, reliance is placed on information provided directly by the company, often in the form of Share Price Certification.
- Some other common methods used to determine share prices are multiplier/comparable analysis approach, discounted cash flow, or the Dividend Discount Model.



Exercise Price

- It represents the amount employees must pay to execute the option granted to them within a retention scheme.
- Typically, the exercise price is outlined in the ESOP scheme or individual grant letters, serving as a crucial input provided by the company.
- While setting the exercise price, the company must adhere to accounting policies and regulatory requirements.
- Notably, according to the Companies Act of 2013, the exercise price cannot fall below the face or nominal value of the underlying share.

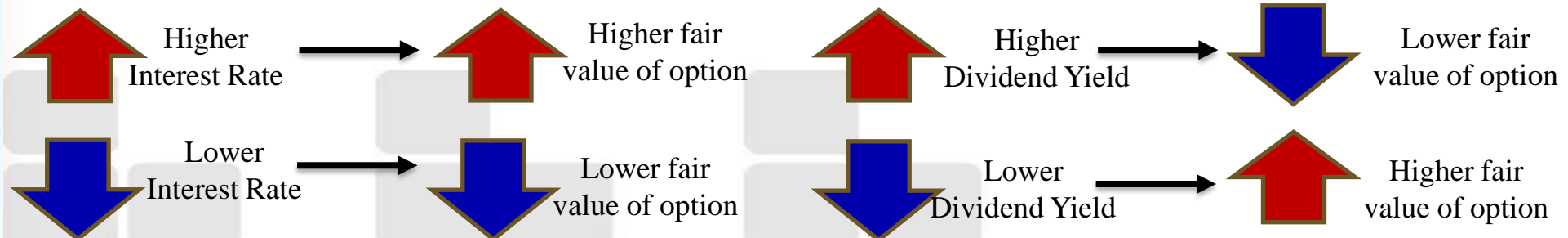


Risk Free Interest Rate

- The risk-free interest rate is derived from the implied yield on zero-coupon government bonds matching the option's currency.
- It is determined based on the option's expected life and evaluated as of the grant date.
- Methodology remains consistent for both listed and unlisted entities.
- Annualized rates are used for option pricing, with data accessible on platforms like tradingeconomics.com or investing.com.

Dividend Yield

- Generally, assumptions about expected dividends should be based on publicly available information.
- If a company doesn't pay dividends, it's assumed to have a zero expected dividend yield.
- Emerging entities may expect to start paying dividends during the lifespan of their employee share options, in which case they can use an average of their past dividend yield and the mean dividend yield of a relevant peer group.
- If expected dividend information isn't provided, it's assumed to be zero.



Agenda



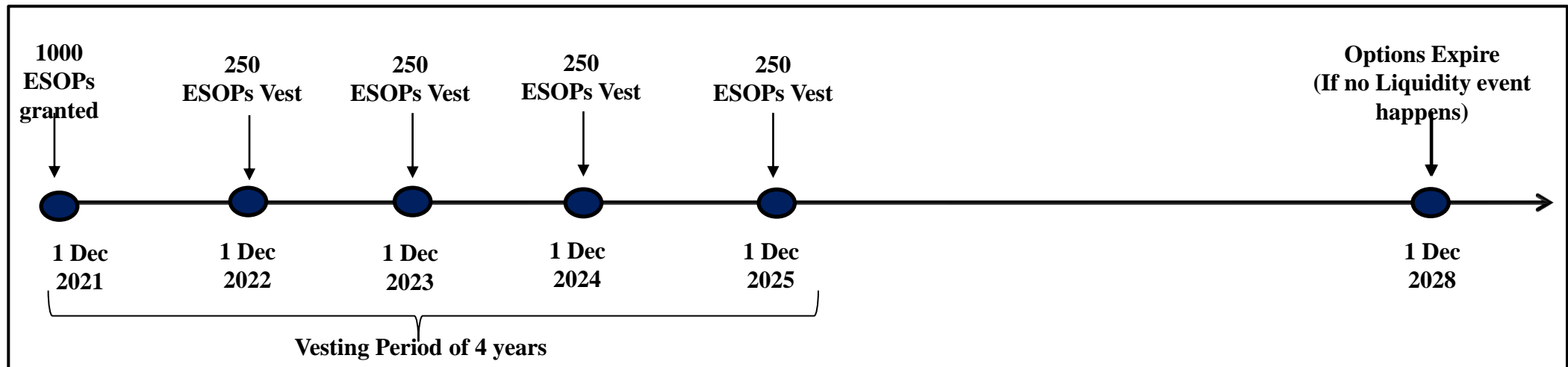
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Example : Equity-settled ESOPs



XYZ Limited, a private company, grants **10 share option to each of its 100 employees** as on **1 Dec 2021**.

Number of Options Granted	1000 Options (10 * 100)
Vesting Criteria	4 year Vesting period (25% vest in year)
Exercise Price	INR 100
Expiry Period	7 years from Date of Grant



Note: All the numbers in the presentation are illustrative.

Let us see few cases considering different scenarios:

- **CASE 1:** The entity expects no attrition, which means all the options granted shall vest as per the vesting schedule.
- **CASE 2:** The entity expects **20% of the employees to leave each year**, which will result in the forfeiture of their options.
- **CASE 3:** The entity cancels the ESOPs granted at some point in time and a settlement is done against them.
- **CASE 4:** The entity has decided to modify the terms of the ESOP policy.

Determine the Fair Value of Options (1/2)



Inputs to the Black-Scholes Model

Grant Date	01 Dec 2021
Exercise Price (K)	INR 100
Stock Price as at Grant Date (S)	INR 500
Expected Term to Expiration (T – t, in years)	7.00
Risk-free rate of return (r)	6.51%
Dividend Yield (q)	0.00%
Annualized Volatility (σ)	50%

Assuming the valuation is being done for an **unlisted company**, the below points are to be noted-

Provided to us by the Company

Finalised post discussion with the Company (dependent on the expectation of happening of a liquidity event in this case)

Based on the yields on government bonds of term equivalent to the expected life of the option

Determined based on the observed historical volatility of a few listed peers companies in similar sector and the Company's actual share price movement.

Determine the Fair Value of Options (2/2)

Output from the Black-Scholes Model

d1	222.25%
d2	89.97%
N(d1)	98.69%
N(-d1)	1.31%
N(d2)	81.58%
N(-d2)	18.42%

$$d_1 = \frac{\ln\left(\frac{S}{K}\right) + \left(r + \left(\frac{\sigma^2}{2}\right)\right) \times (T - t)}{\sigma \times \sqrt{T - t}}$$

$$d_2 = d_1 - \sigma \times \sqrt{T - t}$$

$$C = S \times N(d_1) - K \times N(d_2) \times e^{-r \times (T - t)}$$

Price of Call Option	INR 441.70
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Total Fair Value of Options (in INR)	Number of options * Price of Call Option
	(10 × 100) × 441.70 = 441,700

CASE 1: No attrition expected over the vesting period



Particulars	1-Dec-22	1-Dec-23	1-Dec-24	1-Dec-25	Total
No. of Options expected to vest	250	250	250	250	1000
Total Fair Value of option	110,425	110,425	110,425	110,425	441,700

The below table calculates the charge to income statement considering we are standing at 31 March 2022 (i.e., 4 months have passed since the grant date)

Vesting / Valuation Date	Vesting 1	Vesting 2	Vesting 3	Vesting 4	Cumulative Expense	Expense for the year
31 Mar 2022 (Present)	36,808 $(110,425 \times 4/12)$	18,404 $(110,425 \times 4/24)$	12,269 $(110,425 \times 4/36)$	9,202 $(110,425 \times 4/48)$	76,683	76,683
31 Mar 2023 (Forecasted)	110,425 $(110,425 \times 12/12)$	73,617 $(110,425 \times 16/24)$	49,078 $(110,425 \times 16/36)$	36,808 $(110,425 \times 16/48)$	269,928	193,245
31 Mar 2024 (Forecasted)	110,425	110,425 $(110,425 \times 24/24)$	85,886 $(110,425 \times 28/36)$	64,415 $(110,425 \times 28/48)$	371,151	101,223
31 Mar 2025 (Forecasted)	110,425	110,425	110,425 $(110,425 \times 36/36)$	92,021 $(110,425 \times 40/48)$	423,296	52,145
31 Mar 2026 (Forecasted)	110,425	110,425	110,425	110,425 $(110,425 \times 48/48)$	441,700	18,404

CASE 2 (A): 20% p.a. attrition expected over the vesting period



Particulars	Vesting 1	Vesting 2	Vesting 3	Vesting 4	Total
% of Options to vest (assuming 4 months have passed)	86% $(1 - 20\%)^{(8/12)}$	69% $(1 - 20\%)^{(20/12)}$	55% $(1 - 20\%)^{(32/12)}$	44% $(1 - 20\%)^{(44/12)}$	
No. of Options expected to vest	215	172.50	137.50	110	635
Total Fair Value of Option	94,966	76,193	60,734	48,587	280,480

The below table calculates the charge to income statement considering we are standing at 31 March 2022 (i.e., 4 months have passed) and assumes that the expectation w.r.t options expected to vest each year will not change.

Vesting / Valuation Date	Vesting 1	Vesting 2	Vesting 3	Vesting 4	Cumulative Expense	Expense for the year
31 Mar 2022 (Present)	31,655 $(94,966 \times 4/12)$	12,699 $(76,193 \times 4/24)$	6,748 $(60,734 \times 4/36)$	4,049 $(48,587 \times 4/48)$	55,151	55,151
31 Mar 2023 (Forecasted)	94,966 $(94,966 \times 12/12)$	50,796 $(76,193 \times 16/24)$	26,993 $(60,734 \times 16/36)$	16,196 $(48,587 \times 16/48)$	188,951	133,800
31 Mar 2024 (Forecasted)	94,966	76,193 $(76,193 \times 24/24)$	47,237 $(60,734 \times 28/36)$	28,342 $(48,587 \times 28/48)$	246,738	57,787
31 Mar 2025 (Forecasted)	94,966	76,193	60,734 $(60,734 \times 36/36)$	40,489 $(48,587 \times 40/48)$	272,382	25,644
31 Mar 2026 (Forecasted)	94,966	76,193	60,734	48,587 $(48,587 \times 48/48)$	280,480	8,098

CASE 2 (B): What if during the vesting period attrition changes?



Let's assume, that now we are standing at 31 March 2023 and the company expects a lower attrition for future period, thus the Company has decided to **revised the attrition rate assumption to 10% p.a.** for the rest of the vesting period.

Particulars	Vesting 1	Vesting 2	Vesting 3	Vesting 4	Total
% of Options to vest (assuming 16 months have passed)	86% <i>(No change)</i>	93% $(1 - 10\%)^{(8/12)}$	84% $(1 - 10\%)^{(20/12)}$	76% $(1 - 10\%)^{(32/12)}$	
No. of Options expected to vest	215	233	210	190	848
Total Fair Value of Option	94,966	102,916	92,757	83,923	374,562

Vesting / Valuation Date	Vesting 1	Vesting 2	Vesting 3	Vesting 4	Cumulative Expense	Expense for the year
31 Mar 2022 (Past)	31,655	12,699	6,748	4,049	55,151	55,151
31 Mar 2023 (Present)	94,966 $(94,966 \times 12/12)$	68,611 $(102,916 \times 16/24)$	41,225 $(92,757 \times 16/36)$	27,974 $(83,923 \times 16/48)$	232,776	177,625
31 Mar 2024 (Forecasted)	94,966	102,916 $(102,916 \times 24/24)$	72,144 $(92,757 \times 28/36)$	48,955 $(83,923 \times 28/48)$	318,981	86,205
31 Mar 2025 (Forecasted)	94,966	102,916	92,757 $(92,757 \times 36/36)$	69,936 $(83,923 \times 40/48)$	360,575	41,594
31 Mar 2026 (Forecasted)	94,966	102,916	92,757	83,923 $(83,923 \times 48/48)$	374,562	13,987

CASE 2 (B): What if during the vesting period attrition changes?



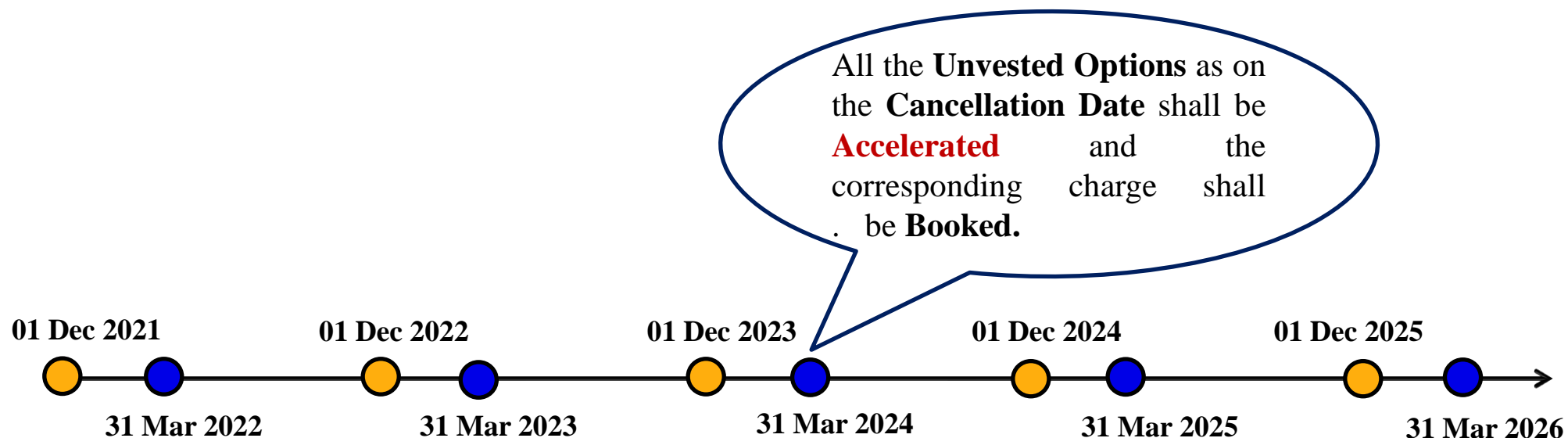
Summary Results:

Vesting / Valuation Date	Cumulative Expense (Estimated as on 31 March 2022)	Cumulative Expense (Estimated as on 31 March 2023)	Incremental Impact due to change in expectation
31 Mar 2022 (Past)	55,151	55,151	0
31 Mar 2023 (Present)	188,951	232,776	43,825
31 Mar 2024 (Forecasted)	246,738	318,981	72,243
31 Mar 2025 (Forecasted)	272,382	360,575	88,193
31 Mar 2026 (Forecasted)	280,480	374,562	94,082 (848 – 635) * 441.7

NOTE: Attrition rate considered in the examples above represents the Company's best estimate of employees to leave in the future. It should be noted that at each valuation date, the estimated number of ESOPs are trued up to the actual number of ESOPs, and lapse rate assumption is only applied to the actual number of un-vested ESOPs outstanding over the course of the vesting period.

CASE 3: Cancellation of ESOPs

The company decides to cancel all the ESOPs granted, effective 31 March 2024.



Para 28 (a), Ind AS 102 Disclosure

“the entity shall account for the cancellation or settlement as an acceleration of vesting and shall therefore recognise immediately the amount that otherwise would have been recognised for services received over the remainder of the vesting period.”

CASE 3: Cancellation of ESOPs



Let's assume, that now we are standing at 31 March 2024 and the company has decided to cancel all the ESOPs granted. (We have considered 0% attrition rate scenario)

Particulars	1-Dec-22	1-Dec-23	1-Dec-24	1-Dec-25	Total
No. of Options expected to vest	250	250	250	250	1000
Total Fair Value of option	110,425	110,425	110,425	110,425	441,700

Vesting / Valuation Date	Vesting 1	Vesting 2	Vesting 3	Vesting 4	Cumulative Expense	Expense for the year
31 Mar 2022 (Past)	36,808 $(110,425 \times 4/12)$	18,404 $(110,425 \times 4/24)$	12,269 $(110,425 \times 4/36)$	9,202 $(110,425 \times 4/48)$	76,683	76,683
31 Mar 2023 (Past)	110,425 $(110,425 \times 12/12)$	73,617 $(110,425 \times 16/24)$	49,078 $(110,425 \times 16/36)$	36,808 $(110,425 \times 16/48)$	269,928	193,245
31 Mar 2024 (Present)	110,425	110,425 $(110,425 \times 24/24)$	110,425 $(110,425 \times 36/36)$	110,425 $(110,425 \times 48/48)$	441,700	171,772
31 Mar 2025 (Forecasted)	ESOP Policy Cancelled by the Company, thus no additional expense.					
31 Mar 2026 (Forecasted)						

CASE 3: Cancellation of ESOPs

Summary Results:



Vesting / Valuation Date	Cumulative Expense (Base Scenario)	Expense for the year (Base Scenario)	Cumulative Expense (Post Cancellation)	Expense for the year (Post Cancellation)
31 Mar 2022 (Past)	76,683	76,683	76,683	76,683
31 Mar 2023 (Past)	269,928	193,245	269,928	193,245
31 Mar 2024 (Present)	371,151	101,223	441,700	171,772
31 Mar 2025 (Forecasted)	423,296	52,145	ESOP Policy Cancelled by the Company, thus no additional expense.	
31 Mar 2026 (Forecasted)	441,700	18,404		

CASE 3: Cancellation of ESOPs



CASE 3 (A) : No Settlement Amount is Paid

In this case, only the expense already recognised in P&L shall be reversed through a component of Equity section of the Balance Sheet.

As per the Ind AS 102, “...in case of share options granted to employees, the credit given to an appropriate equity account, say, ‘share options outstanding account’ (upon receiving the services) may be **transferred to another appropriate equity account, say, ‘General Reserves’ when the options are not exercised.**”

Date	Particulars	Debit (Rs.)	Credit (Rs.)
31 March 2024	Profit / Loss Account To ESOP outstanding account (Being grant of 1000 options to employees worth Rs. 441.70 recognized immediately upon cancellation of ESOPs)	Dr 171,772	171,772
31 March 2024	ESOP outstanding account To General reserve account (Being 1000 employee stock options got cancelled)	Dr 441,700	441,700

CASE 3: Cancellation of ESOPs



CASE 3 (B) : Settlement Amount is Paid

Where cancellation of ESOPs is accompanied by payment of cash value of ESOPs to employees, the same is treated as repurchase of equity in line with Para 28(b) of IND AS 102.

Para 28 (b), Ind AS 102 Disclosure: *“any payment made to the employee on the cancellation or settlement of the grant shall be accounted for as the repurchase of an equity interest, ie as a deduction from equity, except to the extent that the payment exceeds the fair value of the equity instruments granted, measured at the repurchase date. Any such excess shall be recognised as an expense..”*

For this purpose, the Company is required to estimate the fair value of underlying equity as on the repurchase / settlement date. Where the **cash compensation to the employee is higher than the fair value of equity (post adjusting for exercise price), the excess is required to be recognized as an expense immediately in the books.**

It is important to note that the cash paid to employees in such cases does not result in any income statement impact to the extent the same is equal to or less than the fair value of equity (adjusted for exercise price) measured at repurchase date. **Such payments are shown as a deduction from ESOP outstanding and the balance in ESOP Outstanding account for such ESOPs (if any) is typically moved to another equity head such as General Reserve.**

CASE 3: Cancellation of ESOPs

CASE 3 (B) : Settlement Amount is Paid

Share Price as on the Settlement Date = **INR 800 per share**

Exercise Price as per the ESOP Policy = **INR 100 per share**

Fair Value of the Options as on the Settlement Date = **INR 700 per option** (Intrinsic Value)

Amount Paid by Company in the form of Settlement = **INR 750 per option**

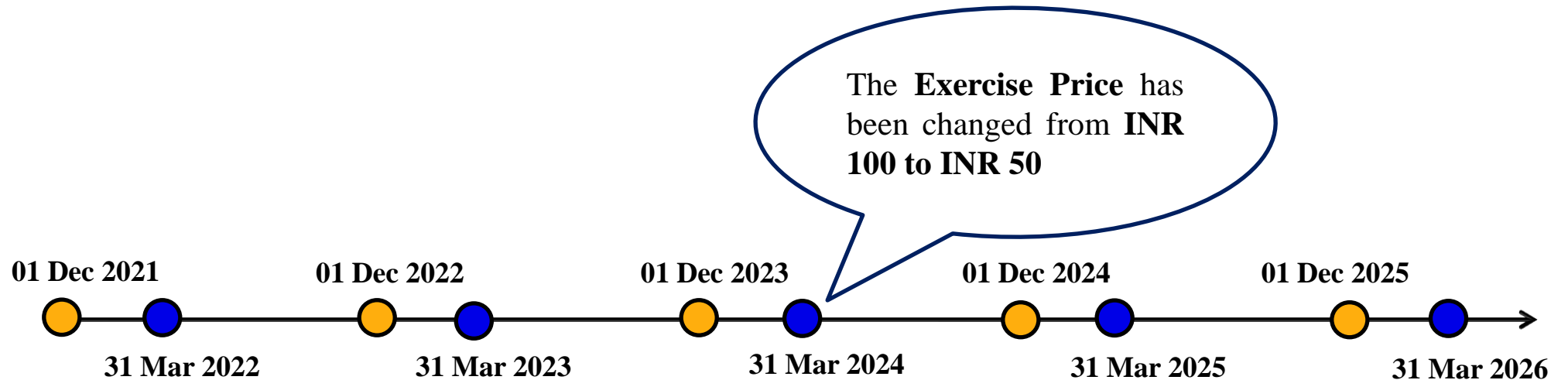
Additional Expense to be Booked = 750 - 700 = INR 50 per option



Date	Particulars	Debit (Rs.)	Credit (Rs.)
31 March 2024	Profit and Loss Account To ESOP outstanding account <i>(Being grant of 1000 options to employees worth Rs. 441.70 recognized immediately upon cancellation of ESOPs)</i>	Dr 171,772	171,772
31 March 2024	Profit and Loss Account To ESOP outstanding account <i>(Additional expense on account of settlement on the higher value than the fair value as on the settlement date)</i>	Dr 50,000	50,000
31 March 2024	ESOP outstanding account To Bank To General reserve account <i>(Being 1000 employee stock options got cancelled)</i>	Dr 491,700	50,000 441,700

CASE 4: Modification of ESOPs

The company decides to decrease the exercise price for all the ESOPs granted, effective 31 March 2024.



Para 27, Ind AS 102 Disclosure

“The entity shall recognise the effects of modifications that increase the total fair value of the share-based payment arrangement or are otherwise beneficial to the employee.”

CASE 4: Modification of ESOPs

In case of modification, we would have to reevaluate the fair value of options just before and after the modification, considering the assumptions as on the modification date, and account only for the incremental charge.



Particulars	Pre – Modification	Post - Modification
Exercise Price (K)	INR 100	INR 50
Stock Price as at Modification Date (S)	INR 620	INR 620
Expected Term to Expiration (T – t, in years)	4.60	4.60
Risk-free rate of return (r)	6.59%	6.59%
Dividend Yield (q)	0.00%	0.00%
Annualized Volatility (σ)	50%	50%
Price of Call Option	INR 547.97	INR 583.27
Revised Total Fair Value of Options (in INR)	Number of options x (Price of Call Option + Incremental Value)	
	$(10 \times 100) \times (441.70 + 35.30) = 477,000$	

The Incremental Value
INR 35.30

CASE 4: Modification of ESOPs

Let's assume, that now we are standing at 31 March 2024 and the company has decided to modify the ESOP scheme. (We have considered 0% attrition rate scenario)



Particulars	1-Dec-22	1-Dec-23	1-Dec-24	1-Dec-25	Total
No. of Options expected to vest	250	250	250	250	1000
Total Fair Value of option @Revised FV = 477.00	119,250	119,250	119,250	119,250	477,000

Vesting / Valuation Date	Vesting 1	Vesting 2	Vesting 3	Vesting 4	Cumulative Expense	Expense for the year
31 Mar 2022 (Past)	36,808 (110,425 × 4/12)	18,404 (110,425 × 4/24)	12,269 (110,425 × 4/36)	9,202 (110,425 × 4/48)	76,683	76,683
31 Mar 2023 (Past)	110,425 (110,425 × 12/12)	73,617 (110,425 × 16/24)	49,078 (110,425 × 16/36)	36,808 (110,425 × 16/48)	269,928	193,245
31 Mar 2024 (Present)	119,250 (119,250 × 12/12)	119,250 (119,250 × 24/24)	92,750 (119,250 × 28/36)	69,563 (119,250 × 28/48)	400,813	130,885
31 Mar 2025 (Forecasted)	119,250	119,250	119,250 (119,250 × 36/36)	99,375 (119,250 × 40/48)	457,125	56,312
31 Mar 2026 (Forecasted)	119,250	119,250	119,250	119,250 (119,250 × 48/48)	477,000	19,875

CASE 4: Modification of ESOPs



Summary Results:

Vesting / Valuation Date	Cumulative Expense (Base Case)	Cumulative Expense (After Modification)	Incremental Impact due to change in expectation
31 Mar 2022 (Past)	76,683	76,683	0
31 Mar 2023 (Past)	269,928	269,928	0
31 Mar 2024 (Present)	371,151	400,813	29,662
31 Mar 2025 (Forecasted)	423,296	457,125	33,892
31 Mar 2026 (Forecasted)	441,700	477,000	35,300 (10 * 100 * 35.30)

Thank You!