Series - 9

Valuation: VCM ATQs
"ESOP Valuation - model and issues"

VALUATION STANDARDS BOARD
THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA
(Set up under an Act of Parliament)
New Delhi

Series-9

Valuation: VCM ATQs
"ESOP Valuation - model and issues"

Valuation Standards Board
The Institute of Chartered Accountants of India

Preamble

Valuation Standards Board of ICAI (VSB) had organised a live Virtual CPE Meeting(VCM) on the topic- "ESOP Valuation - model and issues" on 18th July, 2021. The details of the VCM are as under:

President ICAI:	CA. Nihar N. Jambusaria
Vice President ICAI:	CA. Debashis Mitra
Address by:	CA. Anil Bhandari, Chairman, VSB, ICAI CA. M. P. Vijay Kumar, Vice- Chairman, VSB, ICAI
Speaker:	CA. T.V. Balasubramanian, Registered Valuer
Director:	Shri Rakesh Sehgal, Director, ICAI
Secretary:	CA. Sarika Singhal, Deputy Secretary, ICAI

The Webcast received an overwhelming response and was attended by more than 1700 viewers. The said webcast can be viewed again at https://live.icai.org/vsb/vcm/18072021/

There were many questions raised during the webcast. We have prepared answers to the questions (ATQs) raised during the webcast, which do not require application of valuation practices and principles. Also, repetitive questions and questions not related to the subject matter have not been answered.

We would also like to mention that the Valuation Standards Board has brought out many publications and Concept papers that may be referred for guidance and reference. All the below publications are available on the Committee link at ICAI website i.e., www.icai.org.

- ICAI Valuation Standards 2018
- Educational Material on ICAI Valuation Standard 103 - Valuation Approaches and Methods
- Educational Material on ICAI Valuation Standard 301- Business Valuation

- Valuation: Professionals' Insight- Series- I, II, III, IV, V and VI
- Answers to the Questions raised during the Live Webcast on "Valuation and Valuation Standards Compliance and other aspects under various Laws"
- Technical Guide on Valuation
- Frequently Asked Questions on Valuation
- Concept Paper on findings of Peer Review of Valuation Reports
- Concept Paper on All About Fair Value
- Sample Engagement Letter for accepting Valuation assignment
- Valuation: VCM ATQ's – Series - I, II, III, IV, V and VI

The answers have been given for reference purposes. Detailed analysis may be done, and other material may be referred.

Valuation Standards Board
New Delhi
31st July, 2021

A Brief Note on Option Valuation

1. Introduction

An option provides the holder with the right to buy or sell a specified quantity of an underlying asset at a fixed price (called a strike price or an exercise price) at or before the expiration date of the option.

A call option gives the buyer of the option the right to buy the underlying asset at the exercise price, at any time prior to the expiration date of the option. The buyer pays a price for this right. If at expiration, the value of the asset is less than the strike price, the option is not exercised and expires worthlessly. If, on the other hand, the value of the asset is greater than the strike price, the option is exercised, and the buyer of the option buys the asset at the exercise price.

A put option gives the buyer of the option the right to sell the underlying asset at the exercise price, at any time prior to the expiration date of the option. The buyer pays a price for this right. If the value of the underlying asset is greater than the strike price, the option will not be exercised and will expire worthlessly. If on the other hand, the value of the underlying asset is less than the strike price, the owner of the put option will exercise the option and sell the asset at the strike price.

2. Some popular options in business

A number of business situations have characteristics of options that ultimately affect the valuations of their intangibles. Accordingly, such options have to be valued. Some of the prominent ones are illustrated below:

(i) **Natural resource companies**, such as oil and mining companies, generate cash flows from their existing reserves but they also have undeveloped reserves that they can develop if they choose to do so. They will be much more likely to develop these reserves if the price of the resource (oil, gold, copper) increases.

(ii) **A patent provides a company with the right to develop** and market a product or service and thus can be viewed as an option. While an undeveloped patent may not be financially viable today and doesn't generate cash flows as of the valuation date, it can still have considerable value to the company owning it because it can be developed in the future.

(iii) Employee Stock Options carry the right, but not the obligation, to buy a certain number of shares in a company at a predetermined price and present a need for using option valuation techniques. Employee Share Options Plan or ESOP is an option provided by a company to its employees. These options provide an option to the employees to purchase the company's shares on future dates at a pre-determined price.

3. Variables impacting Option Valuation

The value of an option is determined by a number of variables relating to the underlying asset and financial markets, some of these variables are as under:-

- **Current value of the Underlying Asset:** Options are assets that derive value from an underlying asset. Consequently, changes in the value of the underlying asset affect the value of the options on that asset. Since calls provide the right to buy the underlying asset at a fixed price, an increase in the value of the asset will increase the value of the calls. Puts, on the other hand, become less valuable as the value of the asset increases.
- **Variance in value of the Underlying Asset:** The buyer of an option acquires the right to buy or sell the underlying asset at a fixed price. The higher the variance in the value of the underlying asset, the greater will be the value of the option. This is true for both calls and puts.
- **Dividends paid on the Underlying Asset:** The value of the underlying asset can be expected to decrease if dividend payments are made on the asset during the life of the option. Consequently, the value of a call on the asset is a decreasing function of the size of expected dividend payments, and the value of a put is an increasing function of expected dividend payments.
- **Strike Price of Option:** A key characteristic used to describe an option is the strike price. In the case of calls, where the holder acquires the right to buy at a fixed price, the value of the call will decline with an increase in the strike price. In the case of puts, where the holder has the right to sell at a fixed price, the value will increase with an increase in the strike price.
- **Time to Expiration on Option:** Both calls and puts become more valuable as the time

to expiration increases. This is because the longer time to expiration provides more time for the value of the underlying asset to move, increasing the value of both types of options. Additionally, in the case of a call, where the buyer has to pay a fixed price at expiration, the present value of this fixed price decreases as the life of the option increases, increasing, in turn, the value of the call.

- **Risk-free Interest Rate Corresponding to the Life of Option:** Since the buyer of an option pays the price of the option upfront, an opportunity cost is involved. This cost will depend upon the level of interest rates and the time to expiration of the option. The risk-free interest rate also enters into the valuation of options when the present value of the exercise price is calculated, since the exercise price does not have to be paid (received) until expiration on calls (puts). Increases in the interest rate will increase the value of calls and reduce the value of puts.

4. Option Pricing Models

Various option pricing models, which work on a number of assumptions and inputs, are used to arrive at the value of options. In practice, Black-Scholes and a simpler Binomial Model are preferred for option pricing.

a) The Black-Scholes Model

The Black-Scholes Model is a mathematical formula for calculating the theoretical value of call and put options that may be derived from the assumptions of the model. The fundamental insight of Black-Scholes is that the call option is implicitly priced if the share is traded.

The following assumptions are pertinent while utilising the Black- Scholes Model:
(a) Share pays no dividends.
(b) Option can only be exercised upon expiration.
(c) Market direction cannot be predicted.
(d) No commissions are charged for the transaction.
(e) Interest rates remain constant.
(f) Share returns are normally distributed, thus volatility is constant over time.

b) The Binomial Model

The Binomial Model produces a binomial distribution of all the possible paths that a share price could take during the life of the option. A binomial distribution, simply known as a "Binomial Tree", assumes that a share can only increase or decrease in price all the way until the option expires and then maps it out in a "tree". It then fills in the theoretical value of that share's options at each time step from the very bottom of the binomial tree all the way to the top, where the final, present, theoretical value of a share option is arrived. Any adjustments to share prices at an ex-dividend rate or option prices as a result of early exercise of options are worked into the calculations at each specific time step.

The Binomial Model provides flexibility of early exercisable behavior that may be incorporated for valuing American options. For perspective, the primary distinction between American and European options relates to when the options can be exercised. A European option may be exercised only at the expiration date of the option, i.e., at a single pre-defined point in time. However, an American option can be exercised at any time before the expiry of the option. The Binomial Model is said to be more accurate particularly for longer dated options since it is able to handle a variety of conditions.

c) The Monte Carlo Simulation Model

In addition to the Black-Scholes and the Binomial Model, the Monte Carlo Simulation Model is also used to estimate the value of an option with multiple sources of uncertainty or with complicated features. The Monte Carlo Simulation Model is deployed to:

(i) generate a large number of possible (but random) price paths for the underlying stock through the method of simulation;
(ii) calculate the respective payoff of the option for each path; and
(iii) use these payoffs to estimate the fair value of the option.

Compared to the Black-Scholes and Binomial Model, the Monte Carlo Simulation Model is more complicated and resource intensive. The model is applied only in cases requiring incorporation of multiple level of uncertainty in the inputs considered for the option valuation.

5. Tax Implications on ESOP

Employee Stock Options are generally taxed at two stages in the hands of employees:-

(i) First levy occurs when the option is exercised by Employee – At the time of allotment, the difference between the fair market value of the share and the amount paid by the employee to purchase the shares is taxed as perquisite in the hands of the employee as it is the benefit earned by the employee. This is included as part of the employee salary, and tax is liable to be paid in the year of exercise of the option. The company issuing ESOP is responsible to deduct TDS on the perquisite value as on the date of exercise.

As per Section 17 read with Rule 3(8) of Income Tax Act, ESOPs and equity settled SARs are to be valued by a merchant banker at the time option is exercised, to determine the perquisite value in the hands of the employee.

Amendments introduced vide Budget 2020 for Startups

Finding buyers for shares of a Startup is often complicated as these are generally not listed and hence there is no active market for shares received vide ESOP. Income Tax Act was amended to provide relief to 'eligible startups' in respect of tax on ESOP after considering various representations and understanding the genuine hardship faced by startups.

From the FY 2020-21, an employee receiving ESOPs from an eligible start-up need not pay tax in the year of exercising the option. The TDS on the 'perquisite' stands deferred to earlier of the following events:

- Expiry of five years from the year of allotment of ESOPs
- Date of sale of the ESOPs by the employee
- Date of termination of employment

(ii) Sale of shares acquired vide scheme by employees – the second tax levy occurs when the employees choose to sell the shares acquired by him through ESOP. This is treated like any other capital gains on sale of shares and the same will be short-term or long-term depending upon the holding period. Normally, in the calculation of capital gains, the cost of acquisition is deducted from the sale considered, however in the case of ESOP the cost of share will be the fair value on the date of exercise of the option. This is because the employee already paid tax on the fair value on the date of exercise.

6. Brief discussion on Guidance Note on Accounting for Share-based Payments issued by ICAI in 2020

Shares and share options comprise a significant element of the total remuneration package of senior personnel; a trend encouraged by the current consensus that it is a matter of good corporate governance to promote significant long-term shareholdings by senior management, so as to align their economic interests with those of shareholders.

Apart from using share-based payments to compensate employees for their services, such payments are also used by an employer as an incentive to the employees to remain in its employment and to reward them for their efforts in improving its performance. Unlisted companies, in particular start-up companies, often give share-based compensation since they cannot afford to pay high salaries to their employees but are willing to share the future prosperity of the company

Such plans generally take the forms of:

a) **Employee Stock Option Plans (ESOP)** - ESOPs are plans under which an enterprise grants options for a specified period to its employees to purchase its shares at a fixed or determinable price.
b) **Employee Stock Purchase Plans (ESPPs)** - ESPPs are plans under which the enterprise grants rights to its employees to purchase its shares at a stated fair value at the time of public issue or otherwise (such ESPPs are outside the scope of share-based payment plan under this Guidance Note).
c) **Stock Appreciation Rights (SARs)** - SARs is a form of employee share-based payments whereby the employees become entitled to a future cash payment or shares based on the increase in the price of the shares from a specified level over a specified period.

Accounting

A share-based payment plan within the scope for this Guidance Note can be accounted for by adopting the fair value method or the intrinsic value method as on the measurement date.

The Measurement date is the date at which the fair value of the equity instruments granted is measured for the purposes of this Guidance Note. For transactions with employees and others providing similar services, the measurement date is grant date.

a) Fair Value Method

For transactions measured by reference to the fair value of the equity instruments granted, an enterprise shall measure the fair value of equity instruments granted at the measurement date, based on market prices if available, taking into account the terms and conditions upon which those equity instruments were granted (subject to the requirements of paragraphs 28-33).

If market prices are not available, the enterprise shall estimate the fair value of the equity instruments granted using a valuation technique to estimate what the price of those equity instruments would have been on the measurement date in an arm's length transaction between knowledgeable, willing parties.

b) Intrinsic Value Method

Intrinsic value, in the case of a listed company, is the amount by which the fair value (in this case the quoted market price) of the underlying share exceeds the exercise price of an option. 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.

It is recommended that accounting for share-based payment plans should be based on the fair value approach as described in paragraphs 18 to 71. However, intrinsic value method as described in paragraph 64 is also permitted.

Kindly refer to the Guidance note for further details and illustrations. The Guidance Note is available at the below link:-

https://resource.cdn.icai.org/61670research50201gn-sbp.pdf

Answer to Questions raised during the Virtual CPE Meeting Series "Sundays with Valuation Experts" on the topic "ESOP Valuation – model and issues" held on 18th July, 2021

S. No	Question	Answer
1.	What are Employee Stock Options (ESOPs)?	ESOPs are plans under which an enterprise grants options for a specified period to its employees to purchase its shares at a fixed or determinable price. The ESOPs are schemes under which the employees can benefit from the value growth in the equity of the company as the company compensates its employees by granting them options at an exercise price and on meeting certain performance criteria. ESOPs enable a company to compensate its employees without cash outflow but with some dilution to the equity. Additionally, balancing the cost-benefit between equity dilution through the ESOP and the cash outflow is something that needs to be considered by the management while designing the scheme. In general, such employee benefit are given by way of options to acquire equity or alternatively can also be given by providing Share Appreciation Rights (SARs) / Phantom Shares which could themselves be equity settled or cash settled in due course. ESOP schemes have the following important features: **a)** **Grant** – This is the grant of options to the employees subject to some performance criteria being met.

		b) Grant Date – The date on which the grant of options was made to the employee is called Grant Date. **c) Performance criteria** – The performance criteria for becoming eligible to exercise the options could be any of the following:- A simple lapse of time, certain business parameters such as profitability/revenue being reached, the market price being reached etc. **d) Vesting period** – It is the period over which the performance criteria are expected to be met and after which the options will become vested with the employee. **e) Exercise period** – This is the period after vesting, over which the employee has the right to exercise his option i.e.. opt to take the shares or let it lapse. **f) Exercise price (or strike price)** – This is the price to be paid by the employee at the time of exercise to acquire the share available to the employee under the option.
2.	What is the number of valuations required in an ESOP and when all?	ESOP generally requires valuation at the time grant is being affected. However, in case of unlisted entities, valuation is also required for the shares along with the options as on the date of grant. These are required for accounting of the option costs in accordance with IND AS and IGAAP. Thereafter, at the time of exercise, valuation is required for the shares (in case of unlisted shares), for determining the perquisite value taxable in the hands of employees under Income Tax Act.

		In certain cases of ESOPs where the performance criteria include items such as exercise price being varied based on performance etc., there may be a need to revise the valuation of options at each period end for accounting the option costs based on updated estimates. Such valuation would be required in case of SARs also.
3.	What is the regulatory requirement for valuation of ESOP for accounting purposes?	Entities covered by Ind AS are required to adhere to Ind AS 102: Share-Based Payments in case they issue ESOPs. According to Ind AS 102, there is a need for valuation of the options (and valuation of shares in case of unlisted entities) at the time of grant of options. In respect of entities which are covered by IGAAP one needs to adhere to Guidance Note on Accounting for Share-based Payments issued by ICAI. According to the Guidance Note, option cost may be determined based on the fair value of options or on the intrinsic value method, however, the fair value of options method is the recommended method. In the entities where intrinsic value method is being adopted, valuation of shares is only required as on the date of the grant and the difference, if any, between the value of share on the grant date and the exercise price is treated as the employee benefit cost of the options.
4.	What is the regulatory requirement for the valuation of ESOP for taxation purposes?	As per Section 17 and Rule 3(8) of Income Tax Act, ESOPs and equity settled SARs are to be valued by a merchant banker at the time option

		is exercised, to determine the perquisite value in the hands of the employee. Cash settled SAR are taxed at the amount paid to the employee as salary at the time it is exercised.
5.	When is valuation for accounting required for ESOP during the vesting period in addition to the initial grant date time valuation?	In certain cases of ESOPs where the performance criteria include items such as exercise price being varied based on performance etc., there may be a need to revise the valuation of options at each period end, for accounting the option costs based on the updated value estimates. Such valuation would also be required in case of SARs.
6.	Is SAR valuation different from ESOP valuation?	In respect of SAR, which is cash settled or equity settled, as the settlement is not fixed upfront, there will be a requirement for valuation at each period end date until completion of the exercise as the estimated cost of SAR will be revised at each period end.
7.	Who is to do the valuation of ESOP?	At the time of Grant (and period end) for the purpose of Accounting of ESOP cost, valuation shall be done by a Registered Valuer. At the time of exercise for taxation purposes, valuation shall be done by a Merchant Banker.
8.	Is valuation required for ESOP at each period end?	As explained earlier, in certain cases of ESOPs where the performance criteria include items such as exercise price being varied based on performance etc., there may be a need to revise the valuation of options at each period end, for accounting the option costs based on the updated value estimates. Such valuation would also be required in case of SARs.

9.	Which is the preferred method used for ESOP Valuation?	The most preferred method for valuing options under ESOP is the Black Scholes method. In some cases of complex performance criteria being prescribed in the ESOP scheme, the Black Scholes model may not be adequate and there may be a need to work out the option valuation using the Binomial model. Further for cases where multiple scenarios need to be factored, the Monte Carlo Simulation could be used.
10.	Please explain some of the terms related to ESOP valuation?	In the standard Black Scholes Merton model, there are six variables that are used to determine the option value. They are as under: **i)** **Current Market Price** – This is the value per share of the company based on the listed market price and in case of unlisted entities, based on valuation of the share done as on the date of grant. **ii)** **Exercise price** – This is the price to be paid by the employee to acquire the options granted to him. **iii)** **Time to maturity** – This is the time period in which the option is expected to be exercised and is generally the total vesting period plus the exercise period unless early exercise is expected. Factors to be considered in determining the time to expiry/time to maturity is covered in a separate question below. **iv)** **Risk Free Rate** – It is the risk-free rate applicable for the tenure closely matching with the total time to maturity of the option.

		Data for the same could be obtained from the monthly newsletter published in www.fbil.org.in. **v) Volatility** – This is the measure of dispersion of the expected movement in the value of the share. How the same could be computed has been dealt with in detail in another question in this document. **vi) Dividend** – It is the most probable dividend per annum that the shares are likely to earn during the period when the option is alive. This could be estimated based on past trends, comparable company/ industry payout ratios or expected pay-out ratios. There are certain other terms that are also important in ESOP valuation, and these are explained hereunder: **i) Graded vesting** – Valuation of options has to be done for each graded vesting period separately where a grant is made with the vesting happening in a graded manner, say over, multiple years. e.g., 10,000 options granted to an employee will vest at the end of 1st year 20%, 2nd year 20%, 3rd year 30% and 4th year 30%. **ii) Tranche –** options may be granted in different periods and each grant could be a different tranche of options. **iii) Expected Forfeitures** – When options are granted, there is always a probability that not all employees would meet the performance criteria and some of them may also not get the options vested due to this.

		These options are known as expected forfeitures, and this is adjusted while accounting based on the number of shares considered in computing the cost of options.
11.	How can the volatility be computed and used for ESOP valuation?	Volatility is a statistical measure of the dispersion of returns for a given security or market index. In most cases higher the volatility, riskier the security. Volatility is often measured as either the standard deviation or variance between returns from that security or market index. Volatility can be determined from the market price of the scrip (comparable scrips in case of an unlisted entity) over a long period, by computing the deviation from the mean and ascertaining the standard deviation therefrom using standard formulae and/or excel templates. This can be annualized by multiplying the standard deviation result by square root of the number of trading days in a year. There are many other approaches to computing volatility that can be considered depending upon a case-to-case basis.
12.	How can the time to expiry be estimated and what are the key considerations in this regard?	Time to maturity/time to expiry is the time period in which the option is expected to be exercised and is generally the sum of total vesting period and the exercise period unless early exercise is expected. Factors to consider in determining the time to expiry/time to maturity includes: • Present in the money position; • The materiality of the exercise amount (as well as the market price – exercise price) to the overall income level of the employee;

		• The quantum of options given to the employee; • Perception and understanding levels of employees on the value of the shares and future growth; • The overall exercise period and whether it is a reasonable time frame or too long a period; The Black Scholes model basically assumes that the exercise will happen only on expiry of the time period and does not provide for computing the value assuming that exercise could happen anytime during the exercise period. Considering all these, there is a need to apply judgement on whether the actual exercise would happen only at the expiry of the exercise period or whether there are indicators to reflect that early exercise of options would be more appropriate. The time to expiry/maturity needs to be accordingly estimated and considered.
13.	What is the Tax deductibility of the ESOP expenditure debited to P&L?	There is no specific provision in the Income Tax Act dealing with tax deductibility of ESOP cost in the hands of the issuer. There have been decisions at the tribunal level in various states in favour of the assessee's claims for ESOP costs. However, in absence of a decision at the Supreme Court level on this matter, it is subject to potential litigation.
14.	Can the share valuation for ESOP cost determination be different from the valuation arrived at for the purpose of raising funds by the company?	There could be reconcilable differences between the share valuation arrived at for ESOP issue vs. valuation done for fundraise. One of the differences could be on account of the stake size linked discount/premium. Generally, ESOP would be for the issue of a minuscule non-controlling

		interest while fundraise could be for a controlling or influencing stake. However, the valuer should be always able to provide the rationale for the difference in the two valuations.
15.	How is ESOP to be considered during valuation of the company, say for a fundraise?	Kindly refer Chapter 3, "Treatment of Employee Stock Options in Business Valuation", of Publication - Valuation: Professionals' Insight-Series 6. The publication is available at the undermentioned link:- https://resource.cdn.icai.org/65484vsb52818.pdf
16.	How is ESOP taxed in the hands of the employees? Is this any different from SAR – specifically for cash-settled SAR and equity-settled SAR?	ESOPs (and equity settled SARs) are treated as perquisites in the hands of the employees and the value is to be determined by a merchant banker at the time of exercise of the option. Cash settled SARs are treated as salary and are valued at the amount of cash paid to the employee at the time of exercise.
17.	ESOP valuation is purely for Employee benefit purposes, so what factors are to be considered to arrive at their valuation?	At the time of accounting, one needs to clearly bear in mind the fact that this is for estimating the cost of options for accounting and for no other purposes. Accordingly, the whole engagement needs to be tempered by materiality considerations.
18.	ESOP valuation is done as on the date of allotment or as on the date when the option is exercised by the employee?	Rule 3(8) of Income Tax Rules dealing with perquisite valuation of ESOP shares, mentions that it shall be valued as on the date of exercise. In case of unlisted shares, the valuation by the merchant banker can be as of the date of exercise or any date within 180 days before such exercise

		date.
19.	A seller has received consideration from the company for the surrender of rights (prior to exercise of options) in equity shares of an unlisted company held for more than 36 months. These rights were given to the seller by the company under the ESOP scheme. On what value will the same be taxed as capital gains- whether on the consideration received or value of unquoted equity share under Rule 11UA, kindly clarify?	The actual taxation would depend on the scheme under which such a transaction is happening. Normally such occurrences related to ESOP arises when there is a change in shareholding and the company is being sold to a new investor, where the arrangement could provide for:- (a) accelerated vesting of shares and acquisition of the shares or; (b) rescinding of the rights with compensation being paid for the same in cash etc. Principally, whether the right which is surrendered is to be treated as a capital asset and hence the profit from the sale is to be treated as a capital gain or whether the transaction would trigger the amount to be treated as part of salary income would depend on the detailed nuances of each arrangement.
20.	How is the consideration received for the surrender of right to acquire equity shares under ESOP scheme of the unlisted company shall be valued under income tax for levy of capital gains tax?	As discussed above, whether the right which is surrendered is to be treated as a capital asset and hence the profit from sale is to be treated as a capital gain or whether the transaction would trigger the amount to be treated as part of salary income would depend on the detailed nuances of each arrangement.
21.	A Stock option is an option in the hands of employees, who decide whether to exercise the option or not after the vesting date. However, for issuing company whose accounts are under consideration, a stock option is a liability/commitment towards employees. Hence, the difference	In ESOP grants, shares are not allotted at the time of grant and what is being given is only a grant of options which entitles the option holder to choose to exercise for the share. Thus, what is incurred today as a payout to the company is an option and not a share and accordingly, the payout is valued using option valuation models which help estimate the cost of

	between market price/fair value and exercise/ issue price is amortized over the vesting period and debited to employee remuneration a/c. For the purpose of IND AS and for issuing company, the stock options have to be valued as per normal valuation methodology like DCF and certainly not by using option valuation methodology like Black Scholes. Please explain how appropriate it is to use option valuation methodology to value options for the purpose of Ind AS?	such options being given. It is important to note that the valuation of options does consider the current market price or valuation of the equity shares computed either based on market quoted prices or based on valuation of shares using accepted methods of valuations.
22.	Future convertible instruments can be issued under ESOP? If yes, how is it valued?	For the purpose of accounting, at the time of grant, there would be a need to first and foremost determine the value of the equity and the convertible instruments using valuation methods including Backsolve Method. Once the value of the convertible instrument has been determined, then the option valuation model could be used to determine the value of the option thereof. At the time of exercise, valuation is to be done as per Rule 3(9), which essentially requires a merchant banker's valuation of the instrument at its fair market value.
23.	Under what circumstances Value of options and Value of shares will be the same or different?	The Value of shares and the value of options would generally be different, as the value of shares is the value of the actual asset, and the value of options is only the value of the option to acquire such asset at a given price. Theoretically, the value of option and value of

		share could be close to each other if the expiry date is very close, and the exercise price is near zero.
24.	Is it essential for a start-up company (private limited and unlisted) to do a valuation of shares at the time of grant of ESOPs? Can the company itself value its options or does it need to have a valuation certificate from a registered valuer?	As Accounting is done as per the standards of auditing prescribed under the Companies Act and the Act requires all valuation under the Act to be done by a registered valuer, hence this valuation shall be done by a registered valuer. Also, this valuation is essential as it provides an independent professional assessment of the estimate for the Board to approve and also for the Auditors to rely upon.
25.	Is it necessary to value an option based on the Black Scholes model or it can be valued at some percentage of market value too?	In case of entities covered by Ind AS, the value of options needs to be computed using one of the recognized option valuation models, as considered appropriate. In case of entities not covered by Ind AS, there is an acceptable alternative treatment of determining the cost of options using the intrinsic value method (the current market value of the share less the exercise price).
26.	Some ESOP schemes are drafted in a way in which there is no expiry date for the option exercise period, apart from stating that they will need to be exercised when the employee leaves, or when there is a liquidity event. How would you compute the life of the option in such cases?	In such cases, considering the various factors which could impact the exercise of option, there has to be judgement exercised in determining the time to maturity/time to expiry. Factors to consider in determining the time to expiry/time to maturity include: • Likely date of liquidity event; • Likely date of employee leaving the services of the company; • Present in the money position; • The materiality of the exercise amount (as

		well as the market price – exercise price) to the overall income level of the employee; • The quantum of options given to the employee; • Perception and understanding levels of employees on the value of the shares and future growth; • The overall exercise period and whether it is a reasonable time frame or too long a period;
27.	Can there be two Fair Values of the same Company? That is, one Fair Value to raise funds and one Fair Value for issuing ESOP to employees. In my view, only one Fair Value can be there and the discount to Employees has to be given through reduced Exercise Price. Please guide.	There could be reconcilable differences between the share valuation arrived at for ESOP issue vs. say for fundraise. One of the differences could be on account of the stake size linked discount/premium – generally ESOP would be for issue of a minuscule non-controlling interest while fundraise could be for a controlling or influencing stake. However, the valuer should be able to provide the rationale for the difference between the two valuations.
28.	In terms of the grant, can the company take valuation post facto of transaction i.e., after the date of the grant?	Ideal situation is to get the valuation done when the grant is made so that the Board can also undertake an independent evaluation of the cost of the grant to the company. However, practically, many a time, the valuation exercise is carried out post the grant being affected, and then it is used for accounting in the concerned period.
29.	Based on the discussion we understand that three valuations are required, share valuation and option valuation at the time of grant	Yes. These three valuations are required. ESOP is actually a bright idea for start-ups since they cannot afford to pay high salaries to their

	and Merchant Banker valuation at the time of exercise? Kindly confirm. It seems that ESOP is a bad idea for small start-ups.	employees but are willing to share the future prosperity of the company. Of course, balancing the cost-benefit between equity dilution through the ESOP and the cash outflow has to be considered while designing the scheme in each case.
30.	i) How do the employees who opt for the ESOP (Before listing of the Co.), can come to know whether the valuation is appropriately done, as they must pay perquisites tax? ii) Are there any restrictions on immediate selling of the shares allotted through ESOP upon listing of the shares? iii) Are the shares of unlisted Co. given in ESOP shall be shown separately in the Income Tax return as part of disclosure?	(i) As the valuation is required to be carried out by a merchant banker at the time of exercise of the option hence there is an independent valuation confirmation that can provide comfort to the employees on the fairness of the valuation. (ii) No. (iii) The ITR form requires share options outstanding amount under reserves to be shown as a separate item.
31.	For the purpose of taxation, it is understandable that valuation is to be done at the time of option exercise, so at the time of allotment what all is considered, only the six critical points as mentioned?	At the time of grant of options, valuation for the option is done for the purpose of accounting. At the time of exercise, valuation is required for the purpose of taxation. At the time of allotment, there is no need for any separate valuation to be undertaken.
32.	For Ease of operation can a Company plan to have grant date and year end date as same?	Yes. There is no prohibition to this.
33.	Can you please elaborate on how to determine volatility of share price in case of ESOP valuation of an unlisted company?	In case of unlisted companies, volatility can be computed based on the volatility of comparable companies (which are listed). In appropriate cases, the volatility can also be considered based

		on the volatility of some appropriate index of stocks.
34.	Internal valuation either under DCF/ NAV is sufficient for ESOP?	For the purpose of accounting, as ESOP valuation is essentially done for estimation of the cost to the company, materiality considerations can be applied and accordingly this judgement has to be taken.
35.	Please explain the difference in Taxation in the hands of the employees in ESOPs vs RSUs.	Generally, RSUs involve no money to be paid and on vesting itself the shares are given to the employee and the value of such shares are taxed as income in the hands of the employee. In case of ESOP, point of taxation arise at the time of exercise of the option itself.
36.	There may be circumstances when almost every month end some employee exercises the stock option. Does this mean that the valuation exercise is to be done every month?	As the Rule under Income Tax provides for a window of 180 days, the company could get merchant banker valuation for perquisite valuation for all exercises that are affected within 180 days of each such report.
37.	Are only Registered Valuer authorised for ESOP valuation for accounting purposes or other professionals like Chartered Accountant/Actuary can also do valuation for accounting purposes?	It is opined that as the valuation is being done under the Companies Act, which has notified the standards, the valuation is to be done by a Registered Valuer only. However, there are other interpretations also in use.
38.	For Private Ltd. - comparable company is not available for computation of volatility, can we take index historical volatility rather than company volatility?	A suitable appropriate index can be used.
39.	Kindly guide how to determine Risk-free rate?	Data for the same could be obtained from the monthly newsletter published in www.fbil.org.in.

40.	Is there any guidance note available on ESOP Valuation? Please refer to some resources, books and useful tools.	Reference is invited to Appendix I of the Guidance Note on Accounting for Share-based Payments issued by ICAI and Appendix B to the Ind AS 102 which gives guidance on this matter.
41.	How does the reduction in period impacts the valuation of a listed Co.?	In case of a listed company, the present market price is taken based on market quotes. However, valuation of option is determined considering various factors as discussed above, and one of them is the time to expiry/maturity (including any early exercise of options). The longer the time period, the larger the probability of being in the money. Hence, the time period to exercise has an impact on the cost of the options.
42.	Where there are performance conditions or any other condition mentioned in the ESOP scheme, how can we include/consider these events in computation of ESOP valuation. Similarly, where there are conditions on exit on shares by founders, how will this be inculcated/included in the valuation activity? Should something on the probability study or simulation be used in this?	For detailed guidance please refer to Appendices II to XI of the Guidance Note on Accounting for Share-based Payments issued by ICAI and Appendix B to the Ind AS 102 which gives guidance on this matter. In complex scenarios, simulation using Monte Carlo Model could be put to use.
43.	Please share an example in excel format for the amortisation over the vesting period?	Please refer to the Appendix II of the Guidance Note on Accounting for Share-based Payments for an example of the working.
44.	As explained by the speaker there are two scenarios under which	ESOPs require option valuation to be carried out at reporting period ends when the performance

	valuation is required at year-end. Kindly share both the scenarios again. Also, quote sections or standards where it is quoted that valuation must be done at year-end.	criteria lead to a change in say, exercise price and thus the option value is revised. SARs are required to be valued at each period end as the value of options will have to be revised for the updated estimate of the cost of SARs to be considered in the accounts.
45.	What is the significance of the Black Scholes method of options valuation for the purpose of disclosures in financial statements of an unlisted and a listed company?	For accounting as per Ind AS 102, there are disclosure requirements for information on ESOPs, which largely revolves around the options valuation model.
46.	At what time Registered Valuer's report will be required and at what time Merchant Banker's report will be required? As understood, a Registered Valuer report is required only at year-end for accounting purposes, but on what basis can a company frame the policy of ESOP, and who can value the company for this purpose?	Registered Valuer's valuation is required at the time of grant (and in some cases for reporting period ends) for accounting purposes. Merchant Banker's valuation is required for the purpose of determination of the taxable amounts in the hands of the employees. Framing the ESOP schemes is more of a management action and advisory could be provided by anyone having appropriate skills in this area, as this is far beyond just valuation and includes multiple aspects such as HR implication of the scheme, Retention policies, Pricing of the ESOPs, Dilution implications, etc.
47.	For determining the 3rd input i.e., Time to Maturity, shall we take period from the Grant Date?	Yes. Time to maturity shall be considered from grant date to the end of the exercise period (subject to changes based on early exercise expectations).
48.	What is the time-period used for calculating volatility? Also, does volatility means Standard Deviation?	A longer time period used for calculating volatility would probably provide a more smoothened output.

		Volatility, if computed using daily market data, is the standard deviation for the period. This can be annualized by multiplying the standard deviation arrived on a daily basis by the square root of the number of trading days in a year.
49.	Kindly reiterate all the six Elements in ESOP Valuation?	The six elements are as under:- **i) Current Market Price** – This is the value per share of the company based on the listed market price and in case of unlisted entities, based on the valuation of the share done as on the date of grant. **ii) Exercise price** – This is the price to be paid by the employee to acquire the options granted to him. **iii) Time to maturity** – This is the time period in which the option is expected to be exercised and is generally the total vesting period plus the exercise period unless early exercise is expected. Factors to be considered in determining the time to expiry/time to maturity is covered in a separate question below. **iv) Risk Free Rate** – It is the risk-free rate applicable for the tenure closely matching with the total time to maturity of the option. Data for the same could be obtained from the monthly newsletter published in www.fbil.org.in. **v) Volatility** – This is the measure of dispersion of the expected movement in the value of the share. How the same could be computed has been dealt with in detail in another question in this document. **vi) Dividend** – It is the most probable dividend per annum that the shares are likely to earn

		during the period when the option is alive. This could be estimated based on past trends, comparable company/ industry payout ratios or expected pay-out ratios.
50.	If we need to calculate volatility based on the last 3 years considering the expected term, then the past period of 3 years shall be considered in totality or as 1 year and 3 different standard deviations?	There is no need to have a similar period to the time to expiry being taken for computing volatility. If 3 years data is used for computing volatility, it should ideally be computed (unless there are reasons why the period itself is not representative) for the whole period arriving at the standard deviation for a day and then this is multiplied by the square root of the number of trading days in a year for annualizing the volatility.
51.	Black Scholes Merton model is typically used for valuing European options. How would you modify this to value American options, which are typically what are granted by companies, to arrive at fair value?	There are modified models available off the internet for the basic Black Scholes Merton model being tweaked for the American Option criteria. However, the simpler approach would be to use judgement on the early exercise of options and accordingly put to use the standard model. As this valuation is for estimating the cost of options for accounting, considerations of materiality may be appropriately applied in determining these.
52.	Will the high or small number of options influence Option Price? Because, greater the number, greater will be the potential dilution in future which influences share price. And if the share price is influenced, the option price will be	Theoretically, this is a possibility. However, as the volatility itself is an estimate based on various factors, the volatility would change if these factors were applied and accordingly can be factored into the determination of the volatility assumed in the

	affected, being a derivative of the share.	valuation.
53.	Where can we find ESOP Valuation report, are these available in the public domain, if yes, then where? If no, then, will Valuation Standards need to be applied to such ESOP Valuations as well? Please guide.	There are sample valuation reports available on the internet. The valuation reports submitted to the company are not public domain information. Valuation standards need to be applied for all valuations carried out by a Registered Valuer.
54.	If the exercise period is based on some events like x amount of venture capital funding or IPO, then for such a case what should be the average time to maturity?	The time to maturity needs to be estimated based on judgement relating to when the venture capital funding or IPO is likely to happen etc.,
55.	How is the cost of ESOP determined? How is it amortised? How is the gain treated under IT Act, long term or short term?	The cost of ESOP is determined by ascertaining the fair value of options (under Ind AS and recommended under IGAAP) or the intrinsic value of options (permitted under IGAAP). The ESOP cost is to be amortised over the vesting period for each vesting separately. The gain to the employee at the time of exercise is treated as a perquisite in the hands of the employees. After exercise, when the shares are sold, the profit/loss on such sale is regarded as capital gain/loss from long term or short term based on the time period from the exercise.
56.	The question is on disclosures. Whether all the judgements made by the valuer are to be disclosed?	In the valuation report, it is ideal to capture all judgements and the rationale thereof.
57.	For an unlisted entity where the exercise is dependent on the occurrence of any event (for e.g., listing of Company in future date) what can be the total period considered for valuation?	The time to maturity needs to be estimated based on judgement relating to when the IPO is likely to happen etc.

58.	Whether ESOP/SAR affects the Gratuity valuation? and is a registered valuer eligible for Actuarial Valuation of Gratuity or only an actuary is eligible for valuation for the purpose of AS 15 - employee benefit expenses?	ESOP / SAR generally do not affect gratuity valuation. Actuarial valuation for gratuity can be done only by a registered actuary.
59.	How to determine probability in the Binomial Model?	In the Binomial model, the probability is determined similar to how volatility is determined in the Black Scholes Model – based on various indicators and comparable data and applying judgement to such indicators and data.
60.	Now a days, companies are exploring issue of shares upfront to employees as ESOP, these are allotted to employees and will be bought back if the employee does not serve the ESOP period, the re-purchase by the company will be at the rate purchased by the employee. How will the valuation be impacted and what will be the tax implications?	Such complex structures would very heavily depend on how the transaction is structured in its finer details for appropriate consideration under the Companies Act, 2013 and the Income Tax Act, and then on a case-to-case basis would have to be determined specifically.
61.	How would a surrender consideration received from sale of rights will be valued by Income Tax department in case they do not accept the actual consideration received?	Assuming that the surrender is arising out of options given under the ESOP scheme, the opinion is given below:- Principally, whether the right which is surrendered is to be treated as a capital asset and hence the profit from sale is to be treated as a capital gain or whether the transaction would trigger the amount to be treated as part of salary income would depend on the detailed nuances of each arrangement.

62.	In case of a start-up, can the share price used in the last funding be used again?	In respect of ESOP valuation for accounting purposes, as it is for estimating the cost for the ESOP, materiality considerations can be applied. If the assessment is that the price would not have materially moved to impact the estimate of ESOP cost materially, this may be an acceptable choice.
63.	Can you please explain, when valuation is already done as at grant date then why should we do valuation again at year-end?	In certain cases of ESOPs where the performance criteria include items such as exercise price being varied based on performance etc., there may be a need to revise the valuation of options at each period end for accounting the option costs based on updated estimates. Such valuation would be required in case of SARs also.
64.	When a start-up is issuing ESOPs they do a valuation. But assume they also have some rounds of funding in the same year and the valuation for fund infusion could be different. How do they deal with this?	There could be reconcilable differences between the share valuation arrived at for ESOP issue vs. say for fundraise. One of the differences could be on account of the stake size linked discount/premium – generally, ESOP would be for the issue of a minuscule non-controlling interest while fundraise could be for a controlling or influencing stake. However, the valuer should be able to provide the rationale for the difference between the two valuations.
65.	It is not mandatory that employees have to exercise option at the time of leaving the company. The Board can extend it at its discretion. Is it a correct position?	There seems to be no bar against the same.
66.	Kindly share the links for the recording of all the Valuation Sunday Series Webcast.	All the links to previous sessions can be accessed from the Valuation Standards Board webpage at the ICAI website.

		Link is as under:- http://icai.org/post/valuation-standards-board
67.	Can the time of expiration be taken equivalent to the period of vesting?	Time to expiration is generally the vesting period plus the exercise period, subject to early exercise possibilities.
68.	Law says valuation done by a Registered Valuer cannot be questioned even by the Assessing Officer, is the statement correct?	There is no such legal basis. There are case laws stating that when independent valuers have been engaged for the purpose of valuation, then the court will not intervene if it is satisfied that valuation has been carried out in accordance with the law.
69.	For a listed company, ESOP valuation is to be done at year-end or only at the time of Grant?	Generally, ESOP valuation is to be done only at the time of grant for accounting purposes. In certain cases of ESOPs where the performance criteria include items such as exercise price being varied based on performance etc., there may be a need to revise the valuation of options at each period end, for accounting the option costs based on the updated value estimates. Such valuation would also be required in case of SARs.
70.	What is the validity of a valuation report for ESOP? For e.g.: for grants dated 1-Jun-2021, can we consider valuation report as on 31-Mar-21 issued on 25th May 2021 for the purpose of accounting of ESOP expense during FY 2021-22?	Ideally, valuation should be as of the grant date (1-Jun-21). As this valuation is solely for accounting estimate purposes, materiality considerations can be applied to determine whether using a valuation report as of 31.03.21 would be acceptable by the management and the auditors.
71.	Company issues various series of shares, Series A, Series B and Series C. - ESOP is used under Series D, which has different rights and obligation (e.g.: doesn't have voting right). How do we consider these	At the time of grant, for accounting, there would be a need to first and foremost determine the value of the equity and all series of equity like instruments, using valuation methods including Backsolve method. Once the value of these different instruments has been determined, then the option valuation model could be used to

	factors in the 6 steps discussed in option valuation?	determine the value of the option thereof.
72.	When determining the fair value of equity share of the company, which is having investments in the subsidiary, if the parent company is issuing ESOPs to the employees, whether valuation shall be done using consolidated financial statements, or we need to value each subsidiary and standalone parent company separately? In the case of graded vesting, each grant is to be treated as separate (tranches) as the life of the option for each grant will differ? Suppose there are 4 vesting schedules, then shall we use 4 Black Scholes Merton model to arrive at the fair value of the option? Please confirm in accordance with the Guidance Note 2020.	While valuing equity shares, if the income approach is being undertaken, then consolidated performance is considered only if the business is similar and integral to each other. Otherwise, each subsidiary is valued separately using its own parameters and then added to arrive at the business value of the parent company and the final value of the parent company's equity. In case of graded vesting, each vesting is to be valued separately and the accounting for the costs will also be spread over the respective vesting periods.
73.	What happens in a scenario, where an employee has paid tax (TDS) at the time of exercise of options, but such shares never see any liquidity event! Is there a way to claim the tax paid earlier as a refund?	One could sell at a loss and use the capital loss in the normal manner as per the Income Tax Act.
74.	Unlisted Company - can we take volatility based on future projected returns volatility? (Appendix B30 - Ind AS 102)	Yes, we can.

75.	Please share any specific parameter to be kept in mind or specific manoeuvre to be done while doing valuation at the time of exercising of option by a Merchant Banker? Asking from Point of View of a Merchant Banker.	It is the same as would apply to all valuation of shares being carried out at any point in time. The valuation should be in compliance with the approach and methodology as per Valuation Standards adhered to.
76.	Is valuation and accounting of stock appreciation rights similar to ESOP?	Largely they are similar, except that in respect of SARs valuation would be required at each period end until its exercise. Until the vesting period, the fair value of the option is used to determine the cost to be accounted and thereafter, the intrinsic value is used to determine the cost to be accounted.
77.	In case of thinly traded shares, can valuation be considered as the Market value of the share?	The SEBI (Share Based Employee Benefits) Regulations, 2014 define market price as the latest available closing price. Ind AS 102 and Guidance Note on Accounting for Share-based Payments issued by ICAI expects listed shares to be valued at their market price.
78.	Can Risk-free rate be different for underlying shares and those used for ESOP?	Yes, for ESOP valuation, for each vesting, the risk-free rate considered should be related to the period of the time to expiry. For valuation of shares, a general long-term risk-free rate is to be considered.
79.	If we have a SAR (cash settled option) and the valuation of the options is based on the listed company shares, is there a way where the market volatility can be taken care of in issuing the company financials, such that	If a trust is set up, and the required number of shares (equivalent to the SAR shares) are held in such trust for being sold and distributed to the employees, then this could be structured. However, based on how the structuring is done, and the nature of the transaction, the taxation

	change in prices does not make the P/L volatile and the company also hedge their liability?	aspects could also vary. However, this method could ensure that there is no significant volatility impacting the P&L.
80.	Unlisted Company - can we take volatility based on future projected returns volatility?	Yes. Reference is invited to para B30 of Ind AS 102 for guidance in this regard.
81.	Can the Income Tax department ask for option value in respect of rights surrendered under the ESOP scheme of an unlisted company?	Principally, whether the right which is surrendered itself is treated as a capital asset and the sale is treated as a capital gain or whether the transaction would trigger the amount to be treated as part of salary income would depend on the detailed nuances of each arrangement. Having said that, as there has been no payment towards the rights by the employee when acquiring the same, the cost would probably be considered as zero and the capital gains or salary on surrender of the rights may be computed accordingly.
82.	How can we evaluate whether the ESOP is equity-settled or cash-settled?	It can be determined based on the ESOP scheme document.
83.	In the Black Scholes model, we need strike price which is a future element. What are the best reliable documents to be obtained/referred by a Registered Valuer to ascertain the same?	Strike Price refers to the exercise price and generally, this is determined upfront in the scheme document itself.
84.	Can you give an example of a judgement that is used where there are performance conditions in the ESOPs/Shares, for example, 10 crore revenue after 2 years, how	Reference is invited to the Guidance Note on Accounting for Share-based Payments issued by ICAI, Appendix II Illustration 2, 3 and 4 where such examples have been dealt with.

	should we look at this situation from judgement making perspective?	
85.	Would unexpected market conditions like the ongoing pandemic also be considered while valuing ESOP and determining exercise time frame? If yes, how would we consider it?	Yes, wherever appropriate. For instance, with the pandemic coming in between, the evaluation of whether employees would exercise early by paying up the exercise price or would use the cash for their needs and hold on to the exercise for a later date could be considered.
86.	Whether volatility will be affected by future expectations or not?	Yes, it could be affected.
87.	Are the shares allocated in ESOP forms part of the diluted equity shares of a company as these are yet to be offered to employees?	Reference is invited to Guidance Note on Accounting for share-based payments issued by ICAI – Appendix VII which has explained how the computation of diluted EPS is to be affected in case of ESOPs.
88.	On grant date, the price of the share should be determined after considering dilution or should it be based on the number of shares outstanding as on the valuation date?	If material, existing options prior to the present grant can be considered appropriately to determine the value per share by allocating the total equity value to the existing equity shares and options using the Backsolve method.
89.	Kindly repeat which article was referred to by the speaker.	Kindly refer to chapter 3 of Publication - Valuation: Professionals' Insight- Series 6. The publication is available at the undermentioned link:- https://resource.cdn.icai.org/65484vsb52818.pdf
90.	If the conversion ratio of convertible debentures is based on future profitability, then in such cases how to determine the value of debenture?	The value of the enterprise should be allocated to the various instruments including convertible debentures and equity-based on Backsolve method. For the conversion ratio, methods such as Monte Carlo Simulation could be used to determine appropriate valuation.

91.	How do we account for the forex gain loss in case the holding company charges the subsidiary company for the ESOPs extended?	It shall also be accounted for based on the currency in which it is to be settled between the holding and the foreign company.
92.	Does ESOP have an impact on the share price in the stock exchange?	Technically yes, it could have an impact.

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