Series 13

Valuation: VCM ATQs "Valuation of Complex Securities"

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

Series-13

Valuation: VCM ATQs
"Valuation of Complex Securities"

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- "Valuation of Complex Securities" on 15th August, 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:	Shri Manish Saxena
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 800 viewers. The said webcast can be viewed again at https://live.icai.org/vsb/vcm/15082021/

There were many questions raised during the webcast. We have prepared answers to the questions (ATQs) raised during the webcast, which does 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 the 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, VI, VII, VII, IX and X

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 August, 2021

Brief Note on Valuation of Complex Securities

Financial instruments come in a variety of forms and the attached levels of complexity thereto also varies significantly. Simple securities are known as vanilla securities.

Vanilla securities are essentially those with simple terms and conditions and not having additional "frills" and "bells". Vanilla Securities have covenants as to realization of investment and periodic compensation for the time value of money which are devoid of complicated terms; the cash flows are relatively easy to compute and thus, the valuation of such securities does not warrant invoking complex mathematical formulae.

Complex securities, on the other hand, possess complex terms and involves significant amount of complicated financial workings and scenario simulations in valuation thereof.

Examples of simple vanilla securities are the standard fixed rate, fixed period bond, NCD products found in the Indian market, fixed deposits of companies etc.

While Complex Securities could encompass a wide variety of instruments like:

a) Derivatives such as swaps etc.
b) Hybrid securities which have a combination of one or more securities such as OCPS, Stock Options, etc.

In recent years, use of Complex Securities have become increasingly widespread by corporates and new age startups as part of fund raising, employee incentive scheme, M&A transactions and also for external financing. Valuing these complex securities is hence gaining importance in today's economy for various accounting, reporting and taxation purposes and often has significant implications.

Let's take an example of a fixed 5-year bond at 9% p.a. coupon payable quarterly. Clearly, the instrument's cash flows are identifiable with the timeframe and accordingly is simpler to compute the present value of the cash flows in future with only a possible risk adjustment for any downside. The bonds do not provide opportunity for any upside to the investor.

In valuing simple bonds like this, the concern and focus are only on the volatility of interest rates and the discounting that may have to be applied to each of the future cash flows.

Compare this with the case of a similar 5-year bond being issued, albeit with two changes from the above scenario. One is each Bond also carries a warrant which gives the investor the right to acquire a share in the company at a pre-determined price in the 5-year period and let's assume the coupon rate was lower at 4% p.a. instead. Essentially, here the investor is trading the fixed return of 5% coupon for the possible upside from the warrant that is being issued. Here it is also noticeable that the cash flows are no longer simple and upfront clearly identifiable with the timeframe. The cash flow which can come from exercising the warrant and then selling the shares and realizing therefrom and the price at which such realization will happen are all subject matter of scenarios and volatility which were not present in the case of the earlier simple bonds.

Also, there are complex instruments that are being used in raising funds especially start-ups in today's world. A classic case would be the issue of different series of CCPS which are all fully convertible into equity, however, there could be various differences in the terms between the different series of such CCPS raised in terms of liquidation preference (the preference of one series over the other in case of distribution in liquidation), protection against price reduction (where an instrument holder is provided protection from further rounds of funding being raised at a lower rate than the price paid by them).

Similarly, now in India, there is a growing number of Market Linked Debentures (MLD) being issued. These are debt instruments raised with the principal being protected but the return is linked to certain market conditions.

SEBI regulations require it to be principal protected. It is also mandatory as per SEBI requirements to appoint a rating agency to value the scrip at least once in a calendar week. The MLD could have terms which are:

a) Linked to stock index etc.
b) Options for closure of the debenture early
c) Return being linked to such options and the period of debenture

While these complex securities have emerged as a powerful tool in raising capital and managing cash flows, but their valuation poses a major challenge. Valuation of complex securities often involves the usage of sophisticated financial modeling techniques and selection of a mathematical valuation model like Black Scholes, Monte Carlo Simulation etc. based on the underlying features of the instrument/security. Hence, in the valuation of complex securities significant amount of time is being spent on understanding the various terms and conditions of the instrument and also the possibility of the various scenarios and their implications in valuation thereof.

Some of the common mathematical valuation tools used for the valuation of complex securities are as under:

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 important inputs required in the Black-Scholes model are as under:
(a) current price of asset to be valued;
(b) exercise price;
(c) life of the option;
(d) expected volatility in the price of the asset;
(e) expected dividend yield; and
(f) risk-free interest rate.

The following assumptions are pertinent while utilising the Black- Scholes Model:
(a) Share pays no dividend.
(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 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 has 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.

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 levels of uncertainty in the inputs considered for the option valuation

Answers to the Questions (ATQs) raised during the Virtual CPE Meeting Series "Sundays with Valuation Experts" on the topic "Valuation of Complex Securities" held on 15th August, 2021

S. No	Question	Answer
1.	What are complex securities?	None of the Standards, be it ICAI Valuation Standards, Ind AS, IVSC or IFRS, defines the term Complex Securities, but they provide the definition for Financial Instruments. As per Ind AS, a financial instrument is defined as any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. Trade receivables and payables, bank loans and overdrafts, issued debts, equity and preference shares and various derivatives are just some of the examples of financial instruments. Financial instruments consist of four broad categories:- i) The first category is pure equity instruments consisting of common stock, share warrants etc. ii) The second category is that of Pure debt instruments like debentures, bonds etc. iii) The third category is that of pure derivative instruments like options, forward contracts etc. iv) The fourth category is the compound or hybrid instruments, when two or more pure instruments from the above three are combined they form a compound instrument.

S. No	Question	Answer
		Complex securities basically cover the third and the fourth category from above i.e., the derivative and the compound/hybrid instruments. Hence, any financial instrument that is not plain vanilla debt or equity instrument forms complex securities.
2.	What are the different sub-categories of complex securities? (Like debt, equity, derivatives, hybrid etc)	A financial instrument consists of 4 broad categories: - i) The first category is pure equity instruments consisting of common stock, share warrants etc. ii) The second category is that of Pure debt instruments like debentures, bonds etc. iii) The third category is that of pure derivative instruments like options, forward contracts etc. iv) The fourth category is the compound or hybrid instruments. When two or more pure instruments from the above three are combined they form a compound instrument. Complex securities basically cover the third and the fourth category from above i.e., the derivative and the compound/hybrid. Hence any financial instrument that is not plain vanilla debt or equity instrument forms complex securities.
3.	Why do companies or investors transact in complex securities? What are the commercial motives behind selecting a	Essentially there are two types of situations that require transaction in complex securities:- i) First is for the purpose of fundraising, most of the startups today raise funds through such

S. No	Question	Answer
	particular financial instrument? (Debt, Hybrid, Equity)	complex securities which have downside protection clause included in the financial instrument for the investor. ii) Secondly, transactions in complex securities are undertaken out of the risk management requirements of an entity. Whenever a company is exposed to any kind of risks like currency risk, commodity risk or interest rate risk then the company tries to mitigate it by dealing in derivative instruments like futures and options. Now let's look into the commercial motives behind selecting a particular financial instrument. There are various factors that help a company decide whether it wants to raise funds vide debt, equity or hybrid. But primarily the choice of instruments depends upon the Risk and Reward trade-off. In case of startups, raising funds through pure debt is difficult as the risk involved is high and hence the investors will not be willing to invest as the expected rate of return will be less and will not be commensurate with the high risk. Thus, startups raise funds by issuing equity instruments and to mitigate the high risk these instruments are generally accompanied with downside protections clauses like liquidity preference or put options.

S. No	Question	Answer
		Similarly for a mature, established and asset heavy company, debt is a viable option for fundraising as the promoter would not like to dilute its ownership rights.
4.	What are some common examples of hybrid/compound instruments?	Hybrid and compound instruments have become a norm for fundraising in case of startups these days. CCPS with variable conversion clause is one of the most common hybrid instruments issued by entities. As per Ind AS a CCPS with a fixed conversion ratio is treated as equity just like a pure common stock. But more often the conversion clauses are made so complex that they have to be treated as hybrid instruments. To provide downside protection to investors, variability conditions are included in the conversion clause, like in case of IPO the conversion rate will be X or in case of a merger the conversion ratio will change to XX or linking the conversion ratio with the future earning capability. With the inclusion of these variable conditions, the CCPS can no longer be treated as a common stock as it doesn't meet the criteria of a fixed amount or fixed number conversion and hence needs to be treated as a financial liability. Another common example of hybrid instruments is CCPS with a buyback or put option.

S. No	Question	Answer
5.	What are some common examples of derivative instruments?	Some common examples of pure derivative instruments are forward contracts, options etc. A corporate generally engages in derivative instruments to meet the risks management requirements. Whenever a company is exposed to any kind of risk like currency risk or commodity risk or interest rate risk then the company tries to mitigate it by dealing in derivative instruments like futures and options in that asset. An embedded derivative is a component of a hybrid contract that also includes a non-derivative host—with the effect that some of the cash flows of the combined instrument vary in a way similar to a standalone derivative.
6.	What is the meaning of some of the terms like liquidation preference, anti-dilution clauses etc. included in the preference shares through which the investors invest in startups? How do these terms impact the valuation of the security?	Some of the commonly found terms attached to complex financial instruments and their implications to the valuation are as under: a) **Liquidation preference** – This generally provides that particular class of instruments shall have a higher preference in payout at the time of liquidation compared to the other instruments. Generally, a better liquidation preference (given all other terms being the same) leads to a higher value for such instruments. b) **Anti-dilution clause** – These generally provide a protection from the stake being diluted through further actions such as further issue of capital etc. Generally,

S. No	Question	Answer
		these protections also add to the value of the said instrument. c) **Price protection in further rounds of investments** – These provide protection in case funds raised in further rounds of investments is at a lower valuation, then the conversion ratio for this instrument will be suitably revised to give the benefit to the present investor. Such protections also add value to the instrument in comparison to others. Generally, when such complex terms are involved, methods such as Monte Carlo simulation, Backsolve method are more likely to be used for valuation.
7.	Why is valuation of complex securities required?	The need for valuation of complex securities arises primarily to meet the accounting requirements specified in Ind AS. Further valuation is also needed by management at the time of fund-raising and aids in strategic decision making. Another reason is to meet the Income Tax and FEMA requirements.
8.	What are the standards covering the valuation of financial instruments?	ICAI Valuation Standard 303 – Financial Instruments provides detailed guidelines with respect to the valuation of financial instruments. Further Ind AS 32- defines financial instruments and establishes principles for presenting financial instruments as liability or equity from the issuer's perspective.

S. No	Question	Answer
		Ind AS 109 - specifies the recognition and measurement principles of financial instruments and situations for hedge accounting. and Ind AS 107 specifies disclosure requirements on financial assets and the nature of risks associated with the financial assets.
9.	What are the valuation requirements for tax purposes and under various acts like FEMA?	For detailed guidance on valuation requirements under various acts, kindly refer to Frequently Asked Questions on Valuation as issued by Valuation Standards Board of ICAI and ICAI RVO available at:- https://resource.cdn.icai.org/54846vsbfaq.pdf Further, methodology for valuation to be adopted are at times are clearly spelt out in Law and in that case, it cannot be overridden. In the Preface to the ICAI Valuation Standards, it has been clearly stated that "The Valuation Standards by their very nature cannot and do not override the local regulations which govern the preparation of valuation report in the country. However, the government may determine the extent of disclosure to be made in the valuation report."
10.	What are the common valuation approaches or methodologies used to value complex securities?	As already discussed above Financial Instruments can be categorized into four broad heads. The principle behind valuing pure equity and debt instruments is generally based on an income approach wherein the future expected cash

S. No	Question	Answer
		inflows are discounted to their present value using an appropriate discount rate (cost of equity/debt). For determining value per share, the enterprise value so arrived at is divided by the no. of equity shares issued. Variability and uncertainty around the cash flows are adjusted in the discount rate or by including entity-specific risk called alpha to the discount rate. In case of complex securities, the pay-off or the future expected outflow is non-linear and hence the traditional approach of projecting one likely situation doesn't work. Further, the risk of non-linearity cannot be adjusted in the discount rate as discussed above. So, the valuation approach used for valuing these instruments is a simulation or a scenario-based approach. Instead of projecting one probable cash flow, one will have to ascertain the probable cash flows for say 100's of different scenarios that can occur and then one needs to assign probability to each scenario to ascertain the probability-weighted payout. This weighted probable payout is then discounted to its present value to ascertain the value of the instrument. Some of the common tools used for the valuation of complex securities are: - i) Black Scholes Model ii) Binomial Model iii) Lattice Model

S. No	Question	Answer
		iv) Monte Carlo Simulation
11.	When does one use Black Scholes, Binomial or Monte Carlo simulation methods?	All three models might primarily look different but the fundamental concept that they are based upon is the same. If we use all three tools for the valuation of a plain vanilla option instrument, then they all will conclude the same value. Essentially, all three models create multiple scenarios in future, calculate payoffs for each scenario, assigns probability and then discount it to its present value to ascertain the instrument value. This is the fundamental concept behind all three approaches. The key difference between all three is as under:- Black Scholes is a formula based and closed-ended tool wherein a user has to enter six specified inputs to get the final value. It considers infinite scenarios for arriving at the value. The flexibility of changing inputs is not available to the user under it and if any one of the inputs is not available then the valuer cannot use Black Scholes Model. Hence it doesn't give the option of valuing more complex items. In options where the exercise price is not fixed and is dependent upon any event in the future then Black Scholes cannot be used, and Binomial or Monte-Carlo model is used. Unlike Black Scholes, a finite no. of scenarios can be defined under these tools. Pay-offs for different exercise

S. No	Question	Answer
		prices can be ascertained under these scenarios and then probability can be assigned to all to arrive at the present value of the option. Amongst all three the least complex model is Black Scholes then comes binomial and lastly Monte Carlo. Monte Carlo Simulation is considered to be the most complex of all.
12.	What is Monte Carlo simulation? What are the tools/models to use the Monte Carlo simulation method?	In addition to the Black-Scholes and the Binomial Model, the Monte Carlo Simulation 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 levels of uncertainty in the inputs considered for the option valuation.
13.	If the objective is to value a common share of a company but there are other complex securities in the capital	Generally, the approach is to arrive at the value of the business at a level including the value for the common shares and the complex securities included in the capital structure.

S. No	Question	Answer
	structure, how should one factor these complex securities in the valuation?	Thereafter, the value is allocated to the different securities considering the differences in the terms attached to these various instruments. One of the popular methods used is the Backsolve method (which also uses Black Scholes option pricing model within it). There are other approaches also which are used depending on the complexities and expectations for future scenarios on a case-to-case basis – for instance, making judgmental adjustments by way of discounts/premiums to differentiate between the instruments for the implications of its terms, use of valuation on a fully diluted basis etc.
14.	What is the meaning of a fully diluted basis of valuation?	This approach is used for cases that require valuing capital structure involving varied instruments with different terms attached to them. It essentially considers the value allocation to the various instruments based on the value that would be applicable to that portion of equity allocable to the said instrument on a fully diluted basis (that is assuming that all the instruments are converted into equity as per their terms)
15.	What is 409A valuation? Is it applicable in India?	The 409A refers to the Section 409A of the U.S. Internal Revenue Code and accordingly is applicable in USA in the normal course. As the Section envisages obtaining a fair market value from an independent valuer, the same

S. No	Question	Answer
		could be used even in India, where such valuation is acceptable (for instance under FEMA regulations). To clarify, the valuation under Section 409A per se directly is not relevant in India. However, as the basis in that section is the determination of FMV by an independent valuer, such FMV could be considered where appropriate in India also.
16.	How do you get market data for the valuation of complex securities? Sources	There are limited sources, and professionals generally develop their own databases and comparative data points which they build over the years to use in their models.
17.	What skill sets or background is required to become a valuer of complex securities?	Process for becoming a registered valuer may be referred from the FAQs available at ICAI RVO's Website https://icairvo.in/
18.	Has valuation become a biased process to justify a transaction rather than a tool to determine the real consideration for a transaction? Example: DHFL sale at Zero value to another Financial Institution.	As independent valuers, one cannot be biased and shall never conclude an assignment basis the negotiations between the buyer and seller as that will be considered as professional negligence. ICAI Valuation Standard 201- clearly spells out *"The judgments made by the valuer during the course of assignment, including the sufficiency of the data made available to meet the purpose of the valuation, must be adequately supported."* *"The valuer shall carry out relevant analyses and evaluations through discussions, inspections,*

S. No	Question	Answer
		survey, calculations and such other means as may be applicable and available to that effect."
19.	Can equity share be given to advisors in advance for their services? How to do accounting and valuation of such equity issues?	It is an example of share-based payment and one can refer to Ind AS-102 for understanding the accounting principles governing the same. For valuation, the basic concepts and timing shall remain the same as for any other financial instrument.
20.	When the valuation for the investor rises will the corresponding liability for the issuer increase?	Yes, the value of corresponding liability for the issuer will increase. For some of the unicorn startups, the equity is hugely negative as the financial instruments issued for raising capital have been designed so and classified as a derivative liability. Hence, at every reporting period it has to be valued and if the company's value is increasing the value of liability also increases in the company's balance sheet.
21.	The example that the Moderator gave about Convertible Debentures being Debt in Consolidated financial, should we not look at it from the primary beneficiary point of view that is the issuer? For the issuer, it shall still be Equity.	Yes, for the subsidiary entity's standalone financial statement it is certainly equity. However, when it comes to the consolidated financial statement of the parent company the nature changes to debt and is a liability.
22.	What is plain vanilla, exotic and quasi vanilla?	Plain vanilla is the simplest or the purest form of a financial instrument like a common stock or bond. When we keep adding complexity to these fundamental forms of instruments it becomes quasi vanilla and thereafter exotic. An exotic

S. No	Question	Answer
		instrument is the most complex and hybrid securities. It is like a spectrum, at the bottom of the spectrum is plain vanilla and as we add complexities, we go up the spectrum and it becomes Quasi vanilla and Exotic at the end.
23.	How to adjust share warrants while valuing the equity of the issuer?	One could use a judgmental discount/premium adjustment approach or could use Backsolve models to value these instruments.
24.	Where the CCDs have been guaranteed by the holding company how will the valuation be impacted for both the companies?	The guarantee can be in form of a put option or else it can also be like any other corporate guarantee. A parent company often gives a guarantee for its subsidiary in case the subsidiary has a low credit rating and wants to raise funds by issuing debt instruments. As a result of such a corporate guarantee, the credit rating of the parent company influences the credit worthiness of the subsidiary and thus helps it to raise debt at a lower interest rate. This corporate guarantee is the liability of the parent company and shall be disclosed in the standalone books of the parent company while the subsidiary shall continue to book it as debt.
25.	Where a company has covered its risk of Forex fluctuation by using derivatives, will the valuation be impacted?	Yes, valuation will be impacted as the company has reduced risk associated with future outflows/inflows by hedging itself against the same.
26.	SPACs (Special Purpose Acquisition Cos) /Blank Check Cos are becoming eye-catcher nowadays. How to value these SPACs (methodology)?	SPACS or Special Purpose Acquisition Cos are listed public companies created for the purpose of acquiring and merging with an existing company. They have cash as the only asset in their balance sheet when listed on a stock

S. No	Question	Answer
		exchange and they later use the same to acquire the target company. Typically, SPAC as a company, before they acquire the target, can be valued basis the cash and the quality of its management team. The Potential areas where the SPAC are likely to pick up the target can also influence its valuation.
27.	While valuing a small company, (if using a beta of a listed company is not advisable due to diversity or size) how can we calculate beta?	• Identify the list of comparable listed companies and obtain their betas • Betas can be obtained from databases, newspapers, and websites or even it can be calculated using the slope function of any spreadsheet like MS Excel. • Unlever these betas using debt-equity ratio and the tax rate of respective companies. • Calculate the average of above betas • Re-lever above beta with debt-equity ratio and the tax rate of unlisted company.
28.	Do you think the duration of a Debt Security is also a risk in addition to Credit Risk?	In addition to credit risk, there are other risks also that impact a bond valuation, like reinvesting risk in the case of coupon-based bonds. Duration is also a critical element that impacts bond valuation as the discounting factor is a function of the duration of the debt. If we look at the yield curve for government bonds, then we can see that the rate changes with duration. As the duration for the bond increases the yield also increases as the investor would like to get compensated for the risk being undertaken for holding a longer duration bond.

S. No	Question	Answer
29.	CCPS if convertible and classified as equity as of today, do we have to compute Non-Controlling Interest on that?	Kindly refer to Ind AS 109 – Financial Instruments for detailed guidance.
30.	How do we apply credit spread to the Coupon rate of a debt instrument?	The credit spread is applied to the risk-free rates and not coupon rates, which again are derived from the YTM of the government bond for a similar duration.
31.	In case of an instrument with a non-linear payoff, which tools/ software is used for simulation?	In case of a Non-Linear Payoff, the Black Scholes model is not viable, a valuer can use Lattice Model, Binomial Model or a Monte Carlo Simulation for Valuation.
32.	CCD with a coupon rate of 15% and convertible at the option of investor within 30 years at FMV but not less than Rs.10 per share, will it be considered as equity or debt or a compound financial instrument in the books of the issuer?	The crux of this instrument is the fact that it is convertible at the FMV and hence the conversion ratio is variable depending upon the fair value of the underlying common stock on the date of conversion. Hence it is a liability instrument and liability has to be valued and recognised in financial statements.
33.	What factors should be considered while deciding the model to be used for the valuation of complex securities? Is there any standard practice set that can be referred to while choosing between Black-Scholes, or Monte Carlo?	As discussed above, the usability of Black Scholes is limited to its six inputs. If a valuer can derive these inputs, then one shall go ahead and use the Black Scholes model as it is the least complicated. However, if any one of these inputs cannot be ascertained then the valuer can use either the Binomial model or Monte Carlo Simulation for valuation. The Binomial Model starts with the current value

S. No	Question	Answer
		and creates a tree with various possible finite scenarios coming out of it. A valuer has the flexibility to compute pay-off for all these multiple scenarios and then derive the present value of these scenarios to ascertain the value of the option. Sometimes the binomial model also cannot be used like in a situation where the exercise price is dependent upon the success of IPO, then Monte Carlo simulation can be used.
34.	How do we calculate the cost of Capital where Capital is funded from Local as well as related foreign companies? Also, Equities are valued based on the present value of future cash flows but what period do you consider where the cash flows are over say 15 years?	Assessment of Cost of Capital in cross-border investments warrants a few complex issues such as the correlation of cost of capital and currency of cash flow, country risk premium, and the risk-free rate. The explicit period under DCF methodology shall be determined by a valuer keeping the following factors in mind. i. **Nature of the asset-** where the business is of cyclical nature, explicit forecast period should ordinarily consider one entire cycle (for example cement business). ii. **Life of the asset-** In case of asset with definite life, the explicit period should be for the entire life of the asset (for example, debt instruments, Build Operate Transfer (BOT) road projects). iii. **Sufficient period-** The forecast period should have a length of time that is sufficient for the

S. No	Question	Answer
		asset to achieve stable levels of operating performance. iv. **Reliable data-** The data that is used for projecting the cash flows, should be reliable cash flow projections should reasonably capture the growth prospects and earnings capability of a company.
35.	Which is the best method to value CCD issued by a private company?	For valuing a CCD, one needs to understand the terms and conditions of the CCD in detail and particularly the conversion clause. If the conversion is fixed then it has to be valued as common stock, however, if the conversion ratio is variable then a scenario-based valuation has to be done.
36.	For valuation of complex securities, how do we apply discounts for marketability or control etc., if any? Are there any commonly accepted benchmarks here?	Discount for lack of marketability and control are considered for valuation of any asset and are not restricted to complex securities only. Kindly refer to ICAI Valuation Standard 103 – Valuation Approaches and Method for understanding the guidelines around these.
37.	Please elaborate about the fair value of unlisted shares for Ind AS?	In line with Ind AS 109 and Ind AS 113, there is a need to ascertain fair value of investments held by a company and if these are in unlisted entities, then there is a need to evaluate the value of the investment in line with ICAI Valuation Standard 301/303, as appropriate in each case.
38.	If we book the liability in the parent company's books for the guarantee given on behalf of the loan taken by the subsidiary, then liability will be	The liability to be recognised in the parent company's book towards the loan guaranteed will depend upon the credit rating of the subsidiary. If the credential of the subsidiary is strong then

S. No	Question	Answer
	there in both the books. Kindly explain whether it is correct to have two liabilities for the same loan.	the probability of the guarantee to be invoked will be NIL and hence the parent company will recognise NIL liability. As the creditworthiness of the subsidiary falls the probability of guarantee being invoked will increase and so will the liability to be recognised by the parent company in its book of accounts. Hence, it can be said that the liability to be recognised against the guarantee is inversely proportionate to the creditworthiness of the subsidiary. Further, in the consolidated balance sheet, the duplicity with respect to the liability needs to be knocked off.
39.	How to use Monte Carlo Simulation in practice? Are there any excel or web tools available for that?	There is one excel model available in the ICAI RVO LMS space.
40.	How the valuation of a Company will be done where CCDs or CCPS is an option with the investor after say 5 years and 7 years and 9 years?	Methods such as the Black Scholes model, the Binomial Model and the Monte Carlo simulation for multiple scenarios can be used in this regard.
41.	How to classify Convertible debt which will be converted into equity after 5 years in the books of the lender. Whether valuation will be required every year if it is to be treated as equity in the books of the lender?	The classification as equity or liability will depend upon the terms of the conversion and issue of these instruments and will have to be determined on a case-to-case basis. The valuation of the asset in the books of the lender will depend upon the determination and classification of the asset in accordance with Ind AS 109.

S. No	Question	Answer
42.	Please throw some light on the concept of DVR. How does valuation practically work?	DVR refers to the differential voting rights attached to the instrument. Reference is invited to Chapter 13 of Valuation Professionals' Insight: Series 3 on its implications in valuation. The publication is available at the committee webpage on the ICAI website. The link is as under: - https://www.icai.org/post/educational-material-publication-faqs-atqs
43.	While computing value per share, for shares with different face value, do we need to equate shares of different face values into one common value and then derive value per share from Enterprise Value?	Yes, the shares of different face values shall be equated to one common value to ascertain value per share from Enterprise Value.
44.	What is the difference between the fair-value and the arm's-length price?	Fair value generally is based on an objective value independent of the parties and may also involve the principle of HABU. While this is so, arm's length price generally is subjective, entity-specific valuation and would consider an arm's length range and may not involve the principle of HABU being applied.
45.	In case of a private company to which IND AS is not applicable, if it has issued CCDs where the conversion is linked to the fair value in the future is it	For computation of Diluted EPS this valuation may be required.

S. No	Question	Answer
	necessary to value CCDs every year? How will the Diluted EPS be computed every year?	
46.	Where can we get the booklets which are published every week for ATQ's?	All the 10 booklets for the Valuation: VCM ATQ's are available at the committee webpage on the ICAI website. The link is as under: - https://www.icai.org/post/educational-material-publication-faqs-atqs

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