

Valuation and accounting of complex financial instruments

June 2024

Introduction

In today's environment, financial transactions are becoming increasingly complex. In the last few years, we have seen significant growth in using intricate financial instruments for structuring purchase considerations, making investments and incentivising employees as part of their compensation.

To bridge valuation gaps and align strategic objectives, more transactions are incorporating contingent consideration. In 2022, 26% of deals included contingent consideration in the purchase price, up from 20% in 2020¹.

Additionally, companies are increasingly adopting stockbased compensation to better align employees' interests with those of the company. From 2020 to 2022, the percentage of unlisted companies with ESOP schemes covering over 10% of their employees rose from 42% to 58%.1 Furthermore, the proportion of unlisted companies with ESOP pools exceeding 5% of their total shares surged from 31% in 2020 to 76% in 2022².

In private equity and venture capital, complex instruments like convertible notes and preference shares are frequently used. These instruments can make up to 40-50% of the investments in startups and growing companies.

This evolution necessitates advanced accounting and valuation practices, as these financial instruments can substantially impact the overall value of transactions and impact the earnings.



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¹ As per the American Bar Association's 2023 Private Target Mergers & Acquisitions Deal Points Study

² As per Economic Times Insights "ESOP's Fables: The rise of employee ownership and the need for liquidity" and ESOP Direct Report by Qapita.



Stock-based compensation (SBC)

Unlike in the past, companies are now opting to provide more stock-based compensation rather than cash, as this better aligns the interests of employees with those of the company. New age digital enterprises as well as start-ups are driving the expansion of stock-based compensation as it provides an incentive for employees to deliver results, a tool for retaining employees and a means to foster an overall sense of ownership.

The SBCs can be structured as Employee Stock Option Plans (ESOP), Restricted Stock Units (RSUs), Stock Appreciation Rights and Phantom stocks. The vesting of SBCs can be classified under different scenarios as mentioned below:



Employees being there in the company and completing a certain tenure with the company.



SBCs linked to the Company achieving certain metrics like Revenue, EBITDA or the target Share price. These are generally issued to top level employees like CXOs.

Additionally, companies may choose to let the SBC holders get equity or may buyback the SBC instrument at the time of exercise.

The different structuring of SBCs have created significant complexities in accounting and valuation such as:



Understanding market-linked vesting conditions such as, achievement of target stock price, needs to be factored in valuation while non-market linked vesting conditions such as, achievement of revenue/EBITDA target, is not factored in valuation



Determining valuation of equity-settled awards only at the time of grant while the valuation of cashsettled awards is required at the time of grant and each subsequent reporting dates with the changes in fair value being recognised in the earnings



Applying liquidity and marketability discounts on the fair value of shares in case of unlisted companies



Estimating the volatility based on the current market conditions



Ascertaining the life based on the expected liquidity event in the company

Based on the vesting conditions, valuation of different types of SBCs are conducted under the following methodologies:

Time-based/Non-market linked vesting - Black Scholes Model

Performance-based market-linked vesting – Binomial / Monte Carlo Simulation

Estimating the correct value of the SBCs is critical to ascertain the employee benefit expenses to be accounted over the vesting period. Therefore, it has an impact on the income statement of the entity and thereby, affecting the Earnings per share.

Classification: From an accounting standpoint, the ESOP provision may be classified as a liability or within equity. Classification depends on how the award will be settled (e.g., in shares or in cash), and can have a major impact on the leverage ratio. Equity classified plans are fair valued only on grant date, while liability classified plans are fair valued at each reporting date, with difference to P&L.

Income statement: This fair value is recognized as an expense over the expected vesting period. True up is done if the probability of achieving any time based or non-market performance-based vesting condition changes.

Revaluation trigger: In the event of a modification, depending on the modified terms, new valuation may be required at the modification date.

Contingent consideration

Deals are becoming increasingly complex due to valuation gaps, and to align valuation expectations and strategic objectives, more transactions are now involving contingent consideration.

Contingent consideration is an obligation for the acquirer to transfer additional assets or equity interests to the former owners of the acquiree if specified future events occur or conditions are met. It can range from a simple fixed amount deferred to a future date to complex structures such as multiperiod payoffs linked to performance metrics such as revenue or EBITDA with caps, floors, tiers, etc.

Contingent consideration with simple payoff structure which does not consist of any thresholds, caps, or tiers and the risks involved are diversifiable, the Scenario Based Method (SBM) is applied for valuation of contingent consideration. However, where the payoff structure has thresholds, caps, tiers or other nonlinearities and the risk of the underlying metric is non-diversifiable. Option Pricing Models (OPM), e.g., Black Scholes or Monte Carlo is used for valuation of contingent consideration.

Contingent consideration is typically classified as a liability, which requires revaluation at each subsequent reporting period until the final settlement of the obligation, with the changes in fair value being recognised in income statement

If, however, the contingent consideration is to be settled in fixed number of equity instruments, it shall be classified as equity, and no remeasurement is required.

Convertible instruments

In the rapidly changing investment landscape, investors target new age digital enterprises and start-ups using convertible instruments that combine both debt and equity features. These instruments offer a unique blend of upside potential and downside protection of the investments, making them particularly attractive in volatile markets. Additionally, they provide investors with the flexibility to convert the securities at strategically opportune times.

Convertible instruments are debt or equity instruments that either require or permit the investor to convert the instrument into equity securities of the issuer. Examples of convertible instruments are:



Commodity & equity linked debentures, where interest is linked to market indices

The accounting classification can cause significant volatility in the issuer's income statement. If the conversion features of these instruments are classified as derivatives, they must be marked to market at each reporting date, with gains or losses recognised through the income statement.

The valuation of different types of convertible instruments are conducted by adopting various Option Pricing Model (OPM) techniques such as Black Scholes OPM, Binomial OPM and Monte Carlo Simulation model.

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Other complex financial instruments

There are various other complex financial instruments such as:

Corporate guarantee: An agreement in which the corporate guarantor, takes on the payments or responsibilities of a debt if the principal debtor defaults on the loan to the creditor. The Credit Default Swap Method or an Interest Saved Method is used to ascertain the fair value of the Corporate Guarantee. Upon initial recognition, the financial guarantee is recorded as a liability at fair value. Subsequently, it is measured at the higher of:

- The loss allowance determined as per the expected credit loss guidance and
- The initial recognition amount, less any income which is amortised from it to Income Statement. The initial recognition amount is generally amortised to income on a straight line basis over the tenure of the instrument.

27,47

A fixed-income security is an instrument that provides a return through fixed periodic interest payments and the eventual return of principal at maturity. For example, government bonds, corporate bonds, perpetual bonds, callable/puttable bonds, etc. The valuation of a fixed-income security is the present value of future cash flows. Accounting of such investments depends on the business model of holding such investments, and its expected cash flows. If the business model is just to collect contractual cash flows (and not to prematurely sell), and the cash flows include only typical principal and interest, then fair valuation may not be required. Otherwise the instruments would be carried at fair value in the balance sheet.

Share Warrants are instruments typically issued by companies to lenders/investors that give the holder an option to subscribe to the equity stock of the company. Just like convertible instruments, accounting of warrants depends on whether conversion is into fixed number of equity shares. The equity component of a convertible financial instrument does not need to be fair valued, while the liability component must be may required to be measured at fair value on the issue date and at each subsequent reporting date.

Structured put and call options issued during transactions for the non-controlling stake including performance metricbased options. Options are valued using the Scenario-based model or Option pricing model, as discussed in Contingent Consideration. These are generally accounted for as a derivative, which are remeasured at each reporting date with corresponding impact is accounted for in income statement

Valuation of the above is required for financial reporting purposes.



Summary

Stock-based compensation:

Employee Stock Option Plans (ESOP), Restricted Stock Units (RSUs), Stock Appreciation Rights and Phantom stocks.

Types and valuation methodologies:

Time-based/Non-Market Linked Vesting – Black Scholes Model Performance-based Market Linked Vesting – Binomial/ Monte Carlo Simulation

Relevant accounting standard: Ind AS 102

Contingent consideration:

Simple fixed amount deferred to a future date to complex structures such as multi-period payoffs linked to performance metrics such as revenue/EBITDA with caps, floors, tiers etc.

Valuation methodologies:

Simple payoff structure – Scenario Based Method (SBM)

Payoff structure with Thresholds, caps, tiers or other non-linearities-Option Pricing Models such as Black Scholes or Monte Carlo

Relevant accounting standard: Ind AS 103 and Ind AS 32

Convertible instruments:

Optionally convertible debt instruments, convertible preference shares, puttable/callable bonds or equity instruments and commodity & equity linked interest payments. Valuation methodologies:

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Derivative and liability portion of the convertible instruments are valued using Black Scholes OPM, Binomial OPM or Monte Carlo Simulation Model.

Relevant accounting standard: Ind AS 102

Case study

ESOP and convertible instrument

An Indian subsidiary of a large Japanese group issued restricted Compulsorily Convertible Preference Shares (CCPS) to an employee. The restrictions on the CCPS were gradually removed over a period. The conditions for release required the employee to provide services on key strategic matters. Upon a liquidation event, each CCPS would convert into a fixed number of equity shares. This transaction will be covered by Ind AS 102.

We assisted the client in determining the classification of the instrument, and its accounting model. In accordance with Ind AS 102, the fair value of the services provided by the employee was assessed by a valuer, and the expense was recognised over the period during which the services were to be rendered. Since the CCPS were released gradually, the expense recognition followed a similar graded approach and the expense had a corresponding impact on other equity

Convertible instrument

A subsidiary of a listed parent company operating in the specialty chemical segment issued Zero Coupon Optionally Convertible Redeemable Preference Shares (OCRPS) to its parent to raise capital for a new production facility. The parent company has the option to convert these shares into equity or redeem them in multiple tranches.

Originally, the redemption right was included in the instrument's structure to provide capital to the subsidiary. However, it was mutually agreed between both parties, subsequent to the issuance of OCRPS, that there would be no obligation for redemption.

Based on the facts and detailed analysis, we assisted the management determine appropriate accounting of the instrument. The investment was recognized as an equity investment by the parent, and within equity by the subsidiary.



Contingent consideration

A listed credit rating agency in India acquired a majority stake in a BFSI software solution firm, with an agreement to acquire the minority stake in two tranches in the future. The consideration to be paid for acquiring the minority stake was dependent upon the 24-month cumulative revenue and EBIT margin with a minimum threshold and maximum cap.

As the minority stake acquisition was mandatory in the future, it will be a forward contract liability and therefore, as part of our Purchase Price Allocation, we carried out a fair valuation of the Forward Contract Liability using Monte Carlo Simulation. Additionally, the fair valuation will be required at each reporting date for accounting purposes.

Corporate guarantee

We conducted the fair valuation of the corporate guarantee for a large cap real estate developer. The guarantee was extended to the financier banks for term loan facilities availed by real estate developer's subsidiary. We applied the Credit Default Swap (CDS) method and estimated the CDS cash flows considering the credit rating, geography of the borrower as well as average loan balance outstanding for each year. We then discounted the CDS cash flows using an appropriate discount rate.





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