

# IVCA – Guidance Note on

International Private Equity and Venture Capital (IPEV) Valuation Guidelines The Securities and Exchange Board of India ("SEBI") notified certain amendments to the SEBI (Alternative Investment Funds) Regulations, 2012 ("AIF Regulations") on June 15, 2023. The amendments were made pursuant to the consultation papers released on January 06, 2023, and February 03, 2023, and thereafter, SEBI released detailed circulars on June 21, 2023. These amendments are in effect from November 1, 2023.

One key amendment has implications for the valuation process of AIFs -

- As stated in regulation 23(1), AIFs are required to carry out valuations of their investments in the manner specified by SEBI.
- The latest amendment highlights that valuation of securities other than those covered under SEBI (Mutual Funds) Regulations, 1996, shall be carried out as per valuation guidelines endorsed by any AIF industry association, which in terms of membership represents at least 33% of the number of SEBI registered AIFs. The eligible AIF industry association shall endorse appropriate valuation guidelines after taking into account recommendations of Alternative Investment Policy Advisory Committee of SEBI.

In light of the above amendment, the Indian Venture and Alternate Capital Association ("IVCA"), has been recognized as the most prominent AIF industry association and has been tasked with the responsibility of endorsing valuation guidelines. Considering the best practices in the private equity and venture capital industry globally, the IVCA has endorsed the International Private Equity and Venture Capital Valuation ("IPEV") guidelines. IPEV guidelines were developed by a group of industry associations and are intended to outline best practices for private capital investments that are reported at "Fair Value" and, as a result, assist investors in private capital funds make informed financial decisions. Fair Value measurements derived using these valuation guidelines are compliant with both International Financial Reporting Standards ("IFRS") and United States Generally Accepted Accounting Principles ("US GAAP").

The IPEV guidelines have been adopted by over 40 private capital industry associations for best practices in private equity and venture capital investment valuations. Since they were first issued in 2005, these guidelines have been updated to reflect significant expertise and learnings over the past two decades expanding from private equity and venture capital valuation to address the overall private capital space. IPEV's guiding principles are reflected in its core ideas of fairness, consistency, and transparency.

## Introduction

The IPEV valuation guidelines are a set of globally recognized and widely adopted guidelines that provide frameworks for valuing private equity and venture capital investments. These guidelines were developed to address the need for consistent and transparent valuation practices in the private equity and venture capital industry given investments in private companies can be complex and challenging to value accurately.

Private equity and venture capital investments involve various stages of financing, from early-stage startups to mature companies. Valuing these investments is critical for investors, fund managers, and other stakeholders to make informed decisions about their portfolios, assess performance, and allocate capital efficiently.

The IPEV valuation guidelines were established by a group of industry experts and organizations to promote uniformity and best practices in valuing private equity and venture capital investments. Over 40 private capital associations have endorsed IPEV valuation guidelines, including ILPA, the US NVCA and Invest Europe. Recently the IVCA endorsed IPEV valuation guidelines as well.

The founding associations, endorsing associations and associate members are collectively referred to as the "IPEV Members". The objectives of the IPEV Members are to provide high-quality, uniform, globally-acceptable, best practice, principles-based valuation guidelines for private equity and venture capital practitioners in order to assist their compliance with accounting and regulatory requirements, in a form that is simple for all practitioners, regardless of size, to implement. The following timeline presents major events and updates to the guidelines.

Event IPEV was founded and the IPEV Valuation Guidelines were issued	Event Global Financial Crisis IPEV Board added 5 practitioners from across the US	Event IPEV issues updated IPEV Valuation Guidelines – December 2009	Event IPEV issues updated IPEV Valuation Guidelines – December 2012	Event IPEV issues updated IPEV Valuation Guidelines – December 2015	Event IPEV issues updated IPEV Valuation Guidelines – December 2018	Event IPEV releases COVID-19 Special Valuation Guidance – March 2020	Event IPEV Board provides views on estimating fair value at 31 December 2020	Event IPEV Board provides views on estimating fair value at 31 March 2022	Event IPEV issues updated IPEV Valuation Guidelines – December 2022
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The primary objective of this guidance note is to -

- provide a brief explanation of the guidelines in a more lucid and understandable language.
- share detailed insights into the fair value measurement process.
- assist valuation practitioners and investors in interpreting the guidelines.
- offer specific explanation to certain sections of the guidelines with particularities designed for the Indian market.

The general flow of this guidance note includes a snippet of the IPEV guidelines followed by explanation and interpretation of the guidelines. The IPEV guidelines act as a framework and are not a requirement as per the financial reporting standards.

In the event of any divergences between interpretations of the additional guidance provided by the IVCA and the original IPEV Guidelines, 2022 themselves, the original version takes precedence in situations where clarifications are needed.

Fair Value reporting standards are different for different bodies but are based on a similar concept, and hence measuring fair value in compliance with pertinent financial reporting standards can be accomplished by referring to these guidelines.

The detailed IPEV guidelines are available on their website at -

https://www.privateequityvaluation.com/Valuation-Guidelines

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## I. The Concept of Fair Value

**1.1** Fair Value is the price that would be received to sell an asset in an Orderly Transaction between Market Participants at the Measurement Date.

**1.2** A Fair Value measurement assumes that a hypothetical transaction to sell an asset takes place in the Principal Market or in its absence, the Most Advantageous Market for the asset.

**1.3** For actively traded (quoted) Investments, available market prices will be the exclusive basis for the measurement of Fair Value for identical instruments.

**1.4** For Unquoted Investments, the measurement of Fair Value requires the Valuer to assume the Investment is realised or sold at the Measurement Date whether or not the instrument or the Investee Company is prepared for sale or whether its shareholders intend to sell in the near future.

**1.5** Some Funds invest in multiple securities or tranches of the same Investee Company. If a Market Participant would be expected to transact all positions in the same underlying Investee Company simultaneously, for example separate Investments made in series A, series B, and series C, then Fair Value would be estimated for the aggregate Investment in the Investee Company. If a Market Participant would be expected to transact separately, for example purchasing series A independent from series B and series C, or if Debt Investments are purchased independent of equity, then Fair Value would be more appropriately determined for each individual financial instrument.

1.6 Fair Value should be estimated using consistent Valuation Techniques from Measurement Date to Measurement Date unless there is a change in market conditions or Investment-specific factors, which would modify how a Market Participant would determine value. The use of consistent Valuation Techniques for Investments with similar characteristics, industries, and/or geographies would also be expected.

The objective of measuring Fair Value is to estimate the price at which an Orderly Transaction would take place between Market Participants at the Measurement Date.

Fair Value is the hypothetical exchange price taking into account current market conditions for buying and selling assets. Fair Value is not the amount that an entity would receive or pay in a Forced Transaction, involuntary liquidation, or distressed sale.

Although transfers of shares in private businesses are often subject to restrictions, rights of pre- emption, and other barriers, it should still be possible to estimate what amount a willing buyer would pay to take ownership of the Investment, subject to such restrictions.

The estimation of Fair Value assumes that the time period required to consummate a transaction hypothetically began at a point in time in advance of the Measurement Date such that the hypothetical exchange culminates on the Measurement Date. Therefore, Fair Value should reflect the actual amount that a seller would receive in an Orderly Transaction under current market conditions at the Measurement Date. An additional discount for Marketability (where Marketability is defined as the time required to complete a transaction) is not appropriate.



Fair value is the price to sell an asset or transfer a liability and therefore represents an exit price, not an entry price. The exit price for an asset or liability is conceptually different from its transaction price (an entry price). While an exit and an entry price may be identical in many situations, the transaction price is not presumed to represent the fair value of an asset or liability upon initial recognition. Fair value is the exit price in the principal market (or in the absence of a principal market, the most advantageous market). The price in the exit market should not be adjusted for transaction costs (i.e. transaction costs are not included in the fair value measurement of an asset or liability). Fair value is basically a market-based measurement, not an entity-specific measurement, and as such is determined based on assumptions market participants would consider in pricing the asset or liability. The exit price objective of a fair value measurement applies regardless of the reporting entity's intent or ability to sell the asset or transfer the liability at the measurement date. A fair value measurement contemplates the sale of an asset or the transfer of a liability, not a transaction to offset the risks associated with the asset or liability. The transaction to sell the asset or transfer the liability as of the measurement date is a hypothetical transaction that is assumed to be orderly and considers an appropriate period of exposure to the market. The objective of a fair value measurement does not change based on the level of activity in the exit market or the valuation technique(s) used. That is, fair value remains a market-based exit price that considers current market conditions as of the measurement date, even if there has been a significant decrease in the volume and level of activity for the asset or liability.

A fair value measurement requires a reporting entity to determine all of the following:

- a. The particular asset or liability that is the subject of the measurement (consistent with its unit of account)
- b. For a nonfinancial asset, the valuation premise that is appropriate for the measurement
- c. The principal (or most advantageous) market for the asset or liability
- d. The valuation technique(s) appropriate for the measurement, considering the availability of data with which to develop inputs that represent the assumptions that market participants would use when pricing the asset or liability and the level of the fair value hierarchy within which the inputs are categorized.

The principal market for an asset or liability is the one with the highest volume and activity accessible to the reporting entity. Also, the most advantageous market is where selling the asset generates the most revenue or transferring the liability involves the least cost, considering transaction and transportation costs. The reporting entity must have access to the principal or most advantageous market at the measurement date. However, different entities have access to different markets, therefore, the determination is made from the reporting entity's perspective, allowing for differences in activities. When assessing the primary market for portfolio investments during interim measurements, especially when active marketing isn't ideal, it's often considered a theoretical sponsor-to-sponsor market. Conversely, when it's advantageous for the investment company to pursue an exit, the primary market is determined by the markets where the investment company actively promotes the investment. Revaluation of the principal market occurs at each measurement date, accounting for specific circumstances. Even during interim measurements, it's crucial to consider the ultimate exit strategy, as participants in the sponsor-to-sponsor market base their evaluations on anticipated exit plans.

Once a valuation technique has been selected, it should be applied consistently throughout the valuation timeline and the reporting periods. This ensures comparability of valuation analyses between any two measurement dates and helps in understanding the cause of change in the fair value. A change in valuation technique is appropriate only if it results in a measurement that is more representative of fair value in the circumstances as of that measurement date. If there is a change in the valuation technique, the rationale for change and the effect of the change on the valuation of the investment must be documented and stated clearly to the investors in the reporting files. Fair Value measurements are determined consistent with the ownership structure of the Investment. That means that Fair Value is determined independently for each reporting entity.

Once a Valuation Technique or Techniques have been selected, they should be applied consistently (from Measurement Date to Measurement Date); however, a change in technique is appropriate if it results in a measurement that is more representative of Fair Value in the circumstances. If a change in Valuation Technique(s) is deemed appropriate, the basis for such a change should be clearly documented including, but not limited to, the nature and rationale for the change.

Examples of events that might appropriately lead to a change in Valuation Technique:

- The stage of development of the Enterprise changes (from pre-revenue to revenue to earnings);
- New markets develop;
- New information becomes available;
- Information previously used is no longer available;
- Valuation Techniques improve; and
- Market conditions change.

Further, subject to utilising Market Participant perspectives, Investments with similar characteristics, stages of development, geographies, and/or industries would be expected to be valued using consistent Valuation Techniques.



## II. Unit of Account

**1.7** To estimate Fair Value, the Unit of Account must be determined. The Unit of Account represents the specific Investment that is being measured at Fair Value.

Many Funds make Investments in multiple types of Investment instruments within an entity (such as common stock, various classes of preferred stock, various debt tranches and equity-based options). US and International financial reporting standards require the Fair Value of an Investment to be measured consistently with the level of aggregation (Unit of Account) dictated by the accounting standard requiring or permitting its measurement at Fair Value. The Unit of Account is a level of aggregation concept that was developed for financial reporting purposes, that is, it addresses the way in which assets and liabilities are to be aggregated or disaggregated in the financial statements.

Because financial reporting is meant to portray economic phenomena, the Unit of Account attempts to describe the specific way that an Investment is owned, including the legal rights and obligations of ownership and its relationship to other ownership rights in a complex capital structure. However, actual transactions may not and do not actually have to take place at the Unit of Account level specified by accounting standards.

For valuation purposes, typically, the Unit of Account is determined based on the way a Market Participant would transact for the individual Investment held in a Fund which is also consistent with the aggregation provided to investors in the schedule of Investments.

For private equity and venture capital Investments, value is generally realised through a sale or flotation of the entire Investee Company, rather than through a transfer of individual shareholder stakes. The value of the business as a whole (Enterprise Value) at the Measurement Date will often provide a key insight into the value of Investment stakes in that business.<sup>1</sup>

If value is realised as described above, then Enterprise Value would be used by a Market Participant to determine the orderly price they would pay for an Investment. Alternatively, if a Market Participant would transact for individual instruments, such as individual shares, debt tranches, or a single series of equity, then Fair Value would be more appropriately assessed at the individual instrument level.

See section II 5.1 for further discussion of the Unit of Account.



The first step when measuring Fair Value is to determine 'what' is being measured. The determination of 'what' takes into account the asset or liability that must be measured at Fair Value. The unit of account determines 'what' is measured.

The asset being measured at fair value might be a single asset or a group of assets. The assumed transaction for measuring fair value may consider multiple units of account within the reporting entity (for example, an equity and debt investment in a given portfolio company transacting together, rather than separately), or a single unit of account within the reporting entity, depending on how market participants would transact.

When estimating the fair value of the Fund's position in a given portfolio company, the concept of "economic best interest" is relevant to the determination of the nature of the assumed transaction and what grouping of assets may be appropriate. It is appropriate to consider the unit of account for investments to be the individual instruments to the extent that is how market participants would transact, or the entire position in each type of instrument in a given portfolio company held by the fund (e.g. the entire senior debt position, the entire mezzanine debt position, the entire senior equity position, the entire warrant position, etc.) to the extent that is how market participants would transact. Similarly, the assumed transaction for purposes of valuing the investments may consider a grouping of assets in a given portfolio company held within the fund (e.g. the debt and equity together) to the extent that is how market participants would transact.

(Abstract from IPEV Valuation Guidelines 2022)

## III. Principles of Valuation

#### 2.1 The Fair Value of each Investment should be assessed at each Measurement Date..

In the absence of an Active Market for a financial instrument, the Valuer must estimate Fair Value utilizing one or more of the Valuation Techniques.

**2.2** In estimating Fair Value for an Investment, the Valuer should apply a technique or techniques that is/are appropriate in light of the nature, facts, and circumstances of the Investment and should use reasonable current market data and inputs combined with Market Participant assumptions.

**2.3** Fair Value is estimated using the perspective of Market Participants and market conditions at the Measurement Date irrespective of which Valuation Techniques are used.

The following are key considerations when estimating Fair Value using Market Participant perspectives:

- Fair Value should be estimated at each Measurement Date (each time Fair Value based Net Asset Value (NAV) is reported to investors (LPs)).
- The Price of a Recent Investment (if deemed Fair Value) should be used to calibrate inputs to the valuation model(s).
- Calibration is required by accounting standards.
- Market Participant perspectives should be used to estimate Fair Value at each Measurement Date.
- After considering individual facts and circumstances and applying these Guidelines, it is
  possible that Fair Value at a subsequent Measurement Date is the same as Fair Value as at a prior
  Measurement Date. This means that Fair Value may be equal to the Price of a Recent Investment;
  however, the Price of a Recent Investment is not automatically deemed to be Fair Value.

These concepts are more fully described throughout this document.



## **Exercising Prudent Judgement**

**2.5** Because of the uncertainties inherent in estimating Fair Value for Private Capital Investments, care should be applied in exercising judgement and making the necessary estimates. However, the Valuer should be wary of applying excessive caution. The Valuer should consider information that is Known or Knowable as of the measurement date.

Private Capital Funds often undertake an Investment with a view to build, develop, and/or to effect substantial changes in the Investee Company, whether it is to its strategy, operations, management, or financial condition. Sometimes these situations involve rescue refinancing or a turnaround of the business in question. While it might be difficult in these situations to measure Fair Value, it should in most cases be possible to estimate the amount a Market Participant would pay for the Investment in question at a point in time.

There may be situations where:

- the range of reasonable Fair Value estimates is significant;
- the probabilities of the various estimates within the range cannot be reasonably assessed;
- the probability and financial impact of achieving a key milestone cannot be reasonably predicted; and
- there has been no recent Investment into the business.

While these situations prove difficult, the Valuer must still come to a conclusion as to their best estimate of the hypothetical exchange price between willing Market Participants.

Estimating the increase or decrease in Fair Value in such cases may involve reference to broad indicators of value change (such as relevant stock market indices). After considering these broad indicators, in some situations, the Valuer might reasonably conclude that the Fair Value at the previous Measurement Date remains the best estimate of current Fair Value.

Where a change in Fair Value is perceived to have occurred, the Valuer should amend the carrying value of the Investment to reflect the new Fair Value estimate.

### Known or Knowable Information

Known or Knowable information pertains to facts, conditions, or observable information which exists as of the measurement date and is available to the valuer or would reasonably be available to valuer through routine inquiry or due diligence. For example, the value of a traded share is known or knowable at the measurement date as it can be obtained from the relevant exchange or reporting service. Information which does not exist at the measurement date, for example the traded value of a share at any date after the measurement date is not known or knowable at the Measurement Date.



Information used by Valuers reflecting the performance of an underlying investment may be one or more months in arrears. For example, for a June 30 measurement date, the reported EBITDA available from an investee company may be as of March 31, April 30, May 31 or some other date. The most contemporaneous information would be used for a June 30 measurement date adjusted for known events or situations. If it is known that the EBITDA available as of a June 30 measurement date, say March 31 EBITDA, is significantly greater or below the estimated June 30 EBITDA, then the March 31 reported results would be adjusted for the known differing trend on performance. While if there are no indications that the reported June 30 EBITDA would differ significantly from the last reported data at March 31, most valuers would use March 31 performance results as the metric in estimating fair value.

### Transactions after the Measurement Date

A transaction which is anticipated to sign or close after the Measurement Date may provide an indication of the fair value at the measurement date. Depending on the facts and circumstances uncertainties including but not limited to: changes to the anticipated transaction price, the risk of failure to close, and the time to close the transaction, should be reflected when determining Fair Value at the Measurement Date. The proximity to the Measurement Date of a transaction closing or signing may provide information with respect to the judgments applied with respect to what was known or knowable at the Measurement Date.



## IV. Valuation Methods

**3.1 (i)** In determining the Fair Value of an Investment, the Valuer should use judgement. This includes consideration of those specific terms of the Investment that may impact its Fair Value. In this regard, the Valuer should consider the economic substance of the Investment, which may take precedence over the strict legal form.

**3.1 (ii)** Where the reporting currency of the Fund is different from the currency in which the Investment is denominated, translation into the reporting currency for reporting purposes should be done using the bid spot exchange rate prevailing at the Measurement Date.

A number of valuation methods or techniques that may be considered for use in measuring the Fair Value of Unquoted Investments are described in section II 3.3 to 3.8 below. These Valuation Techniques should incorporate case-specific factors affecting Fair Value. For example, if the Investee Company is holding surplus cash or other assets, the value of the business should reflect that fact to the extent a Market Participant would attribute value to such items.

Techniques for valuing Actively Traded Investments are described in section II 3.6 below.

In the Private Capital arena, because value is generally realised through a sale or flotation of the entire Investee Company, rather than through a transfer of individual shareholder stakes, the value of the business as a whole at the Measurement Date will often provide a key insight into the value of Investment stakes in that business. For this reason, a number of the techniques described below involve estimating the Enterprise Value as an initial step. If a Market Participant would be expected to maximise value through the sale of the entire business, the estimation of the Fair Value of individual financial instruments would include an assessment of the allocation of the Enterprise Value to those individual financial instruments.

There will be some situations where the Fair Value will derive mainly from the expected cash flows and risk of the relevant financial instruments rather than from the Enterprise Value. The Valuation Technique used in such circumstances should reflect relevant exit expectations.

There may also be some situations in which determining the Enterprise Value under the assumption that the Enterprise would be sold at the Measurement Date may not be appropriate. For example, if a minority stake is being valued and the other owners' interests are not aligned, it may not be appropriate to assume a sale of the Enterprise and allocation of value as described below. In such circumstances alternative Valuation Techniques would be used as more fully discussed in section II 5.11.

Investee Companies may operate using multiple currencies. Investments may be denominated in currencies other than the Fund's reporting currency. Movements in rates of exchange may impact the value of the Fund's Investments and these changes should be taken into account using a Market Participant perspective.



Valuation techniques used to estimate fair value should maximize the use of relevant observable inputs and minimize the use of unobservable inputs. This requirement is consistent with the notion that fair value is a market-based measurement and, therefore, is determined using market-based observable data, to the extent available and relevant.

In the process of estimating value, where possible best practice is to apply multiple valuation approaches and appropriate valuation methods using informed professional judgment. Also, it is important for the fund to consider facts and circumstances specific to the subject company and the interests being valued. Although many valuation methods are used in practice to estimate value for an enterprise and the interests in the enterprise: all such valuation methods fall under one of the three approaches: the market, income, and asset approaches. The fund generally will consider more than one valuation approach and method in estimating the value of an enterprise and the interests in the enterprise. Because estimating fair value is not an exact science, value indications from different methods will not necessarily reconcile, but the results of one valuation method can be used to corroborate, or can otherwise be used in conjunction with, the results of one or more other valuation methods in estimating value. If the fund has applied multiple valuation methods, and one result is significantly different from the other(s), the fund would need to assess the reasons for the differences. When there are significant differences, it is recommended that the fund review and revisit the valuation methods, relevant valuation inputs, and the assumptions underlying the valuation methods.

In situations where a market participant would transact the aggregate position held by the reporting entity, the fair value for the entire capital position in a given portfolio company is estimated and it would be necessary to allocate the aggregate value to the individual asset classes reported separately. Facts and circumstances, such as relevant characteristics of the debt and equity instruments, must be considered when making this allocation. Generally, the allocation method should be consistent with the overall valuation premise used to measure fair value.

## Calibration

2.6 When the price of the initial Investment in an Investee Company or instrument is deemed Fair Value, which is generally the case if the entry transaction is considered an Orderly Transaction, then the Valuation Techniques that are expected to be used to estimate Fair Value in the future should be evaluated using market inputs as of the date the Investment was made. This process is known as Calibration. Calibration validates that the Valuation Techniques using contemporaneous market inputs will generate Fair Value at inception and therefore that the Valuation Techniques using updated market inputs as of each subsequent Measurement Date will generate Fair Value at each such date.

Fair Value should reflect reasonable estimates and assumptions for all significant factors that parties to an arm's length transaction would be expected to consider, including those which have an impact upon the expected cash flows from the Investment and upon the degree of risk associated with those cash flows.

In assessing the reasonableness of assumptions and estimates, the Valuer should:

- note that the objective is to replicate those assumptions that the parties in an arm's-length transaction would make at the Measurement Date;
- take account of events taking place subsequent to the Measurement Date where they provide additional evidence
  of conditions that existed at the Measurement Date that were known or knowable by Market Participants;
- take account of then current market conditions at each Measurement Date; and
- to the extent the initial entry price is deemed Fair Value, test (or calibrate) the Valuation

Techniques expected to be used at subsequent valuation dates, using input data at inception to ensure that the Valuation Techniques result in an initial Fair Value estimate equal to the entry price (Note: at subsequent Measurement Dates the calibrated Valuation Techniques should be used with then current market inputs reflecting then current market conditions). Calibration is a powerful tool that can assist in capturing the impacts of control and Liquidity, among other inputs, on a Fair Value measurement. For illustrative purposes, assume an Investment is purchased at Fair Value at an implied 10x EBITDA multiple. At the time of purchase, comparable companies are trading at 12x EBITDA. When compared to the comparable companies, the 10x entry multiple incorporates Liquidity, control, and other differences between the Investment and comparable companies. At future Measurement Dates, judgement would be applied to determine how to move the acquisition multiple of 10x in relation to changes in the multiple of comparable companies. For example, if the comparable companies moved from 12x to 15x, the Valuer may conclude that the two turns of EBITDA difference at entry (10x vs 12x) should be maintained, resulting in a Fair Value estimate derived by applying a 13x multiple to the Investee Company's updated EBITDA. Similar judgements would be made using inputs for other Valuation Techniques. The Valuer would not automatically use the entry difference (2x) at future valuation dates, but would determine how much a Market Participant would be willing to pay for the Investment using the calibrated entry inputs as a point of reference.

Note: the Valuer has discretion, based on the facts and circumstances, to consider, on a consistent basis, whether an absolute movement or a relative (percentage) movement between multiples would be more appropriate.

Similar calibration concepts can be used with an income valuation approach. The discount rate implied at acquisition can be deconstructed into its component parts based on the weighted average cost of capital, which will, in particular, provide a basis for a company specific risk premium, also known as alpha. The components of the weighted average cost of capital would then be updated at future Measurement Dates based on then current market conditions (with adjustments to the alpha based on company specific facts and circumstances) and applied to most likely cash flows at that point in time.



Capital allocators and investors such as Limited Partners ("LP") almost universally require Fair Value reporting from the General Partners ("GP") managing the funds ("Funds") they have invested in. Fair Value is defined as 'the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date."

Calibration is a requirement under Fair Value guidelines as per ASC 820 (US GAAP), IFRS 13 (IFRS), and Ind-AS 113.

Calibration can be incorporated as a framework on top of multiple valuation techniques to back into the unobservable inputs (Level 3 inputs) that support the most recent transaction in a portfolio company's securities in accordance with Fair Value. Market data from comparable public companies and/or securities can be used as an indication for estimating each unobservable input, however selecting reasonable assumptions for valuing a particular investment requires judgment and can be challenging. Specifically, the observed range of values for similar traded securities may be quite wide, making it necessary to further refine inputs and valuation techniques to reflect the characteristics of the specific investment. Additionally, there could be differences in the specific investment made by the Fund compared to traded securities of comparable companies, or characteristics of the investment that are not captured by the valuation technique. Therefore, when using a valuation technique that requires unobservable inputs, it is important to calibrate these inputs to any observed transactions in the investment itself, providing an initial set of assumptions that are consistent with the transaction price that represents fair value.

On subsequent measurement dates, a valuer would need to factor changes between the transaction date and the measurement date, including but not limited to:

- The company's performance and financial health (financial metrics such as revenues and EBITDA, projected revenues and EBITDA, or projected cash flows; non-financial metrics including specific operating key performance indicators such as number of customers, volume, efficiency measurements).
- Changes in market conditions, including changes in the comparable public companies' market capitalizations and enterprise values since the transaction date, regulatory and business environment.

Fair Value guidelines state that calibration is not a stand-alone valuation technique and doesn't form the value conclusion in and of itself. In other words, it is not something to assign a weighting towards in a list with other primary valuation approaches.

### Discounts/ premiums

Calibration resolves one of the peculiar challenges faced in valuing private investments, i.e. assessing the valuation impact of the level of control and illiquidity associated with an investment. For example, under the income approach, the Fund would initially estimate the expected cash flows for the investment under current ownership through a liquidity event, and then calibrate to calculate the required rate of return for the investment on the initial transaction date. Since the transaction price already incorporates market participants' required rate of return, no additional discount for lack of control or illiquidity would apply. For subsequent measurement dates, updated expected cash flows and the updated market participants' return assumptions would be considered under the current market conditions. Conversely, if a transaction is deemed to be not orderly and calibration is not possible, a standalone valuation approach, with a discount for illiquidity, should be used to estimate the value of the investment.

## Calibrating to the Price of a Recent Investment

3.10 The Fair Value indicated by a recent transaction in the Investee Companies equity is used to calibrate inputs used with various valuation methodologies. The Valuer should assess at each Measurement Date whether changes or events subsequent to the relevant transaction would imply a change in the Investment's Fair Value. The Price of a Recent Investment should not be considered a standalone Valuation Technique.

Where the Investment being valued was itself made recently, its cost may provide a good starting point for estimating Fair Value. Where there has been any recent Investment in the Investee Company, the price of that Investment may provide a basis for recalibrating inputs to the valuation model.

When calibrating to the price of a recent Investment, care should be taken not to automatically apply the value of a round of financing to other share classes without consideration of different rights and preferences among share classes. When such differences in rights and preferences exist, the other share classes may be subject to different risks and return expectations, impacting the value of those share classes relative to the Investment. In such cases, the post-money equity value may not be equal to the value of a round of financing, and it may be necessary to estimate the post-money value using a valuation technique.

#### Price of Recent Investment is not a default

At each Measurement Date, Fair Value must be estimated using appropriate valuation techniques. The Price of a Recent Investment is not a default that precludes re-estimating Fair Value at each Measurement Date.

Where the price at which a third party has invested is being considered as an input for estimating Fair Value, the background to the transaction must be taken into account. In particular, the following factors may indicate that the price was not wholly representative of Fair Value at the time:

- different rights attach to the new and existing Investments;
- disproportionate dilution of existing investors arising from a new investor(s);
- a new investor motivated by strategic considerations
- market conditions existing when the price was agreed upon by parties regardless of timing of close
- the transaction may be considered to be a forced sale or 'rescue package'.

In times of Market dislocation, it may no longer be appropriate for recent transaction prices, especially those negotiated before a Market dislocation to receive significant, if any, weight in determining fair value.

#### **Complex Capital Structures**

Many early-stage companies are financed by a combination of different classes of equity, each of which provides its holders with unique rights, privileges, and preferences. Often, these portfolio companies issue both preferred and common shares, and options or warrants, with the preferred stock comprising several series resulting from successive rounds of financing, each of which has rights that likely differ from those of other series. When estimating the Fair Value of an investment, the valuer should determine how each class of equity would participate in distributions from a sale or other liquidity event and the implications for the fair value of each class of equity. Typically, portfolio companies with multiple classes of stock divide the classes into two broad categories: preferred and common.



In order to estimate the Fair Value of private investments, a valuer must first ascertain there is a transaction (in accordance with Fair Value) from which to calibrate their analysis. Among other factors, in determining whether a transaction price (an entry price) represents Fair Value at initial recognition, it is important to consider the characteristics of the transaction and the unit of account. The transaction price might not represent the fair value of an asset or a liability at initial recognition if any of the following conditions exist:

- the transaction is between related parties, although the price in a related party transaction needn't be automatically disqualified and may be used as an input in fair value measurement if there is evidence that the transaction was entered into at market terms.
- the transaction takes place under duress, or the seller is forced to accept the price in the transaction. For example, that might be the case if the seller is experiencing financial difficulty.
- the unit of account represented by the transaction price is different from the unit of account for the asset or liability measured at fair value. For example, that might be the case if the asset or liability measured at fair value is only one of the elements in the transaction, the transaction includes unstated rights and privileges that are measured separately, or the transaction price includes transaction costs.
- the market in which the transaction takes place is different from the principal market (with the greatest volume or level of activity for that particular asset or liability) or most advantageous market (if there is no principal market, but where value is generally maximised).

If the transaction price is ascertained to be Fair Value, the unobservable inputs in the valuation technique should be calibrated so that at initial recognition the result of the valuation techniques equals the transaction price. Fair Value in subsequent periods should be measured by an assessment of the applicable unobservable inputs as per the same technique(s), tracking the company's performance to expectations and any change in market conditions or the pricing environment.

Since its 2018 update, IPEV has dropped guidance on reliance on a Price of Recent Investment for a 'limited period of time', as it was leading to conclusions that were not in accordance with Fair Value. As such, even if there are no definitive changes to the company or market from the most recent transaction date and the measurement date, a valuer should ensure sufficient procedures and documentation are in place supporting estimates that meet the definition of Fair Value as of the measurement date. A valuation policy specifying a timeline of holding investment values to the last financing round is no longer yielding acceptable results if the resulting estimates are not substantiated nor meeting the definition of Fair Value in such an interim period.

### When does calibration not hold

Calibration between a transaction date and the measurement date or between measurement dates stops being relevant when there has been such a significant change in the circumstances as to warrant a change in the valuation methodology. For example:

- if a portfolio company is about to be sold, the valuation would consider the likelihood of a successful sale at a given price, potentially supported or triangulated with the income approach or market approach.
- if a portfolio company has entered bankruptcy or market participants would expect the debt to be restructured, the valuation for the debt would consider the expected recovery, timing of that recovery, and a market yield for distressed debt, rather than using contractual cash flows and calibrating to the market yield consistent with the investment and the change in the market yields over the period since issuance.
- if there has been a significant change in a portfolio company that makes observable comparable data more relevant than the historical transactions for the company itself; for example, when there are changes to the company's business model, stage of development, anticipated exit or principal market.
- Calibration still holds in a distressed or dislocated market.

### Complex Capital Structures:

Investors typically think of valuations in terms of Common Stock Equivalents ("CSE") or fully diluted terms. Simply put, this would be expressed as the price per share from the latest preferred shares funding round times the total shares outstanding. This is often referred to as the headline value of a portfolio company as it represents the share price of the senior most tranche which was recently transacted and not the economic value of all shareholders.

Fair Values estimated by different investors in the same company often have significant divergences. The reasons for divergences are myriad but can be alluded to differential (i) information rights and (ii) economic rights of the securities Funds have invested in.

Certain economic rights tend to impact Fair Value of an investment, and the impact is not uniform across different classes of shares. Economic rights which need to be modelled out in arriving at Fair Value of an investment include (and are not limited to) –

- Preferred liquidation preferences and seniority
- Preferred dividends
- Mandatory redemption rights
- Conversion rights
- Participation rights
- Antidilution rights

On the other hand, certain non-economic rights cannot be captured in a financial model, but may be captured via sensitivity analyses as they influence the degree of caution around certain outcomes. These include –

- Voting rights
- Protective provisions and veto rights
- Board composition rights
- Drag-along rights
- Right of first refusal (ROFR)
- Tag-along rights
- Management rights
- Information rights

The challenge in using a CSE based value is more pronounced for early stage, high growth companies that are cash burning and are dependent on external financing, where a large consideration of the investment in multiple series of fundraise is for downside protection, or the 'liquidation preference' that is legally and contractually negotiated. Thus, in arriving at the aggregate fair value of an investment, a valuer should apply techniques to capture value based on differential economic rights and preferences. These techniques would include the application of mathematical models like Option Pricing Model or Scenario Analysis to determine the fair value of each class of preferred shares.

#### Valuing seed, start-up and early-stage (pre-revenue/pre-earnings) Investments

Early-stage investments, pre revenue or pre earnings, may require additional judgment in determining fair value. Fair value for an early-stage investment is the same conceptually as any other investment, that being the amount that would be received in an orderly transaction at the measurement date. However, early-stage investments often have less measurable key performance indicators and may have limited outcomes: success, liquidation, or failure. In addition, the "headline" value (fully diluted value of all shares times the price paid per share for a recent financing round) rarely takes into account the rights and preferences of more junior share classes. Because of these facts informed judgment is required to conclude upon fair value at dates between significant financing events.

When valuing early-stage investments, at each measurement date, consideration should be given to qualitative factors impacting value, including but not limited to:

- is the investee company performing at, above, or below expectations;?
- is cash burn above, at or below expectations;
- is customer or market acceptance of the product or service meeting expectations;
- has the company changed its strategy or pivoted to a new market;?
- What is the likelihood, timing, and pricing of the next financing round?
- How is the broader market performing with respect to comparable companies?
- How close is an exit and who would be the buyer: IPO, Strategic M&A, Financial Sponsor, Liquidation?

Based on an assessment of these and other factors it can generally be determined whether fair value has increased, decreased or stayed the same. The magnitude of the fair value change or the fair value conclusion can then be determined using calibrated models such as those described in 5.12.

Many seed, start-up or early-stage Investments are valued using a milestone approach, or scenario analysis (see section II 5.12) because there are no current and no short-term future earnings or positive cash flows. For these Enterprises, typically, it is difficult to gauge the probability and financial impact of the success or failure of development or research activities and to make reliable cash flow forecasts.

Consequently, the most appropriate approach to measure Fair Value may be a Valuation Technique that is based on market data, and Market Participant assumptions as to the potential outcomes. Calibrating such scenarios or milestones may result in a Fair Value equal to the transaction value for a limited period of time. Often qualitative milestones provide a directional indication of the movement of Fair Value.

The following valuation techniques may be helpful in estimating Fair Value:

- scenario-based methods, a forward-looking method that considers one or more possible future scenarios. These
  methods include Simplified Scenario Analysis and Relative Value Scenario Analysis, which tie to the fully-diluted
  ("post-money") equity value, as well as full scenario analysis, also known as the probability-weighted expected
  return method (PWERM);
- the option pricing method (OPM), a forward-looking method that considers the current equity value and then allocates that value to the various classes of equity considering a continuous distribution of outcomes, rather than focusing on distinct future scenarios;
- the current value method (CVM), which allocates the equity value to the various equity interests in a business as though the business were to be sold on the Measurement Date; and
- the hybrid method, a hybrid of scenario-based methods and OPM

While accounting standards do not require a specific model or approach when estimating fair value, practice in certain jurisdictions has evolved to place more weight on a hybrid approach or OPM approach during early stages of an investment when the likely exit would be to another financial sponsor who would take into account rights and preferences of various security classes. As an investment progresses to nearing an exit through an IPO or M&A transaction where all shareholders may receive the same price per share more weight is generally given to a common stock equivalent or fully diluted approach to estimating value.



### Seed / Early-Stage Companies:

Investors in seed and early-stage portfolio companies face the challenge of envisioning new services, technologies, business processes and models, and estimating what they are worth before knowing whether a market will exist, the technology will work, the competitive landscape will shift, or if management can execute on a business plan sufficient to be able to capture value from the investment. Because seed and early-stage companies often do not have historical revenues or profits, or the data may be very limited, it may be difficult to apply the valuation models typically used to value more mature businesses. As such, to assess the value of such companies, we consider alternative methodologies that capture the bimodal (or multi-modal) nature of the company's future outcomes, i.e. the success or failure of the company (and additional scenarios).

For seed / early-stage companies, investors typically rely on a milestone analysis or a simplified scenario analysis for the purpose of valuation.

#### Milestone Analysis:

- For seed and early-stage companies, venture capital funding typically involves measured investments made over several financing rounds, providing the portfolio company with enough money to reach another milestone and giving investors the opportunity to see how the portfolio company and the related markets develop over time. This approach helps to minimize the amount of money investors stand to lose if the portfolio company does not make sufficient progress or the market develops differently from initial expectations.
- An investment thesis in such early-stage companies may reflect a number of scenarios through the eventual exit, or public listing. Even if a single scenario was put on paper, there would have been multiple ways the investor would have assessed the sensitivity of timing and success on an early-stage portfolio company's development prospects over at least a holding period. It is the experience and judgment of the valuer to extract this information to create scenarios by identifying both the contractual terms of the most recent financing round, and the near-term milestones and determine the probabilities of achieving them based on the funds raised.
- Key considerations that investors evaluation in a milestone analysis for seed stage companies include:
  - Financial performance (revenue growth, profitability, etc)
  - Technical development (increase in market share, testing stage and patent approvals)
  - Liquidity position (cash burn and sources of capital including cash and equivalents, lines of credit, etc.).

#### Simplified Scenario Analysis:

The simplified scenario analysis approach may be appropriate if the distribution of outcomes for the portfolio company is expected to be bimodal, or discreetly multi-modal, reflecting no value on the downside. At the extreme ends, the portfolio company is either expected to succeed, exiting at a value that is high enough that all classes of equity will convert, or fail, exiting at a low value that would provide no payoff to the existing classes of preferred.

Typically, a simplified scenario analysis is calibrated to the most recent transaction date, and then updated to reflect the changes in the post-money value through the measurement date. If the post-money value considering common-stock equivalents is estimated by considering a future exit value, then these methods should incorporate an estimate of the dilution from future rounds of financing required to reach that exit.

#### (Abstract from IPEV Valuation Guidelines 2022)

In applying the valuation techniques, care should be taken to ensure that any allocation reflects market participant expectations for each share class, and appropriately considers the risks and returns of the different share classes. The CVM may be most appropriate in circumstances where the investor has significant influence to effect a liquidity event and a liquidity event for the whole business is anticipated in the near future and therefore an allocation of the equity value to the equity interests can be conducted with relative certainty of a market participants expectations.

Where there is expected to be a longer holding period prior to a sale or IPO (i.e seed stage and early growth stage), share classes may be subject to different levels of risk and return expectations. In such cases, scenario analysis, OPM, or the hybrid method may help to determine the relative value of each share class, while the CVM may not be reflective of a market participant's perspective.

A scenario-based valuation method, properly calibrated, using industry-specific benchmarks/ milestones that are customarily and routinely used for the specific industry of the Investee Company, may be applied to estimate Fair Value where appropriate. Assessing the progress towards achieving milestones allows the Valuer to ascertain changes in the probability of various scenarios and the potential outcome of various scenarios. Missing a benchmark/milestone may provide indication of a decrease in value while exceeding a benchmark/milestone may provide evidence of an increase in value depending on the facts and circumstances.

Note: See section II 5.12

#### Common milestones / benchmarks

For an Investment in early or development stages, commonly a set of agreed milestones would be established at the time of making the investment decision. These will vary across types of Investment, specific companies and industries, but are likely to include

Financial measures:

- revenue growth;
- profitability expectations;
- cash burn rate; and
- covenant compliance.

Technical measures:

- phases of development;
- testing cycles;
- patent approvals; and
- regulatory approvals.

Marketing and sales measures:

- customer surveys;
- testing phases;
- market introduction; and
- market share

In addition, the key market drivers of the Investee Company, as well as the overall economic environment, are relevant to the assessment.



### Scenario Analysis:

- Under the PWERM, the value of the security is estimated based upon an analysis of future values for the company assuming various future outcomes.
- Per share value is based upon the probability weighted present value of expected future investment returns, giving consideration to each of the possible future outcomes available to the company, as well as the rights of each security class, including the level of seniority among the securities, dividend policy and conversion ratios, as defined by the shareholder agreements.

This method involves forward-looking analysis of possible future outcomes available to the enterprise, the estimation of future and present value under each outcome, and the application of a probability factor to each outcome as of the Valuation Date.

### Option Pricing Model (OPM):

- OPM is a method to allocate a company's total enterprise or equity value to each of its securities. The securities can be viewed as a portfolio of options exercisable in a future liquidity event, accounting for their seniority and liquidation preferences. Various strike prices of the options represent different thresholds at which securities start to participate or drop out from the asset distribution. These thresholds can be determined by differing rights and privileges such as liquidation preference, conversion prices of the convertible bonds/preferred stock, and strike prices of options and warrants. Various strike prices are determined by break-points, which represents a company valuation point where the next class of security begins to have value.
- As the others are typically market or contractually based, values are derived for each security in the equity allocation model by updating inputs such as time to exit and volatility.
- Apart from economic rights such as liquidation preferences, dividends, conversion rights and participation rights, investors also hold non-economic rights namely voting rights, drag along rights, tag along rights, right to first refusal, protective provision, board composition and information rights. These non-economic rights allow preferred shareholders to influence the manner in which a company governs itself and manages its operating and financial affairs. However, these rights cannot be modelled and generally lapse at the time of an exit event when preferred stock converts to common shares.

### Current Value Method (CVM):

- In the Current Value Method the value of the subject security is determined based on a hypothetical sale of the company at the identified valuation estimate. In order to determine the value of common stock utilizing a CVM approach, the debt securities followed by any preferred stock are allocated value based on their respective agreements. The remaining coverage, if applicable, is then allocated to common stock.
- Waterfall method is used when the investor holds a majority stake, having control to change the capital structure.

### Value Dispersion Among Security Valuation Methods

- Commonly used private company valuation methods include valuing securities on (i) a common stock equivalent (CSE), or as-converted basis, the typical post-money headline valuation observed in public press releases; (ii) a waterfall / current value method basis (CVM), which assumes the company is immediately sold or liquidated; and (iii) an option pricing methodology (OPM), which treats equity securities as call options on the company's equity value.
- Understanding the various rights and privileges attached to each security class in a company's capital structure is essential to security valuation. Seniority, liquidation preferences, dividends, ratchets, conversion ratios, and other variables are highly impactful economic features that provide downside protection. Generally, the stronger and more senior these various rights and privileges, the higher the value per share of that class relative to other classes. The reverse is also true—the weaker and more junior the rights and privileges, the lower the relative value per share of that class relative to other classes. Typically, the most recent round of financing is likely to have the strongest rights and privileges and will come at the top of the food chain in the capital structure.
- Method weighting is also important in security valuation. This can be based on a number of factors, such as business stage, growth profile, company performance, and ultimate progress toward an exit event. Has the board of directors set a plan for IPO or strategic exit? Have investment bankers been hired? Ultimately, this is based on expectations at the given valuation date.

### Valuation Method across Company Lifecycle

- The stage of development of a portfolio company is one of the key determinants in the selection of the valuation methodology to estimate the Fair Value of such a company, and subsequently the investment made by a Fund. As a company grows from a pre-revenue stage to a profit generating enterprise, the valuation methodologies to value the company will evolve for a market participant investor.
- For example, an early-stage investor in a pre-revenue company continues to hold it till it achieves Series D round of financing. In such a situation
  - In the initial pre-revenue stage, the company can be valued using a calibrated milestone and simplified scenario analysis;
  - As the business grows and company starts generating revenue and profits, a calibrated market approach and/or income approach can be utilized to value the company.
- Market participants would change their valuation methodology or approach towards valuing their investment into a Portfolio Company based on the stage of development for the latter. This can be confirmed by the valuer with a reasonable amount of diligence, and judgment.

#### (Abstract from IPEV Valuation Guidelines 2022)

#### Typical indicators of a change in Fair Value

In applying the milestone analysis methodology, the Valuer attempts to assess whether there is an indication of change in Fair Value based on a consideration of the milestones. This assessment might include considering whether there have been any:

- significant changes in the results of the Investee Company compared to budget plan or milestone;
- changes in expectation that technical milestones will be achieved;
- significant changes in the market for the Investee Company or its products or potential products;
- significant changes in the global economy or the economic environment in which the Investee Company operates;
- significant changes in the observable performance of comparable companies, or in the valuations implied by the overall market; and any internal matters such as fraud, commercial disputes, litigation, changes in management or strategy.

#### Adjustment to Fair Value in such circumstances

If the Valuer concludes that there is an indication that the Fair Value has changed, they must estimate the amount of any adjustment from the last reported Fair Value. By its very nature such adjustment will be subjective. This estimation is likely to be based on objective data from the company, and the experience of the investment professionals and other investors.

However, the necessity and magnitude of the adjustments are relatively subjective and require a large amount of judgement on the part of the Valuer. Where deterioration in value has occurred, the Valuer should reduce the carrying value of the Investment reported at the previous Measurement Date to reflect the estimated decrease.

If there is evidence of value creation, such as those listed above, the Valuer may consider increasing the carrying value of the Investment. Caution must be applied so that positive developments are only valued when they contribute to an increase in value of the Investee Company when viewed by a Market Participant. When considering these more subtle indicators of value enhancement, in the absence of additional financing rounds or profit generation, the Valuer should consider what value a Market Participant would place on these indicators, taking into account the potential outcome and the costs and risks to achieve that outcome.

#### DCF technique may be useful as a cross-check

In the absence of significant revenues, profits, or positive cash flows, other methods such as the earnings multiple are generally inappropriate. The DCF methodology may be utilised as a cross- check; however, the disadvantages inherent in this methodology, arising from the high levels of subjective judgement, may render the method inappropriate without corroborating support.



## Allocating Enterprise Value

2.4 Generally, for Private Capital Investments, Market Participants determine the price they will pay for individual equity instruments using Enterprise Value estimated from a hypothetical sale of the equity which may be determined by considering the sale of the Investee Company, as follows:

- i. Determine the Enterprise Value of the Investee Company using the Valuation Techniques;
- Adjust the Enterprise Value for factors that a Market Participant would take into account such as surplus assets or excess liabilities and other contingencies and relevant factors, to derive an Adjusted Enterprise Value for the Investee Company;
- iii. Deduct from this amount the value, from a Market Participant's perspective, of any financial instruments ranking ahead of the highest-ranking instrument of the Fund in a sale of the Investee Company.
- iv. Take into account the effect of any instrument that may dilute the Fund's Investment to derive the Attributable Enterprise Value;
- v. Apportion the Attributable Enterprise Value between the Investee Company's relevant financial instruments according to their ranking;
- vi. Allocate the amounts derived according to the Fund's holding in each financial instrument, representing their Fair Value.

It is important to recognise the subjective nature of Private Capital Investment valuation. It is inherently based on forwardlooking estimates and judgements about the Investee Company itself: its market and the environment in which it operates; the state of the mergers and acquisitions market; stock market conditions and other factors and expectations that exist at the Measurement Date.

Due to the complex interaction of these factors and often the lack of directly comparable market transactions, care should be applied when using publicly available information regarding other entities in deriving a valuation. In order to measure the Fair Value of an Investment, the Valuer will have to exercise judgement and make necessary estimates to adjust the market data to reflect the potential impact of other factors such as geography, credit risk, foreign currency, rights attributable, equity prices and volatility.

As such, it must be recognised that, while valuations do provide useful interim indications of the progress of a particular Investee Company or Investment, ultimately it is not until Realisation that actual results are determined. A Valuer should be aware of reasons why Realisation proceeds are different from their estimates of Fair Value and consider such reasons in future Fair Value estimates. The concept of Backtesting, as described in Section I 2.7, can assist in enhancing the valuation process.

These Guidelines highlight the allocation of Attributable Enterprise Value as a technique to determine the Fair Value of an Investment as it is commonly used. It should be noted that other techniques may be appropriate depending on the facts and circumstances such as considering the value of the Investment from the perspective of a Market Participant with similar Investment objectives, return expectations, and time horizon. Some have articulated this approach as a "step into the shoes" perspective. Ultimately, Fair Value should be determined based on Market Participant assumptions as to the value that would be received for the Investment at the Measurement Date.



### Allocation of Enterprise Value:

As an early-stage company establishes its business model and raises considerable funding from investors to scale its business, investors and their valuation specialists assess the value of their stake in the company through sophisticated valuation techniques such as a calibrated market approach with allocation through an option pricing method ("OPM") or a common stock equivalent ("CSE") method.

When there are differential rights per share classes or rights for preferred shares differ from common shares (even if preferential rights are pari-passu), option pricing model (OPM) or common stock equivalent (CSE)should be looked at for allocation of value.

In selecting the weight for OPM vs CSE, following factors should be considered in terms of stage of business and business specific events –

- Stage of Development;
- Improvement in economics / high growth in the business;
- Significant value creation in the business beyond liquidation preference;
- Subsequent fundraise at a value lower than prior round of financing (down round);
- Sufficient cash runway and equity being traded;
- Secondary transactions in the business across different classes of shares;
- Company filing for IPO / signed termsheet for strategic sale;
- Delayed IPO / liquidity crunch.

### Other Adjustments to Enterprise Value

Adjustments to the derived enterprise value to reflect market participant perspectives with respect to "surplus assets" or excess liabilities should be determined. Adjustments may include:

- identifying the amount of steady state working capital that a buyer would require to be delivered when the enterprise is sold
- *identifying the amount of excess cash, if any and whether it will be to the good of seller or buyer*
- identifying other surplus assets, if any, and how they will be reflected in a transaction for the entity
- consideration of liabilities that may or may not be reflected in the balance sheet such as incentive compensation, bonuses, tax, deferred consideration, pension, etc.
- consideration of ESG related factors, e.g., decommissioning provisions, mandatory contributions, expected legislation

### Apportion the Attributable Enterprise Value appropriately

The apportionment should reflect the respective amounts accruing to the holder of each financial instrument and all other financial instruments (regardless of holder) in the event of a Realisation at the Measurement Date. As discussed further in section II 5.9, where there are ratchets or share

options or other mechanisms (such as 'liquidation preferences', in the case of Investments in early- stage businesses) in place which are likely to be triggered in the event of a sale of the company at the given Enterprise Value at that date, these should be reflected in the apportionment.

The estimation of Fair Value should be undertaken on the assumption that options and warrants are exercised, where the Fair Value is in excess of the exercise price and accordingly it is a reasonable assumption that these will be exercised. The aggregate exercise price of these may result in surplus cash arising in the Investee Company if the aggregate exercise price is significant.

Where significant positions in options and warrants are held by the Fund, these may need to be valued separately from the underlying Investments using an appropriate option-based pricing model.

Differential allocation of proceeds may have an impact on the value of an Investment. If liquidation preferences exist, these need to be reviewed to assess whether they are expected to give rise to a benefit to the Fund, or a benefit to a third party to the detriment of the Fund.

### Determining the value of debt to be deducted

Many investment structures include third party debt that has a higher-ranking claim on the enterprise than the Investment of the Fund. To estimate the attributable Enterprise Value, such debt is deducted from Adjusted Enterprise Value. When deducting outstanding debt from Enterprise Value to calculate the Fair Value of equity Investments, judgement should be exercised to ensure that the amount deducted represents a Market Participant perspective.

For example, if the debt must be repaid upon the sale of the Investee Company, which is often the case in a private equity transaction, then a Market Participant transacting in their economic best interest, may assume that a hypothetical change in control occurs on the Measurement Date and thus deem the amount to be deducted to equal the par or payoff value of debt (i.e. the amount to be repaid). However, a Market Participant may take into account the timing and likelihood of a future actual change in control (that is, assuming that a change in control has not yet taken place as of the Measurement Date but incorporating into the value deducted the existence of the change in control position)



#### (Abstract from IPEV Valuation Guidelines 2022)

If debt would not be repaid when the Enterprise is sold, then the amount of debt deducted for purposes of determining the fair value of the equity investment would not necessarily equal the par, payoff, or fair value of debt. It would reflect a Market Participants hypothetical negotiated value taking into account favourable or unfavourable terms (such as interest rate) of the debt, or in other words, the value of debt reflecting the favourable/unfavourable elements would be deducted from Adjusted Enterprise Value.

An additional question arises if the debt includes special features such as a prepayment penalty. In such circumstances, consideration must be given to the price at which Market Participants would transact to maximise value. The prepayment penalty would be incorporated into the amount deducted based on the probability it would be paid. When using a Market Participant perspective, the value deducted may or may not equal the face, par, or payoff value of debt depending on the facts and circumstances.

- **Q.** If the debt is required to be repaid upon a change of control with a prepayment penalty, the probability of the prepayment penalty being assessed, based on considerations including but not limited to the expected duration and ability to negotiate with lenders, would be incorporated into the amount deducted.
- **b.** If the debt is not required to be repaid upon a change of control, then the amount deducted would be impacted by any favourable or unfavourable terms (such as interest rate) of the debt in determining the amount that would be deducted from Adjusted Enterprise Value.

Note: If the Investment is in the debt of an Investee Company, the Fair Value of the Debt Investment would be determined using a Market and/or Income Approach taking into account risk, coupon, time to expected repayment, and other market conditions in determining the Fair Value of the Debt Investment, which would generally not be equivalent to par value (see Guidelines 3.6 or 3.8; also see section II 5.6 Debt Investments and appendix 2, Application of IFRS 9 / Accounting Standards Codification (ASC) Topic 946 to Debt Investments).

Where the debt is trading at a discount to par, this lower amount would not be deducted from the Enterprise Value until the Investee Company or the Fund has acquired that Debt in the market at that value and intends to cancel the debt rather than seek repayment at par.

### Dilution

A Fair Value estimate reflects Market Participant perspectives. Many Private Capital Investments contemplate potential dilution. For example, dilution occurs because of ownership interests provided to Investee Company management that may vest over time. Vesting as of the Measurement Date would be taken into account in estimating Fair Value.

Dilution may also be expected with early-stage Investments where additional rounds of financing include terms where existing shareholders' ownership percentage is reduced as additional capital is raised. Fair Value reflects the ownership stake at a given Measurement Date. In some circumstances and often in earlystage Investments, value determined through a scenario analysis may need to reflect potential anticipated dilution at ultimate exit resulting from additional rounds of financing.



## **Debts Investments**

Debt Investments take many forms. They can include senior debt, mezzanine loans, shareholder loans, etc. Debt Investments may include a cash pay coupon, payment-in-kind interest (see section II 5.7), and/or equity enhancements, such as warrants.

The Fair Value of Debt Investments should generally be determined on a standalone basis. The price at which the Debt Investment was made or the loan was issued may be a reliable indicator of Fair Value at that date depending on facts and circumstances. However, when combined with features such as warrants, the value of warrants would be disaggregated from the value of the Debt Investment when calibrating the initial yield and Fair Value of the debt and option components.

It should be noted, however, that if debt is a standalone Investment, a Market Participant would take into account risk, coupon, time to expected repayment, and other market conditions in determining the Fair Value of the Debt Investment, which may not be equivalent to face value.

At subsequent Measurement Dates, the Valuer should consider whether any indications of changes in credit risk, positive or negative, would impact Fair Value. The Valuer should also consider whether any indications of changes in required yield based on changes in risk and in market rates of return impact Fair Value.

Depending on the nature of the Debt Investment there may or may not be observable trading activity which provides an indication of value. If trades occur, such information if available should be included in the valuation analysis. There are agencies that regularly quote prices on various Debt Investments; however, transactions cannot always be undertaken at the indicative prices offered.

Reported transaction prices should be considered by the Valuer as to whether they represent a reasonable indication of Fair Value. The use of such reported prices is permitted to determine Fair Value if the Valuer has determined how a quotation or a price provided by a third-party source was determined and to what extent it is contemporaneous and actionable. The Valuer should understand what the source of the information was, the inputs and assumptions used, and whether a quote is binding or not.

Since the cash flows and terminal values associated with a Debt Investment may be predicted with a reasonable amount of certainty, typically these Investments are valued on the basis of a DCF calculation.

Warrants attached to mezzanine loans should be considered separately from the loan. The Valuer should select a Valuation Technique appropriate to valuing the Investee Company and apply the percentage ownership that the exercised warrants will confer to that valuation.

In the event that the warrant position is significant, the Valuer may consider utilising one of the sophisticated option and warrant pricing models.

If the Debt Investment is one of a number of Investments held by a Fund in the Investee Company, then the Debt Investment and any attached warrants should be included as a part of the overall package of Investment being valued, to the extent that a Market Participant would combine the Investments.

Further, at all times, but especially in times of Market dislocation or distress, the following may require extra emphasis:

- The fair value of a debt investment, in the absence of actively traded prices, is generally derived from a yield analysis taking into account credit quality, coupon and term.
- Par value or face value or cost value s not automatically fair value, even f there is sufficient enterprise value to cover the liability.
- Credit quality (repayment risk) must be assessed.
- Non-performing debt is considered differently from performing debt.
- Increases in interest rates, widening credit spreads, changes in credit ratings, and modifications in other market terms and conditions will impact fair value.



### Basics of Debt Valuation

### a. General

In addition to the guidelines mentioned with a specific focus on calibration and yield analysis; one should assess a few factors which are to be considered to ascertain the creditworthiness of the borrower and to understand the associated risk inherent in the debt investment irrespective of the nature of debt investment:

- Capacity Analysis: Capacity analysis involves assessing the issuer's past performance and its ability to repay the loan. Analysing the capacity of the company to repay the debt and make timely interest payments involves assessing the following factors.
  - <u>Financial and Operating performance</u>: This includes assessing revenue sources, past drivers of growth, operational efficiency, margin trends, cash flow generation ability, historical capital expenditures, and the issuer's actual performance compared to underwritten assumptions.
  - <u>Credit metrics</u>: This includes analysing key credit metrics like interest coverage ratio, fixed charge coverage ratio, financial leverage ratio, loan to value ratio, and other liquidity metrics like current ratio and cash ratio.
  - <u>Credit performance</u>: A valuer should consider factors like cash flow generation, deleveraging capabilities, events of default, likelihood of bankruptcy, estimating the credit rating, and excess cash flow triggering events.
- Character: Character refers to the issuer's credit history. It involves looking at management's willingness to repay debt and make timely interest payments on the same.
- Collateral: An asset or a bucket of assets which have been used to back the loan. Overcollateralized loans demand lower interest rates as compared to others. Analysing the collateral involves assessing the capacity of the collateral to generate cash flows in the future which would drive its current value and influence its risk factors. Other collateral and structures that have provided lenders comfort in India have included features such as promoter guarantees, put/call options, etc.
- Covenants: The factors mentioned above were specific to the issuer. Understanding covenants help take into consideration specific features of a particular debt security. This helps appreciate the difference in seniority, security and any restrictive covenants that would make the specific debt investment relatively more or less risky compared to other debt on the balance sheet of the issuer.

### Direct Lending

### Security Type

Private Debt primarily focuses on investing at the top of the capital structure, primarily in senior, secured first lien debt. Investing at or near the top of the capital structure reduces risk relative to equity. Additionally, these loans often have covenants that provide greater structural protections to the lenders compared to covenant-lite, broadly syndicated loans or unsecured high-yield bonds. Direct Lending includes Senior Debt, First Lien Loans and Unitranche Debt. Regular interest payments drives a constant cash flow stream throughout the deal life.

### Additional Considerations

When cash flows are predictable, debt investments are valued using a discounted cash flow approach whereby expected future cash flows are discounted at a risk-adjusted discount rate. This discount rate takes into account both company specific factors and private market factors. Fair Value of Private Credit instruments can be measured by either calibrating the investment to a reference point or by performing a standalone valuation. The choice depends on whether the calibration transaction was an arms' length transaction or not.

- If the price at which the debt investment was issued, i.e. the Original Issue Price, was a reliable indicator of fair value at the Reference Date, then the fair value can be measured by calibrating the debt investment to the Reference Date.
  - At subsequent Measurement Dates, the Valuer should take into account the changes in company specific factors and the market yield and spread movements. Company specific factors include observing changes in the credit metrics, credit profile of the borrower along with other operational and financial metrics.
  - Key financial covenants such as the maximum leverage ratio and interest coverage ratio should be monitored and the probability of the company breaching any of its covenants in the near future should be considered by observing the change in cushions over the covenants over time.
  - A key point to note here is, although it is a common practice to consider public credit benchmarks for observing the yield and spread movements, private market yields and spreads do not always move in conjunction with that of public credit.
- A standalone valuation is performed when the loan transactions are not considered to represent fair value. If the private credit investment is being considered for a standalone valuation, the Valuer should take into account coupon payments, credit risk and default risk, time to expected repayment, and other private market conditions in determining the Fair Value of the Debt Investment.
  - At subsequent Measurement Dates, the Valuer should consider the impact of any changes in credit risk and default risk, positive or negative, on Fair Value.

### **Special Situations**

### Security Type

Special Situations can be classified as a highly niche and differentiated strategy which often deviates from typical investment scenarios and may arise from various structural and non-operational corporate events such as restructuring, mergers & acquisitions, carve-outs, turnarounds, buybacks, bridge financing to IPOs, liquidity squeeze, etc. The focus of investors seeking such a strategy is to capitalize on situations where traditional financing is not readily available, thereby generating higher returns.

### Additional Considerations

Measuring fair value of special situations investments requires adopting a similar approach to private credit valuation but modified according to investment specific factors, which is in line with the accepted valuation guidelines. A few additional valuation considerations for special situation investments include:

- Collateral Analysis: Special Situations debt have higher risk as compared to other debt. As a result, collateral analysis becomes an especially important part in case of special situations lending. It helps investors understand the level of protection they have in case of default.
- Scenario Analysis: Valuation requires thoughtful scenario analyses, where applicable, and can help identify upside possibilities and provide comfort to downside scenarios. Such scenario analyses provides insights as to when and in what circumstances, the company might face liquidity and/or solvency issues.
- Benchmarking Issues: Special situations debt include distressed assets and other event-driven strategies that do not have comparable companies that have offered similar securities in the market. As a result, benchmarking it to indices and corporate securities might reflect some tracking error and are not generally recommended.
- Investment Specific Structure: The structure of the holding company should be analysed. Companies that usually raise such debt have a HoldCo and an OpCo structure. It is necessary to conclude where the actual cash flows accrue and what serves as the collateral for the debt.
- Exit Expectations: The Valuer should take into consideration the exit expectations of the investors. Exit expectations refer to the timing and manner of the exit. This becomes especially important in case of distressed debt because most of the cashflows from the investment are grouped nearer to maturity date.
- Contract terms: The covenants mentioned in the credit agreement of the special situations debt can significantly impact its valuation. This includes convertible features, participation rights, and the priority of debt repayment.

### Venture Debt

### Security Type

Venture Lending is a form of debt financing extended to start-ups and newly formed business that are in the product development stage or have begun their initial sales, especially in new economy segments. Such financing is extended to companies that have high growth potential in the future but have no profitability initially. The debt is typically expected to be repaid through internal accruals or other forms of liquidity (including future rounds of equity capital).

### Additional considerations

A valuer should build a framework that includes a balanced scenario for the equity kicker at the time of underwriting. This requires an understanding of all features of the security, the economic payoffs, and realistic expectations of outcomes. A significant aspect is to understand the terms of the equity upside and bifurcating the value of debt and equity upside at the investment date in order to capture the true value of the investment over the holding period. Additional valuation considerations for measuring fair value of venture debt investments include:

- Sponsor Support: Companies that secure venture debt typically have strong sponsor support and have completed multiple rounds of financing. These rounds can provide a starting point for calibration of the valuation of any equity upside.
- Upside Potential: Many venture debt investments include equity kickers. These equity kickers entail a right to acquire the borrowing company's equity shares at a pre-determined price. Valuing such features is complex and requires option pricing models during valuation.
- Valuing sweeteners: Sweeteners like warrants or partly paid preference shares must be modelled out independently from the debt, but the total must be calibrated back to the consideration paid. When evaluating the subject company, the Valuer should choose an acceptable valuation technique and include equity issued on account of exercising such warrants in the ownership structure. If the warrant position is material, the valuer can use option and warrant pricing models. The value of the debt investment and the value of the warrant derived from the model would represent the combined fair value of the security. This can be split based on the assessed unit of account for the aggregate investment.
- Illiquidity: Venture debt is often considered illiquid and usually does not have a secondary market for sale since the borrowing companies are relatively small and are still in their growth stage.
- Milestones and Earn-outs: Valuation is also dependent on milestones and earn-outs outlined in the facility agreement, which may indicate enhanced payoffs if the company reaches a certain operating milestone, raises additional capital, etc.

## **Real Estate Investments**

A market approach, cost approach and/or an income approach is generally used when valuing real estate Investments at Fair Value. The Unit of Account is generally the equity or mortgage interest in the real estate Investment held. Fair Value of equity is determined by estimating the value of the real property and then subtracting the value of debt that a Market Participant would use to determine value of the equity interest. In fair valuation of the mortgage interest, the real property is the collateral against which a mortgage has been taken, therefore, the real property value is considered as part of risk assessment of the investment.

Certain real estate funds do not report Investments as Investment entities, and thus, do not carry their Investments at Fair Value. Those funds represent equity interest, the entire real property is typically reported as an asset of the Fund, and the mortgage debt is reported as a liability of the Fund. Further, certain funds elect to report the mortgage debt at Fair Value, using the Fair Value option based on applicable accounting standards.



## <u>General</u>

Various approaches are used in real estate valuation to estimate the property's fair value. Although the property is valued, the Unit of Account is usually the equity or mortgage interest in the property held. In traditional valuation theory, three generally accepted valuation methodologies are considered to estimate the value of an asset. They are the sales comparison, income capitalization and cost approaches. Each approach assumes valuation of the property at the properties highest and best use. The highest and best use of a property is the one which results in the highest value. It does not necessarily mean that the highest and best use will also generate the highest profit to the owner.

**1. Cost Approach:** The Cost Approach is based on the valuation principle that the value of any property should be at least equal to its current cost of construction and development, inclusive of the developer's profit and the value of the underlying land. In applying the cost approach to value, we first estimate the replacement cost new ("RCN") of the assets. The RCN estimates are based on replacing the Real Property with assets of equal utility and functionality. Accordingly, the RCN estimates include all applicable direct and indirect costs. The value of the property thus derived should be adjusted by adding the value of the land and including the developer's profit. It is further adjusted by subtracting depreciation according to the age of the property. Appropriate allowances for depreciation are estimated based on the effective age of the assets relative to the expected physical lives and conditions of the assets. The valuation approach has an inherent limitation whereby it doesn't consider the property lead time, i.e. the time that would go into the construction and development of a similar property. Further, this approach is not regularly used for valuing operating assets, given 1) It does not consider the cash flow generation ability of the asset, 2) Estimation of Developer Profit can be subjective and 3) Estimate of useful life of a building is difficult to estimate and also the ability to generate cash flows changes as life passes.

**2. Sales Comparison (Market) Approach:** In the Sales Comparison Approach, the appraiser develops an opinion of value by comparing the subject property being valued to similar properties located in the same or nearby locality and are offered for sale or have been sold within a reasonable period from the Valuation Date in an armslength transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion. This approach is based upon the principle of substitution, which states that the limits of prices, rents, and rates tend to be set by the prevailing prices, rents, and rates of equally desirable substitutes. The value of the subject property is adjusted upwards/downwards for unfavourable/favourable differences with the comparable properties. In case the subject property has been traded within 6 months of the Valuation Date, the last traded value can also be considered along with the market comparables for analysis under this approach.

The valuer exercises skill, experience, and judgment in valuing and in making such adjustments and comparisons, even to the extent of making a market valuation (of a property for which it is thought there would have been a market) in the absence of any direct transaction evidence.

(These insights have not been vetted by IPEV and do not form part of the IPEV Guidelines. They are prepared by IVCA to provide guidance for AIFs and their valuers in India)

## Additional Insights

**3. Income Approach:** The income approach is based on the valuation principle which states that a value of a property is equal to present value of its future cash flows or is a function of expected yield from income derived from the property.

<u>Direct Capitalization Approach</u>: This method is used to value properties that produce a consistent annual operating income. The cash flows are calculated by adjusting net income for vacancy and collection loss, and operating expenses. This is referred to as net operating income ("NOI") or net cash flow. Next year's NOI is capitalized by an appropriate rate of return (also known as the capitalization rate) to derive an estimated value, or a forecast of net cash flows is projected over an appropriate investment horizon with an assumed sale at the end.

Thus, two key steps are involved: (1) estimating the net income applicable to the subject and (2) choosing appropriate capitalization rates. Capitalization rate can be calculated as the returns required by the investor subtracted by the assumed NOI growth rate or an appropriate market-based yield.

• <u>Discounted Cashflow Approach</u>: This method is used when the income generated by the property is expected to vary over a period of time. The projected cash flows are discounted at an appropriate discount rate to arrive at the present value of the property. The resulting present value of the future cash flow stream represents an indication of value.

### Valuation of the instruments:

- Valuation methodology for Equity investments: Estimated equity cashflows towards the instruments from the underlying asset/property are discounted to a present-day value at cost of equity (as determined by the Approved Valuer)
- <u>Valuation methodology for Debt investments:</u> Cashflows towards debt instruments as per the repayment schedule as may be adjusted from time to time for actual cashflows/actual are discounted to a present-day value at going forward cost of debt as determined in the investment documentation. The Valuer tests the underlying project cashflows for adequacy to service the debt. Refer to Debt Instrument valuation for further details.

### Applicability of Approaches

Cost approach is typically used for new and unique properties where sufficient comparable sales data is unavailable or for insurance purpose in determining the replacement cost of a property.

The Sales Comparison approach is usually used when comparable properties are available in the market, especially residential properties, where there is a higher likelihood of finding comparable sales.

The Income approach is preferred where cash flows can be forecasted with high predictability and vacancy rates are low. In income approach, typically, for completed and income yielding assets, direct capitalisation approach is used and for under-development or self-liquidation projects, discounted cashflow approach is preferred.

## Infrastructure Investments

An income Valuation Technique is often used to value infrastructure Investments as limited market transaction data is generally available. Guideline 3.8 highlights concepts included when estimating Fair Value using cash flows to the Investment. Some Valuers use terms such as a free cash flow to equity ("FCFE") or dividend discount model ("DDM") to describe the discounted cash flow methodology articulated in Guideline 3.8. Market Participant assumptions should be used to select the inputs used in the discounted cash flow model when estimating the Fair Value of infrastructure Investments, as they are with all types of Investments.



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## Additional Insights

### Equity Investments:

Free Cash Flow to Equity ("FCFE"), Free Cash Flow to Firm ("FCFF") or Dividend Discount Model ("DDM"), forms of income approach, are typically used to value equity investments in infrastructure companies.

The highly geared nature of infrastructure companies (with periodic refinancings), and their ability to generate stable distributable cash flows for their equity shareholders (once operational) supports the use of FCFE or DDM approaches for valuing equity investments.

However, due to the varying debt levels in infrastructure projects (including publicly available information for comparable companies), estimating the cost of equity can often be challenging and therefore, FCFF approach may also be used (particularly in relation to the valuation of InvITs). The choice of approach should factor the fluctuations in capital structure.

Within the infrastructure sector, the risk profile of the cash flows would be different for investments based on the sub-sectors and structure/nature of concessions/contracts. For example, revenue can be relatively secured in case of operational renewable energy producers that have Power Purchase Agreements ("PPAs") or for road concessions awarded under the Hybrid Annuity Model ("HAM") but less secured when it is based on demand risk (that is, traffic levels for roads, capacity utilization for data centres and so on). Similarly, certain costs are relatively certain while others may have a greater degree of uncertainty associated with it. Certain cash flow assumptions may be driven by forecasts from external consultants (for example, traffic forecasts for toll roads, passenger/cargo forecasts for airports and so on).

The risk-profile of the cash flows, as discussed above, should be considered in selection of an appropriate discount rate for investments. For example, projects with signed PPAs or roads under HAM would typically have a lower discount rate than similar assets with a demand risk.

Investment-specific risk factors like development/construction risk, approval/state risk, counterparty risk, operational risk, etc. should also be considered in selecting a discount rate.

Wherever relevant, calibration of discount rates to the underwriting internal rate of return ("IRR") should be performed. While performing a calibration analysis, consideration should be given to the changes in the life-cycle of the projects (under-construction, early operations, stable operations and so on), progress on construction related milestones, macro-economic environment and other relevant factors. However, the calibration analysis may be limited by the nature of acquisition/investment (in case of strategic acquisitions), multiple moving variables since the underwriting or any other factors. The assignment of relevance to be given to the calibration approach should factor in these limitations. The discount rates (including trends therein) should also be corroborated with publicly available information on yields/discount rates.

### Debt Investments:

The valuation considerations for debt investments in infrastructure companies are similar to those discussed in "Debt Instruments" (Section 5.6 above).