Series-5

Valuation : Professionals' Insight

Valuation Standards Board ICAI
and
ICAI Registered Valuers Organisation
The Institute of Chartered Accountants of India
(Set up by an Act of Parliament)
New Delhi

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Foreword

Valuation is the most fundamental term in finance but is extremely crucial to understand while deriving the value. Also, several events in recent past have transpired to provide an indication of the public concern on valuation and the impact on shareholders and other stakeholders. Fund Providers, both equity and debt, have been active in asking for enquiries into valuations submitted by companies for mobilizing funds and restructuring. Regulators have also been concerned on the valuations submitted in the context of transactions entailing purchase/sale, income tax, fund mobilization and corporate restructurings.

The Companies (Registered Valuers and Valuation) Rules, 2017 aims to ensure that a valuation report does not carry a disclaimer, which has the potential to dilute the responsibility of the Registered Valuer or make the valuation unsuitable for the purpose for which the valuation was conducted. Therefore, with a view to provide guidance to the Registered Valuers, the Insolvency and Bankruptcy Board of India has issued Guidelines on Use of Caveats, Limitations and Disclaimers by the Registered Valuers in Valuation Reports in September, 2020.

The Registered Valuers are having different practices/ views in the preparation of valuation reports. Accordingly, in this direction, it becomes imperative to understand the various viewpoints on valuation to make a considered view. The interpretations of experts in the field of valuation prove to be immensely beneficial in understanding the intricacies involved in valuation.

In this regard, Valuation Standards Board of ICAI and ICAI Registered Valuers Organisation in their joint endeavour are publishing this fifth series of the publication titled 'Valuation: Professionals' Insight' containing various articles from Professional Valuers including Intangible Valuations, Valuation in Corporate Social Responsibility and other articles with focus on pertinent valuation topics and emerging issues.

I extend my sincere appreciation to the entire Valuation Standards Board and specially appreciate the efforts put in by CA. Pramod Jain, Chairman Valuation Standards Board and CA. Dheeraj Kumar Khandelwal Vice- Chairman, Valuation Standards Board for bringing out this publication for the benefit of members and other stakeholders.

I am sure that this publication would be of great help to the members and other stakeholders.

CA. Atul Kumar Gupta
President ICAI
Director ICAI RVO

Date: 4th February 2021
Place: New Delhi

Preface

The field of Valuation has witnessed huge importance and prominence over time, due to the paramount importance being played by valuation in financial understanding.

Steps are taken to make the valuation process more codified and scientific. However the current global pandemic created a deep impact on the economy and posed significant problems in valuations of assets, businesses and equities resulting into ambiguity in the minds of valuer in ascertaining the right approach and methods

Valuation will always require judgment and decision making based on the assumptions and limiting conditions grounded due to the data/facts available on the "valuation date", which is developed with broad practical experience and sound knowledge of the subject. Considering the need for a practical insight into the knowledge of the valuers and professional practices followed by them in the field of valuation, the Valuation Standards Board jointly with ICAI Registered Valuers Organisation has decided to bring out fifth series of the publication titled "Valuation: Professionals' Insights ".

This publication like the other four series is a compilation of the articles on various valuation topics written by experts in this field. We may mention that the views expressed in this publication are the views of the authors and are not the views of the Institute.

We would like to thank the President of ICAI CA. Atul Kumar Gupta and Vice President, CA. Nihar N. Jambusaria for their continued support in all the endeavours of the Board.

We would like to take this opportunity to convey our sincere thanks and gratitude towards the Board of ICAI RVO comprising of Shri Rajeev Kher, Chairman of the Board and other Directors, Shri Ashok Haldia, Shri Pawan Singh Tomar, Prof. Anil Saini and Shri Prafulla P. Chhajed, Shri Rakesh Sehgal for joining in the constant endeavours of the Board.

We place on record our appreciation to members of the Valuation Standards Board, Co-opted members and Special Invitees for their help and guidance in framing and bringing out this publication.

We, on behalf of the Valuation Standards Board, would like to put on record our appreciation to CA T.V. Balasubramanian, CA. Aalhad Deshmukh, CA. Girish Kaushik, CA. Abhinav Agrawal, CA. Manas Dash, CA. Nitin Pahilwani, CA. Romesh Vijayvarghiya, CA. Ajay Milhotra, CA. Paras. K. Salva, CA Nitesh Joshi, CA. Soumil Singhvi, CA Shilpang Karia , CA Rajan Wadhawan & Mr Shankar Bhargava for their contribution in developing this publication Valuation: Professional Insight Series V.

We would like to thank CA. Sarika Singhal, Secretary, Valuation Standards Board and CEO Designate ICAI RVO for contributing article and providing her technical and administrative support in bringing out this publication.

We are sure that this publication will be warmly received by all the members and they would find it immensely useful in carrying out their valuation assignments much more efficiently and effectively.

CA. Pramod Jain
Chairman
Valuation Standards Board, ICAI

CA. Dheeraj Kumar Khandelwal
Vice Chairman
Valuation Standards Board, ICAI

Date: 3rd February, 2021

Place: New Delhi

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Chapter 1
Business Valuation in Good and Bad Times

The happenings around us in the recent periods have brought about an accentuated appreciation of the implications of changing times. We had a steep drop in the market immediately after the Corona pandemic was identified in March / April 2020. Thereafter, we had things improving into better positions and suddenly now with the identification of a new more virulent strain in the UK, we again saw a nosedive in share prices. These changing times make it appropriate for us to ponder over, at this juncture, more so than ever, on valuation in the good times and bad times.

Let's start with looking at a classic case from the global scenario.

The case of Yahoo! Is a great example of the timing of the value – In February 2008, Microsoft made a $ 44.6 billion bid for Yahoo!. However, this did not happen and later in the year 2016, Verizon agrees to purchase Yahoo's operating business for $ 4.8 billion. In 2008, the offer was spurned by Yahoo on the grounds that it was being undervalued significantly! While this is so, the transaction with Verizon was consummated about 8 years later! In a span of 8 years, the whole scene becomes completely different!

One can be pretty sure there would have been a plethora of advisors including valuers who had adviced the parties on both sides and this clearly shows how the valuation could change topsy turvy with changing situations.

With this, let's proceed to look at what the ICAI Valuation Standards indicate in respect of the connection between valuation and timelines.

The valuation of a business is always with a clear linkage to the valuation date. The valuation is relevant and appropriate only as of that valuation date.

The valuation date itself is defined in the ICAI Valuation Standards as the specific date at which the valuer estimates the value of the underlying asset.

The Standards also define fair value 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 valuation date.

Thus, one of the key ingredients of determining fair value is the "valuation date". It is always pertinent to note that the valuation is devoid of a valuation date to which it is linked. The value could soar to great heights from a given valuation date to a later date or slip deep into the bottomless pit in the same period, due to a variety of reasons.

The standards also lay down that Valuation is time specific and can change with the passage of time due to changes in the condition of the asset to be valued and / or market. Accordingly, the valuation of an asset as at a particular date can be different from other date(s).

Some indicate factors that can affect the valuation between different dates classified into these two buckets are as under:

Condition of the asset to be valued	**Condition of the Market**
Quality being impacted due to efflux of time	Macro-economic conditions and trends
Maturity in the product life cycle	Market sentiments towards future
Technological changes	Demand trend
Capability maturity	Market size and likely changes to the same

These are only some examples of the factors that impact the valuation at different points in time. But it is pertinent to note that a broad classification of all the factors affecting valuation with the passage of time can be into "condition of the asset" or "condition of the market" as mentioned in the standard.

Those who are aware of Pagers in India would understand the import of the valuation varying enormously at various points of time.

In 1996 March when India commenced the first paging service, the market was expected to reach 600 K subscribed by end of 1996, arguably making India the fastest-growing market for this service. The overall subscriber level peaked in 1998 with nearly 2 Mn subscribers to then fall to less than 500 K by 2002. Mobile communication brought in an early demise of the pager business in India. In contrast, in the USA, pagers were in vogue for more than a couple of decades. Globally, the peak was somewhere in 1994 when there were an estimated 61 Mn pagers in use.

In this backdrop, consider the valuation of pager companies in India in the

early 1990s when companies were vying to get the licences that were being sold by the Government.

In the early 1990s, pager companies would have been valued at significant amounts. From an asset perspective, the outlook would have been one of the significant growths to be achieved with the advent of paging services in India and the power of licences held by the companies which would enable them to have such growths. Thus, the projected business plan and financials would have been on an aggressive growth plan which was expected by nearly anyone in the industry and even by the investing community. It is, however, a different matter of fact that probably the risk would have been higher and accordingly the discount rate would have been probably higher.

With the growth in the industry as it moved forward, say, sometime by end of 1998 or so, any valuation engagement would have probably by then had a better grip on the growth plans which may have been moderated and considering more informed projections. With this, there is likely that the risk rates applied also were moderated to be lower than what was considered in the early stages of this industry, considering that there is an experience of the industry's performance to rely upon in the business plans forming the basis of the future expectations.

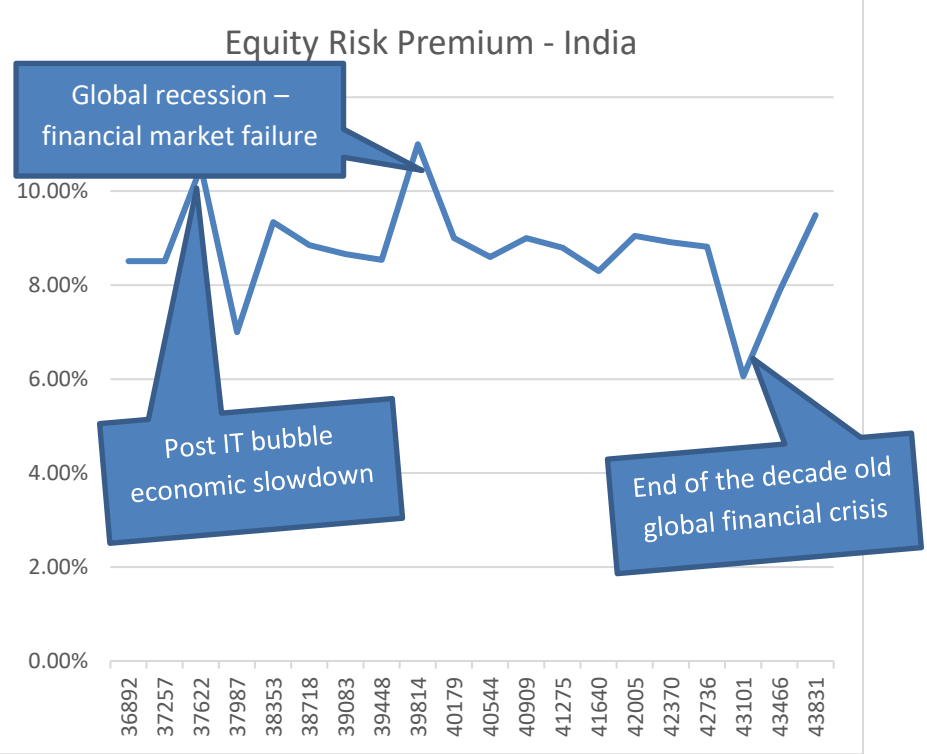
However, as the industry moved on into tough times in the later part of 2000s, the business plans would have factored in the waning nature of the industry and accordingly would have a dim outlook forming the basis for the valuation. However, with the uncertainty plaguing the industry, the risk profile for the industry would have also probably gone up resulting in the discount rates once again becoming higher, thus leading to a probable double whammy on the business valuation.

To summarise what transpires as a principle from this example of the pager industry, the likely implication on the valuation on a comparable basis would have been as under:

Stage of Business	**Nascent**	**Maturing**	**Waning**
Business Plans	Aggressive	Moderate	Subdued
Risk perception	Very High	Moderate	High
Discount Rates	Higher	Normal	Higher
Net effect to valuation, say as a multiple to current revenue or PAT	Higher multiple	Normal	Lower multiple

From the above illustration of the likely effect on the pager business valuation at various points of time, it clearly emerges that the business valuations are impacted by both the factors of "market condition" and "condition of the asset" with the passage of time.

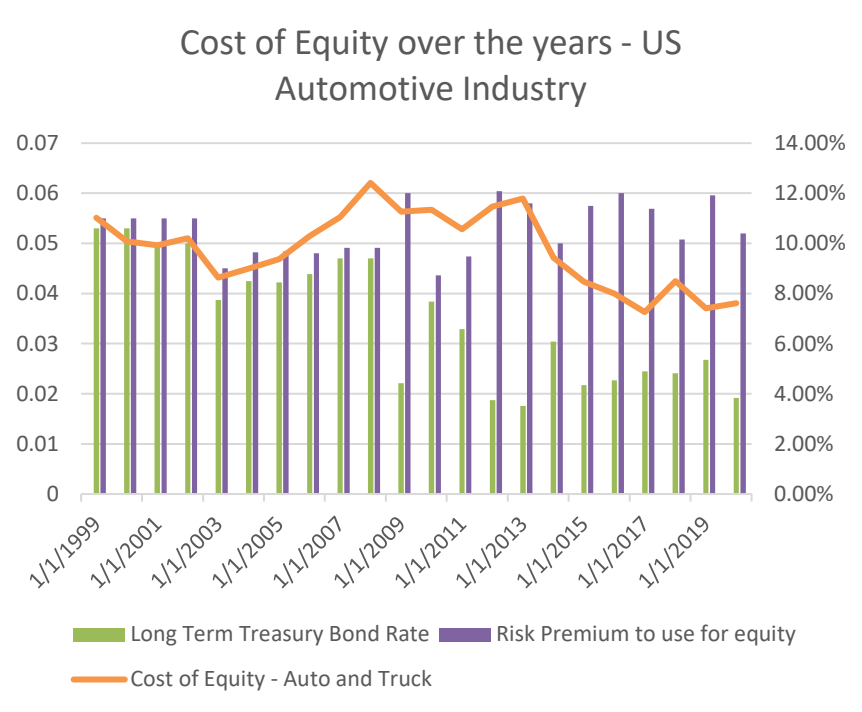
A look at the equity risk premium determined for India by Sri. Aswath Damodaran in his dataset over the years, clearly it can be seen that there are upward spikes connected with the "economic bad times".



This brings out the effect of the "condition of the market" with a negative impact on the risk premium in case of "bad times".

The following chart depicts the cost of equity for the US automotive market and it can also be seen that the spikes and troughs therein are linked to the economic condition of this industry. 2001 saw a recession coming in, which led to a small peaking which then ebbed downward. Once again, from 2005 it started peaking in view of the rising oil prices which peaked in 2008, coinciding with the financial crises too. All these led to peaking of the cost of equity too in this period. The automotive industry was in a crisis thereafter for 3 – 4 years

which is also reflected in the higher cost of equity in this period. After this period, there was a blip in 2017-18 due to the increasing unemployment, increasing interest costs and the small drop in sales of vehicles in 2017 compared to 2016 – an effect of affecting the consumer confidence at this point in time.



This again reinforces the impact on the valuation in bad times through the "condition of the market" reflected by the cost of capital / discount rate.

Looking at the condition of the asset being valued, the example of Ford Motor Company, USA could be taken for analyzing and understanding this aspect.

In 2015-16, University of Connecticut MBA program students did a valuation of Ford Motor Company using source data from Bloomberg, which presented a very optimistic scenario being the growth period of the automotive industry in the USA, post the financial crisis of 2008. Another valuation was undertaken in 2018 by Minnesota State University students using projected data from past five years revenue growth. This considered only a smaller growth compared to the estimates used in 2016 and also estimated the operating income to be significantly different.

Ford Motor Company's projected Operating Profit based on these two period studies:

	Projected Operating Profit in USD 000's			
Study Reference	**2017**	**2018**	**2019**	**2020**
Valuation in 2016	7,730	9,348	8,313	8,507
Valuation in 2018	4,813	4,667	4,820	4,978

This brings out the practical effect of how the future estimates are also significantly based on the view point of the future developments at a point of time and how these significantly vary over a period of time when new information coming forth could lead to a complete overhaul in the expectations about the future. Without going into the reasons and rationale for the differences between the projections used in these two studies, it can be concluded that the practical application does indicate that the data used to reflect the "condition of the asset" also could significantly be impacted during good and bad times.

Thus, to conclude, valuation during good times and bad times are impacted by a twin factor of the "condition of the asset" as well as the condition of the market". Of course, these two could have varied combinations of effects at different points in time. In other words, the market condition may remain the same but the condition of the asset could change or vice versa or even still both could change over the period of time.

Chapter 2

Valuation: A New Era for Professionals

The term valuation is not new as a definition to professionals, but as a work, it has a lot much opportunity for the professionals. There are certain points that needs a deeper understanding as to:

- Why Valuation is so important?
- Which are the factors crucial for determining the valuation?
- How Does it impact the decision-making process related to investment or disinvestment?

For understanding the valuation, we need to look at the definition first and the process next. The general definition of valuation can be divided into under mentioned parts to understand the term valuation:

- An Estimate of the value of an asset,
- Made by the expert,
- Considering the market condition and
- Expected return over the period of time from that particular asset
- Which may or may not be discounted for calculating the present value of investment made.

There are various statutes in India which have its own definition prescribed in the relevant Acts, which are narrated as under:

- Definition of a ***Fair Value*** given by **Income Tax Act, 1961,** reads as "*Fair Market Value in relation to a capital asset means the price that the capital assets would ordinarily fetch on sale in the open market on the relevant date."*
- **ICAI Valuation Standards** define as "*A Value is an estimate of the value of the business or business ownership interests, arrived at by applying the valuation procedures appropriate for a valuation engagement and using professional judgment as to value or the range of the value based on those procedures."*

- **IND AS 113 / IFRS 13** defines as "*Fair Value means 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 (i.e., exit price).*"
- **Insolvency and Bankruptcy Board of India Regulations 2018** define as "*Fair Value means the estimated realizable value of the assets of the corporate debtor, if they were to be exchanged on the insolvency commencement date between a willing buyer and a willing seller in an arm's length transaction, after proper marketing and where the parties had acted knowledgeably, prudently and without compulsion*"

Now, let's get back to the point that why Valuation is necessary

Then we can summarize that Valuation is based on the needs on the end use of the reports described in the tabular format:

Business Related Valuation Requirement	**Compliance Related Valuation Requirement**
Mergers / Acquisitions / De-Merger / Takeover	Income Tax Act, 1961 - Section 56 and Section 62 and Rule 11UA
Slump Sale / Asset Sale / IPR Sale	Insolvency and Bankruptcy Code, 2016 - Liquidation of Company (Sec. 281 of Companies Act, 1956) - Asset as Sale of Corporate Debtor - Fair Value or Liquidation Value – as required under Regulation 34
Conversion of Debt / Security	Reserve Bank of India - Inbound Foreign Investment - Outbound Foreign Investment - Other Business Transactions
Capital Reduction	SEBI Regulations - ICDR / LODR / Preferential Allotment etc., Rules

Strategic Financial Restructuring	Compliances under Companies Act, 2013, Valuation for SARFAESI / Arbitration etc., Valuation for IND AS Purposes and Valuation to be done on Court Orders

Let's move on to the second point that which are the crucial factors affecting the Valuation

There are various factors that have significant impact while working on a particular valuation assignment.

1) Purpose of Valuation
2) Nature of Business, Areas of Operations, Products and Expected Market of Products
3) Nature of Assets Class or Liability to be valued
4) Legal Compliances till Valuation Date and effects of previous non-compliances.
5) Methods Selected for arriving at Valuation
6) In case of the Merger, synergies of units merged and expected cash flows and revenue generation.
7) Discount Rate applied.
8) Intended End User and End Use of Report

Impact of Valuation in Decision Making

The Valuation of Business or Class of Assets or Liability has a larger impact on decision making which relates to:

1) Investment in Business – whether closely held or equity investments etc.,
2) Determining the Value or Range of Value of Share / Securities before IPO or at the time of FPO.
3) Determining the Value or Range of Value of Share / Securities for ESOP purpose.

4) Borrowing in form of Debt

5) Acquiring entire business / Takeover – Limited Takeover

6) Acquiring only Credentials of Particular business in liquidation

7) Determining Actual Value of Liability – for final settlement

8) Determining Value of Stresses Assets of Financial Institution for sale purpose.

9) Determining Value of Brand or Other Intangible Assets

For every valuation assignment to be done there is a set of valuation methods and procedures to be adopted according to the purpose of valuation and details provided.

We can consider the following as the common methods of valuation:

i) Net Asset Value – Generally used in case of the company under liquidation or winding-up procedures.

ii) Fair Market Value Method

iii) Discounted Future Cash Flow Method etc.,

The methods of valuation can be scientifically chosen and calculations be based on the management representation / details as provided by the entity.

Above was just the bird's eye view over which the valuation assignment can be carried out. Now as a Valuer, there are certain points which as a professional should consider are:

(i) Professional Qualification for carrying out Valuation Assignment as required by Statute.

(ii) Professional Skepticism while carrying out the assignment

(iii) Correct understanding of the purpose for which the assignment is given and details required to be sought for carrying out the assignment.

(iv) Taxation, Finance, Overall Industry perspective at the Macro Economy level also to be considered.

(v) In case comparative data needed for the particular type of industry that must be taken from reliable sources as required and must be mentioned in the valuation report.

After submitting the report, there are chances that the valuation report is challenged, it is necessary to prepare the working paper, jotting down the important points etc, while valuation exercise is undertaken because it may happen that minor details have a major impact on valuation results as to defend the valuation report at the time such challenges working papers play an important role.

Summing up, the valuation is the new era for professional working where there is a great opportunity for professionals but mean while we should also keep in mind that there are stringent provisions of statute governing valuation requirements and our report / details should not go against ourselves.

Chapter 3

Use of Caveats, Limitations and Disclaimers by the Registered Valuers in Valuation Reports

Background

Valuation as a process concerns the community of shareholders and society at large. It is imperative to address issues surrounding valuations in a market which is presently low in confidence on the quality of the work. Usually, a valuation is required in the context of:

- Transaction – acquisition, disposal, merger, amalgamation;
- Internal Decision making/Corporate Governance;
- Regulatory Compliance – Companies Act, SEBI Regulations, Income Tax, Wealth Tax, FEMA;
- Fund Mobilization – both equity and debt; and
- Disputes.

Several events in recent past have transpired to provide an indication of the public concern on valuation and the impact on shareholders and other stakeholders. Fund Providers, both equity and debt, have been active in asking for enquiries into valuations submitted by companies for mobilizing funds and restructuring. Regulators have also been raising questions on the valuations submitted in the context of transactions entailing purchase/sale, income tax, fund mobilization and corporate restructurings.

Further, as per Rule 8 of the Companies (Registered Valuers and Valuation) Rules, 2017 mandates that the Registered Valuers (RVs) shall state "caveats, limitations and disclaimers" to the extent they explain or elucidate the limitations faced by valuer, which shall not be for the purpose of limiting his responsibility for the valuation report.

This Rule aims to ensure that a valuation report does not carry a disclaimer, which has the potential to dilute the responsibility of the Registered Valuer or make the valuation unsuitable for the purpose for which the valuation was

conducted. However, the scope of "caveats, limitations and disclaimers" is not clear to everyone, including users and RVs, and consequently, the RVs are having different practices in presentation of caveats, limitations and disclaimers in valuation reports.

With a view to provide guidance to the Registered Valuers in the use of Caveats, Limitations, and Disclaimers in the interest of credibility of the valuation reports, the Insolvency and Bankruptcy Board of India has issued Guidelines on Use of Caveats, Limitations and Disclaimers by the Registered Valuers in Valuation Reports in September, 2020.

Need for issuance of Guidelines

Variance in valuation done by different Registered Valuers is often observed even when the purposes as also the circumstances in which the valuation is undertaken are the same. In such a situation, the market may question the ability of the RVs and the integrity of the valuation process.

This is not in the interest of the stakeholders where crucial economic and commercial decisions are taken on the basis of the valuation reports.

There may be a limitation, in case the Registered Valuer is unable to obtain sufficient information and explanations which are considered necessary for the purpose of the valuation.

Where due to such limitation, the RV is unable to carry out the valuation in accordance with the normal approach to valuation; the valuation report shall be modified with a paragraph setting out the nature of circumstances that are giving rise to the limitation.

What are Caveats?

- Caveats are warnings or cautions to the client/user of services.

What is a Limitation?

- Limitation is a restriction on the scope of the RV's work including inspection or investigation of the data available for analysis that may be present and known to the RV at the outset of the valuation engagement or that may arise during the course of a valuation assignment.

What are Disclaimers?

- A disclaimer is a statement intended to specify or delimit the scope of

rights and obligations that may be exercised and enforced by parties in a legally recognized relationship. It is a statement denying responsibility intended to prevent civil liability arising for particular acts or omissions.

Why Disclaimers are required?

A disclaimer is required in a valuation report to mitigate the potential risk of the RV. The reasons for providing disclaimers in a valuation report are as under:

- A disclaimer protects the rights of a RV by cautioning and dissuading others when using the contents of a valuation report.
- A disclaimer limits the liability of a RV since it serves both as a warning and a way to mitigate risk, a disclaimer protects a RV from liability. Anyone who reads the disclaimers should understand the risks involved in using the valuation report or acting upon the information that it contains.
- A disclaimer protects the RV from incurring liability or limits the liability of the RV from the actions of the company or management or insolvency professional at whose instructions the valuation has been carried out.

Caveats, Limitations and Disclaimers

- While caveat, limitations and disclaimers have different connotation, in the context of a valuation, the clauses may get used in an interchangeable manner as limitation or a disclaimer by a RV could be caveat for the user of the report. Hence it is imperative that the users of the report are familiarized about the same to enable them to assess the impact of the disclaimer/caveat/limitation on the credibility and reliability of the report.
- Any caveats, limiting condition or other disclaimers to the report must be clearly stated with appropriate specificity.
- In the preparation of a valuation report, the RV shall not disclaim liability for his expertise or deny his duty of "due care". However, it is recognized that a RV, shall prepare the valuation report of the company based on information and records concerned as provided by the management. The management remains liable for the correctness and veracity thereof. However, significant inputs provided to the RV by the management/owners should be considered, investigated and /or

corroborated. In cases where credibility of information supplied cannot be supported, consideration should be given as to whether or how such information is used.

- The RV does not make or calibrate the projections but factors his response and the valuation assessment on the reliability and credibility of the information. The various projections of business growth, profitability, and cash flows etc, which are used in the valuation report are the companys' estimates. The RV should consider the reliability and credibility of projections after testing the assumptions made by the management / owners / company in given market conditions and after sufficient inspection, enquiry, computation and analysis. The extent of evidence requires professional judgements and RV has to ensure that it is adequate for the purpose of valuation. The RV may disagree with the projections if they are conjectural or bordering on the unreal and accordingly make necessary modifications.
- A RV has the right to demand relevant information and basis of the projections before commenting thereon. It is the duty of the entity being valued to be fair and to provide accurate information about the subject asset.
- In a valuation report, the RV can state that the assumptions are statements of fact provided by the company and not generated by the RV. This warning statement is necessary as data provided by the company is often construed be a part of the valuation report. Notwithstanding this, the RV has to carry out sufficient inspection, enquiry, computations and analysis to ensure that valuation is properly supported.
- All valuations are to be carried out in sufficient detail to comply with the requirements of "due care". However, it can be reasonably expected that circumstances may place certain limitations regarding access to information or the time available. Hence, one has to recognize limitations of time and context in valuations, as it cannot constrain business need and flexibility.
- Keeping in view business needs and circumstances and, in the interest of transparency, any significant concerns regarding the justification, the information or the time available to complete the valuation be stated in the valuation report, together with appropriate explanation and implications.

- The effort, diligence and level of expertise applied by the relevant Registered Valuer, need to be stated in the valuation report.

Illustrative Caveats, Limitations and Disclaimers in a Valuation Report

An illustrative list, which is common for all types of assets, is provided below:

1. Restriction on use of Valuation Report

Restriction on use of Valuation Report shall be provided. It should be provided as- This document has been prepared for the purposes stated herein and should not be relied upon for any other purpose. Our client is the only authorized user of this report and is restricted for the purpose indicated in the engagement letter. This restriction does not preclude the client from providing a copy of the report to third-party advisors whose review would be consistent with the intended use. I/we do not take any responsibility for the unauthorized use of this report.

2. Responsibility of RV

I/We owe responsibility to only to the authority/client that has appointed me/us under the terms of the engagement letters. We will not be liable for any losses, claims, damages or liabilities arising out of the actions taken, omissions or advice given by any other person. In no event shall we be liable for any loss, damages, cost or expenses arising in any way from fraudulent acts, misrepresentations or wilful default on part of the client or companies, their directors, employees or agents.

3. Accuracy of Information

While our work has involved an analysis of financial information and accounting records, our engagement does not include an audit in accordance with generally accepted auditing standards of the clients existing business records. Accordingly, we express no audit opinion or any other form of assurance on this information.

4. Achievability of the forecast results

We do not provide assurance on the achievability of the results forecast by the management/owners as events and circumstances do not occur as expected; differences between actual and expected results may be material. We express no opinion as to how closely the actual results will correspond to those projected/forecast as the achievement of the forecast results is dependent on

actions, plans and assumptions of management.

5. Post Valuation Date Events (This should be disclosed while defining valuation date)

The user to which this valuation is addressed should read the basis upon which the valuation has been done and be aware of the potential for later variations in value due to factors that are unforeseen at the valuation date. Due to possible changes in market forces and circumstances, this valuation report can only be regarded as relevant as at the valuation date.

6. Range of Value Estimate

The valuation of companies and assets is made based on the available facts and circumstances and the conclusions arrived at in many cases will be subjective and dependent on the exercise of individual judgment. Although every scientific method has been employed in systematically arriving at the value, there is no indisputable single value and the estimate of the value is normally expressed as falling within a likely range. To comply with the client/RP's request, I/we have provided a single value for the overall Liquidation Value and Fair Value of the assets of [company], derived as an arithmetic average of the range of Liquidation and Fair Values. Whilst, I / we consider the valuation to be both reasonable and defensible based on the information available, others may place a different value.

7. No Responsibility to the Actual Price of the subject asset if sold or transferred/ exchanged

The actual market price achieved may be higher or lower than our estimate of value (or range of value) depending upon the circumstances of the transaction (for example the competitive bidding environment), the nature of the business (for example the purchaser's perception of potential synergies). The knowledge, negotiating ability and motivation of the buyers and sellers and the applicability of a discount or premium for control will also affect actual market price achieved. Accordingly, our valuation conclusion will not necessarily be the price at which actual transaction will take place.

8. Reliance on the representations of the owners/ clients, their management and other third parties

The client/owner and its management/representatives warranted to us that the information they supplied was complete, accurate and true and correct to the best of their knowledge. We have relied upon the representations of the owners/clients, their management and other third parties concerning the

financial data, operational data and maintenance schedule of all plant machinery-equipment-tools-vehicles, real estate investments and any other investments in tangible assets except as specifically stated to the contrary in the report. I/We shall not be liable for any loss, damages, cost or expenses arising from fraudulent acts, misrepresentations, or wilful default on part of the companies, their directors, employee or agents.

9. No procedure performed to corroborate information taken from reliable external sources

We have relied on data from external sources also to conclude the valuation. These sources are believed to be reliable and therefore, we assume no liability for the truth or accuracy of any data, opinions or estimates furnished by others that have been used in this analysis. Where we have relied on data, opinions or estimates from external sources, reasonable care has been taken to ensure that such data has been correctly extracted from those sources and /or reproduced in its proper form and context.

10. Compliance with relevant laws

The report assumes that the company/business/asset complies fully with relevant laws and regulations applicable in its area of operations and usage unless otherwise stated, and that the companies/business/assets will be managed in a competent and responsible manner. Further, as specifically stated to the contrary, this report has given no consideration to matters of a legal nature, including issues of legal title and compliance with local laws, and litigations and other contingent liabilities that are not recorded/reflected in the balance sheet/fixed assets register provided to us.

11. Multiple factors affecting the Valuation Report:

The valuation report is tempered by the exercise of judicious discretion by the RV, taking into account the relevant factors. There will always be several factors, e.g. management capability, present and prospective competition, yield on comparable securities, market sentiment, etc. which may not be apparent from the Balance Sheet but could strongly influence the value.

12. Future services including but not limited to Testimony or attendance in courts/ tribunals/ authorities for the opinion of value in the Valuation Report

I/We are fully aware that based on the opinion of value expressed in this report, I/we may be required to give testimony or attend court / judicial proceedings with regard to the subject assets, although it is out of scope of the assignment, unless specific arrangements to do so have been made in advance, or as otherwise required by law. In such event, the party seeking our evidence in the proceedings shall bear the cost/professional fee of attending court / judicial proceedings and my / our tendering evidence before such authority shall be under the applicable laws.

13. Unavailability of information as on Valuation Date

The Liquidation Value and Fair Value of assets of the company have been performed on the provisional unaudited standalone balance sheet of [company] provided by management/the RP as of the valuation date. On the other hand, no financial information as of the valuation date was available for subsidiaries and associates, hence we have relied on the latest available financial statements. The management / RP has also confirmed that there has not been any material change in the financials of subsidiaries and associates since the last available financial statements. Hence, due to the lack of financials as of the valuation date and based on representation given by the RP, I /we have considered financials as on the last available financial statements as the proxy for the financial position as of the valuation date, valuation report may change post availability of such information.

Illustrative Caveats, Limitations, and Disclaimers in a Valuation Report not to be used

- **Business Plan/forecasts received from client:** RV giving a disclaimer for the business plan/forecasts received from client without applying test of reasonability and due diligence.
- **Physical Verification:** RV giving a disclaimer that he has not physically verified the tangible assets in case where engagement is for providing liquidation value.
- **Market related data:** RV giving disclaimer for the market related data employed in his reports e.g. beta, discounting factor, comparable companies, comparable transactions, valuation metrices without testing appropriateness of the same.

- **Historical analysis:** RV giving disclaimer that he has not done any historical analysis while conducting valuation exercise of listed/unlisted entities although the historical data could have been arranged with reasonable effort.
- **One approach:** RV giving valuation conclusion based on only one approach without giving any reasoning as to why the other two approaches were not considered in his valuation.
- **Another expert:** RV giving disclaimer for work done by any other expert and the findings of the same does not form part of report of RV

Sample of Caveats, Limitations, and Disclaimers for Securities or Financial Assets

- While our work has involved an analysis of financial information and accounting records, our engagement does not include an audit in accordance with generally accepted auditing standards of the client existing business records. Accordingly, we assume no responsibility and make no representations with respect to the accuracy or completeness of any information provided by and on behalf of you and the client. Our report is subject to the scope and limitations detailed hereinafter. As such the report is to be read in totality, and not in parts, in conjunction with the relevant documents referred to herein and in the context of the purpose for which it is made.
- The valuation of companies and businesses is not a precise science and the conclusions arrived at in many cases will be subjective and dependent on the exercise of individual judgment. There is, therefore, no indisputable single value and we normally express our opinion on the value as falling within a likely range. However, as [purpose] requires the expression of a single value, we have adopted a value at the mid-point of our valuation range. Whilst we consider our value/range of values to be both reasonable and defensible based on the information available to us, others may place a different value on the [company/business]
- The actual market price achieved may be higher or lower than our estimate of [value/value range] depending upon the circumstances of the transaction (for example the competitive bidding environment), the nature of the business (for example the purchaser's perception of potential synergies). The knowledge, negotiating ability and motivation of

the buyers and sellers and the applicability of a discount or premium for control will also affect actual market price achieved. Accordingly, our valuation conclusion will not necessarily be the price at which any agreement proceeds. The final transaction price is something on which the parties themselves have to agree. We also emphasize that our opinion is not the only factor that should be considered by the parties in agreeing the transaction price.

- An analysis of such nature is necessarily based on the prevailing stock market, financial, economic and other conditions in general and industry trends in particular as in effect on, and the information made available to us as of, the date hereof. Events occurring after the date hereof may affect this report and the assumptions used in preparing it, and we do not assume any obligation to update, revise or reaffirm this Report.
- The ultimate analysis will have to be tempered by the exercise of judicious discretion by the RV and judgment taking into account the relevant factors. There will always be several factors, e.g. management capability, present and prospective competition, yield on comparable securities, market sentiment, etc. which may not be apparent from the face of the Balance Sheet but could strongly influence the value.
- Unavailability of information as of valuation date: Please note that the Liquidation Value and Fair Value of assets of the company have been performed as of an earlier date based on the provisional unaudited standalone balance sheet of [company] provided by management (the RP) as of the valuation date. On the other hand, no financial information as of the valuation date was available for subsidiaries and associates; hence we have relied on the latest available financial statements. The management / RP has also confirmed that there has not been any material change in the financials of subsidiaries and associates since the last available financial statements. Hence, due to the lack of financials as of the valuation date and based on representation given by the RP, I /we have considered financials as of XXX as the proxy for the financial position as of the valuation date, valuation report may change post availability of such information.
- In the course of the valuation, we were provided with both written and verbal information. We have however, evaluated the information provided to us by the Company through broad inquiry, analysis and review but

have not carried out a due diligence or audit of the information provided for the purpose of this engagement. Our conclusions are based on the assumptions, forecasts and other information given by/on behalf of the Company.

- We are independent of the client/company and have no current or expected interest in the Company or its assets. The fee paid for our services in no way influenced the results of our analysis.
- Our report is meant for the purpose mentioned above and should not be used for any purpose other than the purpose mentioned therein. The Report should not be copied or reproduced without obtaining our prior written approval for any purpose other than the purpose for which it is prepared.

Conclusion

Where a Registered Valuer is appointed, a detailed and fully reasoned valuation report should be prepared by him/ her in every case of valuation done in respect of both mandatory and discretionary valuation.

The following points may be considered while providing disclaimers in a valuation report. An RV may:

- identify the rights he/she wants to protect;
- identify the areas where he/she might be subject to liability;
- clarify that the contents of the valuation report pertain to specific use by the company; and
- caution the reader of the potential risks.

In respect of negligence in performance of the duties of Registered Valuer, any disclaimer will not exclude him from his liabilities.

Guidelines shall benefit the corporate sector by improved access to capital and reduced costs thereof will also have a social and economic impact in restoring faith of the fund providers.

Chapter 4

Valuation Reports: Structure and Content

The importance of the valuation profession in India has steadily grown in the recent past with great emphasis being placed on transparency, reliability and authenticity of valuation reports issued by valuation professionals. The Companies (Registered Valuers and Valuation) Rules, 2017 (Rules) provide a comprehensive framework for the development and regulation of the valuation profession. The Rules set standards for professional conduct and performance of robust valuations in the interest of stakeholders and the society at large. Furthermore, the Insolvency and Bankruptcy Board of India ("IBBI") has also issued guidelines on aspects of valuation report such as caveats, limitations and disclaimers.

Events in the recent past have highlighted the public/shareholder concerns associated with valuation. Debt and equity fund providers have been active in initiating enquiries into valuations submitted by companies for mobilizing funds and restructuring. Regulators have also been raising questions on the valuations submitted in the context of transactions entailing purchase/sale, income tax, fund mobilization and corporate restructurings. In this context, the importance of a detailed, transparent and wholistic valuation report is equally critical for valuation practitioners, clients and regulatory authorities. In this light, key elements of a valuation report should include the following at a minimum:

- Background Information
- Purpose of valuation and appointing authority
- Identity of the valuer and any other experts involved in the valuation
- Disclosure of valuer interest/conflict, if any
- Date of Appointment, Valuation Date and Date of Report
- Sources of information
- Procedures adopted in carrying out the valuation
- Valuation Methodology

- Major Factors influencing the Valuation
- Conclusion
- Caveats, Limitations and Disclaimers

A few salient points associated with each of these basic components of a valuation report are as follows:

Background information

The aim is to provide the unfamiliar and familiar reader alike, with the particulars of the company, business, assets/liabilities that form the subject of the valuation with as much context as required to gain an accurate understanding of the assignment. Transaction details, summary of historical financials, capital structure, identification of pertinent facts such as related party issues, changes in shareholding pattern, impact of restructuring or proposed transaction etc. typically form part of this section.

Purpose of Valuation and Appointing Authority

The context and purpose of the valuation and the appointing authority commissioning the exercise must be clearly stated e.g., the Management's decision to seek an advisory opinion should be disclosed, or the Audit Committee's decision to appoint or the appointment of an independent valuer itself should be disclosed. As part of this section of the report, valuers should also state the "premise of value".

Identity of the valuer and any other experts involved

Identity of the Valuer (with his registration number) as well as the organization performing the valuation and other team members/external experts consulted in the process of valuation should be disclosed.

Disclosure of Valuer Interest/Conflict, if any

This section of the report is key in ensuring transparency and as such valuers should clearly disclose any facts that are relevant and may lead to a conflict or perceived conflict of interest while performing the analysis. As such, the valuer should disclose in his/her report, possible sources of conflict and material interests, including association or proposed association/with the company, its associates, the counter-party to the transaction or its associates, in the form of auditor, lead advisor or in any other capacity, together with the nature of the fee arrangements for the valuation services undertaken.

Date of appointment, valuation date and date of the report

Valuation assignments are performed as of a particular point in time. As such, clearly stating the Valuation Date i.e. the date as of which the valuation analysis has been performed is very important. Furthermore, the date of the appointment of the valuer as we well as the date on which the report has been issued should also be included. Furthermore, the Report should also mention the timeline associated with the validity of the report and/or within which the user must accept or reject the report.

Sources of information

Principal sources of information that form the basis of the valuation report should be clearly listed. This typically includes information such as company financials and projections that are provided by management as well as other sources such as analyst reports, publicly available sources of data example: NSE, BSE websites, frequently used third party databases such as Bloomberg, Capitaline, CapitalIQ etc. Valuation professionals should make the effort to accurately state which sources have been relied upon and to what extent such information been incorporated into the valuation.

Procedures adopted in carrying out a valuation

Procedures adopted in carrying out a valuation may vary with circumstances, nature and purpose of valuation as well as information and time available. The principal procedures actually adopted by the valuer in carrying out the valuation should be set out in the report. Such procedures may typically include:

- Review and analysis of Historical and Projected Financials;
- Industry and SWOT Analysis;
- Comparison with similar transactions and other similar listed companies;
- Discussions with Management;
- Review of principal agreements/documents etc.
- Site visit (external, internal or both) or desktop valuation.
- Assignment specific assumptions must be explicitly stated i.e. in case of a desktop valuation a valuer must state that the basis of the report

is photographs provided, documents provided and secondary research only.

- Process of site identification, i.e., self-identified or with the help of clients representative or client itself.

A valuer's report should also include an affirmative statement that information provided and assumptions used by Management/Others in developing projections have been appropriately reviewed, enquiries made regarding the basis of key assumptions in context of the historical performance of the business being valued and comparable industry/economy indicators. An affirmative statement on adequacy of information and time for carrying out the valuations should also be included.

It is important to note that such affirmative statements shall not negate the professional liability for expertise applied in determining value and if the degree of inadequacy of information is severe, fundamental questions and information as assessed by the valuer as key for the valuation needs to be disclosed.

Valuation Methodology

The valuation methodology adopted by the valuer, which includes various methods under the Income, Market and Cost Approaches has to be disclosed. The rationale and appropriateness for the adoption of a particular valuation methodology or combination of methods in the context of the valuation of a business or asset should be clearly justified. The report should disclose the rationale for exclusion of a valuation methodology.

Major factors influencing the Valuation

Key material factors including inter alia the size or number of the corporate assets or shares, their materiality or significance, minority or majority holding and changes on account of the transaction, any impacts on controlling interest, diminution or augmentation therein and marketability or lack thereof; prevailing market conditions and government policy in the specified industry should be described in the report. Here it will be relevant to mention that disclosure of projected financial information should be done taking into consideration aspects of confidentiality, regulatory requirements, purpose of valuation, potential of misuse by users and competitors.

Conclusion

The report must contain a clear statement of the value ascribed, including the Valuation Date, the Premise of Value, the valuation methods relied upon and appropriate weightage placed on each.

Caveats, Limitations and Disclaimers

These should be clearly stated, often in a separate section of the report and serve to inform the reader of the caveats associated with the valuation and help them assess the impact of these clauses on the credibility and reliability of the report. For example, in the preparation of a valuation report, the valuer should not disclaim liability for their expertise or duty of care. However, an independent valuer will prepare the report based on information and records provided by management. The independent valuer can disclaim the reliability of management provided projections and may disagree with the projections if they are conjectural or fantastic or bordering on the unreal. An independent valuer has the right to demand relevant information and basis of the projections before commenting thereon.

The components highlighted in this article are not exhaustive and the valuer will continually need to apply care and discretion to ensure that a valuation report is comprehensive and defensible if subjected to scrutiny.

Chapter 5

Equity and Preference Shares – A Valuation Perspective

Share capital in a company can be broadly divided into equity share capital and preference share capital.

Equity share capital refers to the absolute residual in the company's interest after all other interests are addressed. While this is so, preference share capital essentially has preference over equity share capital in various circumstances and thus differs from equity share capital in many respects.

In a very simplistic manner one could take a view that a purely redeemable preference shares is akin to debt and should be valued as a debt. At the other extreme compulsorily convertible preferred shares are akin to equity shares and should be valued as such. This is what is done in Ind AS / IFRS accounts also. However, in a finer evaluation, there are certain differences between these instruments, which may have to be factored in the valuation depending on the terms and conditions attached to the instrument of preference shares issued.

This Article attempts to bring out the salient features which could bring about the differences and how these could have implications on the valuation of the instrument.

Before we get into that, a quick insight is provided into the prescription under certain Indian regulations with regard to valuation of preference shares.

The Companies Act 2013 provides for valuation by a registered valuer at the time of issue under the requirements of rule 13 of the Companies (Share Capital and Debentures) Rules, 2014, in the case of a preferential issue.

Under the Income Tax Act, Rule 11UA prescribes that the valuation, in case of preference shares, shall be on the basis of the price that it would fetch in the open market on the valuation date based on a valuation report to be obtained.

Approach to valuation of preference shares

Coming to the subject of valuation methodologies for valuing preference

shares the first and foremost aspect to understand is the approach to valuation. Approach to valuation could be to consider it as a debt instrument with the attendant risks and returns and to commence from valuing it as a debt instrument making suitable adjustments for the differences from other debt instruments relevant to the company. This may, say, lead to using the Income Approach and a discounted cash flow method thereunder.

At the other extreme, the approach to valuation could be to consider that the preference shareholders too would have interest in the residual assets of the company similar to the equity shareholders and then make suitable adjustments appropriately for differentiating the specific instrument from general equity shares. Thus, Comparable Companies Method or Comparable Transactions Method could also be adopted for this under this approach.

In differentiating the valuation between equity shares and preference shares, the following factors play a critical role in determining the method and approach itself in some cases to consideration of a discount or premium in other cases.

a) Convertibility

b) Voting rights and control over management

c) Dividend terms, including cumulative or non-cumulative, participating or non-participating

d) Priority in liquidation

e) Tenor of the preference shares

Convertibility of the instrument

The first very significant factor to be considered in the valuation of the instrument is the convertibility clause attached to the said instrument.

On the one hand, if the preference shares are compulsorily convertible into equity shares and that too in a short period of time, then the instrument is more like equity shares and could probably be valued using the approach similar to valuation of an equity share. Of course it is a different matter that there could be certain other adjustments of discounts or premium to differentiate the convertible preferred shares from the equity shares.

In this scenario, if the compulsorily convertible preference share holder also has voting rights similar to the equity shareholder, may be arising from a

shareholders agreement, then it is quite conceivable that this compulsively convertible preference share could be valued close to equity shares in the company.

On the contrary, if the preference shares are compulsorily redeemable and the company's financial position does not indicate any significant risk to redemption, then it is quite possible that the approach to valuation of the said preference shares could be akin to a debt instrument such as a debenture.

In such a case, where the preference shares are issued by a company which has a good rating and has a low risk of potential default, the valuation of this instrument could be closer to valuation of any other unsecured debt of a similar tenor in the same company or in a similar entity.

Such debt like valuation could likely be in the region of the present value of all contractual cash flows arising from the instrument such as the dividend payouts (considering also the likelihood of such payouts as well as the quantum of such payouts) and the redemption amount (including any redemption premium, as maybe applicable).

It is pertinent to note that the present value computation would be effected using a discount rate which generally tends to be higher than the rate that would have been applied to the secured and unsecured debt as these debts would have a priority over the preference shares for payment in case of liquidation. Thus, there could be an additional risk adjustment included in respect of the discount rate applied for preference shares as opposed to say, a secured loan.

These approaches clearly also follow the commercial intent which can be perceived from the terms of issue of such instrument.

Looking at a combination where the instrument actually provides for an optional conversion clause, the valuation approach could be valuing the instrument as a debt plus a value for the option for conversion where the conversion option is with the instrument holder. Where the option for conversion is with the company, the valuation could be driven by the decision which is likely to be taken by the company based on the volatility in the value of the instrument. Accordingly, binomial models could be used for valuing the instrument considering the likely commercial decision the company might take under each possible future scenario.

Taking an example, preference share is issued at Rs.100 on which the holder can get a return of 9% dividend per annum and he has an option at the end of one year to convert it into one equity share of face value Rs.10 or in the alternative redeem it at par at that time. In this scenario the option is with the shareholder and he would consider the option to convert only if the equity value is more than Rs.100 at the end of one year. Alternatively, he could choose to redeem which is also an option available to him. Thus, simplistically, the value of this optionally convertible preference share could be determined at the present value of the 9% dividend return for one year plus the redemption value of Rs.100 at the end of one year multiplied by the probability of equity value being lower than Rs.100 at the end of one year plus the equity value at the end of one year multiplied by the probability of equity value being higher than Rs.100 at the end of one year (conversion option being exercised).

In the same example, however, if the conversion or redemption option is that of the company instead of the shareholder, the valuation would change. Simplistically, in such a case, the value of this optionally convertible preference share could be determined at the present value of the 9% dividend return for one year plus the redemption value of Rs.100 at the end of one year multiplied by the probability of equity value being higher than Rs.100 at the end of one year plus the equity value at the end of one year multiplied by the probability of equity value being lower than Rs.100 at the end of one year (conversion option being exercised by the Company).

Voting rights and control over management

The second factor to be considered in the valuation of preference shares is the voting rights attached to the same and any control over management provided by such voting rights or by way of shareholders agreement.

The Companies Act, 2013 prescribes that if the dividend is not paid for two years, then the preference shares also will have voting rights. Without going into the interpretations as to how this two year is to be computed (whether for two consecutive years or any two years as also the interpretation as to when from the two years is to be computed, whether linked to financial years or years from the allotment date etc.), it clearly transpires that the voting rights get triggered at some point post default in payment of dividend on preference shares, for whatever reasons including losses in the company. The proportion of voting for the preference shareholders vis-à-vis the equity shareholders would be on the basis of the relative paid up capital of each instrument.

Other than the case of obtaining voting rights along with the equity shareholders through the provisions of the Companies Act, 2013 as explained above, there may also be such rights arising from the terms of the preference shares issue or the shareholders agreement / share subscription agreement entered into.

Thus, there could be a scenario that voting rights are not available for control over the management of the business, especially where the preference investment is material in size and stake.

Before we proceed, to understand the impact of voting rights, one could look at some DVR prices in the Indian Market:

Company	**DVR price per share on 29th Aug 2020**	**Normal Equity price per share on 29th Aug 2020**	**DVR rights compared to normal equity shares**	**Promoter group voting rights**
Tata Motors	53.10	142.60	1/10th of voting rights 5% more dividend	36%
Future Enterprises	21.45	20.10	75% of voting rights 2% more dividend	46%
Jain Irrigation	11.95	11.75	1/10th of voting rights	28%

Thus, it can be seen that in the case of Tata Motors there is a deep discount while in the other cases, there is a little difference. The small differential in the case of other shares reflect the impact of higher dividend in case of Future Enterprises and the lack of significant impact felt due to the voting rights.

Internationally, in the advanced markets, the non-voting rights are identified to have a range of 3 – 5% discount compared to the voting shares by many studies conducted in the 2000s. It is also noticed that the discount range used to be more at around 5% - 10% in the 1990s as per various studies at that point of time.

The Indian scenario as opposed to this is not matured and the market is not deep for the prices to be considered as evolved. Thus, looking at the international market difference, a discount for voting in the region of 3 – 5% seems reasonable for the listed companies.

However, the quantum of discount based on voting rights is affected by various factors such as the promoter control over the voting shares, the ratio of voting to non-voting shares in terms of the capital raised, the quality of governance in the company etc. The most critical amongst these being the size of the stake brought in by way of preference shares in the overall quantum of investment into equity and preference capital.

It is also pertinent to note that in some cases, by way of shareholder's agreement etc., there could be voting rights / control on management of the business available with the preference shareholders also. In such cases, there may not be any downward value adjustment in respect of this aspect.

In case of listed entities where the preferential holder does not have a voting right the implication of such voting right might be marginal in view of the generally substantial equity shareholding and the control of voting rights related thereto by the equity shareholders themselves.

As opposed to that, in unlisted company valuation, the voting rights for the preference shareholders gain more importance in view of the likely significant stake which may be involved and also considering the closed shareholding by a few members who may be in control of management of business. It is also pertinent to note that this structuring is more prevalent in such unlisted entities and could accordingly have more significance in the valuation of unlisted entities.

Dividend terms, including cumulative or non-cumulative, participating or non-participating

In the case of equity shares, dividend is payable only when there is a specific approval for payment of dividend. Typically, preference shares carry a pre-determined dividend which is applicable on them in priority to the equity shares. These are generally payable annually.

Depending on the structure of the instrument, the dividend could be a return comparable to market return or where there are other terms beneficial to the preference shareholders, it could be a nominal near zero amount too. Further, the terms could provide for the dividend to be on cumulative or non-cumulative

basis. Cumulative dividend would entail dividend skipped in any year due to lack of profits to be accumulated and paid in future years when the company makes profits before any dividend is paid to equity shareholders. Non-cumulative dividend would mean if dividend is not paid in a year due to lack of profits, then dividend for that year is forgone.

Dividend could also have terms for participating in the dividend along with the equity shareholders in addition to the preferred dividend payable. This would mean that the preference shareholders would get not only the coupon rate of dividend but would also get additional dividend payments when the equity dividend is paid to the equity shareholders.

Dividend, where it is a material return on the amount invested in the scrip, would surely be a key factor in the valuation of the scrip. Accordingly, the dividend terms of the preference shares need to be evaluated for valuation appropriately.

For example, in the case of a redeemable non-cumulative 12% preference shares, the valuation would most likely be based on the present value of the expected cash flows by way of annual dividend and the ultimate redemption, discounted at the scrip appropriate discount rate (adjusted for applicable credit risks). In identifying the expected cashflows, if in certain years, it is expected that there would be losses and hence, no dividend declaration, that also needs to be factored in the computation.

In the same example, if the dividend is on cumulative basis, then the cash flows will have to be projected based on the years when there is a loss not having any cash flow for dividend but subsequently when the company is into profits, the accumulated dividend is considered as a cashflow would be more appropriate.

One other aspect which may have implications that were not contemplated earlier would be on account of the change in taxation regime for dividend whereunder now the taxation has been shifted onto the recipient and Dividend Distribution Tax earlier charged on the company has been removed. This is likely to have implications where the returns earlier were on a tax free basis to the recipient and now the same coupon rates may be continued, but would be subjected to taxation in the recipient's hands.

Priority in liquidation

Preference shares have a priority in liquidation over the equity shares. Thus, it may rank better than equity shares in that respect. However, in terms of all loans and outside liabilities, preference shares will be at the bottom after all the outside liabilities are considered in liquidation.

This is the hierarchy which is prescribed in Section 53 of the Insolvency and Bankruptcy Code, 2016. Thus, in terms of security cover risk, preference shares would have an added risk as compared to other debt instruments.

This risk is likely to be determined largely by the credit rating of the company, which is indicative of the financial position of the company. Thus, a AAA rated company's preference shares may carry a smaller risk on this factor as compared to a B- rated company's preference shares.

Further, depending on the terms, the preference shares may also have not only priority but also participation rights in liquidation in the surplus, if any, after the equity capital is paid off.

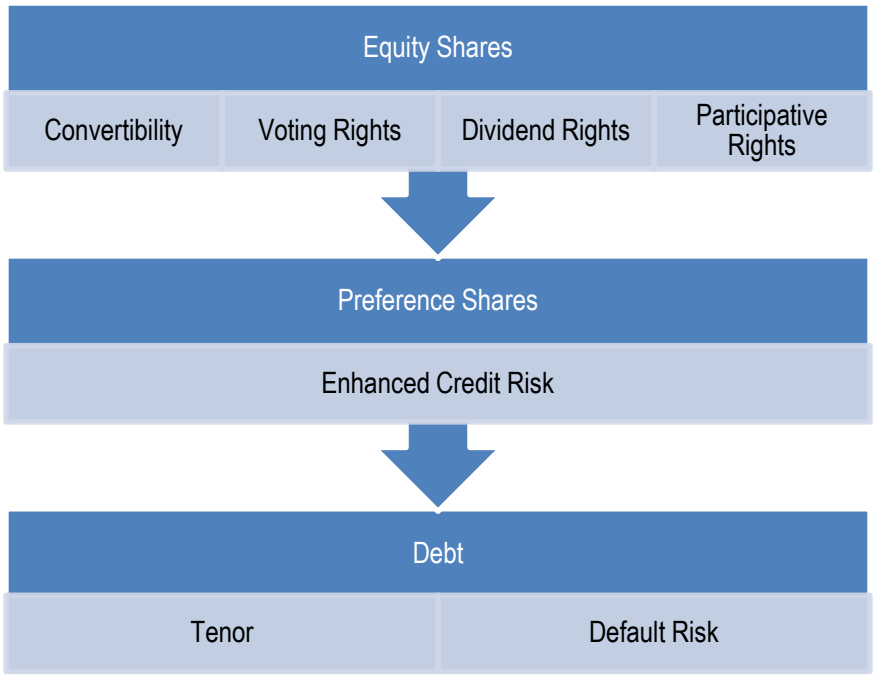
Such terms, could all have an impact on the valuation and need to be accordingly factored or considered in the valuation.

Tenor of the preference shares

The tenor of the instrument has a direct bearing on the discount rate to be used. The time duration can increase the volatility and the risk of uncertainty and accordingly, the yields could vary depending on the time duration.

Accordingly, the base yield rate selected for computing the discount rate would be also dependent on the tenor of the instrument.

In conclusion, the hierarchy of adjustments in the valuation of instruments from debt to equity and where the preference shares fits in can be summarized as under:



Valuation of preference shares is a fascinating area with a wide variety of possibilities depending on the terms and conditions attached to the instrument – right from a simple debt like valuation on the basis of SPPI (Solely Payment of Principal and Interest) to valuation on the basis of converted equity stake in the entity, with the possibilities of option valuation also thrown in.

Chapter 6

Valuation of Shares and Securities under Income-Tax

Background

Various provisions of the Income-Tax Act 1961 provide for the valuation of Shares and Securities. Income-Tax Act (the 'Act') does not define the term 'Shares and Securities'. Certain provisions of the Act and Income-Tax Rules 1962 (the 'Rules' or 'Rule') states that it shall have the same meaning as assigned to it under the Securities Contracts (Regulation) Act, 1956. In this write-up, we shall deal with the valuation of shares and securities as required under the following sections of the Act:

- Section 50CA – Transfer of unquoted shares
- Section 56(2)(viib) & 56(2)(x)(c) – Issue/receipt of Shares
- Section 17(2) – ESOP/ Sweat Equity
- Section 9(1)(i) – Indirect transfer

Where a method has been prescribed by the legislature, that method alone shall be followed for computation of the fair market value. The legislature in its wisdom has also given a formula for the computation of the fair market value which cannot be ignored by the authorities below. The tax officer has to compute the fair market value following the prescribed method and he cannot adopt the market value as fair market value[1].

Part A - Section 50CA

It is provided that where the consideration received or accruing as a result of the transfer of an unquoted share of a company, is less than the fair market value (FMV) of such share determined in such manner as may be prescribed, the value so determined shall, to compute capital gain, be deemed to be the full value of the consideration received or accruing as a result of such transfer. This section determines minimum full value of consideration on the transfer of shares.

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[1] Medplus Health Services (P.) Ltd. v. ITO [2016] 68 taxmann.com 29/158 ITD 105 (Hyd. - Trib.)

Applicability:

The provisions of S. 50CA applies only to the transfer of the unquoted shares. Issue of shares is not covered by this section. Shares would include equity as well as preference shares. Even the transfer of securities (other than shares) are not covered.

Valuation Date:

The date on which unquoted shares are transferred.

Valuation methodology:

FMV of the unquoted shares shall be determined in the manner provided in Rule 11UA(1)(c)(b) and 11UA(1)(c)(c)[2]. These methodologies have been dealt while dealing with the issue of shares subsequently in Part B.

Valuation to be carried by whom:

- Valuation of unquoted Equity Shares which is transferred – provisions has not specified the person who is required to issue valuation report.
- Valuation of unquoted shares other than equity shares – Valuation to be carried by a merchant banker or a chartered accountant holding certificate of practice.

Part B - Section 56(2)(x)(c) & 56(2)(viib)

Applicability

Section 56(2)(x)(c) of the Act provides tax treatment where any person receives any property other than immovable property, from any person on or after April 1, 2017 without any consideration or with the consideration which is lower than fair market value.

- In case of consideration is NIL, the aggregate fair market value of which exceeds ₹ 50,000, the whole of the aggregate fair market value of such property shall be considered as income; and
- In case of consideration is less than the aggregate fair market value of the property by an amount exceeding ₹ 50,000, the aggregate fair market of such property exceeding such consideration, shall be considered as income.

[2] Rule 11UAA

Section 56(2)(viib)/56(2)(x)(c) of the Act are deeming provisions to bring notional income to tax and hence has to be strictly interpreted. While giving effect to such legal fictions all facts and circumstances incidental thereto and inevitable corollaries thereof have to be assumed[3]. A deeming provision is intended to enlarge the meaning of a particular word which includes matters which otherwise may or may not fall within the normal provision, therefore, it should be extended to the consequences and incidents which has been intended by the Legislature for a definite purpose and should not be extended beyond the mandate of the statute. Legal fictions are created only for a definite purpose and they are limited to the purpose for which they are created and should not be extended beyond the legitimate field. But the legal fiction has to be carried to its logical conclusion within the framework of the purpose for which it is created[4].

Rule 11UA prescribes the mechanism for the determination of the fair market value of any property. Rule 11UA(1)(c) and 11UA(2) provides for the mechanism for determination of the value of quoted and unquoted shares as referred in sections 56(2)(x)(c) and 56(2)(viib) respectively. The Rule 11UAA provides that the valuation mechanism provided under rule 11UA(1)(c)(b)&(c) is also applicable for determining fair market value in respect of unquoted shares u/s 50CA.

(I) FAIR MARKET VALUE OF SHARES AND SECURITIES U/S 56(2)(x)(c)

(a) Quoted Shares

The ‘quoted shares or securities" means a share or security quoted on any recognized stock exchange with regularity from time to time, where the quotations of such shares or securities are based on current transactions made in the ordinary course of business. The regularity of the trading/quoting has not been defined. However, as per the SEBI Regulation shares are ‘frequently traded shares” if the traded turnover of such shares or securities on any stock exchange during the last twelve calendar months is atleast ten percent of the total number of shares of such class. In case shares are not regularly trading/quoted same shall be valued as unquoted shares.

[3] Vaani Estates (P.) Ltd. v. ITO [2018] 98 taxmann.com 92 (Chennai - Trib.)
[4] M.D. Jindal v. CIT [1986] 164 ITR 28

Valuation methodology

The fair market value of quoted shares and securities is determined as under[5]:

- if the quoted shares and securities are received by way of transaction carried out through any recognized stock exchange, the fair market value of such shares and securities shall be the transaction value as recorded on such stock exchange;
- if such quoted shares and securities are received by way of transaction carried out other than through any recognized stock exchange, the fair market value of such shares and securities shall be:
    - shares and securities quoted on any recognized stock exchange on the valuation date – the lowest quoted price, and
    - shares and securities are not quoted on any recognized stock exchange on the valuation date – the lowest price of such shares and securities on any recognized stock exchange on a date immediately preceding the valuation date when such shares and securities were traded on such stock exchange

Valuation to be carried by

Rule is silent as to who will issue valuation report.

Valuation Date

The date on which the consideration is received.

(b) Unquoted Shares – Equity Shares

"Unquoted shares and securities", in relation to shares or securities, means shares and securities which are not quoted shares or securities.

Valuation methodology

The fair market value of unquoted equity shares shall be the value, on the valuation date, of such unquoted equity shares as determined by the following formula (A+B+C+D - L)× (PV)/(PE)[6]

- A= book value of all the assets (other than jewellery, artistic work, shares, securities and immovable property) in the balance-sheet as reduced by following amounts:
    - any amount of income-tax paid, if any, less the amount of income-

[5] Rule 11UA(1)(c)(a)
[6] Rule 11UA(1)(c)(b)

tax refund claimed, if any; and

- any amount is shown as an asset including the unamortised amount of deferred expenditure which does not represent the value of any asset;

- B = the price which the jewellery and artistic work would fetch if sold in the open market based on the valuation report obtained from a registered valuer;
- C = fair market value of shares and securities as determined in the manner provided in this rule;
- D = the value adopted or assessed or assessable by any authority of the Government for payment of stamp duty in respect of the immovable property;
- L= book value of liabilities shown in the balance sheet, but excluding the following amounts:—
  - the paid-up capital in respect of equity shares;
  - the amount set apart for payment of dividends on preference shares and equity shares where such dividends have not been declared before the date of transfer at a general body meeting of the company;
  - reserves and surplus, by whatever name called, even if the resulting figure is negative, other than those set apart towards depreciation;
  - any amount representing provision for taxation, other than the amount of income-tax paid, if any, less the amount of income-tax claimed as refund, if any, to the extent of the excess over the tax payable with reference to the book profits as per the law applicable thereto;
  - any amount representing provisions made for meeting liabilities, other than ascertained liabilities;
  - any amount representing contingent liabilities other than arrears of dividends payable in respect of cumulative preference shares
- PV= the paid-up value of such equity shares;
- PE = total amount of paid-up equity share capital as shown in the balance-sheet

The prescribed methodology required the valuation to be carried based on the adjusted value of specified assets viz. Jewellery and artistic work, shares and securities immovable property and book value of other assets as shown in the balance sheet. Hence, the same method as prescribed above is required to be followed for valuing share investments. Further, in case said Investee Company is again holding shares then such shares are also required to be valued. Said process is required to be followed irrespective of the percentage of shareholding. Even if a single share has been held, above methodology is required to be followed. Again, in case of cross holding valuation may require usage of simultaneous equation. Rule do not provide for any adjustment in case liabilities are not recorded in the balance sheet carrying on valuation exercise. Further recorded liability would be reduced only to the extent of that amount which is remaining to be paid.

For this rule, balance sheet is required to be drawn upon the valuation date and "valuation date" means the date on which the property or consideration, as the case may be, is received by the assessee. When the transaction is happening during the year other than on year-end, it is difficult for the shareholder to obtain audited balance sheet as on the valuation date. The shareholder has no authority to demand the same from the company. This is more difficult in case shareholder is minority shareholder or where he is not in good terms with the company. At times, a company enters into a shareholder's agreement (SHA). Issue of shares is as per the price as specified in the SHA. SHA may contain various restrictions. Such restriction may affect the valuation. However, terms of SHA are disregarded which carrying valuation. Unlike the valuation of shares, Rules does not prescribe for the valuation of an interest in partnership firm/LLP or any other entity like Association of Person. Hence valuation of such interest may not be required.

Valuation to be carried by

Rule is silent as to who will issue valuation report.

Valuation Date

The date on which the consideration is received.

(c) Unquoted Shares and Securities Other Than Equity Shares

The fair market value of unquoted shares and securities other than equity shares in a company that are not listed in any recognized stock exchange shall

be estimated to be the price it would fetch, if sold in the open market on the valuation date[7]. The words 'if sold in the open market' do not contemplate actual sale or the actual state of the market, but only enjoins that it should be assumed that there is an open market and the property can be sold in such a market and, on that basis, the value has to be found out. It is a hypothetical case that is contemplated and the Tax Officer must assume that there is an open market in which the asset can be sold[8].

The equity shares and preference shares stand on different footings. The method "book value" of shares would value only "Equity shares" and not "Preference shares"[9]. The preference shares can also be issued at a premium. While valuing, the discounting factor cannot be considered arbitrarily. It needs to be based on proper comparable for benchmarking. Further income-tax also has to be factored while determining the net rate of return on investments[10]. Securities cover includes derivatives, options, debentures, units, security receipts, government securities, rights or interest in securities etc. Hence, these need to be valued accordingly.

Valuation methodology

Methodology to determine the fair market value of unquoted shares and securities other than equity shares in a company which are not listed in any recognized stock exchange is not prescribed. Hence, need to be valued considering international standards and principles.

Valuation to be carried by

A valuation report can be issued by the merchant banker or a chartered accountant holding certificate of practice.

Valuation Date

The date on which the consideration is received.

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[7] Rule 11UA(1)(c)(c)

[8] Ahmed G.H. Ariff v. Commissioner of Wealth-tax [1970] 76 ITR 471 (SC)

[9] ACIT v. Golden Line Studio (P.) Ltd. [2018] 98 taxmann.com 299 / 173 ITD 200 (Mumbai - Trib.)

[10] Microfirm Capital (P.) Ltd. v. DCIT [2018] 89 taxmann.com 23 / 168 ITD 301 (Kolkata - Trib.)

(II) The Fair Market Value of Shares When Issued At Price Exceeding Face Value u/s 56(2)(viib)

Section 56(2)(viib) of the Act provides that where a company (other than the company in which the public are substantially interested), receives any consideration from any resident person for the issue of shares that exceeds the face value of such shares, shall be considered as income if the aggregate consideration received for such shares is more than the fair market value of the shares.

Valuation methodology

1) The fair market value of unquoted equity shares, when issued at price exceeding face value, shall be determined = [(A–L)/ (PE)] × (PV)[11],

- A = book value of the assets in the balance-sheet as reduced by any amount of tax paid as deduction or collection at source or as advance tax payment as reduced by the amount of tax claimed as refund under the Income-Tax Act and any amount shown in the balance sheet as asset including the unamortised amount of deferred expenditure which does not represent the value of any asset;
- L = book value of liabilities shown in the balance sheet, but not including the following amounts: the paid-up capital in respect of equity shares;
    - the amount set apart for payment of dividends on preference shares and equity shares where such dividends have not been declared before the date of transfer at a general body meeting of the company;
    - reserves and surplus, by whatever name called, even if the resulting figure is negative, other than those set apart towards depreciation;
    - any amount representing provision for taxation, other than the amount of tax paid as deduction or collection at source or as advance tax payment as reduced by the amount of tax claimed as refund under the Income-tax Act, to the extent of the excess over the tax payable with reference to the book profits as per the law applicable thereto;

[11] Rule 11UA(2)(a)

- any amount representing provisions made for meeting liabilities, other than ascertained liabilities;
- any amount representing contingent liabilities other than arrears of dividends payable in respect of cumulative preference shares;

- PE = total amount of paid-up equity share capital as shown in the balance-sheet;
- PV = the paid-up value of such equity shares;

Valuation to be carried by

Rule is silent as to who will issue valuation report.

2) Discounted Free Cash Flow

Rule provides an option to determine the fair market value of the unquoted equity shares using the Discounted Free Cash Flow (DCF) method[12].

Valuation to be carried by

Valuation exercise shall be carried by a merchant banker (w.e.f. 24-5-2018. Prior to 24-5-2018 Accountant was also allowed to carry valuation using DCF method).

Section 56(2)(viib) of the Act applies to all types of shares i.e. equity and preference. The assessee has all the right to choose a method i.e. NAV Method (Book Value) or DCF Method which, cannot be changed by the tax officer. The method adopted for valuation should be based on relevant materials and if it is based on relevant material even the Court will not interfere with such a finding of fact[13]. The tax officer is undoubtedly entitled to scrutinise the valuation report. The Tax Officer has not only the right but he is also duty-bound to examine the valuation report, evaluate it and record his findings on the same. Such findings should be based on relevant material and the rational view taken judiciously[14]. He may determine a fresh valuation either by himself or by calling for a final determination from an independent valuer to confront the petitioner. However, the basis has to be the same method and it is not open to him to change the method of valuation which has been opted for by

[12] Rule 11UA(2)(b)
[13] Duncans Industries Ltd. v. State of U.P [CA No. 5929 of 1997] (SC)
[14] Microfirm Capital (P.) Ltd. v. DCIT [2018] 89 taxmann.com 23 / 168 ITD 301 (Kolkata - Trib.)

the Assessee[15] and to modify the figures as per his whims and fancies. DCF method is a recognised method where future projections of various factors by applying hindsight view and it cannot be matched with actual performance. Valuation under DCF is not an exact science and can never be done with arithmetic precision, hence the valuation by a Valuer has to be accepted unless specific discrepancy in the figures and factors taken are found[16]. In any case, the tax officer cannot ask the assessee to prepare the valuation report based on actuals which are not contemplated in Rule 11UA(2)(b)[17].

The rules prescribe that while valuing the shares the book value of the assets and liabilities declared by the company should be taken into consideration. Unlike rule 11UA(1)(c)(b) there is no whisper to refer the fair market value of the specified assets while valuing under rule 11UA(2). Therefore, while valuing no adjustment is required to be made concerning the market value or fair value of any assets[18]. However, this inconsistency between the rules 11UA(1)(c)(b) and Rule 11UA(2) in the valuation of FMV of unquoted equity shares may lead to two different valuations from the perspective of the company issuing shares and from the perspective of the recipient of such shares.

The Chennai ITAT[19] after analysing various legal principles held that provisions of Section 56(2)(viib) of the Act, cannot be invoked in the case of the assessee company because by virtue of cash being brought into the assessee company for allotment of equity shares with unrealistic premium, the benefit has only passed on to her daughter and there is no scope in the Act to tax when cash or asset is transferred by a mother to her daughter.

Any of the methods prescribed do not consider adjustment for specific situations e.g. when equity shares are issued with differential voting rights. Further same transaction of issue of shares may require a valuation to be carried by more than one valuer. e.g. under the Companies Act, 2013 valuation for the purpose of issue of shares is required to be carried by the registered valuer. In case, shares are valued using the DCF method than under the income tax provisions, such report is required to be issued by a merchant banker.

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[15] Vodafone M-Pesa Ltd. v. Pr. CIT [2018] 92 taxmann.com 73 (Bombay)
[16] India Today Online Pvt. Ltd. ITO, ITA Nos. 6453 & 6454/Del/2018, (Delhi ITAT) AY 2013-14 & 2014-15 Date of pronouncement of 15/03/2019
[17] Rameshwaram Strong Glass (P.) Ltd. v. ITO [2018] 96 taxmann.com 542/172 ITD 571 (Jaipur - Trib.)
[18] Minda S M Technocast (P.) Ltd. v. ACIT [2018] 92 taxmann.com 29 (Delhi - Trib.)
[19] Vaani Estates (P.) Ltd. v. ITO [2018] 98 taxmann.com 92 (Chennai - Trib.)

Valuation Date

The Rule[20] provides that the valuation date is the date on which property or consideration as the case may be is received by the taxpayer. However, Income-Tax Appellant Tribunal[21] has held that in case of issues of shares under section 56(2)(viib) share allotment date is relevant and not the date of receipt of share application money. Pricing of shares needs to be justified when shares are issued.

For the purpose of valuation, option has been provided for the balance sheet. It can be drawn up as on a date immediately preceding the valuation date which has been approved and adopted in the annual general meeting of the shareholders of the company, if there is no audited balance sheet as on the date of issue of shares.

Part C - ESOP/SWEAT EQUITY

Section 17(2)(vi) of the Act provided for the taxability of the value of any specified security or sweat equity shares allotted or transferred, directly or indirectly, by the employer, or former employer, free of cost or at concessional rate to the assessee.

"Specified security" means the securities as defined in clause (h) of section 2 of the Securities Contracts (Regulation) Act, 1956), and, where employees' stock option has been granted under any plan or scheme therefor, includes the securities offered under such plan or scheme. The “option" means a right but not an obligation granted to an employee to apply for the specified security or sweat equity shares at a predetermined price.

"Sweat equity shares" means equity shares issued by a company to its employees or directors at a discount or for consideration other than cash for providing know-how or making available rights like intellectual property rights or value additions, by whatever name called.

Valuation date

The fair market value of any specified security or sweat equity share, being an equity share in a company, on the date on which the option is exercised.

Valuation methodology

[20] 11U(j)

[21] Cimex Land and Housing Pvt. Ltd v ITO LD/67/128 (Delhi ITAT) ICAI Journal April 19 pg 1465 AY 2015-16, Order dated 25/02/2019

a) Share in the company is listed on a recognized stock exchange:

On the date of the exercising the option, the share in the company is listed on a recognized stock exchange, the FMV shall be the average of the opening price and closing price of the share on that date on the said stock exchange[22]. In case the share is listed on more than one recognized stock exchanges, the FMV shall be the average of opening price and closing price of the share on the recognised stock exchange which records the highest volume of trading in the share.

In case, there is no trading in the share on any recognized stock exchange on the date of exercising of the option, the fair market value shall be—

(i) the closing price of the share on any recognised stock exchange on a date closest to the date of exercising of the option and immediately preceding such date; or

(*ii*) the closing price of the share on a recognised stock exchange, which records the highest volume of trading in such share, if the closing price, as on the date closest to the date of exercising of the option and immediately preceding such date, is recorded on more than one recognized stock exchange.

However, no guidance is available in case share is not traded for a long time or is suspended for trading for various reasons. Whether in such case too, above suggested mechanism hold? Whether shares would be treated as unlisted?

b) Share in the company is not listed on a recognized stock exchange:

On the date of exercising the option, the share in the company is not listed on a recognised stock exchange, the FMV shall be such value of the share in the company as determined on the date of exercise[23]. No guidelines have been prescribed as to how valuation is to be carried. Hence, internationally accepted methodology, as well as principles, are required to be followed for the valuation of such ESOPs.

Valuation carried by whom

For the determination of FMV of the unlisted shares on the date of exercise of

[22] Rule 3(8)(ii)
[23] Rule 3(8)(iii)

the option, valuation is required to be carried out by the Merchant Banker. Valuation of ESOP is not required under the Act at the time of grant. However, the same is required to be valued by the Registered Valuer under the Companies Act for accounting treatment in the books of the employer company.

Part D - INDIRECT TRANSFERS

Section 9(1)(i) of the Act provides that all income accruing or arising, whether directly or indirectly, through or from any business connection in India, or through or from any property in India, or through or from any asset or source of income in India, or through the transfer of a capital asset situate in India, shall be subject to tax in India. Explanation to the section clarifies that an asset or a capital asset being any share or interest in a company or entity registered or incorporated outside India shall be deemed to be and shall always be deemed to have been situated in India, if the share or interest derives, directly or indirectly, its value substantially from the assets located in India. Provisions are applicable only if it derives value substantially from the assets (whether tangible or intangible) located in India, if, on the specified date, the value of such assets—

- exceeds the amount of ten crore rupees; and
- represents at least fifty percent of the value of all the assets owned by the company or entity, as the case may be;

Valuation Date

Valuation is required to be carried on the specified date[24]

- the date on which the accounting period of the company or, as the case may be, the entity ends preceding the date of transfer of a share or an interest; or
- date of transfer, if the book value of the assets of the company or, as the case may be, the entity on the date of transfer exceeds the book value of the assets as on the date referred in earlier bullet point, by fifteen per cent.

Accounting period means each period of twelve months ending with the 31st day of March. However, in case, a company or an entity considering the provisions of the tax laws of the territory, of which it is a tax resident or

[24] Section 9(1)(i) Explanation 6 (d)

reporting to persons holding the share or interest, regularly adopts a period of twelve months ending on a day other than the 31st day of March then such other day shall be the accounting period of the company or the entity.

Valuation Methodology

Rule 11UC provides a formula for the computation of income from transfer of a share outside India or interest in a company or an entity which is attributable to assets located in India as A x B/C.

- A = Income from the transfer of a share of, or interest in, the company or the entity computed following the provisions of the Act, as if, such share or interest is located in India
- B = Fair Market Value of assets located in India as on the specified date, from which the share or interest referred to in A derives its value substantially, computed following rule 11UB;
- C = Fair Market Value of all the assets of the company or the entity as on the specified date, computed following rule 11UB:

Fair Market Value

As per Section 2(22B) of the Income-Tax Act 1961 "fair market value", concerning a capital asset, means—

- the price that the capital asset would ordinarily fetch on sale in the open market on the relevant date; and
- where the price referred is not ascertainable, such price as may be determined as per the rules made under this Act

As per the US Treasury Regulation, the fair market value means "the price at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts."

Fair market value for tax purposes also assumes a hypothetical willing buyer and a hypothetical willing seller. This is in contrast to investment value, which identifies a particular buyer or seller and the attributes that buyer or seller brings to a transaction. Fair market value also assumes an arm's-length deal and that the buyer and seller are able and willing. This is not the same as the definition of market value, an often-used real estate term.

The International Glossary of Business Valuation Terms the fair market value

reads: "The price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arms-length in an open and unrestricted market, where neither is under compulsion to buy or sell and when both have a reasonable knowledge of the relevant facts."

Valuation of Different Assets of The Company

(i) Shares in Listed Indian Company

Where the asset is a share of an Indian company listed on a recognised stock exchange on the specified date, the fair market value of the share shall be the observable price of such share on the stock exchange. However in case, the shareholding directly or indirectly confers any right of management or control in relation to the aforesaid company, the fair market value of the share shall be determined as per the following formula

Fair market value = (A+B)/C[25]

- A = the market capitalisation of the company based on the observable price of its shares quoted on the recognised stock exchange
- B = the book value of liabilities of the company as on the specified date;
- C = the total number of outstanding shares

If on the specified date, the share is listed on more than one recognised stock exchange, the observable price of the share shall be computed with reference to the recognised stock exchange which records the highest volume of trading in the share during the period considered for determining the price.

Right of management or control shall include the right to appoint a majority of the directors or to control the management or policy decision exercisable by a person or persons acting individually or in concert, directly or indirectly, including by virtue of shareholding or management rights or shareholders agreements or voting agreements or in any other manner.

The observable price shall be the higher of the following:—

- the average of the weekly high and low of the closing prices of the shares quoted on the said stock exchange during the six months preceding the specified date; or

[25] Rule 11UB(2)

- the average of the weekly high and low of the closing price of the shares quoted on the said stock exchange during the two weeks preceding the specified date;

This is similar that what is specified in Regulation 164 of SEBI (Issue of Capital and Disclosure Requirements) Regulations 2018

(ii) Shares in Unlisted Indian Company

Valuation methodology

Where the asset is a share of an Indian company not listed on a recognised stock exchange on the specified date, the fair market value[26] of the share shall be determined on such date as per any internationally accepted valuation methodology for valuation of shares on arm's length basis as increased by the liability, if any, considered in such determination.

As per Section 92F(ii) relevant to transfer pricing "arm's length price" means a price which is applied or proposed to be applied in a transaction between persons other than associated enterprises, in uncontrolled conditions.

The arm's length principle is the condition or the fact that the parties of a transaction are independent and on an equal footing.

Valuation to be carried by

The FMV on such date shall be determined by a merchant banker or an accountant

(iii) Interest in A Partnership Firm or An Association of Persons[27]

- the value on the specified date of such partnership firm or Limited Liability Partnership or association of persons, shall be determined by a merchant banker or a chartered accountant and who holds a valid certificate of practice (as per the provision s of the Chartered Accountants Act, 1949) following any internationally accepted valuation methodology as increased by the liability, if any, considered in such determination.
- the portion of the value computed above is equal to the amount of its

[26] Rule 11UB(3)
[27] Rule 11UB(4)

capital shall be allocated among its partners or members in the proportion in which capital has been contributed by them and the residue of the value shall be allocated among the partners or members as per the agreement of partnership firm or association of persons for distribution of assets in the event of dissolution of the firm or association, or, in the absence of any such agreement, in the proportion in which the partners or members are entitled to share profits and the total of the amount so allocated to a partner or member shall be treated as the fair market value of the interest of that partner or member in the firm/LLP or the association of persons, as the case may be.

Valuation to be carried by

Valuation shall be determined by a merchant banker or an accountant.

(iv) Other Assets[28]

The fair market value of the asset other than Shares in a listed or unlisted Indian company or share in partnership firm/LLP or AOP as referred earlier shall be the price it would fetch if sold in the open market on the specified date as increased by the liability, if any, considered in such determination.

The price it would fetch if sold in the open market means – is the price an asset would fetch in the marketplace or the value that the investment community gives to particular equity or business.

Valuation to be carried by

as determined by a merchant banker or accountant

(v) The fair market value of all the assets of a foreign company or an entity

The fair market value of all the assets of a foreign company or an entity shall be determined as under:

(a) Unconnected parties:

The transfer of a share of, or interest in, the foreign company or entity is between the persons who are not connected, persons-

The fair market value of all the assets owned by the foreign company or the

[28] Rule 11UB(5)

entity as on the specified date, for such transfer, shall be determined as per the formula:

The fair market value of all assets = A+B[29]

- A = Market capitalisation of the foreign company or entity computed based on the full value of consideration for the transfer of the share or interest
- B = Book value of the liabilities of the company or the entity as on the specified date as certified by a merchant banker or an accountant

Connected person means any person who is connected directly or indirectly to another person and includes-

- any relative of the person, if such person is an individual;
- any director of the company or any relative of such director, if the person is a company;
- any partner or member of a firm or association of persons or body of individuals or any relative of such partner or member, if the person is a firm or association of persons or body of individuals;
- any member of the Hindu undivided family or any relative of such member, if the person is a Hindu undivided family;
- any individual who has a substantial interest in the business of the person or any relative of such individual;
- a company, firm or an association of persons or a body of individuals, whether incorporated or not, or a Hindu undivided family having a substantial interest in the business of the person or any director, partner, or member of the company, firm or association of persons or body of individuals or family, or any relative of such director, partner or member;
- a company, firm or association of persons or body of individuals, whether incorporated or not, or a Hindu undivided family, whose director, partner, or member has a substantial interest in the business of the person, or family or any relative of such director, partner or

[29] Rule 11UB(6)(i)

member;

- any other person who carries on a business, if
    - the person is an individual, or any relative of such person, has a substantial interest in the business of that other person; or
    - the person is a company, firm, association of persons, body of individuals, whether incorporated or not, or a Hindu undivided family, or any director, partner or member of such company, firm or association of persons or body of individuals or family, or any relative of such director, partner or member, has a substantial interest in the business of that other person;

Market capitalization refers to the total market value of a company's outstanding shares of stock. It is calculated by multiplying the total number of a company's outstanding shares by the current market price of one share. However, a current set of provisions are silent as to what treatment to be provided to preference shares.

(b) In any other case:

(i) Shares of a foreign company are listed:

The share of the foreign company or entity is listed on a stock exchange on the specified date, the fair market value of all the assets owned by the foreign company or the entity shall be determined as per formula:

The fair market value of all the assets = A + B[30]

- A = Market capitalisation of the foreign company or entity computed based on the observable price of the share on the stock exchange where the share of the foreign company or the entity is listed
- B = book value of the liabilities of the company or the entity as on the specified date

Where on the specified date, the share is listed on more than one stock exchange, the observable price in the aforesaid formula shall be in respect of the stock exchange which records the highest volume of trading in the share during the period considered for determining the price

(ii) Shares of an unlisted foreign company:

[30] Rule 11UB(6)(ii)(a)

The share in the foreign company or entity is not listed on a stock exchange on the specified date, the value of all the assets owned by the foreign company or the entity shall be determined as per formula:

The fair market value of all the assets = A + B[31]

- A = fair market value of the foreign company or the entity as on the specified date as determined by a merchant banker or an accountant as per the internationally accepted valuation methodology
- B = value of liabilities of the company or the entity if any, considered for the determination of fair market value in A

Usually, enterprise value is determined considering debt. Hence in such scenario value of such debt may not be required to be added.

Accountant means

Accountant means a chartered accountant who holds a valid certificate of practice (as per the provision s of the Chartered Accountants Act, 1949) and to determine the fair market value of all the assets of a foreign company or an entity includes any valuer recognised for undertaking similar valuation by the Government of the country where the foreign company or the entity is registered or incorporated or any of its agencies, who fulfills the following conditions:

- if he is a member or partner in any entity engaged in rendering accountancy or valuation services then,—
  - (i) the entity or its affiliates has a presence in more than two countries; and
  - (ii) the annual receipt of the entity in the year preceding the year in which valuation is undertaken exceeds ten crore rupees;
- if he is pursuing the profession of accountancy individually or is a valuer then,—
  - (i) his annual receipt in the year preceding the year in which valuation is undertaken, from the exercise of the profession, exceeds one crore rupees; and
  - (ii) he has professional experience of not less than ten years.

[31] Rule 11UB(6)(ii)(b)

Exchange Rate

The rate of exchange for the calculation in foreign currency, of the value of assets located in India and expressed in rupees shall be the telegraphic transfer buying rate of such currency as on the specified date as adopted by the State Bank of India constituted under the State Bank of India Act, 1955 for buying such currency, having regard to the guidelines specified from time to time by the Reserve Bank of India for buying such currency, where such currency is made available to that bank through a telegraphic transfer.

Chapter 7

Valuation Aspects to be considered for Impairment Testing under IND AS 36

Background

IND AS 36 deals with the subject of *Impairment of Assets,* and includes various provisions relating to periodic testing of Cash-Generating Units (‘CGU') and their relatable Goodwill for impairment. The key provisions are summarized hereunder

A CGU has been defined in the definition’s clause of as *"the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets".*

An impairment test of a CGU essentially comprises of an exercise to compare the Recoverable Amount ('RA') of the CGU, with its Carrying Amount (‘CA') including its Goodwill. If the RA of the CGU exceeds the CA of the unit, the unit and the goodwill allocated to that unit shall be regarded as not impaired. If the CA of the unit exceeds the RA of the unit, the entity shall recognize the impairment loss in accordance with the provisions of paragraph 104 IND AS 36 which states about *Impairment loss of Cash Generating Unit.*

Definitions

RA of an asset is defined in the definition’s clause of IND AS 36 as **HIGHER** of

(a) the asset's Fair Value less Costs of Disposal (`FVLCD') and

(b) the asset's Value In Use ('VIU')

IND AS 36 para 66 further clarifies that in IND AS 36, references to an 'Asset' apply equally to a CGU. Also, in this case, the RA of the CGU is the higher of the FVLCD and VIU of the CGU.

The definitions clause of IND AS 36 further defines Fair value less cost of disposal as “*is the amount obtainable from the sale of an asset or cash-*

generating unit in an arm's length transaction between knowledgeable, willing parties, less the costs of disposal". This is consistent with the definition of Fair Value as per IND AS 113 Fair Value Measurement.

VIU is defined in the definition's clause of IND AS 36 as "*the present value of the future cash flows expected to be derived from an asset or cash-generating unit".*

IND AS 36 also provides detailed guidance regarding the basis for estimating the VIU of a CGU.

CA of an asset (or CGU) is defined as "*the amount at which an asset is recognized after deducting any accumulated depreciation (amortization) and accumulated impairment losses thereon".*

Measurement of Recoverable Amount (RA)

IND AS 36 paragraph 19 states: "*It is not always necessary to determine both an asset's fair value less costs of disposal and its value in use. If either of these amounts exceeds the asset's carrying amount, the asset is not impaired, and it is not necessary to estimate the other amount."* Thus, IND AS 36 provides that it is not always necessary to determine both the FVLCD and the VIU. If either of these amounts exceeds the CA, there is no impairment, and it is not necessary to estimate the other amount.

Usually, in the case of a CGU which is NOT a separate entity listed on a stock exchange, it is not easy to reliably estimate the FVLCD, since quoted market prices are not available. Accordingly, it is more common to estimate the VIU in such cases. Hence in general, it is better to first estimate the VIU and compare it with the carrying amount and decided that we would estimate the FVLCD only if it becomes necessary as provided in IND AS 36 paragraph 19.

Carrying amount to be tested for impairment

According to terms of IND AS 36, the carrying amount relatable to the CGU, including the goodwill relatable to the CGU, requires to be compared with the recoverable amount.

The carrying amount of a cash-generating unit: **(paragraph 76)**

(a) includes the carrying amount of only those assets that can be attributed directly, or allocated on a reasonable and consistent basis, to the cash-generating unit and will generate the future cash inflows used in determining the cash-generating unit's value in use; and

(b) does not include the carrying amount of any recognized liability, unless the recoverable amount of the cash generating unit cannot be determined without consideration of this liability.

Thus, carrying amount is generally calculated considering all the assets and deducting all the liabilities pertaining to that CGU. Any asset or liability which pertains to the holding company or to the other group company should be excluded from calculation of carrying amount.

Allocation of Goodwill and its Impairment testing

Allocating goodwill to cash-generating units (paragraph **80)**

"For the purpose of impairment testing, goodwill acquired in business combination shall, from the acquisition date, be allocated to each of the acquirer's cash-generating units, or groups of cash generating units, that is expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the acquire are assigned to those units or groups of units."

Thus, paragraph 80 talks about allocation of goodwill that arise out of business combination on the basis expected synergies that will be generated from the respective CGU.

Paragraph 90 of IND AS 36 states *"A cash-generating unit to which goodwill has been allocated shall be tested for impairment annually, and whenever there is an indication that the unit may be impaired, by comparing the carrying amount of the unit, including the goodwill, with the recoverable amount of the unit. If the recoverable amount of the unit exceeds the carrying amount of the unit, the unit and the goodwill allocated to that unit shall be regarded as not impaired. If the carrying amount of the unit exceeds the recoverable amount of the unit, the entity shall recognize the impairment loss in accordance with paragraph 104."*

Thus, two things are evident from the above paragraph, that impairment testing of goodwill has to be done atleast annually and if RA is more than CA, then goodwill is not to be impaired and if vice-versa goodwill impairment has to be done.

Measurement of Value In Use (VIU)

The following elements shall be reflected in the calculation of an asset's value in use:

(a) an estimate of the future cash flows the entity expects to derive from the asset;

(b) expectations about possible variations in the amount or timing of those future cash flows;

(c) the time value of money, represented by the current market risk-free rate of interest;

(d) the price for bearing the uncertainty inherent in the asset; and

(e) other factors, such as illiquidity, that market participants would reflect in pricing the future cash flows the entity expects to derive from the asset.

As per paragraph 31 of IND AS 36, estimating the VIU of a CGU involves the following steps:

(a) estimating the future cash inflows and outflows arising from continuing use of the CGU and from its ultimate disposal; and

(b) applying the appropriate discount rate to those future cash flows.

In other words, VIU of a CGU is determined by applying what is commonly referred to as the Discounted Cash Flow or DCF methodology.

Specific guidance regarding Cash Flow projections

IND AS 36 also provides guidance about the basis on which the Cash Flows are to be estimated. These include the following important points:

a) *base cash flow projections on reasonable and supportable assumptions that represent management's best estimate of the range of economic conditions that will exist over the remaining useful life of the asset. Greater weight shall be given to external evidence. (paragraph 33a)*

b) *Cash flows should be based on the most recent financial budgets/forecasts that have been approved by management. Projections based on these budgets/forecasts should cover a maximum period of five years, unless a longer period can be justified.* ***(paragraph 33b)***

c) *Cash flow projections beyond the said five-year period should be estimated by extrapolating the projections based on the budgets/forecast, using a steady or declining growth rate for subsequent*

years, unless an increasing rate can be justified. The growth rate should not exceed the long-term average growth rate for the products, industries or country or countries in which the entity operates, or for the market in which the asset is used, unless a higher rate can be justified ***(paragraph 33c)***

d) *Estimates of future cash flows should include projections of cash outflows that are necessarily incurred to generate the cash inflows from continuing use of the asset.* ***(para 39b).*** **In other words, it is necessary to determine the "Free Cash Flows" (`FCF') from the CGU.**

*Future cash flows are estimated in the currency in which they will be generated, and then discounted, using a discount rate appropriate for that currency. An entity translates the present value using the spot exchange rate at the date of the VIU calculation. (paragraph 54.*Thus, in case where CGU is in other country, cashflows and the discounting rate should be considered that of other country and the it should be converted through exchange rate as on the date of valuation.

Discount Rates: Pre-tax or post-tax

a) An important factor in any DCF analysis is the decision regarding whether to discount the pre-tax cash flows or the post-tax cash flows, and further, whether the discount rate to be applied should be a pre-tax rate or a post-tax rate.

b) Paragraph 50 and 51 of IND AS 36 require that the Cash Flows which are sought to be discounted should be Pre-tax Cash Flows. Further IND AS 36 states that the Discount Rate should be a Pre-tax rate.

Estimating discount rates

This discount rate, which is applied to the free cash flows, should reflect the opportunity cost to all the capital providers (namely shareholders and creditors), weighted by their relative contribution to the total capital. The opportunity cost to the capital provider equals the rate of return the capital provider expects to earn on other investments of equivalent risk. Cost of Capital for any entity typically comprises of two components:

a) Cost of Debt ('CoD'), i.e. the typical cost at which the entity can borrow money; and

b) Cost of Equity ('CoE'), which is the rate of return that an equity investor

in the entity would typically expect on his investment.

Cost of equity and Cost of debt combine to form cost of capital. CoD and CoE are taken in proportion to their total share in the capital structure of the Company.

c) Cost of Debt

Cost of debt is the cost to the company at which it can borrow money from the market.

d) Cost of Equity

Cost of Equity is typically defined as the return that investors in the equity of a business would expect to make on their investment.

CoE is commonly estimated by using the Capital Asset Pricing Model ('CAPM'). The CAPM formula can be summarized as follows:

$Re = Rf + \beta(Rm-Rf)$

Where: -

Re = Return on equity

Rf = Risk free rate

β = Beta

Rm = Market return

The COE is computed in the following manner:

e) Risk-Free Rate

The Risk-free rate is typically represented by the Yield-to-Maturity (YTM) available on long-term Government Securities.

f) Equity Risk Premium (‘ERP’)

Various sources of published data are available from time to time about the reasonable premium expected by an investor for investment in equities.

g) Beta for the Sector

Beta is the sensitivity index of any particular industry with respect to the market risk. To estimate the premium expected from a particular sector

one would have to make an adjustment to factor in the Beta for the sector. Beta of a scrip is a reflection of the correlation between the price-movement of the individual scrip vis-a-vis price movement in an equity index. Beta is usually estimated by analyzing the Beta of comparable companies.

h) Company-Specific Risk Premium (or Alpha):

Apart from beta-adjusted risk premium, an investor would expect an additional premium for investing in a single company. This additional premium is often referred to as the 'Alpha'.

i) Corresponding Pre-tax WACC

Paragraph 20 of Appendix A of IND AS 36 requires that where the basis used to estimate the discount rate is post-tax, that basis should be adjusted to reflect a pre-tax rate.

IND AS 36 does not provide specific guidance on the methodology to make such adjustment from post-tax to pre-tax. However, guidance in this regard is available from the corresponding IFRS Standard viz IAS36: Impairment of Assets. In the said IAS 36, paragraph A20 of Appendix A (which is an integral part of IAS 36) contains a provision identical to paragraph A20 of Appendix A of IND AS 8, i.e. that when the basis used to estimate the discount rate is post tax, that basis should be adjusted to reflect a pre-tax rate. IAS 36 further contains another appendix entitled *"Basis For Conclusions".* The said Basis for Conclusions, though not a part of the standard, outlines the basis on which the various provisions of IAS 36 were compiled, and hence the said Basis for Conclusions carries substantial persuasive value.

Paragraph BCZ85 of the said Basis for Conclusions states that it would be erroneous to convert a post-tax rate into a pre-tax rate by merely grossing up the post-tax rate by the marginal rate of tax. For example, if the marginal rate of tax is taken at 25%. The post-tax WACC has been estimated for example at 20.0%, and para BCZ85 cautions that it would be wrong to assume the pre-tax rate to be 20.00/ (100-25%) or 26.67% pa. The corresponding pre-tax rate could be higher or lower than the grossed-up rate, depending upon the timing of the cash flows, the effective tax rates etc.

The said para BCZ85 goes on to provide an illustrative example, and states that the correct approach is to determine the corresponding pre-tax rate by an iterative computation, such that the present value figure determined by discounting the pre-tax cash flows by a pre-tax discount rate exactly equals

the present value figure determined by discounting the post-tax cash flows by a post-tax discount rate.

Terminal Value:

Terminal value is generally calculated by applying the Gordon Growth Model('GGM') which is the most commonly applied methodology. The GGM solves for the present value of an infinite series of future inflows, assuming a constant growth rate, and assuming a given discount rate.

Terminal Value (TV) by GGM model is computed as

TV = [(Normalized Annual Free Cash Flow in Yr. 1 of perpetual period) (Discount Rate minus Perpetual Growth Rate)

Perpetual Growth Rate:

IND AS 36 **paragraph 33c** states that the constant or perpetual growth rate is not expected to exceed the long-term growth rate of the country where the entity operates. Thus, the long-term growth rate of the country of which the cashflows is determined is considered for perpetual growth rate.

All the above factors cumulatively are used to determine the Value In Use (VIU).

Timing of impairment tests

Paragraph 96 of IND AS 36 states that "*The annual impairment test for a cash-generating unit to which goodwill has been allocated may be performed at any time during an annual period, provided the test is performed at the same time every year. Different cash-generating units may be tested for impairment at different times. However, if some or aloof the goodwill allocated to a cash-generating unit was acquired in a business combination during the current annual period, that unit shall be tested for impairment before the end of the current annual period".*

Thus, impairment testing of CGU has to be done annually at the same time every year.

Impairment loss for a cash-generating unit

According to para 104 of IND AS 36 "*An impairment loss shall be recognized for a cash-generating unit (the smallest group of cash-generating units to which goodwill oar corporate asset has been allocated) if, and only if, the recoverable amount of the unit (group of units) is less than the carrying amount of the unit (group of units). The impairment loss shall be allocated to reduce*

the carrying amount of the assets of the unit (group of units) in the following order:

(a) first, to reduce the carrying amount of any goodwill allocated tithe cash-generating unit (group of units); and

(b) then, to the other assets of the unit (group of units) pro-rata on the basis of the carrying amount of each asset in the unit (group of units).

These reductions in carrying amounts shall be treated as impairment losses on individual assets and recognized in accordance with paragraph 60".

Conclusion

An impairment test of a CGU essentially comprises of an exercise to compare the Recoverable Amount ('RA') i.e. Value in Use ('VIU') of the CGU, with its Carrying Amount ('CA') including its Goodwill. If the RA of the CGU exceeds the CA of the unit, the unit and the goodwill allocated to that unit shall be regarded as not impaired. If the CA of the unit exceeds the RA of the unit, the entity shall recognize the impairment loss in accordance with the provisions of paragraph 104 of IND AS 36.

Chapter 8

Valuation of Securities in the Investment Portfolios of Banks acquired as a part of Stressed Assets Resolution Framework

Worldwide lockdown as a result of COVID-19 pandemic has had a deep-rooted impact on the overall economy. There have been no businesses irrespective of their size and sector, which have not been affected due to the crisis. To provide relief to the stress caused by COVID-19 crisis, the Reserve Bank of India released a Notification No. RBI/2020-21/16 on August 06, 2020. This notification provides for Resolution Framework for COVID-19 related stress.

The said resolution framework is solely based on the Prudential Framework for Resolution of Stressed Assets as issued by the Reserve Bank of India vide its Notification No. RBI/2018-19/203 dated June 07, 2019. Part F of Annexure 1 of the said notification speaks about Conversion of Principal into Debt / Equity and Unpaid Interest into 'Funded Interest Term Loan' (FITL), Debt or Equity Instruments. Needless to mention that such conversion of debt into equity instruments or other debt instruments of the borrower company would trigger valuation and consequential provisioning requirements.

This article is intended to focus on the attributes of the valuation of such investment portfolios of banks in view of the instant regulatory requirements.

Before going ahead, it is pertinent to note that the said notification prescribing prudential framework for resolution of stressed assets is applicable to all Scheduled Commercial Banks ('SCB') All India Term Financial Institutions (NABARD, NHB, EXIM Bank, and SIDBI), Small Finance Banks and Other Non-Banking Finance Companies ('NBFC'). It has been categorically stated that following borrowers / borrowings shall not be eligible for resolution under the said framework:

- MSME Borrowers having aggregate exposure not exceeding INR 25 Crore as at March 01, 2020
- Farm Credits

- Loans to Agricultural Credit Societies, Farmers' Service Societies and Large-sized Adivasi Multi- Purpose Societies for onward lending to agriculturists
- Loans to Financial Service Providers
- Loans to Central and State Governments; Local Government bodies and Body Corporates established under an act of the parliament
- Loans to Housing Finance Companies if previously restructured under instant guidelines

In a nutshell, large borrowings in excess of INR 25 Crore would be covered under the said resolution framework and would be eligible for conversion of loan into equity or other debt securities.

Cl. 19 of Part F of Annexure 1 of the 2019 notification speaks about valuation of such debt / equity / quasi-debt / quasi-equity securities issued by borrower companies. It refers to the instructions contained in Master Circular - Prudential Norms for Classification, Valuation and Operation of Investment Portfolio by Banks dated July 01, 2015. Following are the major valuation provisions based on the nature and classification of the instrument acquired by the banks:

1. Debentures / Bonds with normal coupon

All debentures and bonds issued by different companies are required to be valued on 'Yield to Maturity' (YTM) basis. Fixed Income Money Market and Derivatives Association of India ('FIMMDA') periodically publishes YTM rates for Central Government securities. While determining YTM for borrower companies, suitable mark-up needs to be added to the FIMMDA rates; based on the credit rating assigned to such debentures / bonds by credit rating agencies. However, the rate used for YTM for rated debentures / bonds needs to be at least 50 basis points above the rate applicable to the Government of India loan of equivalent maturity.

The cash flows expected to arise out of the debentures / bonds in the form of periodic coupon and redemption proceeds are required to be discounted to the present value using the above YTM as the discount rate. Valuation Methods as per the ICAI Valuation Standard 303 – Financial Instruments suggested similar postulation for valuation of debt instruments using Present Value method.

2. Zero Coupon Bonds / Low Coupon Bonds

As a part of the resolution, banks may acquire zero coupon bonds ('ZCB') or low coupon bonds ('LCB') issued by the borrower company. Para 3.7.3 of the Master Circular mentions that such ZCBs or LCBs are to be valued at acquisition cost plus discount accrued at the rate prevailing at the time of acquisition. This can be market to market where market value of ZCBs is available. In the absence of Market Value, Present Value of the ZCBs can be used. This present value has to be calculated by discounting the face value using 'Zero Coupon Yield Curve' plus appropriate mark-up using the zero-coupon yield spread as published by FIMMDA periodically.

In addition to above, banks need to monitor building up of Sinking Fund by the borrower company. Where the company fails to build up such Sinking Fund for redemption of ZCBs / LCBs in the future, banks need to value such ZCBs / LCBs at a nominal amount of INR 1. In some cases, the ZCBs / LCBs may not specify the redemption proceeds (terminal value) or such redemption proceeds might be contingent upon other factors. Under such circumstances, ZCBs / LCBs should be valued at a nominal amount of INR 1.

It can be noticed from these guidelines that the main bedrock of the valuation principal lies in the fact that the asset is a non-performing one. As such, the odds of income accruing from such securities are low. Accordingly, the resultant valuation needs to be as less as possible.

3. Equity Instruments Classified as Standard Assets

Valuation Methodologies for Equity Instruments which have been classified as Standard Assets are different from those prescribed for Equity Instruments which have been classified as Non-Performing Assets. Standard Equity Instruments are to be valued at Market Value if such instruments are quoted. If such instruments are unquoted, the lowest value arrived at by the following methods should be adopted:

(a) Book Value Method:

Book Value of the equity shares is to be calculated on the basis of the latest audited balance sheet of the company which is not more than 18 months old as on the date of valuation. Doing so, Revaluation Reserves if any, are to be ignored. If latest audited balance sheet is not available, then such shares are to be valued at INR 1.

(b) Discounted Cash Flow Method:

As referred to in ICAI Valuation Standard 103 – Valuation Approaches and Methods, the three important aspects of Discounted Cash Flow Method are Cash Flows, Discount Rate and Terminal Value. Cash Flows and Terminal Value can be addressed appropriately by taking necessary inputs from the management and using the information obtained from public domain. The Guidelines, however, recommends considering only the cash flows from current and 6 months prospective level of operations and occurring within 85% of the useful economic life of the project. Obtaining precise information to his effect and analysing this information could be a challenging job.

As far as Discount Rate goes, the RBI Notification prescribes calculation on the basis of the actual interest rate to be charged to the borrower on the residual debt post restructuring plus a risk premium to be determined on the basis of board approved policy considering the factors affecting the equity valuation. It has been clarified that the risk premium shall not be less than 3% and the overall discount rate shall not be less than 14%.

4. Equity Instruments Classified as NPA

Irrespective of the income generation ability and / or positive net-worth, the RBI Guidelines specify that Equity Instruments classified as non-performing assets shall be valued at a nominal amount of INR 1. This notion disregards generally accepted approaches to valuation and adopts a more conservative perspective to look at the valuation of equity securities acquired as a part of the resolution framework.

5. Preference Shares

Preference shares issued on conversion of debt are required to be valued by Discounted Cash Flow method as per the provisions of RBI Master Circular of 2015 with a few modifications. Para 3.7.4 of the Master Circular speaks about valuation of preference shares forming part of investment portfolio of the banks.

Similar to the Debentures / Bonds, Preference Shares are valued on YTM basis by adding appropriate mark up on the YTM rates of Central Government Securities as published periodically by FIMMDA. Such mark up is based on the Credit Rating of such instruments issued by the Credit Rating Agencies. The YTM rate (used as discount rate) is subject to a floor rate of weighted

average actual rate of interest charged to the borrower on the residual debt after restructuring with a mark-up of 1.5%.

While determining the cash flows for the DCF method, taking credit for accrued preferential dividend is not allowed. When dividend / coupon is in arrears for one year, the value calculated as above by DCF method is required to be discounted further by 15% and further by 10% for each year of arrears.

Banks in above situation would make it mandatory for the borrower to get the credit rating in respect of the debt / quasi-debt securities issued by it. A question may arise as to the determination of appropriate mark-up when no external rating is available. In such situation, synthetic rating model can be used. In synthetic rating model, suitable rating is assigned to the firm based on its financial ratios. A study of a bunch of rated companies has proved that high-rated companies usually have a very high Interest Coverage Ratio. Whereas low rated companies have very low Interest Coverage Ratio. The Interest Coverage Ratio determines financial ability of a company to serve its debt capital. As such, companies with high Interest Coverage Ratio tend to have low credit default risk spread and consequently low mark-up over and above the base discount rate. Similarly, companies with low Interest Coverage Ratio would have high credit default risk spread and resulting high mark-up over the base discount rate.

The synthetic rating model can be suitably modified to include analysis of other financial ratios like Debt Service Coverage Ratio (DSCR) or Debt to Total Capital Ratio or other Leverage Ratios. This shall include comparing such financial ratios of the comparable rated companies against respective ratings allotted to such companies. Based on the findings, suitable credit default risk spread can be added to the base rate to arrive at effective discount rate.

The Prudential Framework continues to state further that if the resolution plan is not deemed to be implemented, then unquoted equity shares acquired as a part of the resolution plan shall be valued at INR 1 till the time the resolution plan is treated to be implemented.

Subsequent to the initial recognition, the unrealised income can be recognised in the profit and loss statement as under:

- Debt Instruments – only on sale or redemption as the case may be
- Unquoted Equity Shares Classified as NPA – only on sale
- Quoted Equity Shares – Based on market value of the equity shares as

on the date of upgradation, not exceeding the amount of unrealised income converted to such equity.

As a part of the resolution, bad loans or non-performing assets may be assigned to Securitisation Companies (SCs) or Asset Reconstruction Companies (ARCs). Such SCs / ARCs may issue Security Receipts (SRs) or Pass-Through Certificates (PTCs) to the banks. The sale of financial assets by banks to such SCs / ARCs is to be recognised in the books by the bank at lower of:

- The redemption value of SRs / PTCs and
- Net Book Value (NBV) of the asset i.e. Book Value less Provision made.

Investment in such SRs / PTCs shall be reckoned as Non-SLR investments and accordingly instant valuation guidelines as applicable to valuation of Non-SLR investments shall be applicable.

We have seen that the RBI Guidelines refer to the YTM rates published periodically by FIMMDA. For valuation of Government Securities (G-Sec), FIMMDA uses the Cubic Spline Methodology. This methodology builds a yield curve taking into consideration traded yields for available tenors as inputs and generates a curve through interpolation and curve fitting. The inputs of yields and prices are done on the basis of Level – 1 (Traded Securities), Level – 2 (Market Observable and Tradeable Securities) and Level – 3 (Proxy). After determination of nodal points and making adjustment for illiquidity discount, yield curve is generated. FIMMDA publishes prices / yields of Government Securities in accordance with the RBI Master Circular of 2015.

With effect from March 31, 2018; Financial Benchmarks of India Limited ('FBIL') has taken over valuation of Government Securities from FIMMDA. As per the directives of the Reserve Bank of India, FIMMDA has ceased to publish prices / yields of Government Securities and the same has now been entrusted with FBIL.

FBIL publishes the price / YTM data of the securities of the Government of India on daily basis on each business day on similar Cubic Spline Methodology.

The main challenge apart from adopting the prescribed valuation methodologies is compliances under other applicable regulatory requirements. Upon conversion of outstanding portion of loans into equity or other securities may trigger fair valuation requirements under other statutes namely Companies Act, 2013 and Income-tax Act, 1961.

Procedure for conversion of loan into equity has been prescribed more clearly under section 62 of the Companies Act, 2013. Issue of equity instruments to bank may result in further issue of shares u/s 62(1)(c) of the Companies Act, 2013 which requires that equity shares should be issued at a price not less than the fair value as determined by a report of a Registered Valuer. Banks on the other hand would be required to account for such equity instruments at a value which is the lowest of book value and present value (by DCF method) as discussed earlier. It is believed that such valuation for the purpose of financial reporting of the bank would be much lower than the fair valuation as required under the instant provisions of the Companies Act, 2013. This may jeopardize company's situation when it has to meet the regulatory compliances. Furthermore, issue of equity shares at premium may impose valuation requirements as per the provisions of section 56(2)(viib) of the Income-tax Act, 1961 and Rule 11U and 11UA of the Income-tax Rules, 1962.

The Securities and Exchange Board of India has provided some exemptions under certain conditions, from the requirements of SEBI (Issue of Capital and Disclosure Requirements) Regulations, 2018 where restructuring has been carried out in accordance with the RBI guidelines.

The issue of equity shares would be governed by the applicable provisions of the Companies Act, 2013 and the rules made thereunder including fair valuation requirements by a Registered Valuer to determine the issue price. Taxation under the Income-tax Act, 1961 is a separate issue altogether which is more or less a post-facto analysis.

As discussed earlier, it is very much evident that the valuation approaches and methods as prescribed by the RBI Guidelines take a risk-averse or unadventurous strategy. The only reason evident is stressful nature of the borrowers who have issued such securities as a part of the resolution plan and difficulty in assessing possibility of cash flows arising from such securities. The assessed value may not be 'fair' in a sense. However, considering the *sine qua non* of the financial reporting purpose, the instant valuation guidelines of the regulator appear to be legitimately equitable.

Sources:

1. Resolution Framework for COVID-19-related Stress vide RBI Circular No. RBI/2020-21/16 dated August 06, 2020
2. Prudential Framework for Resolution of Stressed Assets vide RBI Circular No. RBI/2018-19/ 203 dated June 07, 2019

3. RBI Master Circular on Prudential Norms for Classification, Valuation and Operation of Investment Portfolio by Banks; Circular No. RBI/2015-16/97 dated July 01, 2015

4. Valuation Standards issued by the Institute of Chartered Accountants of India

5. Press Release of Financial Benchmark of India Limited

Chapter 9

Valuation: Its Drivers in Times of Crisis

Introduction

The markets have recouped some of its earlier losses. How could this have happened with economies largely being shut-down? What's driving markets and valuations? What should we expect in the days ahead? Why some companies, sectors carry high market valuations and others very low valuation during this time of crisis.

This article delves into what in the business models of companies allow them not only to pull through, but pull through with better ***fair values*** for their businesses.

Fair value 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 **valuation date/measurement date (an exit price)**.

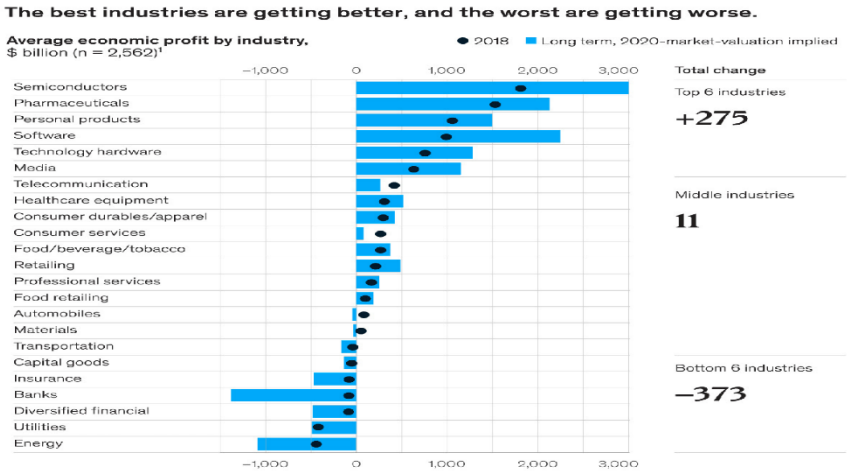
Fair market value is the price at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts.

We can now see how companies and business sectors are doing generally in terms of valuations.

A. Businesses and sectors weathering the crisis better, leading to better valuations

The McKinsey graph (figure 1.1) below shows, ***how the flexible or resilient industries*** are doing better and the least or lesser resilient ones doing worse, in terms of valuation.

Figure 1.1: The best industries



[1]*Largest non-financial companies by revenues in 2018 with data for 2013-18 available.* The six best-performing industries, including semiconductors, pharmaceuticals, and software, have added $275 billion a year to their expected economic-profit pool, while the least profitable six—including insurance, utilities, and energy—have lost $373 billion. *Source: McKinsey Corporate Performance Analysis.*

If we were to see a few examples why some companies and or industries seem to fetch better market values, one would see that resilience or flexibility is perhaps the contributing factor. Before we evaluate what resilience means and stands for, we can see a few examples of companies gaining higher valuations during this time of global crisis.

B. Certain examples of Companies fetching better valuations in times of crisis

(i) Using Tesla as an example

Which large Market Cap company grows 380% or more in an year. Tesla! Tesla (an electrical vehicle manufacturer) has seen its market cap swelled over 380% in just the past year as its faithful shareholders and many new ones have piled into the stock. It recently became the largest automaker in the world by market cap even though its sales and profits are far smaller than its legacy competitors (it has surpassed Toyota in market cap, and its market Cap is more than that of General Motors and Ford put together). *See figure 1.2 below.*

(ii) Using Reliance Industries as an example

Reliance industries are now being valued as a tech company, with multiples that apply to tech giants such as Apple, Microsoft, Alphabet (Google). It's forward EV/EBITDA is closer to 19x, which is close to Microsoft and Apple and more than that of Google. *See table 1.1 below.*

(iii) The Tech Giants doing better than the Japanese market as a whole

Japan's stock market was US$ 5.84 trillion, with big four tech giants (Apple, Microsoft, Amazon, Google) being valued at US$ 5.97 trillion. *See figure 1.3 below.*

Figure 1.2: Graph on Tesla's growth in value

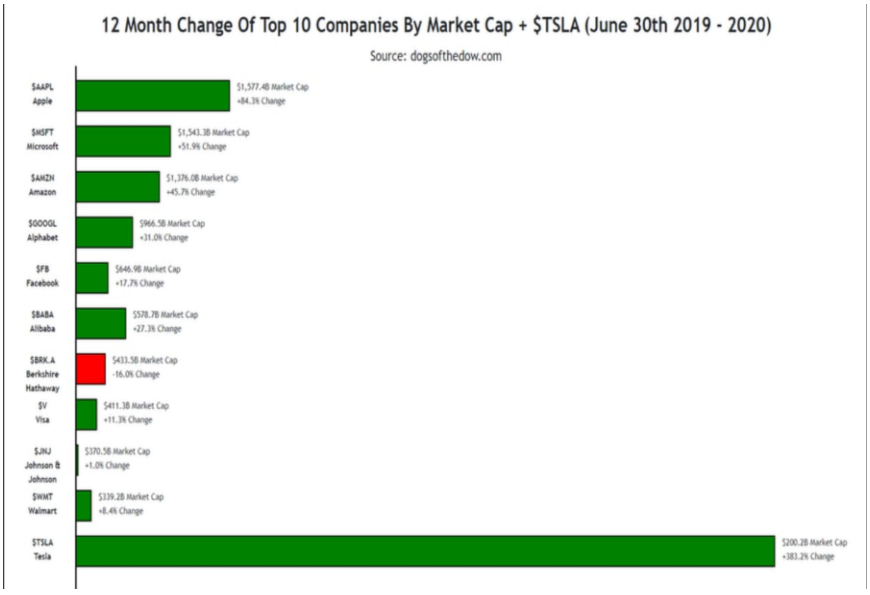


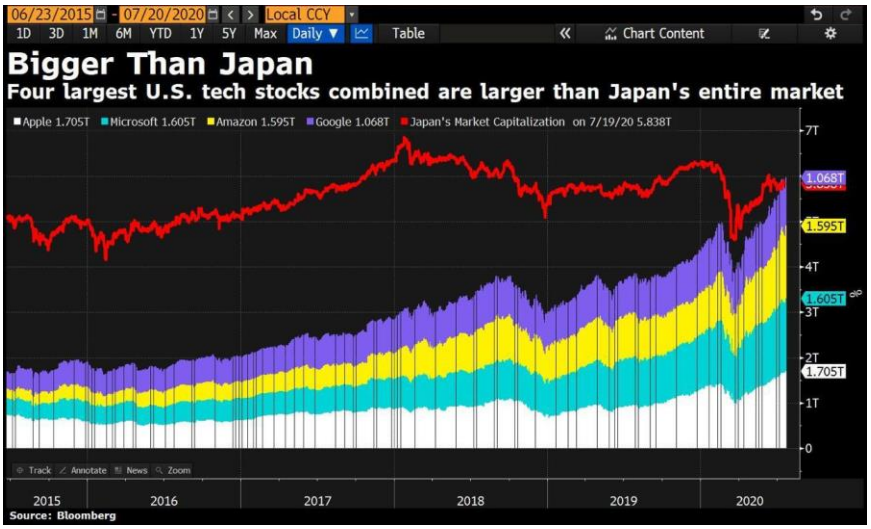
Table 1.1: Reliance Industries fetching big tech multiples

Out of the Conservative Valuation Band

Stock	YTD Rtn (%)	Forward EV/EBITDA	5-Year Avg	Forward PBV	5-Year Avg	Forward PE
Reliance Industries	43.09	18.86	14.79	3.03	1.81	32.98
Technology Cos						
Apple Inc	26.16	19.38	10.92	20.43	7.75	27.61
Microsoft Corp	27.65	19.86	14.08	12.88	8.11	31.23
Alphabet Inc	12.60	15.55	11.33	5.07	4.45	28.12
Energy Cos						
Saudi Arabian Oil Co	-6.38	12.49	11.65	6.43	6.24	34.45
Exxon Mobil Corp	-37.76	12.57	8.97	1.01	1.79	29.00
Chevron Corp	-25.21	11.56	8.14	1.17	1.37	32.12

Source: Bloomberg

Figure 1.3: Graph on four largest Tech Companies, larger than Japan's entire market



The above examples get one thinking as to what's driving the markets, and which companies and sectors seem to be pulling through and out of the decline in value it earlier had. We analyze what in the business models of companies are providing them higher and better valuations.

What is aiding and abetting the valuation of certain companies in certain sectors is their healthy operating margins (EBIT), healthy earnings per share (EPS) and healthy free cash flows they generate (FCF), with the little need to for reinvestment in capital expenditure and working capital.

Table 1.2: Stock indices, across the globe, have recouped some of its earlier losses

			Global Index Levels		
	Index	***Country/ Region***	***14-Feb-20 Pre-covid announce ments***	***20-Mar-20 Post pandemic lockdown***	***26-Jun-20 Markets assessing companies that are better placed***
Americ as	S&P 500	US	3214	2305	3009
	NASDA Q 100	US	9624	6994	9849
	TSX	Canada	17848	11852	15189
	IPC Mexico	Mexico	45000	34270	37432
	iBovesp a	Brazil	114381	67069	93834
Europe	FTSE 100	UK	7409	5191	6159
	DAX	Germany	13744	8929	12089
	CAC 40	France	6069	4131	4910
	S&P Europe 350	Europe	1731	1181	1434
Asia	Nikkei 225	Japan	23688	16553	22518
	Shangh ai 50	China	2895	2628	2943
	Hang Seng	Hong Kong	27816	22805	24550
	Sensex	**India**	**41258**	**29916**	**35171**
Australi a & NZ	ASX 200	Australia	7133	4825	5904
	NZX 50	New Zealand	11835	9202	11129
Africa	FTSE/J SE TOP 40	South Africa	52050	36302	49478
	NSE-All Share	Nigeria	27756	22198	24829

In the indices above, there are certain sectors that have led to its increase. In the increase in index levels and market cap, a dominance of health care and technology on the best perfuming list. Education is a new entrant into the best performing list, perhaps reflecting the promise and potential of online education. There is a preponderance of infrastructure and financial services in the worst performing industry list. Companies that are more resilient or flexible are generally in the earlier part of their corporate life cycle or are businesses that have found a way to continuously grow (and postpone maturity).

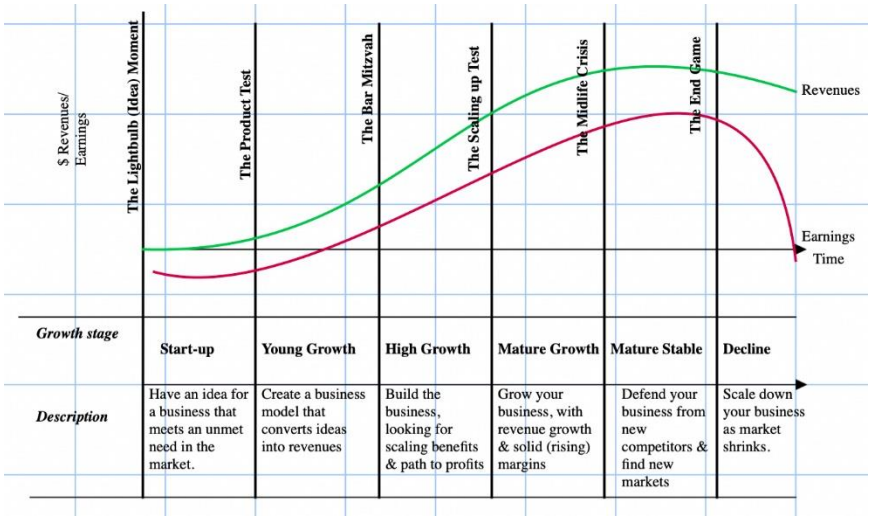
C. Lifecycle, growth and assets and liabilities of companies

What is perhaps relevant is to review where a company and its business is in the stage of its life, its growth and how would it fund its need for capital, which can have a bearing on its valuation

(i) Corporate Life Cycle of Companies

Much like a product or human life cycle, companies and businesses also have a life cycle. Companies that are in the introductory and *high growth* phases will perhaps have a better chance of pulling through this crisis. The ones that have shown a higher growth, have a way to not only sustaining themselves through this crisis, but have tended to build wider moats around their business models. *See figure 1.4 below.*

Figure 1.4: Corporate Life Cycle



The flexibility and resilience in operations and finance can come from many factors and amongst the more relevant factors would be corporate life cycle of the company, that is to say, the stage of growth the company is in, as depicted in the figure above. Generally speaking, the younger companies may fare better than the older ones. Younger companies perhaps are less indebted and rely more on equity capital than debt to fund whatever funding they might have in the operations. *Capital light companies would be valued higher than capital intensive companies*. These companies in the early stages of the lifecycle may be categorized as growth companies and therefore have high growth built into their valuations.

(ii) The sources and applications of funds – Assets and Liabilities

Table (Balance sheet) below shows how companies will grow their assets, raise capital (debt & equity mix) and how the value will be derived, by minimizing default risk*. See table 1.3 below.*

Table 1.3: Statement of Financial Position (Balance Sheet)

Sources of Funds (Liabilities)	Applications of Funds (Assets)
Shareholders Equity (including equity portion of convertible preference share)	Existing Assets in place
Debt (including debt portion of convertible preference share)	Growth Assets to come in the future

For the *growth assets*, the company would have to earn *ROIC* > *Hurdle rate*, to increase value of the company. The *financing of growth assets* will be such that it maximizes the value of assets and minimizes the *Hurdle rate (WACC).*

The younger companies will, generally, fund their capital requirements with equity. The older companies will perhaps fund the capital needs more with debt than equity. The younger company's value comes from the growth in assets in the future, while the value of the older companies would come from the existing or assets already in place, depicted in the table (proforma balance sheet) above. It's easy to see from the balance sheet why the expectation of growth for a company that's growing, and building and strengthening its competitive advantages, will fetch higher values – *as with higher margins, higher free cashflows, and lower cost of capital or discount rate as it would*

carry lower risk. The cash flows will have a TV (terminal value) assuming it to be growing perpetuity for companies that are in growing phase, with ROIC (return on invested capital) > WACC (weighted average cost of capital).

D. Resilience / Flexibility in the Operations and Finance (Business Model's Modus Operandi) leading to better valuations

From the above one would perhaps attribute factors such as Flexibility/Resilience and Optionality as the factors that would ensure certain companies, businesses and industries will have better valuations

Resilience or flexibility of an organization measures how quickly and how cost effectively a company responds to changes in its circumstances and economic environment, with more resilient or flexible firms adjusting faster and at lower cost than less resilient or flexible firms. This would then mean that actions that would need to be taken to ensure resilience and flexibility would be in operations of the company, the investment that it might have to make, how it's financed and finally what cash (if any) is returned to the shareholders either in the form of dividend or share buybacks.

1. Investment Resilience or Flexibility (Scaling up or down)

Growth in business comes from investments in the business and the returns on those investments, and what the pay-off or payback period will be. The sooner the payback the higher the returns and larger the growth will be, and generally speaking the higher valuation should be.

There certain companies (in certain sectors) such as steel, toll roads, telecom, auto, industrial machinery, etc., that are likely to have low investment resilience or flexibility on account of their constant and perpetual need for reinvestments (on infrastructure or inventory) in either tangible or intangible assets.

Companies in the medical space (Pharmaceutical companies), too will have low investment resilience flexibility because they have to spend large amounts in R&D, with reasonable probability of it being expensed (as some R&D will not pay-off). In addition, such companies may have to wait long periods before blockbuster drug gets produced (commercial success). In recent times we have seen the business models of businesses with low investment resilience

or flexibility being disrupted. New entrants with *disruptive business models* that allow their businesses to scale up or down quickly, with relatively low investment in the business. Uber, OLA, OYO, Airbnb would be examples of sharing economy companies that have a very real *competitive advantage* in this sphere over their far more established competitors or rivals. The best and most effective way to measure how this crisis has affected the investment resilience or flexibility is to see this in terms of *efficiency of deploying capital, which is the ratio of sales to invested capital*.

Companies that have *high sales per rupee of invested capital, generally will have the highest investment resilience or flexibility and perhaps may do far better during this crisis*, than would companies that have low resilience or flexibility.

2. Operating Resilience or Flexibility (Scaling up or down)

The operations of businesses will be impacted adversely by the immense shock caused to revenues (to abruptly rise or fall). Operating flexibility or resilience will reflect and measure the impact of revenues on operating margins and profitability. Perhaps the best way to understand this effect is to break-up (segregate) the operating expenses of a company into fixed expenses and variable expenses. From the break-up of expenses, we would be able to gauge variable expenses moving up or down as revenues rise or fall, while the fixed expenses would generally remain constant (fixed).

We would then be able to see that companies with *high fixed costs, as a percent of revenues, will have far larger swings in operating income (EBIT)*, as revenues change, than would companies that have more flexible or resilient (high variable expenses) cost structures. As a consequence, it's not surprising, therefore that airlines have far larger swings in profitability from good years to bad ones, as compared to online retailers and service businesses have far smaller effects on operating income (EBIT). To gauge the extent of how operating flexibility is impacted, one would have to break-down expenses in the P&L into fixed expenses and variable expenses. What would also have to be done would be to assess and compute the gross margins and that *companies with high gross margins will have far more flexibility or far more resilience* in dealing with revenue shocks than would companies with low gross margins.

Businesses that have high gross margins, and have more variable expenses than fixed expenses in their cost structure, are likely to have a higher operating margin, higher operating income, leading on to perhaps a higher value, as they would be able to more efficiently and effectively negotiate the market swings up or down.

3. Financing Resilience or Flexibility (Scaling up or down)

With revenues going either up or coming down, the operating income (EBIT) will reflect the movement up or down in revenues. Financial resilience or flexibility would then measure and reflect how much profit after taxes (PAT) to equity investors changes. *Companies and businesses that have low financial flexibility will show and reflect wider and bigger movement and swings in PAT for a given change in EBIT*. The drivers and elements of financial flexibility would be the outstanding loans and debt (and consequently the obligations thereof for repayments periodically), and the cash balance on its balance sheet. The interest expense on the debt would enhance volatility and the interest income on the cash balance would bring down the volatility and soften the blow.

If we were to take *net debt (gross debt – cash), as a percent of cash flows or value, is to be considered the driver of financial flexibility*, then Net Debt as a multiple of EBITDA would throw light on what would make for a healthier valuation. Therefore, *companies and businesses that have high (or higher) debt to EBITDA would be or tend to have lower financial resilience or flexibility*. This would largely be so because high debt to EBITDA would have an increasing obligation to service the debt obligation periodically.

4. Cash Return Resilience or Flexibility (Scaling up or down)

Companies generally have two choices as to what it does with its cash. Traditionally (generally), the conventional approach has been to pay dividends, and companies may also look at share buybacks to shore up their price and earnings per share (EPS). Both dividends and buybacks have to be funded by free cashflows to equity investors (FCFE). Cash return resilience or flexibility measures and reflects how quickly (and if at all) companies can adjust their cash returns to account for changes in FCFE.

Needless to say, the *companies that return little or no cash, relative to their*

free cash flows to equity (FCFE), would be accumulating cash, and would have far greater cash return resilience or flexibility than would companies that return a large proportion of their cash flows to equity investor (measured by quantum of FCFE).

It's likely that non-dividend paying shares and shares with low dividend yields would generally do better than companies with high dividend yield shares (there would always be companies businesses, where the pandemic has increased demand for certain industries and products – like pharma, personal care and hygiene, online retailing, telecom, technology companies and the like).

5. Technology and Patents

Companies and businesses that have created and *sustained their competitive advantage* and thereby created *barriers to entry* by superior technology (say Apple, Amazon, Google, Facebook, Tesla), or products that carry a license (say Microsoft), or products that have a patent (say Pfizer), or in software and digitizing of services space (say TCS, Infosys, Byju, ZOOM, Edtech, Zomato, Paytm), may be *valued higher*, as we can see from the cases delineated above.

E. Impact, Conclusion and Way Forward

It does generally seem to bear out that during this crisis, stock markets have rewarded resilient or flexible companies. The last few years have been significantly disruptive one. *The disruption has been brought about by companies that have built business models with flexible cost structures* and by virtue of which have taken a march over competition and in the process have *built moats around their business models to gain a sustainable and durable competitive advantage in terms of ever increasing FCFF and ROIC*.

The implications for businesses that have built resilient or flexible business models, creating and widening the moat for their products or services would generally mean and lead to shorter and compressed corporate life cycles – Uber, OLA, OYO, Airbnb and the like. The consequences can be quicker maturity and decline, unless they prolong their competitive advantages and continue to grow way into the future.

The operating and financial resilience or flexibility will protect the downside risks. This would also mean that the upside gains may also be truncated, that is generally brought about by higher fixed expenses and debt. The larger fixed

expenses and debt dent the profits and cash flows in bad times, but can create larger profits and cash flows in good times.

To conclude and as a way forward therefore, it's probable that businesses with high operating margins (EBIT/Sales), high net margins (PAT/Sales), low reinvestment needs (on capex and working capital), high free cashflows (FCFF), low leverage (Debt/EBITDA), will generally have the flexibility to see the crisis through with perhaps better valuation and come out stronger. Finally, based on the critical inputs, a valuer would ultimately have to rely on professional skepticism and judgement which will influence bases of value, the premises of value and considering purpose of valuation, arrive at a value or a range of values.

Glossary

EBIT (earnings before interest and taxes), P&L (profit and loss statement), GM (gross margin), EBITDA (earnings before interest taxes depreciation and amortization, FCFF (free cash flow to the firm), FCFE (free cash flow to equity), PAT (profit after taxes), TV (terminal value), ROIC (return on invested capital), WACC (weighted average cost of capital), Capex (capital expenditure), Hurdle rate (WACC), Economic profit or loss (refers to the difference between the total revenue and the opportunity cost associated with the revenue generated. Opportunity cost is the cost of an opportunity foregone, i.e., given up in order to pursue another one.)

Sources

Damodaran on Valuation; McKinsey: Valuation-Measuring and Managing Value of Companies; Economic Times; Money Control; Palepu on Valuation; CNBC; Bloomberg

Chapter 10

Buyback of Shares – An Insight into Valuations

1. What is buyback?

A Buyback, commonly known as a "share repurchase", is when a company buys its own outstanding shares to reduce the number of shares available in the open market. The reasons behind buy back of shares by a Company could be:

- To increase the value of remaining shares (shares left after repurchase) available by reducing the supply;
- To prevent takeover by other shareholders;
- A repurchase reduces the number of shares outstanding, thereby inflating (positive) Earnings Per Share (EPS) and, often, the value of the stock (*if other conditions remain unchanged*);
- A repurchase can demonstrate to investors that the business has sufficient cash set aside for emergencies and a low probability of economic troubles.

A buyback allows companies to invest in themselves. Reducing the number of shares outstanding on the market increases the proportion of shares owned by investors. A company may feel its shares are undervalued and do a buyback to provide investors with a return. And because the company is bullish on its current operations, a buyback also boosts the proportion of earnings that a share is allocated. This will raise the stock price if the same price-to-earnings (P/E) ratio is maintained.

2. Recent Buyback

Among many buy-backs the most talked about recent ones are:

- **JUST DIAL LIMITED:** Buy-back amounting to 220Cr was approved by the Company on April 30, 2020
- **MPS LIMITED**: Buy-back amounting to 34Cr was approved by the Company on August 11, 2020

- **RITES LIMITED:** Buy-back amounting to 257Cr was approved by the Company on September 18, 2020 (*buy back in process as on the date of this article!!*)
- **WIPRO LIMITED:** Buy-back amounting to whopping 9500Cr was approved by the Company on October 7, 2020 (*buy back in process as on the date of this article!!*)
- **TATA CONSULTANCY SERVICES LIMITED:** Buy-back amounting to a mind-boggling 16,000Cr was approved by the Company on October 7, 2020 (*buy back in process as on the date of this article!!*)

3. Tax and Regulatory Framework

Companies Act, 2013:

Section 68-70 of the Act provides power to the Companies to purchase its own "***securities***" subject to certain conditions and restrictions laid down therein:

- The buy-back is authorised by its articles;
- A special resolution is passed at a general meeting of the company authorising the buy-back if the quantum of buyback is ***more than*** 10% of paid-up equity capital and free reserves of the company otherwise authorisation by way of Board Resolution is sufficient;
- The buy-back is twenty-five per cent or less of the aggregate of paid-up capital and free reserves of the company;
- The ratio of the aggregate of secured and unsecured debts owed by the company after buy-back is not more than twice the paid-up capital and its free reserves;
- All the shares or other specified securities for buy-back are fully paid-up;

Income Tax Act, 1960:

Section 115QA of the ITA introduced w.e.f. June 1, 2013 contains provisions for taxation of a domestic company in respect of buy-back of shares (within the meaning of Sec. 68 of the Companies Act). In effect, the incidence of tax stands shifted completely to the Company and not the recipient of the buyback proceeds.

Before the enactment of Finance Act (No 2), 2019, this section was not

applicable to shares listed on a recognized stock exchange. The Finance Act (No 2), 2019 has amended section 115QA of the ITA with effect from 5th July, 2019 extending its provisions to cover distributed income on buy-back of equity shares of a company listed on a recognized stock exchange as well.

Presently the tax rate under Section 115QA is 20% + 12% surcharge + 4% cess thus making the **effective tax rate to be23.296% on the distributed income** *(As on the date of this article!!)*.

Section 10(34A) of the ITA provided for exemption to a shareholder in respect of income arising from buy-back of shares w.e.f. April 1, 2014 (i.e. Assessment year 2014-15). The Finance Act (No. 2), 2019 has also made consequential changes to section 10(34A) of the ITA extending the benefit of exemption of income from buy-back to shareholders in respect of shares listed on recognized stock exchange as well.

In short, buy-back amount received is tax exempt in the hands of shareholder and taxable in the hands of Company @ 23.296% on the distributed income.

SEBI Buy Back Regulations, 2018:

These regulations are applicable for listed Companies. The same is required to be complied by the Listed entities over and above the provisions mentioned for the same in Companies Act, 2013.

A listed company can buy back its shares in any of the following manners:

i. From the existing shareholders on a proportionate basis through the tender offer;

ii. From open market through:

   a. Book building process

   b. Stock exchange;

iii. From odd lot holders.

During pendency of buy back, promoter group are restricted from dealing in shares on the stock exchange or off market, including inter se transfer promoters. Buy back through open market operations to be restricted to 15% of paid up capital + free reserves (both on standalone and consolidated basis). No public announcement of buy back can be made during the pendency of any scheme of amalgamation or compromise or arrangement pursuant to the

provisions of the Companies Act. Company cannot not raise further capital for a period of one year from the expiry of buy back period, except in discharge of its subsisting obligations. However, SEBI has recently relaxed the cooling off period temporarily for raising further capital to 6 months until 31 December 2020.

4. Valuations in Buyback

Listed Company:

No methodology prescribed under SEBI Regulations for listed companies, however the board needs to determine a fixed price in a tender offer or a maximum price in case of open market operations.

Typically, it is a premium to the prevailing market prices at the time of the announcement. Let us look at a comparative analysis of recent Buy-Backs through tender offer:

Name of Company	Board Approval Date	Buy-Back Quantum (In ₹)	Book Value per Share as per latest audited balance sheet	Closing market price of the Shares prior to Buy-Back announcement date	Buy-Back Price Offered	Premium Offered against last closing price	Premium Offered against book value
Just Dial Limited	April 30, 2020	220Cr	₹ 185.70	₹ 348.65	₹ 700.00	101%	377%
MPS Limited	August 11, 2020	34Cr	₹ 192.50	₹ 322.85	₹ 600.00	86%	312%
Rites Limited	September 18, 2020	257Cr	₹ 105.30	₹ 251.40	₹ 265.00	5%	252%
Wipro Limited	October 7, 2020	9500Cr	₹ 90.19	₹ 335.30	₹ 400.00	19%	444%
Tata Consultancy Services Limited	October 7, 2020	16000Cr	₹ 224.20	₹ 2,714.30	₹ 3,000.00	11%	1338%

From the above analysis we may draw a conclusion that a Buy-Back is

generally offered at a premium to the market value / book value per share but how much premium is a decision vested completely with the board.

Unlisted Companies:

As per Income Tax Act: No methodology prescribed for fixing the buy-back price however reference check to Rule 11 UA valuation / Fair Market Valuation principles to be kept in reckoning from a ***good governance perspective***.

It is imperative to note that Section 115QA of ITA speaks about taxation on distributed income under buy-back which is calculated on consideration paid by the company on buy-back of shares as reduced by the amount which was received by the company for issue of such shares. Though the law may be silent on calculation of buy-back price but Rule 40BB of Income Tax Rules does speak about the second part of the equation viz., amount received by the company in respect of issue of share.

As per the Companies Act, 2013: No methodology prescribed for fixing the Buy-Back price but generally will be the Fair Market Value as per International Valuation Standards. Further Section 68 read along with its rules require a disclosure in the explanatory statement for the ***basis of arriving at the buy-back price***. Ordinarily a valuation report may be obtained from a Registered Valuer to compute the same.

We may now draw a conclusion that pricing mechanism for buy-back may not be explicitly stated anywhere but from good governance perspective and from the Taxation and Regulatory angle a valuation report is sufficient to justify the basis of buy-back price. The buy-back price may become a price point for tax purposes for future transactions fresh issue or internal restructurings.

Chapter 11
Valuation of Intangibles

Introduction – Intangibles

An intangible asset is an identifiable non-monetary asset without physical substance[32]. As opposed to Tangible assets – Land, property, plant and equipment or inventory, Intangibles such as goodwill, brand, patents and other intangibles are not physical in nature

With technology and global reach of businesses, and development of content as a highly monetizable asset class, intangible assets have been consistently a higher proportion of the balance sheet of many companies as compared to tangible assets. Especially, industries such as Pharma, TV, high technology derive a substantial part of their value from intangible assets such as patents, trademarks, customer relationships – whether recognized in their financial statements or not.

According to the Brand Finance Global Intangible Finance Tracker (GIFT™) 2019 report. The value of the world's undisclosed intangible assets is now at US$35.4 trillion[33]. Intangible assets – form an estimated 48% of total global enterprise value.

Brand Finance report of 2019 shows the significance and the sheer magnitude of values of Companies driven by their brands as a proportion to their enterprise value. The top 5 such companies reveal that most of their values are coming from intangibles.

Ranking	Company	Intangible ($ Bn)	% of Enterprise Value
1	Microsoft	904	90%
2	Amazon	839	93%
3	Apple	675	77%
4	Alphabet (Google)	521	65%
5	Facebook	409	79%

[32] Indian Valuation Standard- 101 – Para 6.19
[33] https://brandirectory.com/reports/global-intangible-finance-tracker-gift-2019

Under current IFRS/ Indian Accounting Standards (Ind AS) requirements, only the value of acquired intangible assets can be recognized (except for internally generated software). Intangible Assets, to be recognized, need to be non-monetary, without physical substance and 'identifiable'.

In order to be 'identifiable' it must either be separable (capable of being separated from the entity and sold, transferred or licensed) or it must arise from contractual or legal rights (irrespective of whether those rights are themselves 'separable'). Therefore, intangible assets that may be recognised on a balance sheet under IFRS are only a fraction of what are often considered to be 'intangible assets' in a broader sense.

Clearly, therefore, whatever the requirements of accounting standards, companies should regularly measure all their tangible and intangible assets (including internally-generated intangibles such as brands and patents) and liabilities, not just those that have to be reported on the balance sheet. And the higher the proportion of 'undisclosed value' on balance sheets, the more critical that robust valuation becomes.

Purpose of valuation

The importance of valuing intangible assets arises from the fact that the reported net worth of businesses may not be reflecting its true value, which most likely is in the form of intangible assets. Certain areas where intangible assets are required to be valued are as follows:

- purchase price allocation for business combinations
- impairment testing
- transfer pricing when an intangible asset is being transferred/licensed in/out between
- transactions (Mergers / acquisitions)
- financing, when an intangible is used as a collateral;
- litigation, when there has been a breach of contract/right and the compensation has to be
- determined;
- insurance,

Types of Intangibles – IFRS 3 identifies broadly 5 categories of Intangibles

Marketing Related	Customer Related	Contract Based	Technology Based	Artistic related
Brand	Lists	Licensing, royalty	Patents	Plays, Operas, Ballets
Service Marks / collective marks	Order backlogs	Lease agreements	Computer Software	Books, Magazines, Newspapers, Literary works
Trademarks / Tradename	Customer relationships / contracts	Permits	Unpatented technology	Musical works – compositions, lyrics, jingles
Internet Domain Names		Franchisee agreements	Database	Pictures and photographs
Mast heads		Right of use agreements	Trade secrets	Video and audio quality material
Non-compete		Employment agreements / covenants		

Brand as an Intangible - Intangible valuation

In this article, we explore Brand as one specific Intangible.

Brand building activity is considered one of the most important activities by an entity in today's world. Marketing intangibles like trade name, trademarks, goodwill, etc play an important role in an entity's valuation. Strong brands help companies distinguish their products from that of the competitors with ease – they also contribute to significant ability to price products at a premium.

One simple example of right advertising and brand building could be to do with Cola products wherein while majority of the people consuming the same know it's not good for health, but still it is consumed due to perception of maybe actors consume it, its "cool" to consume it, etc.

Another example of brand and its impact on profitability and pricing can be the difference between generic and branded pharmaceutical products

A comparison of a medicine brand Metformin SR 500, which is the generic name against the branded alternatives reveals the following:

Brand Name	Manufacturer	Price/Tablet (INR)
Glycomet 500 SR	USV Ltd	2.2
Bigomet SR 500	Aristo Pharma	1.6
Metsmall 500	Dr Reddy's laboratories	1.8
Metlong 500	Panacea Biotec	1.6

Source: 1mg.com

It is clear that due to Brand value of the brand 'Glycomet', USV is able to price the drug Metformin at nearly 40% higher than the other alternatives.

While brand building is important and considered to be a very important asset to the Company, they are not valued till they are either a part of a transaction or used as a collateral. This means that even though a Company spends on brand building and claims the same as an expense in its books of account, the brand is not recognized as an asset till the same is monetized.

As per a recent article in Money control[34], the top brands in India are identified as under:

- Tata Group
- LIC
- Reliance Industries Limited
- Infosys
- State Bank of India
- HDFC
- Mahindra Group
- Indian Oil
- HCL
- Airtel

[34] Brand Finance released a Brand Value Report 2020

These companies have spent on development of the brand. However, when we talk about brand, we are not talking about only the advertisement expenses/ costs incurred but are also considering the various attributes of the brand as mentioned below.

Brand attributes

Brand is a combination created due to various activities and attributes. The contributors for a good and valuable brand maybe:

a) Corporate culture

b) Internal process- Best practices

c) Customer relationships

d) Supplier relationships

e) Innovation and Know-how

f) Business network, etc

While each of these are important individually, together they contribute in making a brand valuable.

As put forth by Ajimon Francis, Indian head and CEO for global brand consultancy Brand Finance, "It (Brand Value) is a measure of several factors like loyalty of customers, the ability of a brand to keep offering newer products and technology, and the connection with consumers, who give it a premium."[35]

Significant Considerations for Valuation

The following other significant considerations shall be made for the valuation of intangible assets:

- Purpose - For use- Usage of the brand by other Group entities or for a transaction or for accounting
- the legal rights of the intangible asset to be valued, for example, a registered trademark may have a higher value as compared to an unregistered trademark. However, an unpatented technology (as not in public domain) may have a higher value than a patented technology;

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[35] https://www.mondaq.com/india/advertising-marketing-branding/553838/brand-valuation-approaches-and-methods#:~:text=Brand%20Valuation%20can%20be%20defined,financial%20value%20of%20the%20brand.

- to evaluate the highest and best use considerations;
- to assess the history and development of the intangible asset; or
- to consider any specific laws or regulations

Approaches and methods of valuation:

Market approach-

In simple terms this is to identify what is the fair market value of the Brand.

Some of the common methods under Market approach are:

1. **Comparable Transaction Method –** this involves evaluating the brand, with suitable adjustments, in comparison to sale of Brands or capitalized royalty values of comparable transactions – of similar brands, in similar industry. While this method may give a clear view from a third party perspective, finding a suitable comparable, especially for Brands, which are driven by multiple factors is extremely difficult and possibly involves significant judgements for adjustments.

2. **Residual Method -** Kevin Lane Keller is the E. B. Osborn Professor of Marketing at the Tuck School of Business at Dartmouth College. He has proposed that the valuation of the brand by means of residual value which would be when the market capitalization is subtracted from the net asset value. However, it would be the value of all intangibles – not just that of the Brand

Cost Approach

Cost Based approaches are primarily concerned with the cost in creating or replacing the brand. The cost approach can be further divided into the following methods:

1. **Accumulated Cost or Historical cost method:** It aggregates all the historical marketing costs as the value. It may be of use at the initial stages of brand creation where attributing cash flows or other comparables is difficult to identify. However, cost is not a substitute for value and this method has limited application.

2. **Replacement Cost Method:** The Replacement Cost Method values the brand considering the expenditures and investments necessary to replace or replicate the brand with a comparable Brand name. While this is easier to calculate, it is nearly impossible to reliably estimate all the factors that go into the Brand. A numerical estimate of replacement cost, again fails to capture the

'value' of the Brand. It also ignores the impact of monopoly, first mover advantage and other qualitative aspects to the brand.

Income approach

Income approaches try to attribute cash flows or premiums to Brand values and typically discount them using appropriate discount rate to arrive at values.

Some of the common valuation methods under the income approach are as follows:

1. **Relief-from-royalty-method; -** Under relief-from-royalty-method, the value of an intangible asset is determined by estimating the value of total costs saved that would have otherwise been paid by the user as royalty payments, if had been taken on lease from another party.

The first step in the relief-from-royalty method is to estimate a fair royalty rate for the subject trademark / name. Two general sources of data may be considered in estimating fair royalty rates. First, a market-based methodology using publicly available information. The market approach relies on the existence of identifiable transactions in the marketplace involving the exchange of ownership of property, interests, or rights similar to those being appraised. Second, the earnings split method may be considered where a proportion of profits is attributed to brand (say 25% or 33%), to arrive at an estimated or intrinsic royalty rate.

2. **Differential of Price to sale ratios method: -** The Differential of Price to Sale ratios Method calculates brand value as the difference between the estimated price to sales ratio for a Brand to that of a generic product or Company. This differential is attributed directly to brand. This however requires appropriate adjustments to make the benchmarks comparable.

3. **Price Premium Method -** This method operates on the basic theory of premium commanded by a Brand over a generic product. One method in this approach could be to multiply the price differential with the volume sold. For example, refer the earlier comparison of price between generic and branded Metformin. One could multiply the difference in price charged by USV for Glycomet as a comparison to all the tablets sold in the market and multiply that with the actual sales of Glycomet to arrive at the value of the brand. However, this approach only considers price premium and not the other benefits of brand such as market share, cost benefits etc.

4. Other common methods include Multi-period Excess Earnings Method (MEEM); With-and-Without method or premium profit method; Greenfield method; and Distributor method

Qualitative / Formulary approaches

This is by far the most difficult method for evaluation of the brand wherein the qualitative aspects of the brand are analyzed, and the valuer tries to put a quantum to these qualitative aspects.

In this, the role of the brand in representing key attributes of the business to customers, including innovation, adaptability and a reputation for technical expertise is analyzed and valued.
This is a difficult proposition again as to quantify the qualitative aspects is a challenge. Identifying the aspects may not be very difficult considering the Company would know the attributes for the brand, this would be difficult to quantify.

Many brand consulting firms such as Inter Brand, Brand Finance use proprietary methods which combine qualitative and quantitative aspects of brand

Challenges in brand valuation:

(a) Identification of the brand:

The most difficult proposition while valuing a brand is the identification of the brand. While a business may have many positive factors, what shall be constituted is a matter of judgement and experience. Whether the people know the name of the Company vs. the brand having a recall every time a person goes to buy a product is a matter of judgement as well as the facts in hand. One should be careful while identifying if an attribute is a brand.

(b) Factors to be considered:

- Legal vs. economic ownership of the brand-The brand can be legally owned by one entity and the same may however be developed by any other entity/ the other entity receives the economic benefits from the brand. Entities may be funding the brand, but who owns risks associated with the brand will need to be checked and verified.
- Contribution of various firms in the Group to the Brand valuation- Multiple entities involved in the development and use of the brand

- Ease of mobility
- Focus on value creation
- Timing difference between development of the brand and usage of the brand
- Why is the brand being valued should also be considered especially if there are any legal consideration for the same which needs to be kept in mind.

(c) Selection of method: Which method to choose?

There is no one method which can be chosen for valuation. It would depend on the facts and circumstances. Considering the purpose of valuation and other significant considerations, information available, historical aspects of brand development, an appropriate method or combination of methods can be used. Weighted Average Return on Assets as well as ratio of intangibles to sales and total assets may be used to analytically estimating the reasonableness of such valuation.

However, as with valuation of any asset, Brand valuation suffers from selection bias with respect to the methods and also the lack of uniformity in methods adopted, which may result in over or under valuation of brands. The brand, Kingfisher was valued at more than Rs. 4000 crores basis which the group raised significant financing. However, a subsequent evaluation reduced the value of the brand to a fraction of the above – rendering the whole transaction and the collateral infructuous.

Conclusion

It clearly shows that Brand, more than other intangibles is responsive to continuous changes in business, growth, market reputation, promoter reputation, adverse media reports and as such, needs to be carefully and continuously evaluated, with due respect to all the characteristics including the potential of the brand to continue to provide enduring competitive advantage and economic benefits.

Chapter 12

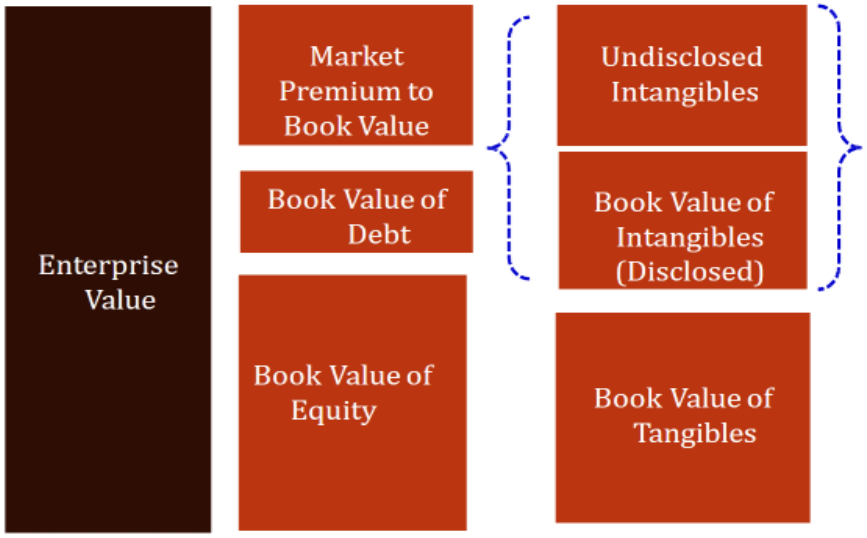
Valuation of Intangible Assets

During the last 2 decades we have seen gradual shift for focus from manufacturing firms to service & technology firms in global economy, which is being more particularly seen in developed economy like USA. In developed economy focus is shifting to intangible assets driven businesses vis-à-vis other businesses. Intangibles hold by such businesses are often invisible viz. patents, know-how, technology, human capital etc. Along with increase of focus on intangible assets, there are various challenges like identification, valuation & accounting of intangible are being faced. This article focuses on understanding 'Intangible Assets' with perspective of content produced herein below:

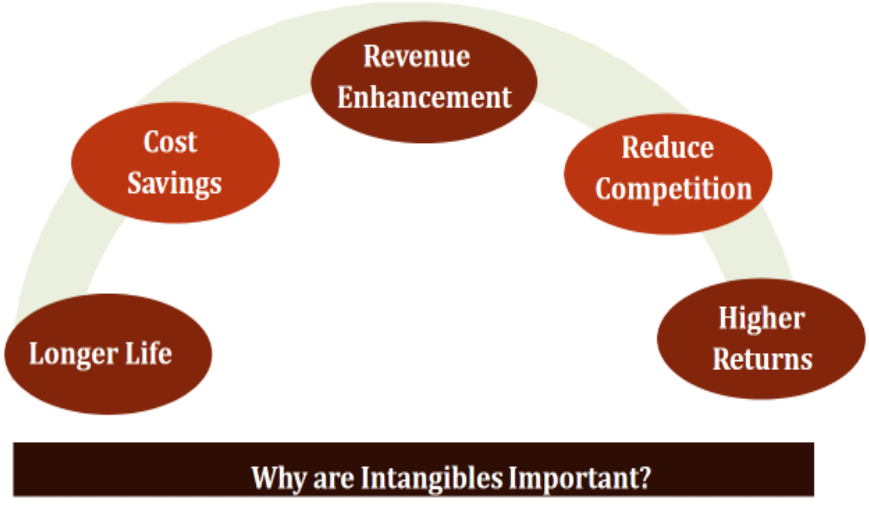
Content

- Intangible Value Perspective
- Intangible Assets – Business Perspective
- Intangible Assets – Definition, Characteristics & Identification
- IND AS 38
- Purpose of Valuation of Intangible Assets
- Intangible Assets – Recognition & Broad Categories
- Global Trends
- Valuation Approaches
- NIFTY 50 Disclosed – Undisclosed Intangible Assets

Intangible Value Perspective:

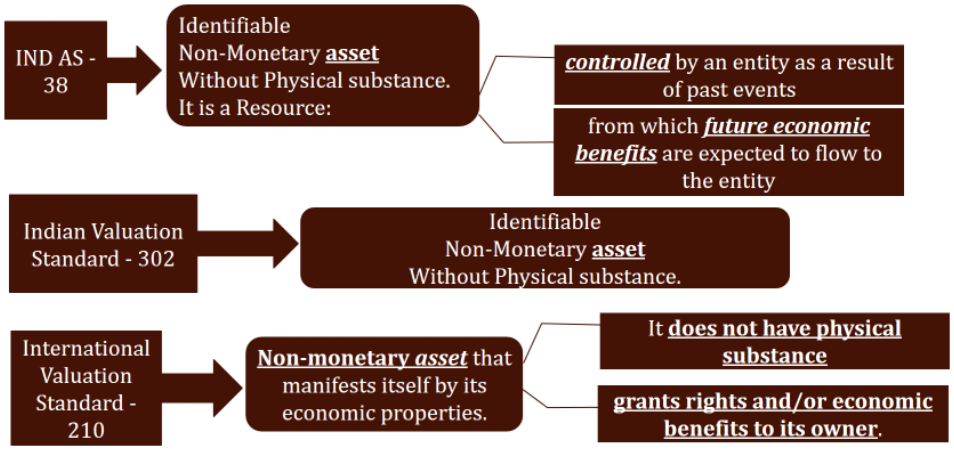


Why Intangible Asset is Important? A Business Perspective



Intangible Assets: Definition, Characteristics & Identification

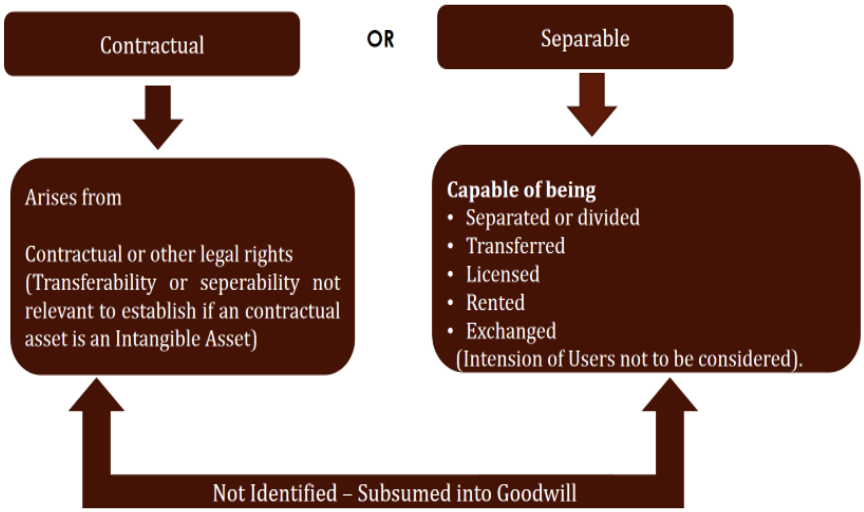
WHAT IS INTANGIBLE ASSET?



CHARACTERISTICS OF INTANGIBLE ASSETS:

Identifiable	• Capable of Sold / transferred / licensed / rented / exchanged / along with related contract, assets & liabilities • e.g. Key person expertise in consulting business is not identifiable.
Non-Monetary	• No right to receive a fixed / determinable amount of money • e.g. Financial Investments are monetary. Hence, not intangible asset.
Without Physical Substance	• Which is not tangibles. • e.g. Control, Goodwill, etc.
Non-monetary *asset* that manifests itself by its economic properties.	• Does not have physical substance • Grants rights and/or economic benefits to its owner.

HOW TO IDENTIFY INTANGIBLE ASSETS:



IND AS 38

APPLICABILITY OF IND AS 38 – INTANGIBLES

When to Implement?	• **Out-rightly Acquired** (Separately Acquired / Business Acquisition / Govt. Grant / Exchange). • **Innovation** of new product - process / **Research & Development** (Future Economic Benefit available for same).
Fair Value	• 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.
Useful life	• The **useful life** of any **intangible asset** can be **finite** or **infinite.** • **Plays a major role in recognition, measurement and impairment of intangible assets.**

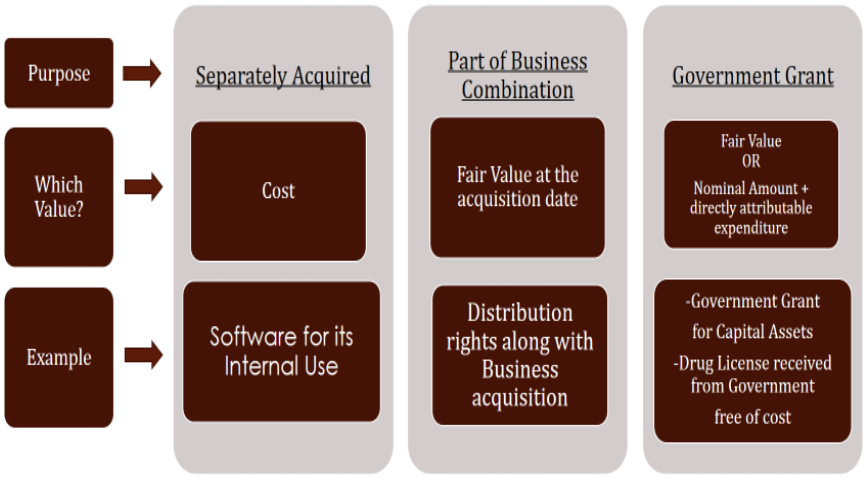
NON-APPLICABILITY OF IND AS 38 – INTANGIBLES

- Held for Sale in Ordinary course of Business (IND AS 2)
- Deferred Tax Assets (IND AS 12)
- Goodwill arising in Business Acquisition (IND AS 103)
- Leases (IND AS 17)
- Assets arising from Employee Benefits (IND AS - 19)
- Intangible assets held for sale (IND AS 105)
- Financial Assets (IND AS 32)
- Exploration and evaluation assets, Expenditures for development and extraction of minerals, oils, natural gas and other non-regenerative resources (IND AS 106)

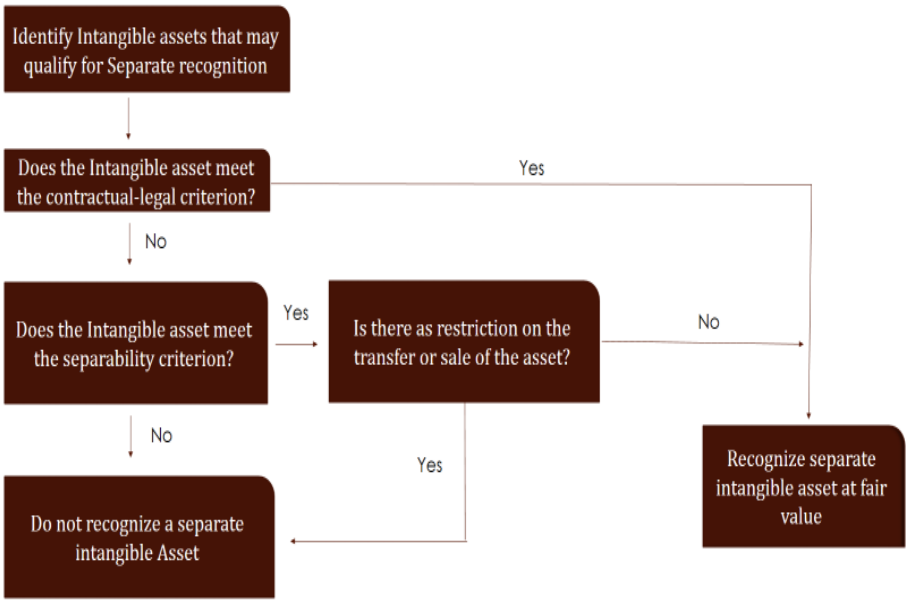
Purpose of Valuation of Intangible Assets:

- Purchase Price Allocation - for accounting and financial reporting [Ind AS 103 *Business Combination*]
- Intangible as collateral - for financing purpose
- Impairment Testing [Ind AS 36 *Impairment of Assets*]
- Litigation - to determine compensation in case of dispute / breach of contract / agreement / rights.
- Transfer Pricing - for transfer / license in/out between companies / geographies location.
- Bankruptcy / Restructuring.
- Slump Sale - Purchase price allocation for tax deduction.
- Insurance - to determine Personal worth of celebrity
- Merger & Acquisition Transaction - Purchase price allocation to brand / license / patent / technical know-how etc.
- Issue Sweat Equity Shares - Issue of shares against technical know-how/ technical expertise / intellectual property.

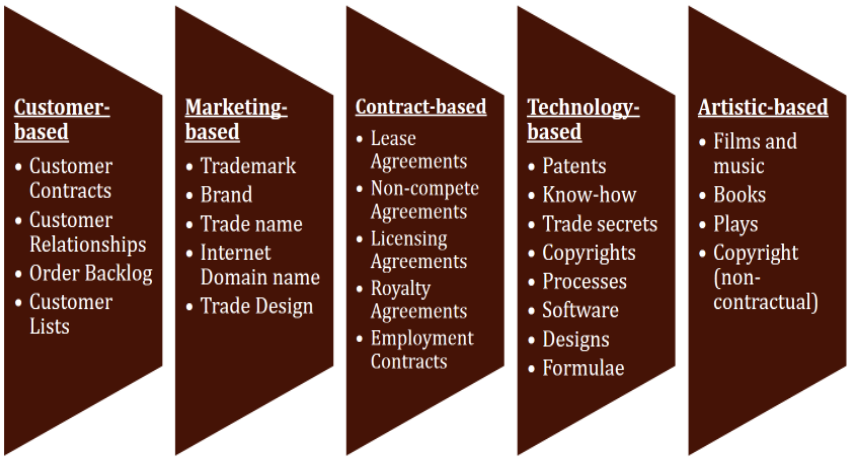
Recognition Of Intangible Assets:



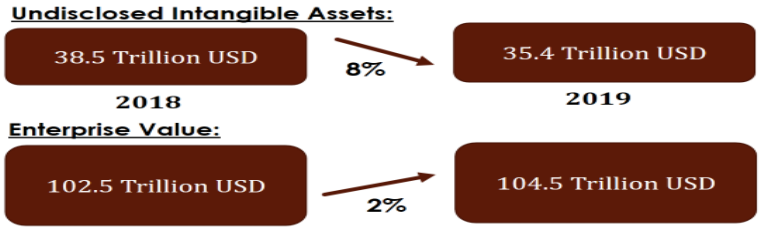
HOW TO IDENTIFY INTANGIBLE ASSETS:



Broad Categories of Intangible Assets: (Not Exhaustive):



Global Trends:



Other Trends:

Particulars	% Change
Tangible Assets	+8%
Disclosed Intangible Assets (Excl. Goodwill)	+7%
Disclosed Goodwill	+7%

Source: https://brandfinance.com/

TOP 10 COMPANIES BY TOTAL INTANGIBLE VALUE:

Sr. No.	Company	Total Intangible Value (in Billion $)	% of Enterprise Value
1	Microsoft	904	90%
2	amazon	839	93%
3		675	77%
4	Alphabet	521	65%
5	FACEBOOK	409	79%
6	AT&T	371	84%
7	Tencent 腾讯	365	88%
8	Johnson & Johnson	361	101%
9	VISA	348	100%
10	Alibaba.com	344	86%

Source: https://brandfinance.com/

TOP 10 COMPANIES BY DISCLOSED INTANGIBLE VALUE:

Sr. No.	Company	Disclosed Intangible Value (in Billion $)	% of Enterprise Value
1	AT&T	310	84%
2	AB InBev	178	59%
3	COMCAST	164	59%
4		158	100%
5	verizon	129	43%
6		119	54%
7	CVS Health	115	91%
8	Charter	106	64%
9	SoftBank	104	73%
10	Allergan	90	109%

Valuation Approaches:

Indian Valuation Standard 103 *Valuation Approaches and Methods*
International Valuation Standard 105 *Valuation Approaches and Methods*

Market Approach — Not Commonly Used

- Price / Valuation Multiples / Capitalisation Rates
- Guideline Pricing Method

Income Approach — Preferred Approach

- Multi Period Excess Earning Method
- Relief from Royalty Method
- With or Without Method or Premium Profit Method
- Distributor Method
- Greenfield Method

Cost Approach — No Connection to Future Financial Benefits

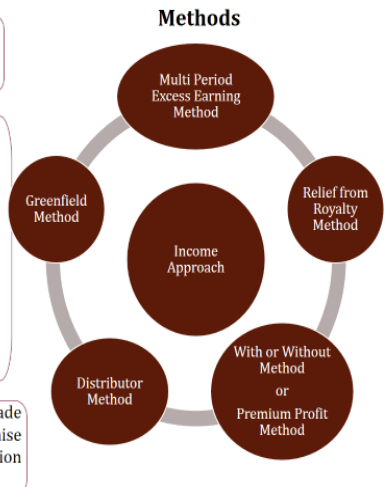
- Reproduction Cost Method
- Replacement Cost Method

MARKET APPROACH

Overview	Based on CCM (Comparable Company Method) & CCT (Comparable Company Transactions) of identical or Comparable Company / Transaction.
Applicability	As per IVS-103, this approach should be adopted only if: • Adequate information is available about the comparable recent transaction & • Having instances of orderly transaction.
Challenges	To have reliable & comparable data in form of Public Transaction, Valuation Multiple or Guideline Intangible Asset.
Sources of Information	Company filings, Court Rulings, Comparable Companies & Comparable Transactions
Used for	Broadcast Spectrum, Internet domain names, Taxi Operator, Trade Names,etc
Pros	• Relatively easy to apply • Provides market perspective evidence of value, so more reliable
Cons	• Absence of many intangible-specific transactions • Availability of information • Hardly ever used practically

INCOME APPROACH

Overview	It is based on expectation of economic benefit from the intangible assets to be valued.
What is Income Approach?	Income approach is the most commonly used method to value intangible assets • Value of Intangible assets is present value 'Income Expected' or 'cost Saved' though the used of intangible assets. Said income is adjusted for expenses related to maintenance or enhancement of intangibles to earn 'Income Expected' or 'cost Saved'. • The projected cash flow are discounted to present value by using risk-adjusted discount rate.
Used for	Technology, Customer related intangibles, Trade name / Trade-marks / Brands, Franchise Agreements, Operating License, Non-competition agreements.

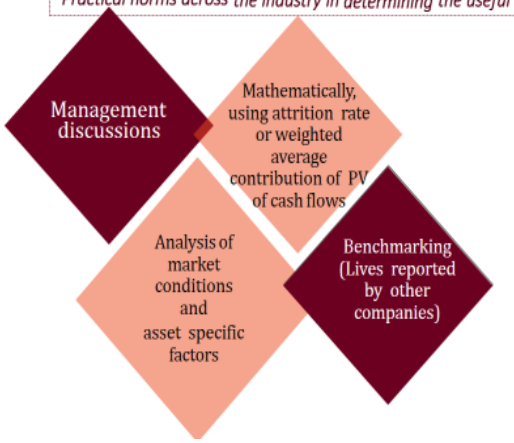


Key Factors for Income Approach

ECONOMIC USEFUL LIFE DISCOUNT RATE

The useful life of an intangible asset is the period over which the asset is expected to contribute directly or indirectly to the future cash flows of the entity.

Practical norms across the industry in determining the useful life



Factors determining useful life

- Entities' historical experience
- Expected use of asset
- Legal, contractual or regulatory provision limiting life
- Expected useful life of related asset
- Effects of obsolescence, demand, competition, and other economic factors

The calculation of the appropriate discount rate to estimate an intangible asset's fair value requires some additional considerations as follows:

The discount rate should be determined considering the market-participant assumption

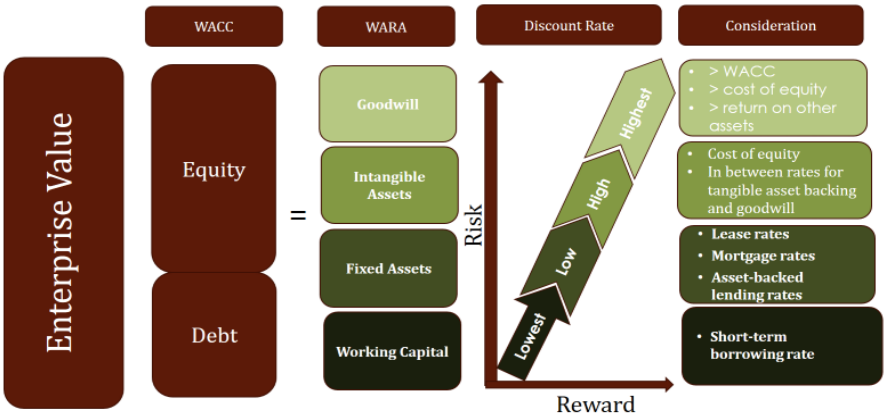
Both the IRR and the WACC are to be considered when selecting discount rates used to measure the fair value of tangible and intangible assets

The discount rate should reflect the risks commensurate with the intangible asset's individual cash flows

Spectrum of risk:

Least ← *Risk* → *Most*

DISCOUNT RATE CONSIDERATION



TAX AMORTISATION BENEFIT

- It is hypothetical tax benefit by way of amortization of acquired intangible assets, thereby reducing the tax burden.
- Computed and added to overall value of Intangible Assets.
- To be amortized based on applicable tax jurisdictions.

Tax amortisation Benefit Factor Formula	
$FV = PVC \times \frac{1}{[1 - \frac{t}{n} * (\frac{1}{k} - \frac{1}{(k*(1+k)^n)})]}$	
FV: Fair value of the intangible asset	
PVC: Present value before tax amortisation benefit	
t: effective tax rate	25.168%
n: legal tax life time	5
k: discount rate	16.20%
	1.196

RELIEF FROM ROYALTY METHOD

The value of total costs saved in form of Royalty payment by owing & operating Intangible assets.

Description	Frequent Applications
Determines value by reference to the hypothetical royalty payments that would be saved through owning the asset, as compared with licensing the asset from a third party.	•Brand (most common); •Technology; and, •Know-how.

$$FV = PV(r) \sum_{t=0}^{t} \{ \text{Revenue} \times \text{Royalty}(1\text{-Tax}) \}$$

(2 = PV(r), 1 = Revenue, 4 = t, 3 = Royalty(1-Tax))

Key Inputs	Diligence Matters
1 Revenue forecast associated with the intangible asset being valued 2 Expected life of the intangible 3 Notional royalty rate applicable to the intangible 4 Discount rate	• Revenues that are not attributable to the intangible (i.e. non-brand product revenues) • Length of economic benefit of the asset • Appropriateness of observable comparable used to derive a notional royalty rate • Risk premiums included in the discount rate

Relief from Royalty (RFR) – Royalty Rate Determination

Determination of royalty rates involves assessment of market licensing transactions. However, the RFR Method is an Income Approach to value. There are several different methods for estimating a royalty rate. These include:

Transaction based royalty rate	• Royalty rate based on market transaction ○ *Existing licenses of subject* ○ *Guideline licenses* ○ *Most commonly used*
Excess Earning (MPEEM)	• Royalty rate based on a residual income analysis similar to that applied in applying the MPEEM
Profit Split Method	• Profitability of subject operations relative to competitors – • i.e. With or Without Intangible

Estimate of royalty rate from a meaningful market transaction is preferred, if feasible

Probable Sources for Royalty Rates	https://www.royaltyrange.com, https://www.royaltystat.com, https://www.royaltysource.com, https://www.sectillis.com, https://www.ipscio.com, https://www.bvresources.com, https://www.markables.net, https://www.ibm.gov.in, https://www.iimb.ac.in, https://www.indexmundi.com

Average Royalty Rates are ranging from 2% to 10% of Total Revenue OR say 25% to 33% of Margin. This is just Thumb Rule.

ILLUSTRATIONS:

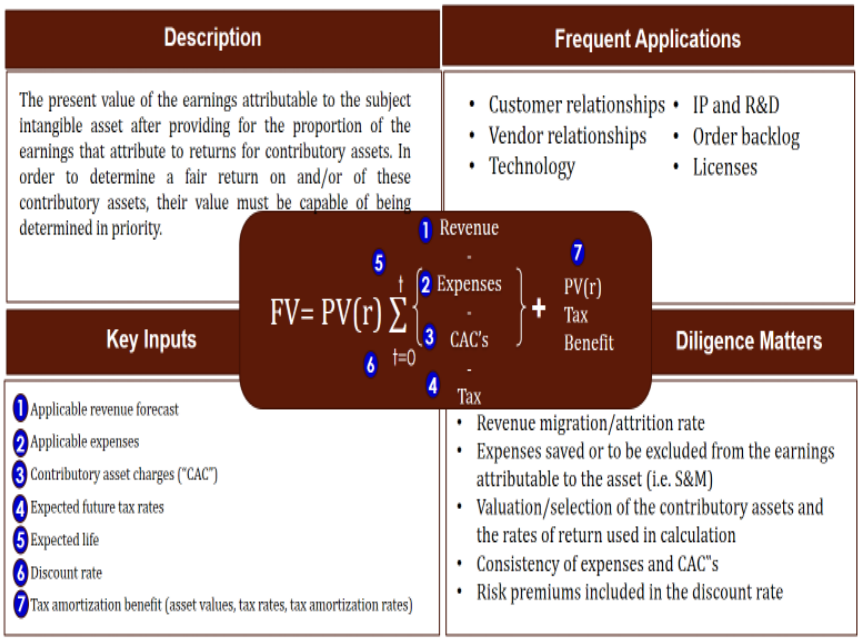
(Rs. In Crores)

	Projected				
Particulars	**1**	**2**	**3**	**4**	**5**
Total Revenue	100.00	105.00	110.25	115.76	121.55
Probability of continuing trade name in respective year	100%	100%	100%	100%	100%
Relief from Royalty % to turnover	8%	8%	8%	8%	8%
Relief from Royalty in Amount	8.00	8.40	8.82	9.26	9.72
Taxes %	25.168%	25.168%	25.168%	25.168%	25.168%
Taxes Amount	2.01	2.11	2.22	2.33	2.45
Royalty Cash Flows (post tax)	**5.99**	**6.29**	**6.60**	**6.93**	**7.28**
PV Factor (As per Average WACC)	0.93	0.80	0.69	0.59	0.51
Present Value of Cash Flows	5.55	5.02	4.53	4.10	3.70
Terminal Value	26.60				
Sum of the present value of cash flows (including Terminal Value)	**32.15**				
Tax amortisation Benefit Factor	1.20				
Tax amortisation Benefit	6.31				
Fair Value of Brand	**38.46**				

WACC Considered for Terminal Value	16.20%
Perpetual Growth Rate Considered for Terminal Value	2.00%

MULTI-PERIOD-EXCESS-EARNING-METHOD (MPEEM)

The present value of Incremental after-tax cash flow (excess earning) attributable to the intangible asset to be valued over its remaining useful life. (Generally Used for Primary Intangible Assets)



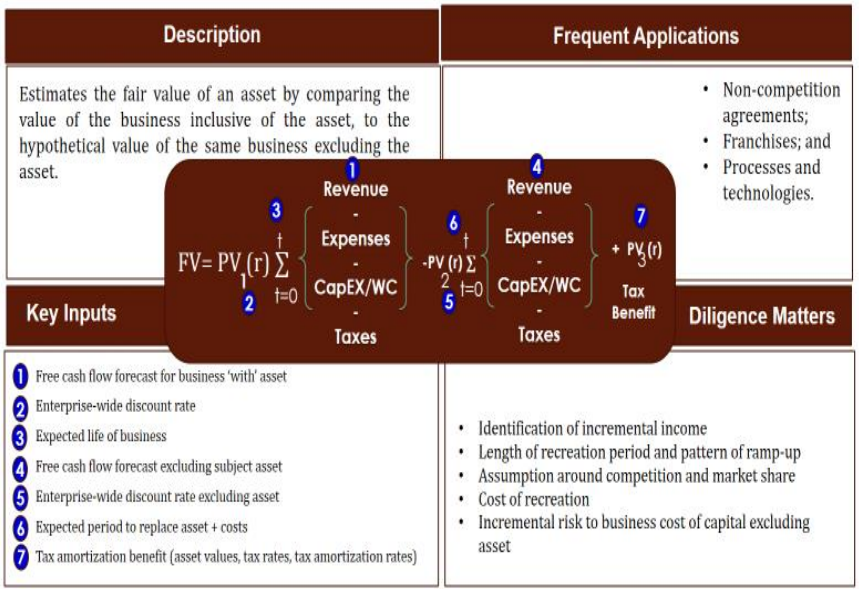
ILLUSTRATIONS:

(Rs. In Crores)

	Projected				
Particulars	**Mar-20**	**Mar-21**	**Mar-22**	**Mar-23**	**Mar-24**
Revenue from Customer Relationship	**1,000**	**800**	**600**	**400**	**200**
EBIT Margin	15%	16%	17%	17%	17%
Earning before Tax	**150**	**128**	**102**	**68**	**34**
Less : Tax @ 25.168%	37.75	32.22	25.67	17.11	8.56
Earning after Tax	**112.25**	**95.78**	**76.33**	**50.89**	**25.44**
Contributory Asset Charges					
Tangible (1%)	10	8	6	4	2
Intangible (2.5%)	25	20	15	10	5
Excess Earnings	**77.25**	**67.78**	**55.33**	**36.89**	**18.44**
Discounting Factor (14%)	0.88	0.77	0.67	0.59	0.52
PV of Excess Earning	**67.76**	**52.16**	**37.35**	**21.84**	**9.58**
Total Present Value	**188.68**				
Tax Amortisation Benefit Factor	1.20				
Tax Amortisation Benefit	37.03				
Value of Intangibles	**225.71**				

WITH-AND-WITHOUT METHOD

The value of intangible asset computed by comparing 'With Intangible Scenario' & 'Without Intangible Scenario'.



ILLUSTRATIONS:

(Rs. In Crores)

	Projected				
Particulars	**1**	**2**	**3**	**4**	**5**
Total Revenue (Branded)	100.00	105.00	110.25	115.76	121.55
Total Revenue (Non-Branded / Generic) with equivalent Qty. (90%)	90.00	94.50	99.23	104.19	109.40
Difference in Revenue Due to Brand	**10.00**	**10.50**	**11.03**	**11.58**	**12.16**
Branding Expenses (2%)	2.00	2.10	2.21	2.32	2.43
Incremental Cash Flow due to Brand (PreTax)	**8.00**	**8.40**	**8.82**	**9.26**	**9.72**
Taxes %	25.168%	25.168%	25.168%	25.168%	25.168%
Taxes Amount	2.01	2.11	2.22	2.33	2.45
Incremental Cash Flow due to Brand (Post Tax)	**5.99**	**6.29**	**6.60**	**6.93**	**7.28**
PV Factor (As per Average WACC)	0.93	0.80	0.69	0.59	0.51
Present Value of Cash Flows	5.55	5.02	4.53	4.10	3.70
Terminal Value	26.60				
Sum of the present value of cash flows (including Terminal Value)	**32.15**				
Tax amortisation Benefit Factor	1.20				
Tax amortisation Benefit	6.31				
Fair Value of Brand	**38.46**				

WACC Considered for Terminal Value	16.20%
Perpetual Growth Rate Considered for Terminal Value	2.00%

GREENFIELD METHOD

It is assumed that Intangible Assets to be valued in only assets with all other tangible & intangible assets to be created, leased or acquired. Replacement cost of those other assets required to be built or brought is subtracted.

Description	Frequent Applications

Estimates the value of the asset based on the discounted cash flows of a notional start-up business with no assets but the subject intangible.	• Non primary income generating assets
	  • Licenses and permits;
	  • Rights
	  • Franchise agreements

$$FV = PV(r) \sum_{t=0}^{t} \{ (1)\ \text{Revenue} - (2)\ \text{Expenses} - (3)\ \text{CapEX / WC} - \text{Tax} \} + (4)\ \text{PV(r) Tax Benefit}$$

Key Inputs	Diligence Matters
1. Start-up cashflow forecast, including capital costs 2. Expected explicit period and pattern 3. Start-up-type discount rate 4. Tax amortization benefit (asset values, tax rates, tax amortization rates)	• Support for start-up levels of income and capital costs • Support for length and pattern of explicit period • Assumption around competition and market share • Incremental risk premiums in discount rate to reflect start-up nature of cash flows

DISTRIBUTOR METHOD

Description	Frequent Applications
This is variant of MEEM. The fundamental assumption is that cash flow of each segment of a particular businesses are expected to generate profits.	• Valuation of Customer based Intangible Assets

$$FV = PV(r) \sum_{t=0}^{t} \{ (1)\ \text{Revenue} \times (2)\ \text{Distributor Margin} - (3)\ \text{D CAC's} - (4)\ \text{Tax} \} + (7)\ \text{PV(r) Tax Benefit}$$

Key Inputs	Diligence Matters
1. Applicable revenue forecast 2. Comparable Distributor Profit Margin 3. Distributor Contributory asset charges 4. Expected future tax rates 5. Expected life 6. Discount rate 7. Tax amortization benefit (asset values, tax rates, tax amortization rates)	• Revenue migration/attrition rate • Comparable Business Distributor Margin Rate • Valuation/selection of the contributory assets and the rates of return used in calculation

COST APPROACH (REPRODUCTION/ REPLACEMENT COST)

Description	Frequent Applications
Recreate replica of the asset to be valued, adjusted for obsolescence. **Recreate an asset with substantially same utility (comparable utility)** as that of asset to be valued, adjusted for obsolescence. Estimates the fair value of an asset by approximating its depreciated replacement cost, which would include all costs necessary to construct a similar asset of equivalent utility at prices applicable at the time of reconstruction. The cost approach is based on the premise that a prudent third-party purchaser would pay no more for an asset than its replacement cost.	• Licenses and permits; • Certifications; • Internally-generated software; and • Workforce.

Key Inputs	Diligence Matters
1 All hypothetical costs that are needed to recreate the asset including materials and labour 2 Adjustment factors to reduce the replacement cost to the functional and technological condition of the subject asset	• Inclusion/exclusion of any overhead costs and the allocation rate used; • Inclusion of opportunity costs; • Functional and technological adjustment factor assumptions. • Inclusion of taxes or tax shield

1 Replacement / Reproduction Cost New
2 (-) Obsolescence Factors

REPLACEMENT COST METHOD

ILLUSTRATIONS:

Valuation of Assembled Work Force

Category of Emplyees	Effective Percentage	Hiring Cost (No. of Months)	No. of Months till Full Productivity	Direct Training cost (No. of Months)
Top	90%	4	1	1
Senior	80%	3	2	1
Middle	70%	2	3	2
Junior	60%	1	4	2

Computation of Hiring Cost (Rs. In Millions)

Employee Classification	Average Monthly Salary (Management Inputs) (a)	Total Hiring Cost per Employee (b)	Number of Employees as on Valuation date (C)	Total Hiring Cost (b) * (c)
Top	0.482	1.93	8	15.44
Senior	0.189	0.568	5	2.84
Middle	0.099	0.198	13	2.57
Junior	0.063	0.063	29	1.83
Total			**55**	**22.68**

REPLACEMENT COST METHOD

ILLUSTRATIONS:

Computation of Training Cost

Employee Classification	Average Monthly Salary (Management Inputs)	Effective Percentage	No. of Months untill Full Productivity	Average Inefficiency Training Costs	Direct Trainign Cost (Avg Salary * No. of Months of Training)	Total Training Cost per Employee	Number of Employees as on Valuation date	Total Training Cost
	(a)	(b)	(C)	(d)=((1-b)*a*c)/2	(e)	(f)=(d+e)	(g)	(h)=(f) * (g)
Top	0.482	90%	1	0.024	0.482	0.506	8	4.05
Senior	0.189	80%	2	0.038	0.189	0.227	5	1.13
Middle	0.099	70%	3	0.045	0.198	0.243	13	3.15
Junior	0.063	60%	4	0.050	0.126	0.176	29	5.12
							Total	**13.45**
							Add: Total Hiring Cost	22.68
							Total Cost	**36.13**
							Less: I.T. @ 25.168%	9.09
							Fair Value	**27.04**

Chapter 13

Real Options - Basic & Valuation

Introduction

Traditional approaches of capital budgeting discounted cash flows are based on a set of static assumptions related to the project payoff and one-time decision-making process, whereas the payoffs in real scenario are uncertain and probabilistic. Most projects involve contingent decisions, where senior management can change the course of the project by deciding whether to defer the investment for a while; abandon, expand, or contract the project; maintain the status quo; and so on.

There is great strategic value imbedded in these multi-staged decisions, which can be taken advantage of only if management recognizes it and is willing to exercise the options and the value of such options must be quantified and captured.

Investment strategies with high risks and uncertainty or irreversible corporate decisions coupled with managerial flexibility provide the best candidates for real options.

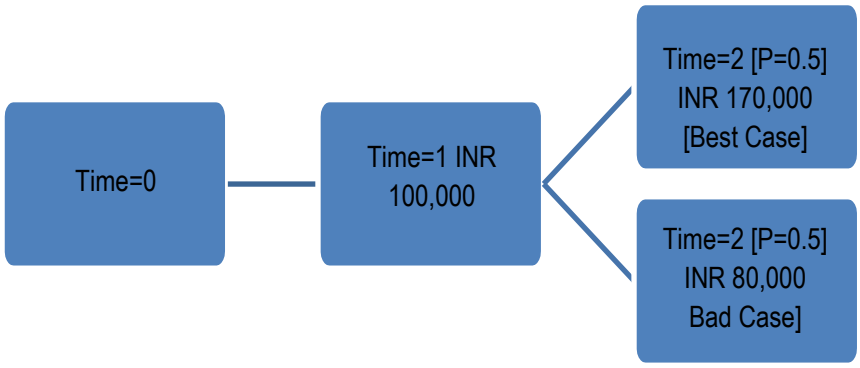
In other words, company should apply the notion of options, as conceived in financial options, to their own business situation.

Example:

You have a chance to invest INR 100,000 in a project today that is estimated to yield a return of INR 125,000 one year from now with a 50-50 chance that it may go up to INR 170,000 (good case) or down to INR 80,000 (bad case). But you also have the choice to defer the decision for a year, by which time the uncertainty about the payoff is expected to clear. Discount Rate 15%.

Time = 0	**Time = 1**
-1,00,000	125,000
Discount Rate	15%
DCF	125,000 [1 + 0.15]1 = INR 1,09,000
NPV	INR 9,000 [109,000-1,00,000]

As mentioned, there is also a mutually exclusive alternative of deferring the decision until one year from now, by which time the uncertainty of the cash flows is expected to clear.



The expected NPV for the good case is

Time=0	Best Case	Bad Case
Discounted Revenue	128,544	60,491
Discounted Investment	86,957	86,957
Profits	41,588	(26465)
Probability	0.5	0.5
Expected NPV	20,794	(13,233)

In summary, the expected NPVs for the good and bad cases are 20,794 and -13,233, respectively. Therefore, after one year, if it turns out to be the good case, you will invest in the project, but if it turns to be the bad case, you will not. Thus the decision to defer for one year is worth 20794 today. However, the decision to invest now is worth only 9,000, as shown by the DCF method. Therefore, the value added because of the option to defer is the difference between the two alternatives: 20794 – 9,000 = 11,794.

Financial Options Vs Real Option

Point	Financial options	Real option
Period	FO have short maturity, usually in months	RO have longer maturity, usually in years
Underlying Asset	Underlying variable driving its value is equity price or	Underlying variables are free cash flows, which in

	price of a financial asset [i.e. Index or commodity]	turn are driven by competition, demand, management
Control	Cannot control option value by as its price are depend on underlying assets	Can increase strategic option value by management decisions, timing & flexibility
Terms	Financial option has clearly defined terms and conditions	There are no clearly defined terms and condition
Risk	Amount of risk values are usually small	Amount of risks values are high in lakhs and crores
Market Risk	Competitive or market effects are irrelevant to its value and pricing	Competition and market drive the value of a strategic option
Marketability	Marketable and traded security with comparables and pricing info.	Not traded and proprietary in nature, with no market comparables
Management Decision	Management assumptions and actions have no bearing on valuation	Management assumptions and actions drive the value of a real option
Competition	There is no competition in financial options, it gives you right and obligations	In real option, your competitors can expand first and makes your project unviable

Use of Real Options

Real options have strategic value only when

- There is uncertainty.
- Uncertainty drives project value.
- Management has flexibility.
- Flexibility strategies are credible and executable.
- Management is rational in executing strategies.

Real Option are most valuable when there is high uncertainty with the underlying asset value and management has significant flexibility to change the course of the project in a favourable direction and is willing to exercise the options.

Real options are useful not only in valuing a firm through its strategic business options but also as a strategic business tool in capital budgeting decisions.

Real Options Valuation offers valuable information for go/no-go decisions based on evaluation of projects not only for their own merit but also for their relative merit against other competing projects in a portfolio. When the option value is significant, less attractive projects ranked lower based on DCF alone can move higher on the ranking scale and receive approval for investment, bumping other projects. ROV can become a "tie breaker" where two or more competing projects have similar NPVs.

The real options analysis can be used in a variety of settings, including pharmaceutical drug development, oil and gas exploration, e-commerce, start-up valuation, venture capital investment, research and development, mergers and acquisitions, e-commerce and e-business, intellectual capital development, technology development, facility expansion, business project prioritization, enterprise-wide risk management, business unit capital budgeting, licenses, contracts, intangible asset valuation

Factor Affecting Real Option Valuation

Factors	Real Options
Time to expiry	Period for which opportunity is valid
Exercise price	Present value of fixed costs
Stock price	Present value of expected cash flows
Dividends	Value lost over duration of option
Uncertainty	Unpredictability of expected cash flows

Apart from above factors, one needs consider following factors also

1. Assumption for Cash Flows, NPV, Risks etc.
2. Management Decision & Timing
3. Competition and Market Risk

Types of Real Options

1 Option to defer

2. Option to expand

3. Option to contract

4. Option to abandon

5. Option to choose

6. Parallel compound option

7. Sequential compound option

8. Learning option

9. Rainbow option

Valuation of Real Options

The DCF valuation captures a base estimate of value, the option valuation adds in the impact of the positive potential uncertainty. Real options valuation [ROV] will help you evaluate possible alternatives, so you can take advantage of the potential project payoff while minimizing the downside. ROV is not a substitute for but rather an extension of the DCF method.

There remain few challenges with option valuations. First, it is hard to find good input variables which the model requires [i.e. inputs, historical numbers or volatility of innovative project]. Financial options use a volatility derived from historical prices of share or index. Second, even if company succeeds in finding good proxies for the input variables, they remain vulnerable to a major conceptual error. In present scenario to option valuation, if volatility in profits is high means the higher valuation. Or in case duration also, longer duration will result in higher valuation. We have to make suitable adjustment into valuation method.

Like a Financial Options, Real Options are also valued by using one of the following valuation models:

- Black-Scholes-Merton Model (BSM Model)
- Binomial Model
- Monte Carlo Simulation

The elegant, Nobel Prize–winning Black-Scholes-Merton model, the first complete formula for pricing so-called European-style options, was designed to value an option that was exercisable only at the end of its life and whose underlying share paid no dividends.

Binomial models use algebra, that's a practical advantage over the calculus based BSM Model, it can also be more easily customized to reflect changing volatility, early decision points, and multiple decisions. Their relative transparency and flexibility mean that you can tinker with a binomial model you have created until it closely reflects the project you wish to value. It is true that building a customized binomial model for each real option involves more work than plugging numbers into a Black-Scholes-Merton formula, but most company evaluating major projects using NPV analysis prefer to create their own spreadsheets anyway rather than rely on generic models.

Binomial model captures the contingencies of real options and addresses nearly all of the most commonly voiced criticisms of using option theory to manage those contingencies.

To determine a project's volatility, then, we must first develop a financial model of the business using the most likely values for all the factors that drive costs and revenues. We use these to compute the expected total costs and revenues for the DCF component of the project's total value. Then for each factor, we specify the range of possible values. These ranges (whose widths reflect their associated uncertainties) are put into a Monte Carlo simulation, from which we extract the means and standard deviations of total profits, total revenues, and total costs. The standard deviations of profits, revenues, and costs are used in the calculation of adjusted volatility and this adjusted volatility is then used in the option valuation. The mean of the project value, discounted back at a risk- adjusted rate, becomes the proxy for the current price of the underlying asset.

Example

M/s XYZ Ltd., a leading enterprise resource planning Software Company with an established market share, is contemplating development of a software product that would complement its existing products. Based on its experience with existing similar products, it can wait for a maximum of five years before releasing the new product without experiencing any substantial loss of revenues. The DCF estimate using an appropriate risk-adjusted discount rate shows that the present value of the expected future cash flows for the new product will be INR 1.60 Lakhs, while the investment to develop and market it

is INR 2.00 Lakhs. The annual volatility of the logarithmic returns of the future cash flows is estimated to be 30% and the continuous annual risk-free rate over the option's life of five years is 5%. What is the value of the option to wait?

Black-Scholes Merton Model

1. Identify the input parameters:

   So(Current asset value) = 1.60 Lakhs X (Strike price) = 2.00 Lakhs

   σ (Volatility) = 30%

   r (Risk free rate) = 5%

   T (Time to expiration) = 5 years

d1 = [ln(So/X) + (r + 0.5σ^2)T]/(σ√T) d1 = [ln(1.60/2.00) + (0.05 + 0.5x0.3^2)5]/(0.3√5) d1 = 0.375	d2 = d1 − σ√T d2 = 0.375 − 0.3√5 d2 = −0.295
N(d1)=0.646 [from excel formula=NORMSDIST(0.375)] N(d2)=0.384 [from excel formula=NORMSDIST(-0.295)]	
C = N(d1)So − N(d2)X exp(−rT) C = 0.646 x 1.60 − 0.384 x 2.00 exp(−0.05x5) Value of Call Option = 0.435 mean43,500	

Binomial Method

Identify the input parameters:

So = INR 1.60 Lakhs X = INR 2.00 Lakhs

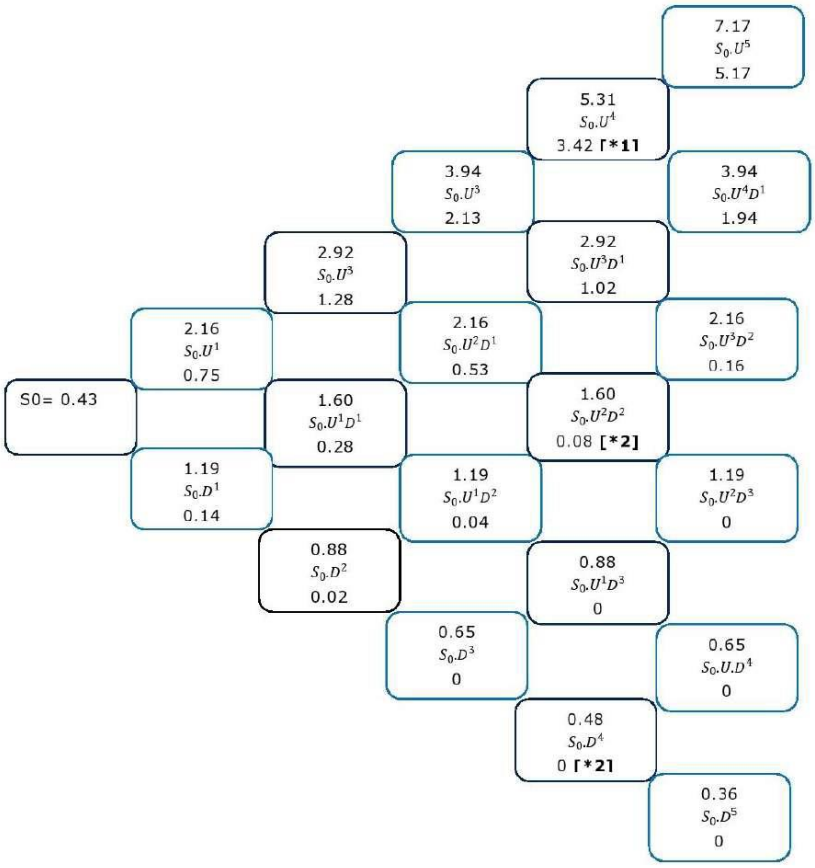
T = 5 years

σ = 30%

r = 5%

TI = 1 year

$U = \exp(\sigma\sqrt{TI})$ $U = \exp(0.30\sqrt{1})$ [Excel Formula =exp(0.30)] $U = 1.350$	$D = 1/U$ $D = 1/1.35$ $D = 0.741$
$Pu = \dfrac{Rf - D}{U - D}$ $Pu = \dfrac{1.05 - 0.741}{1.35 - 0.741}$ $Pu = 0.51$	$Pd = 1 - Pu$ $Pd = 0.49$



Start with S.0 and multiply it by the up factor and the down factor to obtain upside and downside respectively for the first step and continue in a similar manner for every node of the binomial tree until the last step. For example,

S0U1 = 1.60 * 1.350 = 2.16;
S0D1 = 1.60 * 0.741 = 1.19.

Moving to the right, continue in a similar fashion for every node of the binomial tree until the last step.

Start with the terminal nodes representing the last step first. At node S0U5, the expected asset value is INR 7.17 Lakhs if you invested INR 2.00 Lakhs for the new product; therefore, the net asset value is: INR 5.17 Lakhs

Next, move on to the intermediate nodes, one step away from the last step. Starting at the top, at node SOU4, calculate the expected asset value for keeping the option open. This is simply the discounted (at the risk-free rate) weighted average of potential future option values using the risk-neutral probability. That value at node S0u4 is: INR 3.41 Lakhs

Note: 1

$$ValueS.U4 = [(S.U5) + Pd\ (S.U4D1)] / 1.05$$
$$ValueS.U4 = [0.51(5.17) + 0.49\ (1.94)] / 1.05$$
$$ValueS0U4 = 3.42$$

If the option is exercised at this node by investing INR 2.00 Lakhs, the payoff would be INR 5.31 Lakhs (the asset value at S0U4), resulting in a net asset value of INR 3.31 Lakhs. Since keeping the option open shows a higher asset value (INR 3.41 Lakhs), you would not exercise the option but instead continue to wait; the option value at this node becomes INR 3.41 Lakhs.

Similarly, at node S0.U2D2, the expected asset value for keeping the option open, taking into account the downstream optimal decisions is:

Note: 2

$$ValueS.U2D2 = [(S.U2D3) + Pd\ (S.U1D4)] / 1.05$$
$$ValueS.U2D2 = [0.51(0.16) + 0.49\ (0)] / 1.05$$
$$ValueS0.U2D2 = 0.08$$

If the option is exercised by investing INR 2.00 Lakhs, the payoff at this node is INR 1.60 Lakhs (the asset value at S0.U2D2), showing a net loss of INR 0.40 Lakh.

Therefore, the decision would be to keep the option open where the value of open option is INR 0.08 Lakh.

Analysis

As the calculations show, the Black-Scholes solution simply involves inserting the numbers into the equation and solving it, which makes it the easiest model. However, there is no transparency with this model in the sense that the logic behind the solution is not clear.

The binomial method offers transparency by showing the project values in the future for given expected payoffs and the rational decisions management would make. The idea is that as the uncertainty clears in the future, management can make appropriate decisions at that time by comparing the expected payoff with the investment cost. The binomial method provides a strategic map to facilitate that process.

Let us now compare the decisions you would make strictly based on DCF results versus ROV results. The DCF method shows a payoff of INR 1.60 Lakhs for the new product, which is expected to cost INR 2.00 Lakhs for development and marketing. This means the NPV of the project is INR -40 Lakh (INR 1.60 Lakhs - INR 2.00 Lakhs), which does not favour the investment. The additional value created by the option is the difference between the ROV of INR 0.43 Lakhs and the DCF based NPV of INR (–) 0.40 Lakhs, which equals INR 0.83 Lakhs.

With such substantial additional value created by the option, M/s XYZ Ltd Consulting may want to explore alternatives other than abandonment of the project at this time. For example, it may simply wait until the market uncertainty clears by itself (passive learning), at which time it would re-estimate the project payoff. If the payoff

It should be evident from the above calculations and discussion that ROV is a supplement to rather than an alternative to DCF based NPV. If M/s XYZ Ltd Consulting's project has either an extremely high positive or extremely high negative NPV, the project may be accepted or rejected for investment respectively, irrespective of the option value. ROV quantifies the value of waiting and provides a strategic road map for future contingent decisions. Since the NPV is not highly negative and the project has a high option value, senior management may want to consider alternative decisions related to passive or active learning and keep the project "alive."

Chapter 14

The Backsolve Method (Convertible and Early Stage Valuation)

Valuation of a company is not an exact science. There are many different approaches to estimate the value of the company like the Income Approach, the Market Approach, the Cost Approach. The market approach estimates the value of a company by using prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities (including a business). The market approach bases the value measurement on what other similar enterprises or comparable transactions indicate the value to be.

The two most common methods under the market approach are Guideline Public Company Method (GPCM) where the value is derived through the current valuation multiples (like EV/Revenue, EV/EBITDA, P/E etc) of comparable public company and Guideline Transaction Method where the value is derived from transactions of comparable company or comparable transactions of the subject company.

The backsolve method can be considered a version of Guideline Transaction Method where the equity value is derived from the most recent transaction for the company. The method can be applied with data availability regarding transactions in equity securities of the enterprise with unrelated investors or among unrelated investors themselves.

A backsolve approach is used to solve the implied equity value that is consistent with a recent transaction in the company's own securities. If the price of the recently issued class of preference is known to us, then the OPM approach could be used to work backward to indicate the implied equity value of the company.

The backsolve method is a value allocation method and requires considering the rights and preferences of each class of equity and solving for the total equity value that is consistent with a recent transaction in the company's own securities, considering the allocation of that total equity value to the specific classes of equity based on their respective rights and preferences.

The backsolve method indicates an equity value that is consistent with the rate of return the investors in the most recent round expected given the degree of control they have over the enterprise and the degree of marketability of their investment, because the data is based on the price investors paid for shares in a previous private financing.

The method in an option pricing method (OPM) approach involves making assumptions for the time to liquidity, volatility, and risk-free rate and then solving for the value of equity such that value for the most recent financing equals the amount paid.

The OPM considers the various terms of the stockholder agreements—including the level of seniority among the securities, dividend policy, conversion ratios, and cash allocations—upon liquidation of the enterprise. In addition, the method implicitly considers the effect of the liquidation preference as of the future liquidation date, not as of the valuation date. However, the method may be complex to implement and is sensitive to certain key assumptions, such as the volatility assumption (one of the required inputs under the Black-Scholes model), which are not available for a privately held company and as an alternative volatility of comparable companies may have to be used.

The process to calculate the value under the backsolve method is as follows:

Step 1: The first step is to a capital structure analysis where all the securities issued till date along with options, warrants and securities with conversion right are considered. The capital structure analysis entails analysis of the liquidation preference, participation rights and conversion rights.

Below is cap table of hypothetical company.

Class of Stock	No. of shares	Liquidation Preference (LP) per share	Total LP (in Mn)	Conversion Ratio	Conversion Price	No. of Shares (fully diluted)
Series A	10,000	1,892.00	18.9	10.0	189.2	1,00,000
Series B	15,000	2,500.00	37.5	1.0	2,500.0	15,000
Series C	15,000	4,000.00	60.0	1.0	4,000.0	15,000
Equity (Common Stock or CS)	1,00,000		-	1.0		1,00,000
Sub-total	**1,40,000**		**116.4**			**2,30,000**
Dilutive Instruments						
ESOP	1,00,000			1.0	1.0	1,00,000
Total	**2,40,000**					**3,30,000**

For ESOPs and other dilutive instruments the strike price is considered as the conversion price.

In our case the liquidation price is same as the issue price for the security.

Step 2: The next step entails a waterfall analysis where the breakpoints are determined on the basis of the rights & preferences of the securities. Breakpoint represents different equity value of the company when different class of shares starts deriving value. Break points are the inflection points at which the behavior of shareholders will change.

Event description	Participating shares	Strike Point (in Mn)
Enterprise Value is zero		0.0
Series C to A		116.4
CS	1,00,000.00	116.5
CS, ESOP	2,00,000.00	154.2
CS, ESOP, A	3,00,000.00	847.4
CS, ESOP, A, B	3,15,000.00	1,319.9
All Series	3,30,000.00	

The first breakpoint is determined considering the enterprise value as zero and no class of security deriving any value. The second breakpoint is determined

considering the enterprise value equal to the total liquidation preference & in our case above where the securities are ranked pari-passu they all participate in this breakpoint.

The next breakpoints are determined by considering the securities with the lowest conversion price and then moving up the conversion price. As represented above the next breakpoint is where the common stock of the company participates with a conversion price of zero thereafter followed by ESOP with a conversion price of one and so on. Each breakpoint represents a scenario of the value of the company.

In case of differential rights, the security with a first preference to receive liquidation preference will form the second breakpoint. For example, in our case above if instead of Series A, B & C ranking pari-passu if Series A had the first right to get liquidation preference the breakpoints would look as follows:

Event description	Participating shares	Strike Point (in Mn)
Enterprise Value is zero		0.0
Series A		18.9
Series C to A		116.4
CS	1,00,000.00	116.5
CS, ESOP	2,00,000.00	154.2
CS, ESOP, A	3,00,000.00	847.4
CS, ESOP, A, B	3,15,000.00	1,319.9
All Series	3,30,000.00	

Note: Above table is for explanation and not used further in example.

Step 3: The next step entails creating a value allocation table basis the shares participating in each scenario starting from the first scenario of Series C to A.

Class of stock	1	2	3	4	5	6
Series A	16%	0%	0%	33%	32%	30%
Series B	32%	0%	0%	0%	5%	5%
Series C	52%	0%	0%	0%	0%	5%
Equity	0%	100%	50%	33%	32%	30%
ESOP	0%	0%	50%	33%	32%	30%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

The above table indicates which class of securities are participating in a scenario and what % they contribute to in that scenario. The value allocation for scenario is derived by considering the securities LP contribution to the total LP.

Step 4: Value of Tranche: The next step entails running a Black-Scholes model to arrive at a value for each scenario to be allocated among the participating class of securities. The Black-Scholes OPM derives value of the security using five inputs i.e. underlying price i.e. equity value as on valuation date (derived using goal seek), strike price derived from the breakpoints table, volatility, dividend yield & time to liquidation.

Volatility is annualized standard deviation of the return of the security. The volatility considered is equity volatility for the company for a historical time period equalling the time to liquidity. In case of unavailability of inputs to derive volatility for subject company, volatility of comparable companies can be used.

Time to liquidation is based on the expected public offering date or any other date as may be agreed by the investors & company.

Dividend yield is expected annual dividend payout upto time to liquidity.

Risk free rate is input is equal to risk free rate having same maturity upto time to liquidity.

Particulars	**1**	**2**	**3**	**4**	**5**	**6**
Underlying Price (in Mn)	8,972	8,972	8,972	8,972	8,972	8,972
Strike Price (in Mn)	0.01	116.42	116.52	154.16	847.40	1,319.90
Volatility	50.00 %	50.00 %	50.00 %	50.00 %	50.00 %	50.00 %
Risk-Free Rate	5.88%	5.88%	5.88%	5.88%	5.88%	5.88%
Dividend Yield	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Time to Liquidity	4.26	4.26	4.26	4.26	4.26	4.26
Value of Option (in Mn)	**881.33**	**791.98**	**791.90**	**764.41**	**425.31**	**306.90**
Incremental Value of Option (in Mn)	**89.35**	**0.07**	**27.49**	**339.10**	**118.41**	**306.90**

Step 5: The next step entails allocating the scenario value derived through the Black-Scholes OPM to the securities participating in the scenario using the value allocation table created in step 3. Once the value for all the scenarios has been allocated, the final total value for every class of security can be arrived at by adding the value for the security under each scenario.

Class of Stock	Total Value (in Mn)	No. of Shares (Fully Diluted)	Value per share
Series A	258	1,00,000	2,581
Series B	48	15,000	3,225
Series C	60	15,000	4,000
Equity	257	1,00,000	2,574
ESOP	257	1,00,000	2,574
Total	**881**	**3,30,000**	

Step 6: The underlying value used in the Black-Scholes OPM is derived using goal seek with a goal to match the derived value per share of the latest transaction with that of the actual transaction price. In our example, the latest transaction is Series C fund raise with an issue price of INR 4,000. An equity value of INR 881.33 Mn leads to a derived value per share for Series to be INR 4,000 which matches the issue price for the security.

In the aforesaid transaction the value of equity shares is ~64.4% of value of recent round of funding.

It should be noted that the value is sensitive to the inputs of the Black-Scholes model. The derived equity value basis the recent transaction price may change significantly in case of a change in dividend yield, volatility, time to liquidity, risk-free rate.

Further, a valuer may consider to apply certain adjustments to the value per share determined above. The adjustments entail applying a discount for lack of marketability. The adjustments depend on the type of transaction and valuer's subjective opinion.

Further there are lot of instances where primary fund infusion and secondary fund infusion are taking place there are lot of instances in startup space where earlier series of preference shares has been transferred at discount to the investor. We have observed discount to the extent of discount are 20%-35%.

Though there are instances of acquiring earlier series of preference shares equal to primary funding price.

Factors determining the discount:

a) Expected timing of liquidity event

b) Seller's liquidity requirements

c) Buyer's need for additional shareholding and control

https://economictimes.indiatimes.com/small-biz/startups/newsbuzz/selling-part-of-byjus-stake-may-land-sequoia-capital-190m/articleshow/67138171.cms?from=mdr: Sequoia sold share of Byjus at valuation of 2-2.5 Bn USD where latest round of fund raise valued Byjus to 3.6 Bn $.

Sources: https://www.businesstoday.in/current/corporate/softbank-offers-to-buy-uber-shares-at-30-per-cent-discount/story/264950.html: Softbank acquired Uber share at discount.

Chapter 15

Corporate Social Responsibility Instrumental for Value Creation

Corporate social responsibility (CSR) is an activity by which a company proves its social responsibility on all aspects of society including social, economic and environmental. Corporate social responsibility is a broad concept which can be assumed by company in many forms depending on size and location of the company and industry. CSR is a strategy that aims to integrate the economic, environmental and social impact of business into the management of business. The CSR activities became mandatory in India after introduction of section 135 of companies act 2013. Though CSR activities usually carried out by many companies as a charity and philanthropic activities much before the introduction of section 135 of the Companies Act, 2013 but after introduction of new provisions of companies act made it mandatory for certain companies to assume social responsibilities. Through CSR, corporates are considering the interest of society by taking responsibility of the impact of their activities on the various stakeholders.

Traditional corporate governance literature treats CSR expenditure as allocation of corporate resources in pursuit of activities that are not in the best interest of shareholders. The firms' only social responsibility is to maximize profit for the shareholders. In contrast, the stakeholder theory of firm gives more importance to the societal role played by the firm where CSR activities are regarded as an integral part of firm's mission. Although an important consideration but shareholders' interests are not considered as firm's only concern.

In last few decades a more pragmatic approach has emerged to converge both views. The idea behind the new approach is firms are institutions created to serve human needs and interests of all persons are considered by it. This leads to new concept "stockholder versus stakeholder" and provides notion that the creation of value for shareholders may be possible at the same time that the interests of other stakeholders are considered. Accordingly, the firm is expected to engage in activities which creates value for its stakeholders and shareholders both at the same time.

In current scenario of globalisation of business, there is a conscious opinion among all the stakeholders that there is a strong interdependence between environment and development. Corporate social responsibility should become an integral part of the economic activities to ensure a balance between social progress, natural resource reserves and economic growth.

Organizations in compliance of the provisions of the law and to be attractive to the stakeholders publish both financial and non-financial information. The financial information is mostly published in accordance with requirements of law and non-financial information is disclosed partly as per provisions of the law and partly as per tradition or belief of the management. The disclosure of corporate social responsibility (CSR) is part of the non-financial information. However, there is a lack of uniformity in disclosure of qualitative and quantitative factors of CSR information. To evaluate impact of CSR reporting, the analysis has to be based on general issues on CSR policy, structural parts of report, goals and indicators of each CSR activity and most of the CSR reports have different content, volume and indicators. This creates a bottleneck to consider the impact of CSR expenditure on valuation.

CSR report is a complete report which covers sustainability, environmental and social aspects. Apart from legal requirement, CSR report should aim to create a social transparency system for decision-making. Valuation of CSR expenditure is difficult due to lack of general accepted principles based on drivers or indicators. Evaluation of CSR activities for valuation largely depends on the results of CSR activities implemented by corporates which ultimately depends on corporate leadership, integration of CSR activities into corporate policy, legal requirement at national and international level, coordination between government, business and civil society. No doubt introduction of section 135 of the Companies Act 2013 and adoption of Sustainable Development Goals (SDGs) with an objective to achieve sustainable growth at all levels of the social, economic and environmental dimensions helped to pave the path for adoption of CSR activities and uniform disclosure of CSR activities to a large extent at government and corporate level. Disclosure of general issues on CSR policy, goals, vision, mission and management are very important for valuing CSR reports. Current CSR reporting at corporate level is not sufficient for valuation. There is a need to adopt some better standards of reporting like The Global Reporting Initiative (GRI) Standards which represent global best practice for reporting publicly on a range of economic, environmental and social impacts including information about an

organization's positive or negative contributions to sustainable development. The GRI is a long-term, multi-stakeholder, international process whose mission is to develop and disseminate globally applicable sustainability reporting guidelines.

Business valuation is a process and a set of procedures used to determine the economic value of a business. Business valuation helps management and other stakeholders to take informed decision. The value is derived in the context of existing environment that includes economic conditions and state of industry or market, etc. Valuation is based on the estimate of the risks facing by the company and the return on investment that would be required on alternative investments with similar levels of risk.

There is a need for value creation for both shareholders and other stakeholders. The CSR activities are value drivers to create better value for both shareholders and stakeholders.

Better business valuation helps the shareholders to take reasonable economic decisions. The CSR activities have always a direct relationship with performance of the company. Higher the growth in business higher the CSR activities and vice versa, the reason being simple that CSR activities depend on the financial slack of the company.

Researchers have tried to investigate the link between corporate financial performance and CSR objectives. Many researchers suggest a positive relationship between CSR and firm performance whereas others suggest negative relationship. Another group of researchers suggest an inverse U relationship, where a firm's performance improves with a moderate level of CSR and decreases at higher levels of CSR expenditure.

There is no perfect formula to directly convert investment in social responsibility activities to a realized financial return and apply valuation techniques to measure the value. As per Traditional corporate governance literature in response to CSR activities, the overall value of the company would go down. Since valuation is typically a function of available cash flow to the investors and a multiple or capitalization rate, if a company is spending part of profits for purposes other than dividend then less money for the investors, decreasing the overall business value. But more pertinent question is should a company's value decrease and shareholders are penalized as because company has assumed social responsibilities.

There are many research papers which evaluate this question and comes to a logical conclusion that CSR activities have the potential to increase company

profits. That is why many large companies are actively engaged in the CSR activities even before the mandatory provision of the Companies Act are being enacted. However, the research could not come to a single platform to establish a direct link between CSR and valuation as because CSR is composed of many abstract variables which are difficult to define or quantify. The findings of researches can be classified in four broad categories dealing with the effect of CSR on performance, financing costs, riskiness, and value of the firm.

The CSR activities have potential to increase marketplace respect for a company, potentially resulting in

1. Enhanced ability to attract qualified personnel;
2. Greater employee engagement;
3. Increased sales and profitability;
4. Premium for investment by stakeholders, etc

CSR activities have the potential to create value for customers and perception of this value leads to better future financial performance. CSR leads to certain outcomes such as increased customer loyalty, willingness to pay premium prices, and lower reputational risks in times of crisis and these outcomes have the potential to increase profitability.

Rui Albuquerque, Art Durnev, and Yrjo Koskinen have developed an asset pricing model of corporate social responsibility in which CSR is modelled as an investment in higher customer loyalty. The firms' spending more on CSR are exposed to less systematic risk. Barnea and Rubin report finding that at low levels of CSR expenditure, the link between these expenditures and a firm's value is positive, but that the relationship becomes negative when these expenditures go beyond a certain level.

The CSR activities have positive impact on following type of inherent risks

1. Stable demand from loyal customer base;
2. Lower probability of consumer boycotts;
3. Fewer business interruptions arising from environmental risk and challenges;
4. Lower reputational risk in times of crisis;
5. More committed workforce; and
6. Government action or legal suits.

All the above risks have potential to influence the value of the firm. The idiosyncratic risk of the company undertaking CSR activities shall be lower comparing to the peers who are not undertaking CSR activities. While CSR activities usually reduces financial slack, which may have impact on immediate cashflow of the company but long-term benefits will offset the initial impact.

The CSR activities have a positive impact on value of company on following aspects

1. Improving probability of survival;
2. Lengthening the longevity of its stream of cashflows; and
3. Lowering cost of capital

Under income approach which provides an estimate of the present value of the monetary benefits expected to flow to the owners of the business. It requires projection of the cash flows that the business is expected to generate. These cash flows are then converted to their present value by means of discounting, using a rate of return that accounts for the time value of money and the appropriate degree of risk in the investment. The value of the business is the sum of the discounted cash flows.

In above approach CSR expenses may lead to lower level of cash flow in early periods (t=1….,n-1) but higher levels in later periods (t=n, n+1,…..)

$V_o = \Sigma_t CF_t \mid (1+K)^t$

Where CF_t denotes cashflow at time t and K denotes cost of capital and on assumption that CSR activities have a positive impact on value of company on the ground of probability of survival, longevity of its stream of cashflows and lowering cost of capital.

A direct link between CSR and cost of capital can be established as per general theory of diversion. Firms with fewer investors will have a higher cost of capital and firms with large investor base will have a lower cost of capital. The reason being diverse investor base or larger the better. Firms with lower CSR activities are often perceived to be riskier investments than firms with higher CSR activities as firms who do not value the importance of CSR are subject to many inherent risks. Cost of capital is used by investors to account for business risk and the risk taken for the variability in future cash flows. Strong CSR activities helps investors to mitigate environmental, social and political risk that could negatively affect future cash flows.

Ali Fatemi, Iraj Fooladi and Hasaan Teheranian in their paper Valuation effect

of corporate social responsibility have developed two valuation model which focus exclusively on impact of CSR on the cost of capital, growth of cash flow and the discrete probability of distribution of survival and continuous probability of distribution of survival. Both the models derived the result that CSR expenditure creates value for the company.

λ = CSR expenditure,

P = P (λ) which denotes the probability of survival,

R = R [P (λ)] which denotes cost of capital, and

G = G (λ) which denotes the growth of firm's cash flow.

Here we assume that P and G has a direct relationship with λ and R has an inverse relationship with λ and when we consider all together P, R and G with respect to λ then the same will have a direct relationship with V.

We may define the value of the firm as a function of P, R and G as follows

V=V [p (λ), R [p (λ)], G(λ)]

By applying partial derivation and chain rule, the derivative of V with respect to λ, we can find that

$$\frac{dv}{d\lambda} = \left[\frac{\partial V}{\partial P} + \frac{\partial V}{\partial R} \pm \frac{\partial R}{\partial P}\right] \frac{dP}{d\lambda} + \frac{\partial V}{\partial G} \pm \frac{dG}{d\lambda}$$

In above equation, value of $\frac{dv}{d\lambda}$ depends on the sign of the $\frac{dP}{d\lambda}$ and $\frac{dG}{d\lambda}$ and the signs are

mostly positive. This implies that CSR expenditure creates value for the firm.

The initial costs of CSR activities may be more than their positive effects over the long-term cash flows but such CSR expenditures has potential to increase the firm's probability of survival, longevity of cashflow and reduced cost of capital. Positive effects include the ability of the firm to have loyal customer base, dedicated workforce, avoid dispute with labour unions, consumer-advocacy groups, local people where factory exists and governmental agencies.

Porter and Kramer (2011) in their paper "Creating Shared Value", defined

shared value as "polices and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities which the company operates." Shared Value recognizes that markets do not exist in a pure economical world without social variables rather societal needs help the markets to exist.

Due to growing competition, firms to remain competitive in short run are engaging in cost cutting in all aspects of business and leading to price competition, commoditisation and result is very minimal impact on the long run both to shareholders and society.

In order to create Shared Value, Porter and Kramer (2011) outline three distinctive approaches

1. Reconceiving Products and Markets: To consider the number of social and environmental problems like malnutrition, healthcare problems, etc. and to tap the opportunity to invest and to create innovative and creative products.
2. Redefining Productivity in the Value Chain: To redefine how they create value within their value chain and account for environmental and social externalities by reducing waste, cutting costs and improving efficiency which helps to develop a long term competitive advantage in the market place.
3. Enabling Local Cluster Development: The success of a firm is a function of the overall health of the business ecosystem in which a firm operates in. Apart from logistical infrastructure firm needs access to human capital which is supplied by educational institutes. Hence any bottlenecks will result higher costs.

Socially Responsible Investing (SRI) where investors uses business and capital markets to create both social and economic value by constructing an Environmental, Social and Governance (ESG) framework as a way to evaluate how a firm's CSR activities will impact the investment decision.

CSR activities are intangible and extremely long-term investments which will not be realized within the average investor's time horizon. There are no established methods for integrating CSR activities into traditional financial models. Valuation analysts also differ on techniques of integration of firm's CSR activities into their financial evaluations of how CSR activities will impact firms' value. As a result, a gap is created by the difference of perception among

investors and management of firm and outcome is creation of "hidden value" as investors are not able to evaluate value of a firm properly due to absence of standardized data and tools.

There is no perfect market to accurately value the CSR activities due to lack of standardised data and tools, hence any investor who can effectively integrate the impact of CSR activities into financial analysis will be able to take advantage of opportunity created by imperfect markets to generate abnormal long term returns by encashing hidden value to their benefits.

With reference to the suggested CSR activities provided in schedule VII of Companies Act 2013, Sustainable Development Goals, other traditional philanthropic activities of companies and in line with the suggested guidelines of Steven Miller, CSR activities can be divided into broadly three components (i) Environmental, (ii) Social, and (iii) Governance and all these components can be further categorized for better analysis and assessment. On the basis of this component assessment a score card may be prepared to put value to the CSR activities and hidden value may be unleashed to take an informed decision.

1. Environmental: CSR activities can be assessed from an environmental perspective on the following parameters:
    i) Supply Chain;
    ii) Raw materials sourcing;
    iii) Energy Management;
    iv) Water Management;
    v) Carbon Footprint;
    vi) Toxic Waste Management;
    vii) Biodiversity and Land Use;
    viii) Sensitivity to Climate Change;
    ix) Environmental Impact and ecological balance;
    x) Cluster Development; and
    xi) Other Environmental aspects.
2. Social: CSR activities can be assessed from a social perspective on the

following parameters:

i) Human Capital Management;

ii) Education and Training Programs;

iii) Diversity;

iv) Equality;

v) Employee Satisfaction, Health and Safety;

vi) welfare of disadvantage people;

vii) Welfare of Senior citizens;

viii) Union Strength;

ix) Product for disadvantaged customers;

x) Product quality;

xi) Privacy and Data Security;

xii) Protection of heritage, art and culture of historical importance;

xiii) Measures for armed force veterans and war widows;

xiv) Corporate Philanthropy; and

xv) Other Social aspect.

3. Governance: Response of Corporate leadership of the firm to social and environmental ethical business practices.

i) Board Structure;

ii) Diversity;

iii) Business Ethics and Management;

iv) Corruption and Bribery;

v) Political, Social and Environmental Transparency;

vi) Anti-competitive Practices;

vii) Accounting Practices; and

viii) Legal Compliance.

It is difficult to translate firms score, obtained by using above parameters to

assess the impact of CSR on its future cash flow but the same findings will work as a strong foundation and guide to integrate firms' CSR activities with traditional finance models and projection of future forecasts.

Apart from investors, the valuation professionals should also give due weightage to CSR activities of the company while forecasting costs and the expected impact on other financial metrics such as sales, employee and client retention, and improved employee productivity. The result of trend analysis in time series analysis of past performance varies significantly between companies spending on CSR activities with peer companies who are spending less or negligible in CSR activities.

The old adage "do well by doing good." is true in case of companies implementing CSR activities.

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