JULY 2021

THE VALUATION PROFESSIONAL

YOUR INSIGHT JOURNAL

ICMAI REGISTERED VALUERS ORGANISATION

About ICMAI Registered Valuers Organisation

The Companies Act, 2013 brought into the light the concept of 'Registered Valuers' to regulate the practice of Valuation in India and to standardize the valuation in line with International Valuation Standards. Consequentially, The Ministry of Corporate Affairs (MCA) notified the provisions governing valuation by registered Valuers [section 247 of the Companies Act, 2013] and the Companies (Registered Valuers and Valuation) Rules, 2017, both came into effect from 18 October, 2017.

In view of the above, the Institute of Cost Accountants of India (Statutory body under an Act of Parliament) has promoted ICMAI Registered Valuers Organisation (ICMAI RVO), a section 8 company under Companies Act, 2013 on 23rd February 2018, which is recognised under Insolvency and Bankruptcy Board of India (IBBI) to conduct educational courses on Valuation for three different asset classes - Land & Building, Plant & Machinery and Securities or Financial Assets and to act as frontline regulator as Registered Valuers Organisation. ICMAI Registered Valuers Organisation is an Academic Member of International Valuation Standards Council.

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FROM THE CHAIRMAN's DESK

CS (Dr.) Shyam Agarwal
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Dear Reader

Value has different meanings to different people depending upon their opinions, or circumstances in which it applies. The valuation is the process of determining the current worth of a company. A business valuation includes an analysis of the company's management, its capital structure, its future earnings prospects, or the market value of its assets.

A business valuation requires a working knowledge of a variety of factors, and professional judgment and experience. This includes recognizing the purpose of the valuation, the value drivers impacting the subject company, and an understanding of industry, competitive and economic factors, as well as the selection and application of the appropriate valuation approaches and methods.

The valuation of a business or a business interest is often a complex process involving a number of considerations, ranging from defining the purpose of the valuation, the basis and premise of value used, the historical performance and future outlook for the subject of the valuation. While standard valuation approaches exist, the challenges lie in selecting the appropriate approaches developing the inputs, appropriately weighting the value conclusions, and making any adjustments, using judgement. While valuation appears to be entirely quantitative, the reality is that significant consideration is also given to all relevant qualitative factors, and that professional judgment is critical.

The valuation has become very critical in Covid impacted business scenario as it has increased business uncertainty and risk. Successful and credible valuations today require knowledge and understanding of macro economic and firm specific trends.

I am happy that a journal full of relevant information pertaining to the valuation domain is being released by ICMAI RVO every month.

FROM THE PRESIDENT's DESK

CMA Biswarup Basu
Nominee Director
ICMAI Registered Valuers Organisation

President
The Institute of Cost Accountant of India

The valuation is the process of determining the current worth of a company. A business valuation includes an analysis of the company's management, its capital structure, its future earnings prospects, or the market value of its assets. A company's historical financial statements cannot be used by themselves to determine the value of a business. Financial statements are prepared according to generally accepted accounting principles (GAAP). GAAP relies on the historical cost of assets or the price paid for them at the time of acquisition. Additionally, depreciation, amortization, and some other expenses are applied based on accounting rules not on economic realities.

Historical financial statements do not show any goodwill or other intangible asset value that may be in place due to the successful operation of the business over a number of years. Other intangible assets that may not be reflected on company financial statements include such things as proprietary lists, beneficial contracts, below market leases, patents and applications for patents, copyrights, trademarks and brand names, subscriptions and service contracts, franchise agreements, and in-house developed software.

Corporate valuations, whether of physical, financial or intangible assets owned by a company, play an important role in guiding decisions involving investment and risk. This holds for capital market decisions, corporate restructuring, mergers and amalgamations, formation of joint ventures and strategic alliances between the companies. Valuation of the company and its assets and undertaking in a credible manner, taking into account various aspects relating to it, with the application of well recognized and rational criteria is being perceived as increasingly important. Credible valuations allow decisions to be taken by the stakeholders in a company with confidence. At the same time, valuers also need to adhere to a proper code of professional conduct with an institutional mechanism for review and discipline in cases of misconduct.

I complement the efforts of the ICMAI RVO team to compile valuation related useful information in this edition of the Journal.

FROM THE MD's DESK

Dr. S. K. Gupta
Managing Director
ICMAI Registered Valuers Organisation

The global M&A market has been in a lull with greater reticence by dealmakers to undertake largescale transformational deals since the midpoint of last year. Where deals are taking place, there is a preference to instead focus on safer bolt-on acquisitions and digestible plays in the middle markets. This strategy emanates in part from a desire to placate apprehensive investors. In a climate of suppressed growth and heightened uncertainty.

What's the true value of Zomato shares? Even valuation guru Aswath Damodaran can't answer this question with one answer! He has the worst and best case scenarios which can be applied based on the narrative an investor uses to look at Zomato's business. His range lies between zero and Rs 423 per share! In the end, he calls this both useless and misleading.

Valuation of Indian stock market at 22.5 times fiscal 2021-22 (FY22) earnings is too demanding, said analysts at Nomura in their 2021 Asia economic, currencies & equities mid-year outlook call. "Global investors are emotional and not rational. The traditional valuation parameters such as price-to-earnings ratio (PE) suggest that Indian equities are trading at 22.5x FY22 earnings, as compared to Japan (16.5x) and China (15x). The Budget for 2021-22 had set a disinvestment target of Rs 1.75 trillion. Of the Rs 1.75 trillion, Rs 1 trillion is to come from selling government stake in public sector banks and financial institutions. Rs 75,000 crore would come as CPSE disinvestment receipts.

Conventional valuation techniques take little account of the unexpected outcomes and uncertainties of real life. Real options are one method of tackling these problems in order to give a realistic view in practice rather than simply in the theoretical world. real options will in the future become the standard method of valuation and of evaluating the financial viability of ventures.

PROFESSIONAL DEVELOPMENT

ICMAI REGISTERED VALUERS' ORGANISATION

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PROFESSIONAL DEVELOPMENT PROGRAMS

June'2021 to August'2021	
Date	**PD Programs**
02nd June 2021	Master Class on Valuation How to Become an effective Valuer
5th to 6th June 2021	Learning Session for IPs and RVs
8th to 9th June 2021	Master Class Overview of Valuation
10th to 16th June 2021	50 hours Valuation Course on securities or Financial Assets
12th to 13th June 2021	Learning Session for IPs and RVs Valuation in the Time of COVID
15th June 2021	Interactive Session Interface between IPs and RVs
19th June 2021	Perspective on Valuation Report under IBC
22nd June 2021	Emerging Dimensions of Valuation
26th to 27th June 2021	Valuation of Start-up and Valuation -Sectoral Trends
29th to 30th June 2021	Master Class In-Depth Analysis and Interpretation of International Valuation Standards
03rd July 2021	How to use Financial Modelling in Valuation
08th July 2021	Practical Challenges in valuation and how to overcome them
10th July 2021	Case Studies on Valuation
11th July 2021	Learning Session Practical Aspects of Valuation
09th to 11th July 2021 & 15nd to 18th July 2021	50 hours Valuation Course on securities or Financial Assets
16th to 18th July 2021 & 22nd to 25th July 2021	50 hours Valuation Course on Land and Building asset class.
16th to 18th July 2021 & 22nd to 25th July 2021	50 hours Valuation Course on Plant and Machinery asset class.
17th July 2021	Valuation of distressed companies Impact of Covid on Valuation
18th July 2021	Demystifying Valuation Caveats, Limitations and Disclosures in Valuation Report
20th July	RV Conclave
21st July 2021	Practical Guidance How to handle valuation assignment in Challenging situations
24th & 25th July 2021	Learning Session on Valuation
28th July 2021	Learning Session NEW HORIZONS IN VALUATION
31st July 2021 &01st August 2021	Certificate Course on International Valuation Standards (General)
04rth August 2021	Harmonizing Interface between IPs and RVs
07th August 2021	Learning Session on Valuation
08th August 2021	Orientation Program on Valuation
11th August 2021	Learning Session on Valuation-Zomato Valuation -Case Studies
13th-14th -15th August 2021	3 Days Learning Session on Case Studies
14th August 2021	Master Class on Valuation
16th August 2021	Orientation Program on Valuation
12th August 2021 to 14th August 2021 & 18th to 21st August 2021	50 hours Valuation Course on securities or Financial Assets

PROFESSIONAL DEVELOPMENT PROGRAMS

Upcoming Professional Development Programs

DATE	PD Programs
21st August 2021	Master Class on Valuation
21st August 2021	3 Months Certificate Course on Valuation
25th August 2021	Master Class on Soft Skills
28th -29th August 2021	Use of Advance Excel in Valuation & How to use Financial Modelling in Valuation
27th to 29th August 2021 & 02nd to 05th September 2021	50 hours Valuation Course on Plant and Machinery asset class.


Articles

ARTICLE

VALUATION OF IT SERVICES STARTUP VENTURES

Dr. S K Gupta

Managing Director

ICMAI Registered Valuers Organization

The Perspective

Business valuation is never straightforward - for any company. For startups with little or no revenue or profits and less-than-certain futures, the job of assigning a valuation is particularly tricky. For mature, publicly listed businesses with steady revenues and earnings, normally it's a matter of valuing them as a multiple of their earnings before interest, taxes, depreciation, and amortization (EBITDA) or based on other industry specific multiples. But it's a lot harder to value a new venture that's not publicly-listed and may be years away from sales.

What Is a Startup

A startup company is a new business that is potentially fast growing and aims to fill a hole in the marketplace by developing and offering a new and unique product, process, or service but is still overcoming problems. Most countries of the world consider the development and implementation of innovative technologies as a necessary thing for the economic growth. So, to make the country a leader in innovation and, as a result, to make the country a competitive one, it is necessary to develop and commercialize new products and technologies or, in other words, to develop the startup business sphere. It may be a cliché that the entrepreneurs provide the energy for economic growth, but it is also true that vibrant economies have a large number of young, idea businesses, striving to get a foothold in markets. Young ventures have seized control of billions of lives providing solutions to everyday problems that seemed to be non-existent before

A startup is equivalent to a unique idea which can have an immense value. A startup is typically a venture that aims to bring a new and innovative service, product or process into the marketplace. The founder is generally the entrepreneur who runs with the idea. The founder often starts small and looks for angel / venture funding. There are a number of avenues that can be utilized to secure funding and get momentum. The founder is often a passionate new entrepreneur from a venerable B-school who does not want to limit the potential of the idea, a group of young and fired up management and technology majors can be instrumental in initiating a dynamic platform. The risk here is not huge as the founders still have the option to go back to the drawing board if the venture faces problems. In the other scenario the founders could be experienced veterans of the technology or corporate world who have given up humongous salaries to set up their dream project. This is more fraught with risks as the capital and labor in the initial stages is often the life savings of the entrepreneur.

Characteristics of startups

As we noted in the last section, young companies are diverse, but they share some common characteristics. In this section, we will consider these shared attributes, with an eye on the valuation problems/issues that they create.

1. No history: At the risk of stating the obvious, young companies have very limited histories. Many of them have only one or two years of data available on operations and financing and some have financials for only a portion of a year, for instance.

2. Small or no revenues, operating losses: The limited history that is available for young companies is rendered even less useful by the fact that there is little operating detail in them. Revenues are small or non-existent for idea companies and the expenses often are associated with getting the business established, rather than generating revenues. In combination, they result in significant operating losses.

3. Dependent on private equity: While there are a few exceptions, young businesses are dependent upon equity from private sources, rather than public markets. At the earlier stages, the equity is provided almost entirely by the founder (and friends and family). As the promise of future success increases, and with it the need for more capital, venture capitalists become a source of equity capital, in return for a share of the ownership in the firm.

4. Many don't survive: Most young companies don't survive the test of commercial success and fail.

5. Multiple claims on equity: The repeated forays made by young companies to raise equity does expose equity investors, who invested earlier in the process, to the possibility that their value can be reduced by deals offered to subsequent equity investor

6. Investments are illiquid: Since equity investments in young firms tend to be privately held and in non-standardized units, they are also much more illiquid than investments in their publicly traded counterparts.

Difference Between Startup Valuation and Mature Business Valuation

Startup businesses will usually have little or no revenue or profits and are

still in a stage of instability. It is likely their product, procedure, or service has reached the market yet. Because of this it can be difficult to place a valuation on the company. With mature publicly listed businesses that receive steady revenue and earnings it is a lot easier. All you have to do is value the company as a multiple of their earnings before interest, taxes, depreciation, and amortization (EBITDA). Valuing a startup is more of an art than science, what we meant is that the most scientific methods of valuation Discounted Cash Flows (DCF), Net Asset Value (NAV), Comparable Method, etc. seem to fall apart when it comes to startup as most of the startups are pre-revenue and focuses on growth more than positive cash flows, some are creating their own niche and thus, no comparable exists, some are just an idea which has yet to be fully accepted by the end users

Startup valuation essentially points out the worth of your business—its idea, the product or service and so on. Start-up valuation is different from valuing any running business due to many reasons. Start-ups may not have :

- Business experience
- Operational skill set
- Brand name for their products/ services
- Strong R&D base
- Dedicated execution team
- Experience of affording sudden economic shocks
- A required amount of fund etc.

What determines a startup value?

A startup is like a box. A very special box. The box has a value. Its value increases as you put more things in the box The valuation of startup companies is determined by a cohort of positive and negative factors

Positive Factors

- **Traction** – One of the biggest factors of proving a valuation is to show that your company has customers
- **Reputation** – If a startup owner has a track record of coming up with good ideas or running successful businesses, or the product, procedure or service already has a good reputation a startup is more likely to get a higher valuation, even if there isn't traction.
- **Prototype** – Any prototype that a business may have that displays the product/service will help.
- **Revenues** – More important to business to business startups rather than consumer startups but revenue streams like charging users will make a company easier to value
- **Supply and Demand** – If there are more business owners seeking money than investors willing to invest, this could affect your business valuation. This also includes a business owner's desperation to secure an investment, and an investors willingness to pay a premium.
- **Distribution Channel** – Where a startup sells its product is important, if you get a good distribution channel the value of a startup will be more likely to be higher.
- **Hotness of Industry** – If a particular industry is booming or popular (like mobile gaming) investors are more likely to pay a premium, meaning your startup will be worth more if it falls in the right industry.

Negative Factors

- **Poor Industry** – If a startup is in an industry that has recently shown poor performance, or may be dying off.
- **Low Margins** – Some startups will be in industries, or sell products that have low-margins, making an investment less desirable.
- **Competition** – Some industry sectors have a lot of competition, or other business that have cornered the market
- **Management Not Up To Scratch** – If the management team of a startup has no track record or reputation, or key positions are missing.
- **Product** – If the product doesn't work, or has no traction and doesn't seem to be popular or a good idea.
- **Desperation** – If the business owner is seeking investment because they are close to running out of cash.

What is an IT Services Startup ?

An IT Services startup would be a company or business venture of Information Technology that provides IT based services or products. Defining an actual IT service company is a common and major challenge, particularly if IT and the customer are not aligned around what is expected from both parties. One reason for this challenge is one of perspective: IT sees the service from the basis of applications and infrastructure. Customers see the service from outcomes and usage. For companies to fully support the customer in meeting their objectives, both IT employees and customers must make a concerted effort to reach a definition of the IT services being provided. Customers who purchase and/or use IT services do so with the intention to accomplish a certain objective. According to ITIL4, a service is any means of enabling **value co-creation** by facilitating **outcomes** that customers want to achieve, without the customer having to manage specific **costs** and **risks**.

Service offerings and service packages of IT Service Ventures

IT as a service (ITaaS) is an operational model where the information technology (IT) service provider delivers an information technology service to a business. A service offering, also known as a service package, can include one or more services, designed to address the needs of a target consumer group. For example, an IT service provider can talk with a customer to understand the customers needs and objectives. With this

understanding, the service provider can deploy their relevant services to create a service offering specific to that customer's needs. Such a service offering may include any combination of:

- Goods or physical products
- Access to resources, such as subscription to a timed usage based on certain terms and conditions
- Service actions, such as maintenance, processing, or support activities

IT services refers to the application of business and technical expertise to enable organizations in the creation, management and optimization of or access to information and business processes.

- The IT services market can be segmented by the type of skills that are employed to deliver the service (design, build, run). There are also different categories of service: business process services, application services and infrastructure services.
- If these services are outsourced, they are referred to as business process outsourcing (BPO), applications outsourcing (AO) and infrastructure outsourcing.

Few common features of IT Services startups include:

a. Lack of tangible physical assets
b. Dependency on key management team
c. Lesser upfront capex
d. Lack of strictly comparable peers
e. Dependencies on a platform or a technology
f. Enhanced subjectivity in valuation assessment
g. Fast changing and evolving
h. Certain industry specific issues encountered while doing valuation in service industries

Valuation of IT Services Startups

Information Technology or Information Technology-enabled services company valuations is challenging because most companies have some services, some technology, some partners, some clients and some vision.

- **Start from the future :** When valuing high-growth companies, start by thinking about what the industry and company might look like as the company evolves from its current high-growth, uncertain condition to a sustainable, moderate-growth state in the future. Then interpolate back to current performance. The future state should be defined and bounded by measures of operating performance, such as customer-penetration rates, average revenue per customer, sustainable margins, and return on invested capital. Next, determine how long hyper growth will continue before growth stabilizes to normal levels. Since most high-growth companies are start-ups, stable economics probably lie at least 10 to 15 years in the future.
- **Work backward to current performance :** Having completed a forecast for total market size, market share, operating margin, and capital intensity, it is time to reconnect the long-term forecast to current performance. To do this, you have to assess the speed of transition from current performance to future long-term performance. Estimates must be consistent with economic principles and industry characteristics. For instance, from the perspective of operating margin, how long will fixed costs dominate variable costs, resulting in low margins? Concerning capital turnover, what scale is required before revenues rise faster than capital? As scale is reached, will competition drive down prices?
- **Develop weighted scenarios :** simple and straightforward way to deal with uncertainty associated with high-growth companies is to use probability-weighted scenarios. Even developing just a few scenarios makes the critical assumptions and interactions more transparent than other modelling approaches, such as real options and Monte Carlo simulation. To develop probability-weighted scenarios, estimate a future set of financials for a full range of outcomes, some optimistic and some pessimistic

No single startup valuation method is accurate all the time. More than likely, you'll work through multiple methods and combine techniques to find a fair value.

The Dark Side of Valuation

With the estimation challenges that analysts face in valuing young companies, it should come as no surprise that they look for solutions that seem to, at least on the surface, offer them a way out. Many of these solutions, though, are the source of the valuation errors we see in young company valuations. The biggest determinant of your startup's value are the market forces of the industry & sector in which it plays, which include the balance (or imbalance) between demand and supply of money, the recency and size of recent exits, the willingness for an investor to pay a premium to get into a deal, and the level of desperation of the entrepreneur looking for money. *You need to pay attention to elements that influence growth*. The most common things to look at include things such as: The hotness of the industry, The capabilities of the startup team, product or service and its competitive advantage.

Relevant Factors / Approaches to value an IT Startup

Unfortunately, there is no single formula that can be used to precisely value your business. There are, however, a number of tried and trusted techniques which can be used to determine an indicative value for

your business. Of course, the seller will want to drive the price up and potential buyers will want to drive the price down, so the final value will be down to negotiation between both parties. Which approach / formula is most appropriate for your business will depend on several factors:

- **What are the circumstances of the valuation?** A healthy ongoing business? An approach from your main competitor? A business prepared to maximize value? A forced sale?
- **How tangible are the business assets?** Most technology companies will have no real tangible assets beyond an office whereas a semiconductor fabrication plant will have significant tangible assets.
- **What is the age of the business?** Is it a young, innovative and scaling business or a mature company with an established and dependable revenue flow?
- **Which technology sub-sector is the business in?** IoT? Big data? Biotechnology? SaaS? Renewables technology? Values in each sub-sector will vary widely. The Barriers to entry in some sub-sectors are low, enabling competitors to quickly get a foothold thereby potentially reducing your business' value.
- **How valuable are your intangible assets?** Some of the most valuable parts of the business may not appear on the balance sheet, for example, trademarks, reputation, branding, key people, size and quality of the customer base while others such as patents and IP may not be recorded on the balance sheet at actual perceived market value.
- **Is the business dependent on the owner?** Owner dependence is one of the most important factors in valuing (and marketing) a business and different buyers will have a different perception of the risk – much of the value in an owner-dependent business is destroyed if the owner leaves abruptly.
- **What is the current economic climate?** This has always been a 'buyer's market' but Brexit, for example, has introduced an increasing degree of uncertainty which has led to delayed decision making on some transactions.

When valuing a business, it is usual to use at least two methods and arrive at a value range rather than one definitive figure.

- **Multiple of profits (or Price/Earnings ratio) :** This is a good technique for companies with a solid track record of profitability but ratios vary widely. a small unquoted business is usually valued at between 5 and 10 times its annual post-tax profit and a quoted company with excellent prospects may reach 20. For certain innovative and high growth technology firms, the P/E ratio has risen dramatically, such as Facebook which had a P/E ratio of 114 at the time of its IPO. While such companies are seen as the exception rather than the norm there has been a trend towards normalization of P/E ratios within the technology space and most growing technology companies are now commonly valued in the 10-25 P/E multiplier range, but again every company and sector will be slightly different.
- **Asset valuation :** This method is used for asset-rich businesses, and is generally not so relevant to the technology industry, although a biotechnology or life science company would probably be an exception to this rule. To calculate your asset valuation, take the value of your assets and subtract your liabilities. This method of valuation usually produces the lowest valuation because it does not take into account the potential for future earnings.
- **Entry valuation :** What would it cost to start a similar business from scratch? Tricky figure to come up with this one. You'll need to calculate the cost of employing people, delivering training, developing products and services, building assets and a client base.

Conclusion

A start-up is characterised by having little or no revenue, negative cash flows, being mostly lossmaking, having short histories, a binary business model and being dependent on equity financing. It is extremely hard to determine the accurate value of a company while it is in its infancy stages as its success or failure remains uncertain. Valuing a business at any stage of it's lifecycle is difficult, but early stage is particularly problematic. Remember that valuations are nothing but formalized guesstimates. For an established business, knowing the valuation is rather straightforward. The market value of the business can be calculated using tangible metrics and assets, such as revenue, profits and customers. Just as beauty lies in the eyes of the beholder, value too is based upon the outlook of the person who is valuing the company. *Value is therefore a relative concept.*

There's a saying that startup valuation is more of an art than a science. Startup valuation, as frustrating as this may be for anyone looking for a definitive answer, is, in fact, a relative science, and not an exact one. Valuing a start-up comprises throws up many problems, the first one of them being that it is extremely hard to tell what the future of the company will be, or more precisely if it will survive at all in the coming years. Because of this an estimation has be to be used, which is why several startup valuation method frameworks have been invented to arrive at reasonable acceptable valuation of startups.

VALUATION IN THE CONTEXT OF DILUTION AND DOWN-ROUND PROTECTION

Abraham Mathews
ACMA
Registered Valuer

Valuers are faced with situations where they are required to assign value to instruments considering the effects of dilution or down-round protection, and need to have an approach that provides them with a basis to value instruments possessing one or more of these rights. This paper attempts to discuss the approach to be followed.

Typical clauses in share subscription agreements are given below. In the examples below, there is a combination of the anti-dilution right with down-round protection:

Example 1: The Lead Investors have the right to protect their Investment in the Company against dilution. In the event the Company offers any fresh Equity in any form whatsoever, (not being shares/options issued as a part of ESOP) to a new investors, subsequent to investment by the Investors in the Company, at a price lower than the price paid by the Investors ("Subscription Price"), then the Lead Investors participating shall be entitled to first receive such additional shares calculated on a broad based weighted average basis, as would be required to equate the adjusted cost per share paid by the Lead Investors to the price offered to the new investors.

Example 2: in the event the Company proposes to issue any Equity Securities to any Third Party entitling such Third Party to receive, subscribe to, convert into and/or exchange for Equity Securities at a price lower than the Lead Investor's Average Subscription Price ('Dilution Instrument'), then such issuance shall not be made unless prior to or simultaneously with such issuance, the price per equity share paid by the Lead Investor has been adjusted on a fully diluted basis on a broad based weighted average basis (prior to the issuance of such Dilution Instrument) such that the adjusted price per equity share paid by the Lead Investor is equal to the price of the Dilution Instrument.

The clauses above could be used by existing investors to enable conversion of Compulsorily Convertible Preferred Shares at a beneficial ratio that provides them with additional equity to match the price offered to incoming investors. The second example enables existing investors in equity to obtain additional equity shares prior to incoming investors subscribing to shares. These reset provisions could potentially increase the value of instruments, especially since they may not be available to all existing investors, but only to a few.

Most valuers ignore the reset feature and value instruments using the BSM formula, if applicable, for all the other inherent rights of the instrument. A reason for ignoring the reset feature could be that the probability of a down-round is minimal or zero, resulting in a value that is so immaterial that it can be ignored. In case the valuer feels that the right is not immaterial, the factors to consider in valuation are – (a) probability of additional security issuance (b) when the additional issuance will occur (c) volatility of the underlying instrument. The valuer could create a lattice with probability of reset of different dates in future (say, varying between 1 year to 8 years). BSM values could be determined at each node of the lattice, and the pay-offs discounted back through the lattice to determine the value of the instrument. An alternative method is to use a Monte-Carlo simulation assuming financing at random times over the life of the instrument. Depending on the volatility and the life of the instrument and the number of times financing could occur, the value of the reset feature could increase the value of the instrument by as much as 20% over instruments without a reset feature.

Interestingly, in the context of stock options, many valuers may not consider the dilutive impact of stock options in valuations. Stock options issued with an exercise price that is equal to the current market price may not have a significant impact in changing valuation share of the underlying in the overall value of the enterprise. However, options issued with an exercise price that is significantly lower than current market price have an impact in reducing the value of the underlying in the overall value of the enterprise and this needs to be taken into consideration in valuing such options.

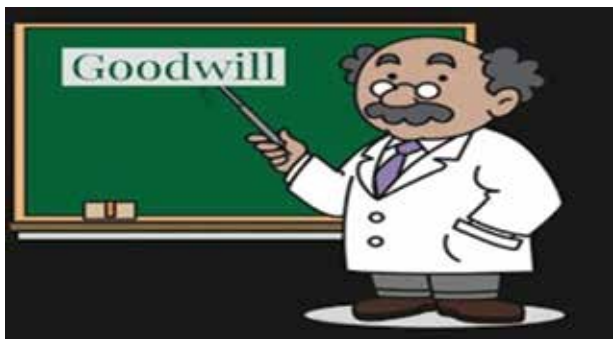
References:

Valuing Warrants: Dilution and down-round protection. Dwight Grant, PhD.

ARTICLE

VALUATION OF GOODWILL

Ms. Shukla Bansal
FCS, FCMA, MCOM
Practising Company Secretary



Preface:

Goodwill is an intangible asset which is not visible or cannot be touched but can be purchased and traded and is real. The value of an enterprise's brand name, solid consumer base, functional consumer associations, good employee associations and any patents or proprietary technology represent some instances of goodwill.

In other words, goodwill is a firm worth or reputation established over time. The Goodwill has been defined by many, but no one has given a crystal-clear definition." Goodwill" is generally used in business world, to access the value of a firm. It an intangible, invaluable asset. A business, which has earned a good reputation during its tenure, gets credit of "Goodwill". The people are started trusting in the products or services of that firm. It is a common notion that if a firm is a profitable one it is valued high and in turn attracts goodwill. Now we can say that the reputation of a firm coupled with its going profitability represents "Goodwill". But goodwill can be realised and quantified in money's worth when the firm is disposed off.

We may define Goodwill as;

"The capacity of a business to earn profits in future is basically what it meant by the term "Goodwill". "Goodwill" is a present value of a firms' anticipated excess earnings."

"The established reputation of a business regarded as quantifiable asset and calculated as part of its value when it is sold."

Valuation of Goodwill:

The valuation of goodwill is based on the assumption obtained by the valuer. A successful business earns a reputation in the industry, develops trust with its clients, and has more extensive business links, unlike new companies. All these points contribute while evaluating the business, and its financial worth that a customer is eager to give is known as goodwill.

Customers who buy a company looking at its goodwill hopes to gain super-profits. Hence, goodwill applies to only firms that make super-profits and not to those who earn regular losses or profits.

We know that the amount of goodwill always pays for in the future. The buyer will pay a little more than the intrinsic value of assets only when he expects that he will enjoy some extra benefits from such goodwill shortly. On the other hand, if the buyer thinks that there is no possibility of having such advantages in the future, he will not be ready to pay anything for goodwill—even if the value of goodwill is very high.

Need for Valuation of Goodwill:

Valuation of goodwill may make due to any one of the following reasons:

A Sole-Proprietorship Firm:

- If the firm sells to another person.
- It takes any person as a partner, and.
- It converts into a company.

A Partnership Firm:

- If any new partner takes.
- Any old partner retires from the firm.
- There is any change in the profit-sharing ratio among the partners.
- Any partner dies.
- Different partnership firms amalgamate.
- Any firm sale, and.
- Any firm converts into a company.

A Company or Firm:

- If the goodwill has already been written-off in the past but the value of the same is to records further in the books of accounts.
- An existing company taking with or amalgamated with another existing company.
- The Stock Exchange Quotation of the value of shares of the company is not available to compute gift tax, wealth tax, etc., and.
- The shares are valued based on intrinsic values, market value, or fair value methods.

Methods of Valuation of Goodwill:

1. Average Profit Basis Method:

Under this method, average profit of the last few years is multiplied by one or more number of years in order to ascertain the value of goodwill of the firm. How many years' profit should be taken for calculating average and the said average should be multiplied by how many number of years — both depend on the opinions of the parties concerned. The average profit which is multiplied by the number of years for ascertaining the value of goodwill is known as Years

Purchase. It is also called Purchase of Past Profit Method or Average Profit Basis Method.

Profit Basis Method:

$$\text{Avrage Profit } \frac{\text{Total Profits for all the years}}{\text{Number of Years}}$$

Value of Goodwill = Average Profit x Years' Purchase

2. Years' Purchase of Weighted Average Method:

This method is the modified version of Average Profit Basis Method. Under this method, each and every year's profit should be multiplied by the respective number of weights, e.g., 1, 2, 3 etc., in order to find out the value of product which is again to be divided by the total number of weights for ascertaining the weighted average profit. Therefore, the weighted average profit is multiplied by the years' purchase in order to ascertain the value of goodwill. This method is particularly applicable where the trend of profit is rising.

$$\text{Weighted Average Profit } \frac{\text{Total Profits for all the years}}{\text{Number of years}}$$

Value of Goodwill = Weighted Average Profit X Years Purchase

3. Capitalisation Method:

Under this method, the value of the entire business is determined on the basis of normal profit. Goodwill is taken as the difference between the Value of the Business minus Net Tangible Assets.

Under this method, the following steps should be taken into consideration for ascertaining the amount of goodwill:

(i) Expected Average Net Profit should be ascertained;

(ii) Capitalised value of profit is to be calculated on the basis of normal rate of return;

(iii) Net Tangible Assets (i.e. Total Tangible Assets – Current Liabilities) should also be calculated;

(iv) To deduct (iii) from (ii) in order to ascertain the value of Goodwill.

Capitalised Value of Profit = Profit (Adjusted)/Normal Rate of Return x 100

Value of Goodwill = Capitalised Value of Profit – Net Tangible Assets

4. Annuity Method:

Under this method, Super-profit (excess of actual profit over normal profit) is being considered as the value of annuity over a certain number of years and, for this purpose, compound interest is calculated at a certain respective percentage. The present value of the said annuity will be the value of goodwill.

Value of Goodwill,

$$V = \frac{a}{i}\left(1 - \frac{1}{(1+i)^n}\right)$$

Where

V = Present value of Annuity

a = Annual Super Profit

n = Number of Years

I = Rate of Interest

5. Super-Profit Method:

Super-profit represents the difference between the average profit earned by the business and the normal profit (on the basis of normal rate of return for representative firms in the industry) i.e., the firm's anticipated excess earnings. As such, if there is no anticipated excess earning over normal earnings, there will be no goodwill.

This method for calculating goodwill depends on:

(i) Normal rate of return of the representative firms;

(ii) Value of capital employed/Average capital employed; and

(iii) Estimated future profit, i.e. the average profit of the last few years.

Super-Profit = Average Profit (Adjusted) – Normal Profit

Value of Goodwill = Super-Profit x Years' Purchase

6. Capitalisation of Super-Profit Method:

Under the method, we are to consider super-profit in place of ordinary profit against the normal rate of return.

The same is calculated as:

Value of Goodwill = Super-Profit/Normal Rates of Returns x 100

$$Value\ of\ Goodwill = \frac{Super-profit}{Normal\ Rates\ of\ Returns} \times 100$$

7. Sliding Scale Valuation Method:

Under this method, the distribution of profit which is related to super-profit may vary from year to year. In other words, in order to find out the value of goodwill, sliding scale valuation may be considered relating to super-profits of an enterprise.

Conclusion: -

The main conclusion which we draw from this article is that goodwill is an intangible asset representing various intangible factors contributing to the enterprise's earning capacity and providing returns in excess of a normal return on assets employed for which an acquiring enterprise is willing to pay an amount in excess of the fair. "Just as Cement binds together the bricks and other building material into walls, similarly goodwill binds together or unites the other assets and aspects of the business into cohesive whole".

References:

Methods of valuing goodwill of a company by swayamjit

Valuation of Goodwill: Meaning, Need, Factors, and Methods by Nageshwar Das

VALUATION OF A START UP BUSINESS

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- **What is a Start up**

  A startup is a young company or business mainly founded by one or more entrepreneurs to develop a unique product or service. Typically start up is initially funded by its founders and their friends and families.

- **Why value start up differently than any normal business –**

  To know why we value startup differently and not as per normal fundamentals of valuation, we need to understand difference between a Startup and any other new Business-

  The major differences of a startup and normal new small business may be categories under following heads-

  - **Innovations** – By its definition a start up comes with new ideas or innovation and it has no proven or tested data available to value the enterprise unlike a normal new or small business where in existing companies or businesses are available to look for the comparative data for valuation analysis.
  - **Scope** – scope of a startup is not easy to visualise and initiation stage
  - **Rate of growth**- Rate of growth is always uncertain and it all depends on the users that how they perceive a new idea.
  - **Profit** – most of startup hardly generates any profit/positive cash flow during initial years and valuing a loss making enterprise by traditional cash flow or cost method will fail to make any results.
  - **Finance** – a startup is initially funded by its founder, friends and relatives and cost of capital is difficult to ascertain.
  - **Risk of failure**- Startup have a very high rate of failure and out of 10 only 1 succeeds and its rate of survival also very uncertain.
  - **Technology** – most of startup are technological driven and hardly have any tangible asset to value
  - **Management**- As startup are new ideas comes out straight from founders, initially management is vested with promoters and close group.

- **Major Valuation approaches /techniques –**

  Let us briefly discuss fundamentally business valuation methods, which will be categorized as under –

  - **Cost approach** – The cost approach also known as asset based approach is used to derive value of the business by valuing fair value of asset of the business. This approach is based on the assumption that the fair value of the asset can be determined based on the basis of cost to reproduce similar or comparable asset. This approach is mainly useful for business having tangible asset.
  - **Market approach** - The market approach is a method of valuation that appraises a business, intangible asset, business ownership interest or security by considering the price of a recent transaction, or the price of comparable assets. The market approach is based on the value of comparable assets, which is then appropriated, by taking into consideration size, quantities, qualities, and other factors, to determine the value of an asset. This technique helps to determine the business value through comparison of a business (undervaluation) to similar other businesses which have got sold in recent times.
  - **Income approach** – This is by far most widely used method of valuation of business, wherein the future income/cash flow of the business and its terminal value is discounted on weighted cost of capital to arrive the present value of the business. To make valuation under this approach we require following information-
    - **CASH FLOW** - For making valuation by income approach, we need to forecast future cash flow for relatively medium term (5-10 years depending upon the business) most particularly described as growth years. It depends on the capacity utilisation of the business, requirements of capital and demand and supply forecast taking in to consideration future technological innovation, competitions etc.
    - **WEIGHTED COST OF CAPITAL** – we need to calculate the cost of capital to the firm taking in to account cost of equity and

cost of debt (net of taxes) and its proportion to calculate weighted cost of capital. The cost of capital is used to discount future cash flows as well as terminal value of the business to calculate present value of the business on the basis of time value of money. While calculating cost of capital we need to understand cost of equity, risk free returns and risk premium.

- **TERMINAL VALUE**- We require to calculate terminal value of the business based on the constant growth module and requires discounting it at present value.

➢ **START UP VALUATION** –

In an ideal world, valuing a startup would be like valuing an established, public company. Public companies typically have longer operating histories and are also required to make quarterly and annual financial disclosures to the public. Unsurprisingly, significant historical financial data greatly helps inform our ability to make more accurate financial forecasts for a DCF analysis, since we have a much better understanding of historical revenue and cost drivers. Moreover, public company filings include management's prospective assessment of the business, which can also be helpful in forecasting. Finally, public disclosures and trading histories shed light on a company's cost of capital, making it easier to hone in on proper discount rates. As already

discussed, in addition to a lack of publicly available information, startups vary greatly in terms of operating and financing history, which creates additional valuation complications. Generally, the closer a startup is to an IPO, with presumably several years of positive revenue and a business track record, the more easily it can be valued in a DCF analysis like a public company. Earlier stage companies, which are more likely to have negative free cash flow or may even be pre-revenue, cannot be valued with a DCF analysis and thus valuations rely on more "qualitative"factors.

Therefore the valuation of a startup depends on the operating and financing stage of start up and we need to value a start up on the basis of mixed method of valuations depending upon its current stage.

➢ **Stages of a start up**

At what stage is the Company	What are the characteristics of the company in that stage	Which valuation methodologies to be used at that particular stage
• Angel period • Seed stage round • Series A round	• Often pre-revenues • May lack viable product or service • Very limited operating history • Future cash flow uncertain	• Berkus method • Score board valuation • Risk factor summation • Venture capital method • Liquidation value
• Mid stage operation • Debt financing stage	• Product /service launched • Business has started generating revenue • Revenue if growing • Cash flow still negative • Require further capital to scale up its operation	• Comparable data of existing public/private companies • Market approach of having similar size enterprises
• Planning to go for IPO • Merger or acquisition signals	• Multiple Products/services already in the market • Free cash flow • Professional management • Capital tie up with private equity etc.	• Discounted cash flow • First Chicago method • Public company comparable • Public company recent transactions comparisons

Let us, understand different method of valuations, discussed above -

- **The Berkus Method –** Named after renowned venture capitalists and angel investor, Dave Berkus the methodology relies on his premise that only one in thousands of start up meets or exceeds their projected revenues. It focuses on the risk and assigns a financial value to each of the five major elements of risk faced by young companies; soundness of idea, prototype, management team, strategic relationship and product rollout or sales.
  - How it works – To the company we are valuing, add $500K in value for each of the following risk-reduction elements to the extent they are present-
    1. Sound idea (basis value)
    2. Prototype (reducing technology cost)
    3. Quality of management (reducing execution risk)
    4. Strategic relationship (reducing market risk)
    5. Product sales (reducing revenue risk)
  - As per above yardstick a maximum of $2.5M valuation may be calculated for early stage of the start up. However, its all depends on the Valuer or investor to assign lower value to each of the elements depending upon its analysis.
  - Its very straight forward and simple method
  - Its very good for pre-revenue stage of the company
  - However, the critics define it too simplistic in approach.

- **Scorecard approach –** similar to Berkus approach, the score board valuation analyses a number of factors to determine the valuation of start up during early stage. The method requires determining the average valuation of pre-revenue companies in a particularly geographical region. We can value our target company relative to the average based on the following factors and weight percentages.

  How it works-
  - Determine the average valuation of pre-revenue companies in the same region as target company
  - Compare the target with similar companies in the region using the factors and weighting above. Under the comparison % column to the left, assume 100% average is the average for similar companies and assign premium and discount to the target
  - Calculate weight of each factor by multiplying weight and comparison.
  - Sum the factors
  - Multiply the sum of factor with average valuation to get the value of the target company.

Illustration -

Comparison Factor	Weight (%)	Comparison (%)	Factor – (W*C)
Management Team strength	30%	125%	0.375
Size of the opportunity	25%	150%	0.375
Product	15%	100%	0.150
Competition	10%	75%	0.075
Marketing/sales	10%	80%	0.080
Additional investment	5%	100%	0.050
Other factors	5%	100%	0.050
Factor sum			1.155
Average valuation			$2.5M
Target company valuation			$2.9M

- **Risk factor Summation -** Risk factor summation method analyses a broad set of risk factors relevant to pre-revenue and other early stage startups. This method is based on the premise that the higher the number of risk factors present, then the higher the overall risk in achieving a strong exit. Similar to score board valuation the average value of the other companies in the region is compared with the risk weight of the target company to achieve its value.

Illustration of risk factor valuation based on the average value of $2.5M

Risk factor	Weight	$ in 000
Management	+2	500
Stage of Business	+1	250
Political	-1	(250)
Manufacturing	0	0
Sales and marketing	+1	250
Funding	-1	(250)
Competition	-1	(250)
Technology	+2	500
Litigation	0	0
International	0	0
Reputational	+2	500
Potential lucrative exit	+1	250
Total		**1500**
Company valuation	**(average value + Risk)**	**$4000**

- **Venture Capital Method –** The venture capital method was first described by Prof. Bill Sahlman at Harvard Business School in the 1980's and has been modified slightly later on. This method uses the potential exit value of the company and the target rate of return of an investor to back in to pre money valuation.

  How to determine-

  - First determine the terminal value of startup.
  - Determine the years to exit
  - Determine the target rate of reurn
  - Calculate the post money valuation

Illustration –

Terminal Value	**Rs.1000000**
Hurdle rate	**50%**
Years until exit	**5 years**
Post money valuation	**Rs. 1316872**
	Terminal value/ (1+hurdle rate)^years

- **Book value and Liquidation Value –** we all know that book value or liquidation value is calculated on the net value of asset less the liabilities of the company by discounting the factors of forced sales or liquidation cost.
- **Comparison of similar companies/ transactions (Market Approach) –** This approach is based on the traditional Income approach wherein the publically available information of Public and private companies are used to calculate the valuation of the companies. As its already one of the traditional method, we are not discussing it here in details.
- **Cash flow Valuation (Income Approach)-** Again as discussed above, the cash flow method is used for arriving present value of the future cash flow to mature or established companies to value its worth. We have already discussed above the method used for calculating cash flow valuation.
- **First Chicago Method-** A combination of DCF and relative valuation, this valuation requires three sets of different sets of projections of a company performance in DCF and resultant valuation. Basically it is an improved way of sensitivity simulation in the DCF valuation to arrive the weighted company valuation.

Illustration-

DCF CASES	Probabilities	Valuation (In Rs.)
Base case	**65%**	**100000**
Worst case	**25%**	**45000**
Best Case	**10%**	**160000**
Weighted company valuation		**92300**

- **CONCLUSION-**

  Therefore, while valuing a start up company, we need to first ascertain at what stage the company is operating and then we are require to apply various methods of valuation which is most practical at that stage for valuation of startup. One simple method does not suit all the start up and therefore before assigning final value, a Valuer need to take in to account all qualitative and quantitative measurements in to its account.

FREQUENTLY ASKED QUESTIONS ON VALUATION

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FREQUENTLY ASKED QUESTIONS ON VALUATION

1.What are the commonly used discount rates?

The following discount rates are most commonly used depending upon the type of the asset:

a. cost of equity;
b. weighted average cost of capital;
c. Internal Rate of Return ('IRR');
d. cost of debt; or
e. yield.

2.What are the factors a valuer may consider while determining the discount rate?

A valuer may consider the following factors while determining the discount rate:

- type of asset being valued such as example debt, preference shares, business, real estate, intangibles, etc.;
- life of the asset such as the risk-free rate used for determining the cost of equity in the CAPM model differs for an asset with a one-year life vs an indefinite life;
- geographic location of the asset;
- currency in which the projections have been prepared;
- type of cash flows;
- risk in achieving the projected cash flows;
- cash flows used for the projections as FCFE needs to be discounted by Cost of Equity whereas FCFF to be discounted using WACC;
- discount the cash flows in the functional currency using a discount rate appropriate for that functional currency; and
- pre-tax cash flows need to be discounted by pre-tax discount rate and post-tax cash flows to be discounted by post-tax discount rate; A valuer shall include where appropriate risk adjustments that a
- market participant shall expect as compensation for uncertainty inherent in the cash flows.

3.What is Terminal Value?

Terminal value represents the present value at the end of explicit forecast period of all subsequent cash flows to the end of the life of the asset or into perpetuity if the asset has an indefinite life.

4.How to calculate Terminal Value in case of indefinite or very long useful life of the asset?

In case of assets having indefinite or very long useful life, it is not practical to project the cash flows for such indefinite or long periods. Therefore, the valuer needs to determine the terminal value to capture the value of the asset at the end of explicit forecast period.

5.What are different methods for estimating the terminal value?

There are different methods for estimating the terminal value. The commonly used methods are: • Gordon (Constant) Growth Model

Variable Growth Model;

- Exit Multiple; and
- Salvage / Liquidation value

What are the factors a valuer may consider while determining the terminal growth rate?

Some of the factors that a valuer may consider while determining the terminal growth rate:

a. whether the level of operations beyond explicit forecast period is expected to be significantly different from the level projected in the last year of the explicit forecast period or only a normal growth is expected;
b. capacity utilisation at the end of explicit forecast period;
c. functional currency in which the projections have been prepared; (
d. market share;
e. product life cycle;
f. geographic location of the asset;
g. type of cash flows;
h. residual life of the asset at the end of the explicit forecast period;
i. capital investment required to support the assumed growth rate;
j. whether there is future growth potential for the asset beyond the explicit forecast period, or whether the asset is deteriorating in nature; and
k. for cyclical assets, the terminal value should consider the cyclical nature of the asset

6.What are the factors a valuer may consider while determining the terminal growth rate?

Some of the factors that a valuer may consider while determining the terminal growth rate:

a. whether the level of operations beyond explicit forecast period is expected to be significantly different from the level projected in the last year of the explicit forecast period or only a normal growth is expected;
b. capacity utilization at the end of explicit forecast period;
c. functional currency in which the projections have been prepared;
d. market share; (e) product life cycle;
e. geographic location of the asset;
f. type of cash flows;
g. residual life of the asset at the end of the explicit forecast period;
h. capital investment required to support the assumed growth rate;

FREQUENTLY ASKED QUESTIONS ON VALUATION

i. whether there is future growth potential for the asset beyond the explicit forecast period, or whether the asset is deteriorating in nature; and

j. for cyclical assets, the terminal value should consider the cyclical nature of the asset

The appropriate royalty rate based on market-based royalty rates for similar intangible assets or using the profit split method is selected.

- The costs associated with maintaining licensing arrangements for the intangible asset from the resultant royalty savings are deducted.
- The selected royalty rate to the future income attributable to the said asset is applied.
- The appropriate marginal tax rate or such other appropriate tax rate to arrive at an after-tax royalty saving is used.
- The after-tax royalty savings is discounted to arrive at the present value using an appropriate discount rate.
- Tax amortization benefit, if appropriate, should be added to the overall value of the asset.

7.Define the process under the Multi-Period Excess Earnings Method (MEEM) Method?

The major steps adopted in determining the value from this method are as follows:-

- The projections are obtained for the entity or the combined asset group over the remaining useful life of the said intangible asset to be valued from the client or the target to determine the future after-tax cash flows expected to be generated;
- The projections are analyzed and their underlying assumption to assess the reasonableness of the cash flows.
- Contributory Asset Charges (CAC) or economic rents to be reduced from the total net after-tax cash flows projected for the entity/combined asset group to obtain the incremental after-tax cash flows attributable to the intangible asset to be valued.
- The CAC represent the charges for the use of an asset or group of assets (e.g., working capital, fixed assets, assembled workforce, other intangibles) based on their respective fair values and should be considered for all assets, excluding goodwill, that contribute to the realization of cash flows for the intangible asset to be valued
  - The incremental after-tax cash flows attributable to the intangible asset to be valued is discounted to arrive at the present value using an appropriate discount rate.
  - Tax amortization benefit, if appropriate.

8.Define the process under the With and Without Method (WWM) Method?

The major steps adopted in determining the value from this method are as follows: -

- The cash flow projections are obtained for the business over the remaining useful life of the said asset to be valued.
- The projections are analyzed and their underlying assumption to assess the reasonableness of the cash flows.
- The difference between the projected cash flows under two scenarios are discounted to arrive at the present value using an appropriate discount rate.
- Tax amortization benefit, if appropriate.

9.Give some instances where a valuer applies the cost approach.

Examples of situations where a valuer applies the cost approach are:

a. an asset can be quickly recreated with substantially the same utility as the asset to be valued;

b. in case where liquidation value is to be determined; or

c. income approach and/or market approach cannot be used.

10.Give some instances where a valuer applies the cost approach. Examples of situations where a valuer applies the cost approach are:

a. an asset can be quickly recreated with substantially the same utility as the asset to be valued; (b) in case where liquidation value is to be determined; or

b. (c) income approach and/or market approach cannot be used.

11.Differentiate between Replacement Cost Method and Reproduction Cost Method?

Replacement Cost Method involves valuing an asset based on the cost that a market participant shall have to incur to recreate an asset with substantially the same utility (comparable utility) as that of the asset to be valued, adjusted for obsolescence. During the process of deriving the value, it estimates the costs that will be incurred by a market participant for creating an asset with comparable utility as that of the asset to be valued.

Reproduction Cost Method involves valuing an asset based on the cost that a market participant shall have to incur to recreate a replica of the asset to be valued, adjusted for obsolescence. During the process of deriving the value, it estimates the costs that will be incurred by a market

FREQUENTLY ASKED QUESTIONS ON VALUATION

participant for creating a replica of the asset to be valued

12.Differentiate between Replacement Cost Method and Reproduction Cost Method?

Replacement Cost Method involves valuing an asset based on the cost that a market participant shall have to incur to recreate an asset with substantially the same utility (comparable utility) as that of the asset to be valued, adjusted for obsolescence. During the process of deriving the value, it estimates the costs that will be incurred by a market participant for creating an asset with comparable utility as that of the asset to be valued. Reproduction Cost Method involves valuing an asset based on the cost that a market participant shall have to incur to recreate a replica of the asset to be valued, adjusted for obsolescence. During the process of deriving the value, it estimates the costs that will be incurred by a market participant for creating a replica of the asset to be valued

Explain the major steps involved in deriving a value using the Replacement Cost method. The following are the major steps in deriving a value using the Replacement Cost method: (a) estimate the costs that will be incurred by a market participant for creating an asset with comparable utility as that of the asset to be valued;

(b) assess whether there is any loss on account of physical, functional or economic obsolescence in the asset to be valued; and (

c) adjust the obsolescence value, if any as determined under (b) above from the total costs estimated under (a) above, to arrive at the value of the asset to be valued.

13.Explain the major steps involved in deriving a value using the Reproduction Cost method.

The following are the major steps in deriving a value using the Reproduction Cost method: (a) estimate the costs that will be incurred by a market participant for creating a replica of the asset to be valued; (b) assess whether there is any loss of value on account of physical, functional or economic obsolescence in the asset to be valued; and (c) adjust the obsolescence value, if any as determined under (b) above from the total costs estimated under (a) above, to arrive at the value of the asset to be valued.

14.What does Obsolescence include?

The physical properties of the new asset may or may not be similar to the one under valuation, but the former asset should bear comparable utility. Obsolescence includes physical deterioration, functional (technological) and economic obsolescence. The term obsolescence connotes a wider meaning than the term depreciation adopted for financial reporting or tax purposes

Under what circumstances the valuer shall withdraw from the assignment. In case the valuer is unable to agree to any change in the terms of engagement and/or is not permitted to continue as per the original terms, he should withdraw from the engagement and should consider whether there is an obligation, contractual or otherwise, to report the circumstances necessitating the withdrawal to the client.

15.What is a Subsequent Event?

The valuation date is the specific date at which the valuation analyst estimates the value of the subject interest and concludes on his or her estimation of value. An event that occurs subsequent to the valuation date could affect the value; such an occurrence is referred to as a subsequent event. Subsequent events are indicative of conditions that were not known or could not be known at the valuation date, including conditions that arose subsequent to the valuation date.

Whether a valuer can rely on the work of experts?

A valuer can rely on the work of experts subject to the followings:

- A valuer shall evaluate the skills, qualification, and experience of the other expert in relation to the subject matter of his valuation.
- A valuer must determine that the expert has sufficient resources to perform the work in a specified time frame and also explore the relationship which shall not give rise to the conflict of interest.
- If the work of any third party expert is to be relied upon in the valuation assignment, the description of such services to be provided by the third party expert and the extent of reliance placed by the valuer on the expert's work shall be documented in the engagement letter. The engagement letter should document that the third party expert is solely responsible for their scope of work, assumptions and conclusions.
- A valuer shall specifically disclose the nature of work done and give sufficient disclosure about reliance placed by him on the work of the third party expert in the valuation report.
- As per Clause 9 of the Model Code of Conduct of Companies (Registered Valuers and Valuation) Rules, 2017, it has been provided that in the preparation of a valuation report, the valuer shall not disclaim liability for his/its expertise or deny his/its duty of care, except to the extent that the assumptions are based on statements of fact provided by the company or its auditors or consultants or information available in public domain and not generated by the valuer.

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INTERNATIONAL VALUATION STANDARDS (IVS)

IVS 220 NON-FINANCIAL LIABILITIES

10. Overview

10.1 The principles contained in the General Standards apply to *valuation*s of non-financial liabilities and *valuation*s with a non-financial liability component. This standard contains additional requirements that apply to *valuations* of non-financial liabilities.

10.2 With regard to the determination of discount rates and risk margins, in circumstances in which IVS 105 *Valuation Approaches and Methods* (see paras 50.29-50.31) conflicts with IVS 220 *Non-Financial Liabilities, valuers must* apply the principles in sections 90 and 100 of this Standard in *valuation*s of non-financial liabilities.

20. Introduction

20.1. For *purpose*s of IVS 220 *Non-Financial Liabilities*, non-financial liabilities are defined as those liabilities requiring a non-cash performance obligation to provide goods or services.

20.2 A non-exhaustive list of liabilities that *may* in part or in full require a non- cash fulfilment and be subject to IVS 220 *Non-Financial Liabilities* includes: deferred revenue or contract liabilities, warranties, environmental liabilities, *asset* retirement obligations, certain contingent consideration obligations, loyalty programmes, power purchase agreements, certain litigation reserves and contingencies, and certain indemnifications and guarantees.

20.3 Although certain contingent consideration liabilities *may* require a non-cash performance obligation, such liabilities are not included in the scope of IVS 220 Non-Financial Liabilities.

20.4 The party assuming a non-financial liability typically requires a profit margin on the fulfilment effort to compensate for the effort incurred and risk borne for the delivery of goods or services.

20.5 For financial liabilities, cash fulfilment is typically the only performance obligation and no additional compensation is needed for the fulfilment effort. Given that cash fulfilment is the only performance obligation for financial liabilities, *asset*-liability symmetry most often enables *valuers* to assess the subject liability using an *asset* framework.

20.6 *Asset*-liability symmetry typically does not exist for non-financial liabilities due to the performance obligation to provide goods and services to satisfy the liability and additional compensation for such effort. As such, non-financial liabilities will most often be valued using a liability framework.

20.7 In instances in which a corresponding *asset* is recognised by the counterparty, the *valuer must* assess if the *values* would reflect *asset*-liability symmetry under circumstances consistent with the basis of value. Certain bases of value issued by entities/organisations other than the IVSC require the specific consideration and reconciliation to a corresponding *asset* under certain circumstances. The *valuer must* understand and follow the regulation, case law, and other interpretive guidance related to those bases of *value* as of the *valuation* date (see IVS 200 *Businesses and Business Interests*, para 30.2). Instances in which the *valuer should* reconcile to a corresponding *asset value* will be rare, reasons include:

(a) Non-financial liabilities often do not have a recorded corresponding *asset* recognised by the counterparty (eg, environmental liability), or can only be transferred in conjunction with another *asset* (eg, an automobile and related warranty are only transferred together).

(b) The corresponding *asset* of a non-financial liability *may* be held by numerous parties for which it is impractical to identify and reconcile the *asset values*.

(c) The market for the non-financial *asset* and liability is often highly illiquid, thus resulting in asymmetric information, high bid ask spreads, and *asset*-liability asymmetry.

20.8 *Participant*s that most often transact in the subject non-financial liability *may* not be the comparable companies and competitors of the entity holding the subject non-financial liability. Examples include insurance companies, third party warranty issuers, and more. *The valuer should* consider if a market, or *participants*, exist outside the immediate industry in which the entity holding the subject non-financial liability operates.

20.9 Non-financial liability valuations are performed for a variety of *purpose*s. It is the *valuer's* responsibility to understand the *purpose* of a *valuation* and whether the non-financial liabilities *should* be valued, whether separately or grouped with other *assets*. A non-exhaustive list of examples of circumstances that commonly include a non-financial liability *valuation* component is provided below:

(a) For financial reporting *purpose*s, *valuations* of non-financial liabilities are often required in connection with accounting for business combinations, *asset* acquisitions and sales, and impairment analysis.

(b) For tax reporting *purpose*s, non-financial liability valuations are often needed for transfer pricing analyses, estate and gift tax planning and reporting, and ad valorem taxation analyses.

(c) Non-financial liabilities *may* be the subject of litigation, requiring *valuation* analysis in certain

circumstances.

(d) *Valuers* are sometimes asked to *value* non-financial liabilities as part of general consulting, collateral lending and transactional support engagements.

30. Bases of Value

30.1 In accordance with IVS 104 *Bases of Value*, a *valuer must* select the appropriate basis(es) of value when valuing non-financial liabilities.

30.2 Often, non-financial liability valuations are performed using bases of value defined by entities/organisations other than the IVSC (some examples of which are mentioned in IVS 104 *Bases of Value*) and the *valuer must* understand and follow the regulation, case law, and other interpretive guidance related to those bases of value as of the valuation date (see IVS 200 *Businesses and Business Interests*, para 30.2).

40. Valuation Approaches and Methods

40.1 Elements of the three valuation approaches described in IVS 105 *Valuation Approaches* (market, income and cost approach) can all be applied to the *valuation* of non-financial liabilities. The methods described below *may* exhibit elements of more than one approach. If it is necessary for the *valuer* to classify a method under one of the three approaches, the *valuer should* use judgement in making the determination and not necessarily rely on the classification below.

40.2 When selecting an approach and method, in addition to the requirements of this standard, a *valuer must* follow the requirements of IVS 105 *Valuation Approaches*, including para 10.3.

50. Market Approach

50.1 Under the market approach, the *value* of a non-financial liability is determined by reference to market activity (for example, transactions involving identical or similar non-financial liabilities).

50.2 Transactions involving non-financial liabilities frequently also include other *assets*, such as a business combinations that include tangible and intangible *assets*.

50.3 Transactions involving standalone non-financial liabilities are infrequent as compared with transactions for businesses and *assets*.

50.4 While standalone transactions of non-financial liabilities are infrequent, *valuers should* consider relevant market-based indications of *value*. Although such market-based indications *may* not provide sufficient information with which to apply the market approach, the use of market- based inputs *should* be maximised in the application of other approaches.

50.5 A non-exhaustive list of such market indications of *value* includes:

(a) Pricing from third parties to provide identical or similar products as the subject non-financial liability (eg, deferred revenue),

(b) Pricing for warranty policies issued by third parties for identical or similar obligations,

(c) The prescribed monetary conversion amount as published by *participant*s for certain loyalty reward obligations,

(d) The traded price for contingent *value* rights (CVRs) with similarities to the subject non-financial liability (eg, contingent consideration),

(e) Observed rates of return for investment funds that invest in non-financial liabilities (eg, litigation finance).

50.6 *Valuers must* comply with paras 20.2 and 20.3 of IVS 105 *Valuation Approaches and Methods* when determining whether to apply the market approach to the *valuation* of non-financial liabilities.

50.7 The diverse nature of many non-financial liabilities and the fact that non-financial liabilities seldom transact separately from other *assets* means that it is rarely possible to find market evidence of transactions involving similar non-financial liabilities.

50.8 Where evidence of market prices is available, *valuers should* consider adjustments to these to reflect differences between the subject non-financial liability and those involved in the transactions. These adjustments are necessary to reflect the differentiating characteristics of the subject non- financial liability and those involved in the transactions. Such adjustments *may* only be determinable at a qualitative, rather than quantitative, level. However, the need for *significant* qualitative adjustments could indicate that another approach would be more appropriate for the *valuation*.

50.9 In certain instances a *valuer may* rely on market prices or evidence for an *asset* corresponding to the subject non-financial liability. In such instances, the *valuer should* consider an entity's ability to transfer the subject non- financial liability, whether the *asset* and related price of the *asset* reflect those same restrictions, and whether adjustments to reflect the restrictions *should* be included. The *valuer should* take care to determine if the transfer restrictions are characteristics of the subject non-financial liability (for example, an illiquid market) or restrictions that are characteristics of the entity (for example, financial distress).

50.10 The comparable transaction method, also known as the guideline transactions method, is generally the only market approach method that can be applied to value non-financial

liabilities.

50.11 In rare circumstances, a security sufficiently similar to a subject non- financial liability could be publicly traded, allowing the use of the guideline public company method. One example of such securities is contingent value rights that are tied to the performance of a particular product or technology.

Market Approach Methods

50.12 A method to *value* non-financial liabilities under the Market Approach is often referred to as the Top-Down Method.

Top-Down Method

50.13 Under the Top-Down Method, valuing non-financial liabilities is based on the premise that reliable market-based indications of pricing are available for the performance obligation.

50.14 A *participant* fulfilling the obligation to deliver the product or services associated with the non-financial liability could theoretically price the liability by deducting costs already incurred toward the fulfilment obligation, plus a mark-up on those costs, from the market price of services.

50.15 When market information is used to determine the *value* of the subject non- financial liability, discounting is typically not necessary because the effects of discounting are incorporated into observed market prices.

50.16 The key steps in applying a Top-Down Method are to:

(a) Determine the market price of the non-cash fulfilment.

(b) Determine the costs already incurred and *asset*s utilised by the transferor. The nature of such costs will differ depending on the subject non-financial liability. For example, for deferred revenue the costs will primarily consist of sales and marketing costs that have already been incurred in generating the non-financial liability.

(c) Determine a reasonable profit margin on the costs already incurred

(d) Subtract costs incurred and profit from the market price.

60. Income Approach

60.1 Under the income approach, the *value* of a non-financial liability is often determined by reference to the present value of the costs to fulfil the obligation plus a profit margin that would be required to assume the liability.

60.2 *Valuers must* comply with paras 40.2 and 40.3 of IVS 105 *Valuation Approaches and Methods* when determining whether to apply the income approach to the *valuation* of non-financial liabilities.

Income Approach Methods

60.3 The primary method to value non-financial liabilities under the Income Approach is often referred to as the Bottom-Up Method.

Bottom-Up Method

60.4 Under the Bottom-Up Method, the non-financial liability is measured as the costs (which *may* or *may* not include certain overhead items) required to fulfil the performance obligation, plus a reasonable mark-up on those costs, discounted to present value.

60.5 The key steps in applying a Bottom-Up Method are to:

(a) Determine the costs required to fulfil the performance obligation. Such costs will include the direct costs to fulfil the performance obligation, but *may* also include indirect costs such as charges for the use of contributory *asset*s. Fulfilment costs represent those costs that are related to fulfilling the performance obligation that generates the non-financial liability. Costs incurred as part of the selling activities before the acquisition date *should* be excluded from the fulfilment effort.

1. Contributory *asset* charges *should* be included in the fulfilment costs when such *assets* would be required to fulfil the obligation and the related cost is not otherwise captured in the income statement.

2. In limited instances, in addition to direct and indirect costs, it *may* be appropriate to include opportunity costs. For example, in the licensing of symbolic intellectual property, the direct and indirect costs of fulfilment *may* be nominal. However, if the obligation reduces the ability to monetise the underlying *asset* (in an exclusive licensing arrangement for example), then the *valuer should* consider how *participants* would account for the potential opportunity costs associated with the non-financial liability.

(b) Determine a reasonable mark-up on the fulfilment effort. In most cases it *may* be appropriate to include an assumed profit margin on certain costs which can be expressed as a target profit, either a lump sum or a percentage return on cost or *value*. An initial starting point *may* be to utilise the operating profit of the entity holding the subject non- financial liability. However, this methodology assumes the profit margin would be proportional to the costs incurred. In many circumstances there is rationale to assume profit margins which are not proportional to costs. In such cases the risks assumed, *value* added, or intangibles contributed to the fulfilment effort are not the same as those contributed pre-measurement date. When costs are derived from actual, quoted or estimated prices by third party suppliers or contractors,

these costs will already include a third party's desired level of profit.

(c) Determine timing of fulfilment and discount to present value. The discount rate *should* account for the time value of money and non-performance risk. Typically it is preferable to reflect the impact of uncertainty such as changes in anticipated fulfilment costs and fulfilment margin through the cash flows, rather than in the discount rate.

(d) When fulfilment costs are derived through a percent of revenue, *valuers should* consider whether the fulfilment costs already implicitly include the impact of discounting. For example, prepayment for services *may* result in a discount as one would expect to pay less for the same service as compared with paying throughout the contract term. As a result, the derived costs *may* also contain an implicit discount and further discounting *may* not be necessary.

70. Cost Approach

70.1 The cost approach has limited application for non-financial liabilities as *participants* typically expect a return on the fulfilment effort.

70.2 *Valuers must* comply with paras 60.2 and 60.3 of IVS 105 *Valuation Approaches and Methods* when determining whether to apply the cost approach to the *valuation* of non-financial liabilities.

80. Special Considerations for Non-Financial Liabilities

80.1 The following sections address a non-exhaustive list of topics relevant to the *valuation* of non-financial liabilities.

(a) Discount Rates for Non-Financial Liabilities (section 90

(b) Estimating Cash Flows and Risk Margins (section 100)

(c) Restrictions on Transfer (section 110)

(d) Taxes (section 120)

90. Discount Rates for Non-Financial Liabilities

90.1 A fundamental basis for the income approach is that investors expect to receive a return on their investments and that such a return *should* reflect the perceived level of risk in the investment.

90.2 The discount rate *should* account for the time *value* of money and non-performance risk. Non-performance risk is typically a function of counterparty risk (ie, credit risk of the entity obligated to fulfil the liability) (see para 60.5c of this Standard).

90.3 Certain bases of value issued by entities/organisations other than the IVSC *may* require the discount rate to specifically account for liability specific risks. The *valuer must* understand and follow the regulation, case law, and other interpretive guidance related to those bases of value as of the valuation date (see IVS 200 *Businesses and Business Interests*, para 30.2).

90.4 *Valuers should* consider the term of the subject non-financial liability when determining the appropriate inputs for the time value of money and non- performance risk.

90.5 In certain circumstances, the *valuer may* explicitly adjust the cash flows for non-performance risk.

90.6 What a *participant* would have to pay to borrow the funds necessary to satisfy the obligation *may* provide insights to help quantify the non- performance risk.

90.7 Given the long-term nature of certain non-financial liabilities, the *valuer must* consider if inflation has been incorporated into the estimated cash flows, and *must* ensure that the discount rate and cash flow estimates are prepared on a consistent basis.

100. Estimating Cash Flows and Risk Margins

100.1 The principles contained in IVS 105 *Valuation Approaches and Methods may* not apply to *valuations* of non-financial liabilities and *valuations* with a non-financial liability component (see IVS 105 *Valuation Approaches and Methods*, paras 50.12-50.19). *Valuers must* apply the principles in sections 90 and 100 of this Standard in *valuations* of non-financial liabilities.

100.2 Non-financial liability cash flow forecasts often involve the explicit modelling of multiple scenarios of possible future cash flow to derive a probability- *weight*ed expected cash flow forecast. This method is often referred to as the Scenario-Based Method (SBM). The SBM also includes certain simulation techniques such as the Monte Carlo simulation. The SBM is commonly used when future payments are not contractually defined but rather vary depending upon future events. When the non-financial liability cash flows are a function of systematic risk factors, the *valuer should* consider the appropriateness of the SBM, and *may* need to utilise other methods such as option pricing models (OPMs).

100.3 Considerations in estimating cash flows include developing and incorporating explicit assumptions, to the extent possible. A non-exhaustive list of such assumptions *may* include:

(a) The costs that a third party would incur in performing the tasks necessary to fulfil the obligation,

(b) Other amounts that a third party would include in determining the price of the transfer, including, for example, inflation, overhead, equipment charges, profit margin, and advances in technology,

(c) The extent to which the amount of a third party's costs or the timing of its costs would vary under different future scenarios and the relative probabilities of those scenarios, and,

(d) The price that a third party would demand and could expect to

receive for bearing the uncertainties and unforeseeable circumstances inherent in the obligation.

100.4 While expected cash flows (ie, the probability-*weighted* average of possible future cash flows) incorporate the variable expected outcomes of the *asset's* cash flows, they do not account for the compensation that *participants* demand for bearing the uncertainty of the cash flows. For non-financial liabilities, forecast risk *may* include uncertainty such as changes in anticipated fulfilment costs and fulfilment margin. The compensation for bearing such risk *should* be incorporated into the expected payoff through a cash flow risk margin or the discount rate.

100.5 Given the inverse relationship between the discount rate and *value*, the discount rate *should* be decreased to reflect the impact of forecast risk (ie, the compensation for bearing risk due to uncertainty about the amount and timing of cash flows).

100.6 While possible to account for forecast risk by reducing the discount rate, given its limited practical application, the *valuer must* explain the rationale for reducing the discount rate rather than incorporating a risk margin, or specifically note the regulation, case law, or other interpretive guidance that requires the accounting for forecast risk of non-financial liabilities through the discount rate rather than a risk margin (see IVS 200 *Businesses and Business Interests*, para 30.2).

100.7 In developing a risk margin, a *valuer must*:

(a) document the method used for developing the risk margin, including support for its use, and,

(b) provide evidence for the derivation of the risk margin, including the identification of the significant inputs and support for their derivation or source.

100.8 In developing a cash flow risk margin, a *valuer must* consider:

(a) the life/term and/or maturity of the *asset* and the consistency of inputs, (b) the geographic location of the *asset* and/or the location of the markets in which it would trade,

(c) the currency denomination of the projected cash flows, and

(d) the type of cash flow contained in the forecast, for example, a cash flow forecast *may* represent expected cash flows (ie, probability-*weighted* scenarios), most likely cash flows, contractual cash flows, etc

100.9 In developing a cash flow risk margin, a *valuer should* consider:

(a) the less certainty there is in the anticipated fulfilment costs and fulfilment margin, the higher the risk margin *should* be,

(b) given the finite term of most non-financial liabilities, as opposed to indefinite for many business and *asset* valuations, to the extent that emerging experience reduces uncertainty, risk margins *should* decrease, and vice versa,

(c) the expected distribution of outcomes, and the potential for certain non-financial liabilities to have high 'tail risk' or severity. Non-financial liabilities with wide distributions and high severity *should* have higher risk margins,

(d) the respective rights and preferences of the non-financial liability, and/or related *asset*, in the event of a liquidation and its relative position within the liquidation waterfall.

100.10 The cash flow risk margin *should* be the compensation that would be required for a party to be indifferent between fulfilling a liability that has a range of possible outcomes, and one that will generate fixed cash outflows.

100.11 A *valuer* need not conduct an exhaustive quantitative process, but *should*

take into account all the information that is reasonably available.

110. Restrictions on Transfer

110.1 Non-financial liabilities often have restrictions on the ability to transfer. Such restrictions can be either contractual in nature, or a function of an illiquid market for the subject non-financial liability.

110.2 When relying on market evidence, a *valuer should* consider an entity's ability to transfer such non-financial liabilities and whether adjustments to reflect the restrictions *should* be included. The *valuer may* need to determine if the transfer restrictions are characteristics of the non-financial liability or restrictions that are characteristics of an entity, as certain basis of *value may* specify one or the other be considered (see IVS 220 *Non-Financial Liabilities*, para 50.9).

110.3 When relying on an income approach in which the non-financial liability *value* is estimated through a fulfilment approach, the *valuer should* determine if an investor would require an additional risk margin to account for the limitations on transfer.

120. Taxes

120.1 *Valuers should* use pre-tax cash flows and a pre-tax discount rate for the *valuation* of non-financial liabilities.

120.2 In certain circumstances, it *may* be appropriate to perform the analysis with after tax cash flows and discount rates. In such instances, the *valuer must* explain the rationale for use of after tax inputs, or specifically note the regulation, case law, or other interpretive guidance that requires the use of after tax inputs (see IVS 200 *Businesses and Business Interests*, para 30.2).

120.3 If after tax inputs are used, it *may* be appropriate to include the tax benefit created by the projected cash outflow associated with the non-financial liability.

INTERNATIONAL VALUATION STANDARDS (IVS)

IVS 300 PLANT AND EQUIPMENT

10. Overview

10.1. The principles contained in the General Standards apply to *valuation*s of plant and equipment. This standard only includes modifications, additional principles or specific examples of how the General Standards apply for *valuation*s to which this standard applies.

20. Introduction

20.1. Items of plant and equipment (which *may* sometimes be categorised as a type of personal property) are tangible *assets* that are usually held by an entity for use in the manufacturing/production or supply of goods or services, for rental by others or for administrative *purposes* and that are expected to be used over a period of time.

20.2. For lease of machinery and equipment, the right to use an item of machinery and equipment (such as a right arising from a lease) would also follow the guidance of this standard. It *must* also be noted that the "right to use" an *asset* could have a different life span than the service life (that takes into consideration of both preventive and predictive maintenance) of the underlying machinery and equipment itself and, in such circumstances, the service life span *must* be stated.

20.3. *Assets* for which the highest and best use is "in use" as part of a group of *assets must* be valued using consistent assumptions. Unless the *assets* belonging to the sub-systems *may* reasonably be separated independently from its main system, then the sub-systems *may* be valued separately, having consistent assumptions within the sub-systems. This will also cascade down to sub-sub-systems and so on.

20.4. Intangible *assets* fall outside the classification of plant and equipment *assets*. However, an intangible *asset may* have an impact on the *value* of plant and equipment *assets*. For example, the *value* of patterns and dies is often inextricably linked to associated intellectual property rights. Operating software, technical data, production records and patents are further examples of intangible *assets* that can have an impact on the *value* of plant and equipment *assets*, depending on whether or not they are included in the *valuation*. In such cases, the valuation process will involve consideration of the inclusion of intangible *assets* and their impact on the *valuation* of the plant and equipment *assets*. When there is an intangible *asset* component, the *valuer should* also follow IVS 210 *Intangible Assets*.

20.5. A *valuation* of plant and equipment will normally require consideration of a range of factors relating to the *asset* itself, its environment and physical, functional and economic potential. Therefore, all plant and equipment *valuers should* normally inspect the subject *assets* to ascertain the condition of the plant and also to determine if the information provided to them is usable and related to the subject *assets* being valued. Examples of factors that *may* need to be considered under each of these headings include the following:

(a) *Asset*-related:

1. the *asset's* technical specification,
2. the remaining useful, economic or effective life, considering both preventive and predictive maintenance,
3. the *asset's* condition, including maintenance history,
4. any functional, physical and technological obsolescence,
5. if the *asset* is not valued in its current location, the costs of decommissioning and removal, and any costs associated with the *asset's* existing in-place location, such as installation and re-commissioning of *assets* to its optimum status,
6. for machinery and equipment that are used for rental *purposes*, the lease renewal options and other end-of-lease possibilities,
7. any potential loss of a complementary *asset*, eg, the operational life of a machine *may* be curtailed by the length of lease on the building in which it is located,
8. additional costs associated with additional equipment, transport, installation and commissioning, etc, and
9. in cases where the historical costs are not available for the machinery and equipment that *may* reside within a plant during a construction, the *valuer may* take references from the Engineering, Procurement, Construction ("EPC") contract.

(b) Environment-related:

1. the location in relation to the source of raw material and market for the product. The suitability of a location *may* also have a limited life, eg, where raw materials are finite or where demand is transitory,
2. the impact of any environmental or other legislation that either restricts utilisation or imposes additional operating or decommissioning costs,
3. radioactive substances that *may* be in certain machinery and equipment have a severe impact if not used or disposed of appropriately. This will have a major impact on

expense consideration and the environment,

4. toxic wastes which *may* be chemical in the form of a solid, liquid or gaseous state *must* be professionally stored or disposed of. This is critical for all industrial manufacturing, and

5. licences to operate certain machines in certain countries *may* be restricted.

(c) Economic-related:

1. the actual or potential profitability of the *asset* based on comparison of operating costs with earnings or potential earnings (see IVS 200 *Business and Business Interests*),

2. the demand for the product manufactured by the plant with regard to both macro- and micro-economic factors could impact on demand, and

3. the potential for the *asset* to be put to a more valuable use than the current use (ie, highest and best use).

20.6. *Valuations* of plant and equipment *should* reflect the impact of all forms of obsolescence on *value*.

20.7. To comply with the requirement to identify the *asset* or liability to be valued in IVS 101 *Scope of Work*, para 20.3.(d) to the extent it impacts on *value*, consideration *must* be given to the degree to which the *asset* is attached to, or integrated with, other *assets*. For example:

(a) *assets may* be permanently attached to the land and could not be removed without substantial demolition of either the *asset* or any surrounding structure or building,

(b) an individual machine *may* be part of an integrated production line where its functionality is dependent upon other *assets*,

(c) an *asset may* be considered to be classified as a component of the real property (eg, a Heating, Ventilation and Air Conditioning System (HVAC)).

In such cases, it will be necessary to clearly define what is to be included or excluded from the *valuation*. Any special assumptions relating to the availability of any complementary *assets must* also be stated (see also para 20.8).

20.8. Plant and equipment connected with the supply or provision of services to a building are often integrated within the building and, once installed, are not separable from it. These items will normally form part of the real property interest. Examples include plant and equipment with the primary function of supplying electricity, gas, heating, cooling or ventilation to a building and equipment such as elevators. If the *purpose of the valuation* requires these items to be valued separately, the scope of work *must* include a statement to the effect that the *value* of these items would normally be included in the real property interest and *may* not be separately realisable. When different valuation assignments are undertaken to carry out *valuations* of the real property interest and plant and equipment *assets* at the same location, care is necessary to avoid either omissions or double counting.

20.9. Because of the diverse nature and transportability of many items of plant and equipment, additional assumptions will normally be required to describe the situation and circumstances in which the *assets* are valued. In order to comply with IVS 101 *Scope of Work*, para 20.3.(k) these *must* be considered and included in the scope of work. Examples of assumptions that *may* be appropriate in different circumstances include:

(a) that the plant and equipment *assets* are valued as a whole, in place and as part of an operating business,

(b) that the plant and equipment *assets* are valued as a whole, in place but on the assumption that the business is not yet in production,

(c) that the plant and equipment *assets* are valued as a whole, in place but on the assumption that the business is closed,

(d) that the plant and equipment *assets* are valued as a whole, in place but on the assumption that it is a forced sale (See IVS 104 *Bases of Value*),

(e) that the plant and equipment *assets* are valued as individual items for removal from their current location.

20.10. In some circumstances, it *may* be appropriate to report on more than one set of assumptions, eg, in order to illustrate the effect of business closure or cessation of operations on the *value* of plant and equipment.

20.11. In addition to the minimum requirements in IVS 103 *Reporting*, a valuation report on plant and equipment *must* include appropriate references to matters addressed in the scope of work. The report *must* also include comment on the effect on the reported value of any associated tangible or intangible *assets* excluded from the actual or assumed transaction scenario, eg, operating software for a machine or a continued right to occupy the land on which the item is situated.

20.12. *Valuations* of plant and equipment are often required for different *purposes* including financial reporting, leasing, secured lending, disposal, taxation, litigation and insolvency proceedings.

30. Bases of Value

30.1. In accordance with IVS 104 *Bases of Value*, a *valuer must* select the appropriate basis(es) of value when valuing plant and equipment.

30.2. Using the appropriate basis(es) of value and associated premise of value (see IVS 104 *Bases of Value*, sections 140-170) is particularly crucial in the *valuation* of plant and equipment because differences in *value* can be pronounced, depending on whether an item of plant and equipment is valued under an "in use" premise, orderly liquidation or forced liquidation (see IVS 104 *Bases of Value*, para 80.1). The *value* of most plant and equipment is particularly sensitive to different premises of value.

30.3. An example of forced liquidation conditions is where the *assets* have to be removed from a property in a timeframe that precludes proper marketing because a lease of the property is being terminated. The impact of such circumstances on *value* needs careful consideration. In order to advise on the *value* likely to be realised, it will be necessary to consider any alternatives to a sale from the current location, such as the practicality and cost of removing the items to another location for disposal within the available time limit and any diminution in *value* due to moving the item from its working location.

40. Valuation Approaches and Methods

40.1. The three principal valuation approaches described in the IVS *may* all be applied to the *valuation* of plant and equipment *assets* depending on the nature of the *assets*, the information available, and the facts and circumstances surrounding the *valuation.*

50. Market Approach

50.1. For classes of plant and equipment that are homogenous, eg, motor vehicles and certain types of office equipment or industrial machinery, the market approach is commonly used as there *may* be sufficient data of recent sales of similar *assets*. However, many types of plant and equipment are specialised and where direct sales evidence for such items will not be available, care *must* be exercised in offering an income or cost approach opinion of value when available market data is poor or non-existent. In such circumstances it *may* be appropriate to adopt either the income approach or the cost approach to the *valuation.*

60. Income Approach

60.1. The income approach to the *valuation* of plant and equipment can be used where specific cash flows can be identified for the *asset* or a group of complementary *assets*, eg, where a group of *assets* forming a process plant is operating to produce a marketable product. However, some of the cash flows *may* be attributable to intangible *assets* and difficult to separate from the cash flow contribution of the plant and equipment. Use of the income approach is not normally practical for many individual items of plant or equipment; however, it can be utilised in assessing the existence and quantum of economic obsolescence for an *asset* or *asset* group.

60.2. When an income approach is used to value plant and equipment, the *valuation must* consider the cash flows expected to be generated over the life of the *asset(s)* as well as the *value* of the *asset* at the end of its life. Care *must* be exercised when plant and equipment is valued on an income approach to ensure that elements of *value* relating to intangible *assets*, goodwill and other contributory *assets* is excluded (see IVS 210 *Intangible Assets*).

70. Cost Approach

70.1. The cost approach is commonly adopted for plant and equipment, particularly in the case of individual *assets* that are specialised or special-use facilities. The first step is to estimate the cost to a market *participant* of replacing the subject *asset* by reference to the lower of either reproduction or replacement cost. The replacement cost is the cost of obtaining an alternative *asset* of equivalent utility; this can either be a modern equivalent providing the same functionality or the cost of reproducing an exact replica of the subject *asset.* After concluding on a replacement cost, the *value should* be adjusted to reflect the impact on *value* of physical, functional, technological and economic obsolescence on *value* In any event, adjustments made to any particular replacement cost *should* be designed to produce the same cost as the modern equivalent *asset* from an output and utility point of view.

70.2. An entity's actual costs incurred in the acquisition or construction of an *asset may* be appropriate for use as the replacement cost of an *asset* under certain circumstances. However, prior to using such historical cost information, the *valuer should* consider the following:

(a) Timing of the historical expenditures: An entity's actual costs *may* not be relevant, or *may* need to be adjusted for inflation/indexation to an equivalent as of the valuation date, if they were not incurred recently due to changes in market prices, inflation/deflation or other factors.

(b) The basis of value: Care *must* be taken when adopting a particular market *participant's* own costings or profit margins, as they *may* not represent what typical market *participants* might have paid. The *valuer must* also consider the possibility that the entity's costs incurred *may* not be historical in nature due to prior purchase accounting or the purchase of used plant and equipment *assets*. In any case, historical costs *must* be trended using appropriate indices.

(c) Specific costs included: A

valuer must consider all *significant* costs that have been included and whether those costs contribute to the *value* of the *asset* and for some bases of value, some amount of profit margin on costs incurred *may* be appropriate.

(d) Non-market components: Any costs, discounts or rebates that would not be incurred by, or available to, typical market *participants should* be excluded.

70.3. Having established the replacement cost, deductions *must* be made to reflect the physical, functional, technological and economic obsolescence as applicable (see IVS 105 *Valuation Approaches and Methods*, section 80).

Cost-to-Capacity Method

70.4. Under the cost-to-capacity method, the replacement cost of an *asset* with an actual or required capacity can be determined by reference to the cost of a similar *asset* with a different capacity.

70.5. The cost-to-capacity method is generally used in one of two ways:

(a) to estimate the replacement cost for an *asset* or *assets* with one capacity where the replacement costs of an *asset* or *assets* with a different capacity are known (such as when the capacity of two subject *assets* could be replaced by a single *asset* with a known cost), or

(b) to estimate the replacement cost for a modern equivalent *asset* with capacity that matches foreseeable demand where the subject *asset* has excess capacity (as a means of measuring the penalty for the lack of utility to be applied as part of an economic obsolescence adjustment).

70.6. This method *may* only be used as a check method unless there is an existence of an exact comparison plant of the same designed capacity that resides within the same geographical area.

70.7. It is noted that the relationship between cost and capacity is often not linear, so some form of exponential adjustment *may* also be required.

80. Special Considerations for Plant and Equipment

80.1. The following section Financing Arrangements addresses a non-exhaustive list of topics relevant to the *valuation* of plant and equipment.

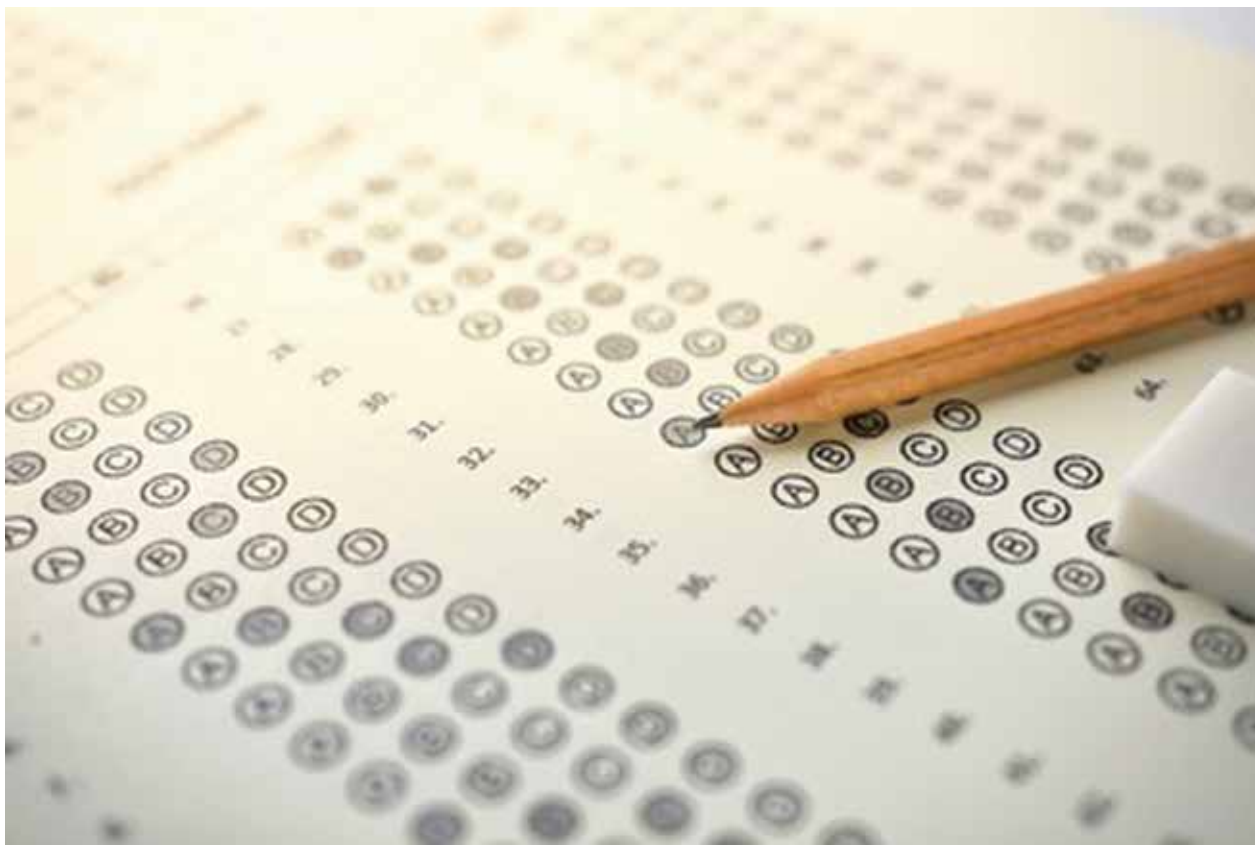
90. Financing Arrangements

90.1. Generally, the *value* of an *asset* is independent of how it is financed. However, in some circumstances the way items of plant and equipment are financed and the stability of that financing *may* need to be considered in *valuation*.

90.2. An item of plant and equipment *may* be subject to a leasing or financing arrangement. Accordingly, the *asset* cannot be sold without the lender or lessor being paid any balance outstanding under the financing arrangement. This payment *may* or *may* not exceed the unencumbered value of the item to the extent unusual/excessive for the industry. Depending upon the *purpose of the valuation*, it *may* be appropriate to identify any encumbered *assets* and to report their *values* separately from the unencumbered *assets*.

90.3. Items of plant and equipment that are subject to operating leases are the property of third parties and are therefore not included in a *valuation* of the *assets* of the lessee, subject to the lease meeting certain conditions. However, such *assets may* need to be recorded as their presence *may* impact on the *value* of owned *assets* used in association. In any event, prior to undertaking a *valuation*, the *valuer should* establish (in conjunction with *Client* and/or advisors) whether *assets* are subject to operating lease, finance lease or loan, or other secured lending. The conclusion on this regard and wider *purpose of the valuation* will then dictate the appropriate basis and valuation methodology.

MULTIPLE CHOICE QUESTIONS



ICMAI REGISTERED VALUERS' ORGANISATION

Registered Office
The Institute of Cost Accountants of India
4th Floor, CMA Bhawan 3, Institutional Area
Lodhi Road, New Delhi – 110003

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MULTIPLE CHOICE QUESTIONS

MCQs ON IVS 104 AND IVS 105

1. Which of the following are true regarding International Valuation Standards:

a. They examine various valuation techniques in detail
b. They are a statement of best practices
c. They prescribe specific methods for different purposes of valuation
d. They teach valuers how to value

2. Which of these are an IVS defined Bases of Value

a. Fair Value
b. Fair Market Value
c. Market Rent
d. All of the above

3. Which of the following statements is false regarding the International Valuation Standards:

a. They prescribe specific methods for different purposes of valuation
b. They are a statement of recognised principles and practices
c. They describe accepted definitions
d. They are a statement of best practices

4. Which of the following is a Premise of Value

a. Forced Sale
b. Orderly Liquidation
c. Both of the above
d. None of the above

5. In the definition of Market Value, "The estimated amount…" refers to

a. Purchase price of the asset
b. Price expressed in terms of money
c. Valuation of the subject asset
d. Monetary value of a comparable asset

6. "_____is the price at which the property would exchange 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"

a. Fair Value (as defined under IFRS)
b. Fair Value (as defined under Model Business Corporation Act by the American Bar Association)
c. Fair Market Value (as defined by OECD)
d. Fair Market Value (as defined by the US Internal Revenue Services)

7. According to Section 10.1 of IVS 105, which of the following is/ are considered to be the economic principle forming the basis of main approaches to valuation

a. Price fixation
b. Demand Supply equilibrium
c. Anticipation of benefits
d. All of the above

8. According to IVS 105, "….it is generally _____ to simply weight two or more divergent indications of value"

a. Not appropriate
b. Acceptable
c. Not Allowed
d. Better

9. According to IVS 105, In circumstances where the market approach is not used, the use of market-based inputs should be_____:

a. Considered
b. Applied
c. Analysed
d. Maximised

10. Under which of the following circumstances, the valuer should adopt the market approach and afford significant weight on it

a. The asset or substantially similar asset markets in an inactive but publicly traded market
b. Substantially similar assets exhibit frequent and/or recent observable transactions
c. The critical element affecting value is the price it would achieve in the market rather than the cost of reproduction or its income producing ability
d. All of the above

11. Which of these is NOT an IVS defined Basis of Value

a. Synergistic Value
b. Liquidation Value
c. Equitable Value
d. Fair Value

12. According to IVS 105, what should the valuer consider while affording weights to listings/offer price when considering listings or offers to buy or sell:

a. Level of commitment inherent in the price
b. How long the listing/offer has been on the market
c. Both of the above
d. Either of the above

13. In which of the following conditions, Discount for Lack of Marketability should NOT be applied

a. Comparables seem to have superior marketability

MULTIPLE CHOICE QUESTIONS

b. Subject asset has a long marketing period

c. Marketability restrictions are specific to the owner

d. None of the above

14. According to IVS 105, selection of explicit forecast period will not depend upon:

a. Purpose of Valuation

b. Information Available

c. Basis of value

d. Life of Asset

15. Under which of the following circumstances, the valuer should consider application of any other approach to corroborate value derived using the income approach

a. The subject asset is expected to generate income but has not yet started generating income

b. For a market participant the income producing ability of the asset is the critical element affecting its value

c. There are a few, if any, relevant market comparables

d. Projections of income and their timing can reasonably be made

16. According to IVS 105, terminal value should consider which of the following:

a. Cost of Capital for the asset

b. Dividend policy of the firm

c. Expected Risk Level of the asset

d. Neither of the above

17. Which of the following is part of the non-exhaustive list of common methods of establishing discount rate, as mentioned in IVS 105:

a. Weighted Average Return on Assets (WARA)

b. Inferred Yields/Yields

c. Internal Rate of Return (IRR)

d. None of the above

18. According to IVS 105, if the valuer determines that certain risks included in the forecast cash flow for the asset have not been captured in the discount rate, the valuer must

a. Adjust the Forecast

b. Adjust the discount rate

c. Both of them

d. Either of them

19. Which of the following is the valuer not required to do when using valuation model, according to IVS 105

a. Consider the key risks associated with the assumptions

b. Keeping appropriate records to support selection of the model

c. Adopting accounting standards recommended by IFRS

d. All of the above

20. Which of the following statements is false regarding "Forced Sale" as described in IVS104

a. It is a description of the situation under which exchange takes place and not a distinct basis of value

b. Price obtainable in a forced sale can realistically be estimated only if the nature and reason of the constraints on the seller is known

c. The seller is under compulsion to sell where the buyers are able to undertake adequate due diligence

d. Proper Marketing period is not available to the seller

MULTIPLE CHOICE QUESTIONS

MCQs ON IVS

1. Which valuation standard deals with reporting

a. IVS 105
b. IVS 210
c. IVS 103
d. IVS 101

2. Asset as per IVS means

a. Assets
b. Group of assets
c. Liabilities
d. Asset and liabilities

3. Effective date of IVS 2020 is

a. 1st April 2020
b. 1 march 2020
c. 31st January 2020
d. 31st March 2020

4. How many para are there in IVS 103

a. 2
b. 4
c. 5
d. 7

5. A report ……..provide…… with a clear understanding of the *Valuation*

a. Must, intended user
b. Should, client
c. Should , intended user
d. Must , client

6. Where assumed facts differ from those existing at the date of valuation, it is referred to as a ……

a. Assumption
b. Special assumption
c. Material assumption
d. Departed assumption

7. IVS 103 refers to

a. Valuation report
b. Review reports
c. Summary reports
d. All of the above

8. The extent of detailing of report doesn't depends on

a. Purpose
b. Valuers choice
c. Nature of asset
d. User requirements

9. Format of report should be agreed in

a. Scope of work
b. Limitations
c. Caveats
d. An agreement

10. the report……. be sufficient to communicate to the intended users the scope of the valuation assignment, the work performed and the conclusions reached

a. May
b. Should
c. Must
d. Mandatorily

11. Cost approach doesn't talks about following method

a. Replacement
b. Summation
c. Reproduction
d. Capitalisation

12. Replacement method talks about creating the asset with same _____

a. Utility
b. Appearance
c. Physical properties
d. Resemblance

13. Following is not the obsolescence discussed under IVS in cost approach

a. Physical
b. Economical
c. Functional
d. Structural

14. Reproduction methods talks about creating a ------

a. Replica
b. Dummy
c. Duplicate
d. Resembling asset

15. Physical obsolescence can be

a. Curable
b. Non curable
c. Both of the above
d. None of the above

MULTIPLE CHOICE QUESTIONS

MCQs ON IVS FRAMEWORK, IVS 101 & IVS 102

1. The word _____ refers to the legal and regulatory environment in which a valuation engagement is performed.

(a) Framework (b) purview (c) jurisdiction (d) scope

2. The word _____ describes actions and procedures that valuers have a responsibility to consider.

(a) "May" (b) "must" (c) "should" (d) "opt"

3. The word _____indicates an unconditional responsibility.

(a) "may" (b) "must" (c) "should" (d) "opt"

4. The word _____indicates responsibilities that are presumptively mandatory.

(a) " may" (b) "must" (c) "should" (d) "opt"

5. A _____refers to the act or process of determining an estimate of value of an asset or liability by applying IVS.

(a) "*valuation*" (b) "assessment" (c) "calculation" (d) "judgement"

6. The word _____refers to the process of analysing and reconciling differing indications of values, typically from different methods and/or approaches.

(a) "averaging" (b) "adjusting" (c) "assessing" (d) "weighting"

7. The IVS can be applied to the valuation of both _____.

(a) Assets and group of assets (b) assets and liabilities (c) liabilities and group of liabilities (d) Balance sheet and P&L items

8. The valuer must have the technical skills, experience and _____to understand, interpret and utilise the work of any specialists.

(a) Knowledge (b) specialization (c) degree (d) influence

9. A _____is a circumstance where specific legislative, regulatory or other authoritative requirements must be followed that differ from some of the requirements within IVS.

(a) "Deviation" (b) "difference" (c) "departure " (d) "distinction"

10. All valuation advice and the work undertaken in its preparation _____be appropriate for the intended purpose.

(a) Ought to (b) should (c) may (d) must

11. The subject _____in the valuation assignment must be clearly identified.

(a) Asset (b) group of assets (c) liabilities (d) assets and liabilities

12. If the valuation date is different from the date on which the valuation report is issued or the date on which investigations are to be undertaken or completed then where appropriate, these dates should be clearly _____.

(a) Mentioned (b) disclosed (c) distinguished (d) reported

13. Where assumed facts differ from those existing at the date of valuation, it is referred to as _____.

(a) "significant assumption" (b) "important assumption" (c) "distinguishing assumption" (d) "special assumption"

14. The source of the definition of any basis of value used must be _____or the basis explained.

(a) Reported (b) quoted (c) disclosed (d) cited

15. IVS 101 deals with _____

(a) Framework (b) Scope of work (c) Investigation (d) Bases of value

16. IVS 102 deals with _____

(a) Investigation and Compliance (b) Scope of work (c) Bases of value (d) Reporting

17. Significant inputs provided to the valuer (eg, by management/ owners) should be considered, investigated and/or_____.

(a) Documented (b) recorded (c) discarded (d) corroborated

18. In considering the credibility and reliability of information provided, valuers should consider the _____of the information to the valuation conclusion.

(a) Relevance (b) significance (c) usefulness (d) appropriateness

19. Limits may be agreed on the extent of the valuer's _____.

(a) Fees (b) scope of work (c) investigations (d) reporting

20. All valuation advice and the work undertaken in its preparation must be _____for the intended purpose.

(a) Appropriate (b) useful (c) relevant (d) suited

SUCCESS STORY OF REGISTERED VALUER

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SUCCESS STORY OF REGISTERED VALUER

Shubhendu Saha, MRICS
Land and Building

Assignment

Valuation of Portfolio of M/s XXXX comprising Commercial office buildings, IT SEZs, Power Distribution business and Facility Management Business.

Purpose and Scope of The Work

The purpose of valuation was Initial public Offering and subsequent disclosure of Net Asset Value on a semi-annual basis in accordance with the Securities and Exchange Board of India (Real Estate Investment Trusts) Regulations, 2014, as amended, together with clarifications, guidelines and notifications thereunder in the Indian stock exchange. The portfolio comprised the following properties:

Location	Project	Completed Area (In sq.ft.)	Under Construction Area (In sq.ft.)
Hyderabad	Intime Mindspace, Madhapur, Hyderabad	XXXX	-
Hyderabad	KRIT Mindspace, Madhapur, Hyderabad (including vacant land)	XXXX	XXXX
Hyderabad	Sundew Mindspace, Hyderabad	XXXX	XXXX
Hyderabad	Mindspace Pocharam, Hyderabad (including vacant land)	XXXX	XXXX
Mumbai	Mindspace Airoli East	XXXX	XXXX
Mumbai	Mindspace Airoli West	XXXX	XXXX
Mumbai	Paradigm Malad, Mumbai	XXXX	-
Mumbai	The Square, Bandra Kurla Complex	XXXX	-
Pune	Gera Commerzone, Kharadi, Pune	XXXX	XXXX
Pune	Commerzone, Yerwada, Pune	XXXX	-
Pune	The Square, Nagar Road, Pune	XXXX	XXXX
Chennai	Commerzone Porur, Chennai	XXXX	-
Total	**XXXX**	**XXXX**	

The scope of services broadly included:

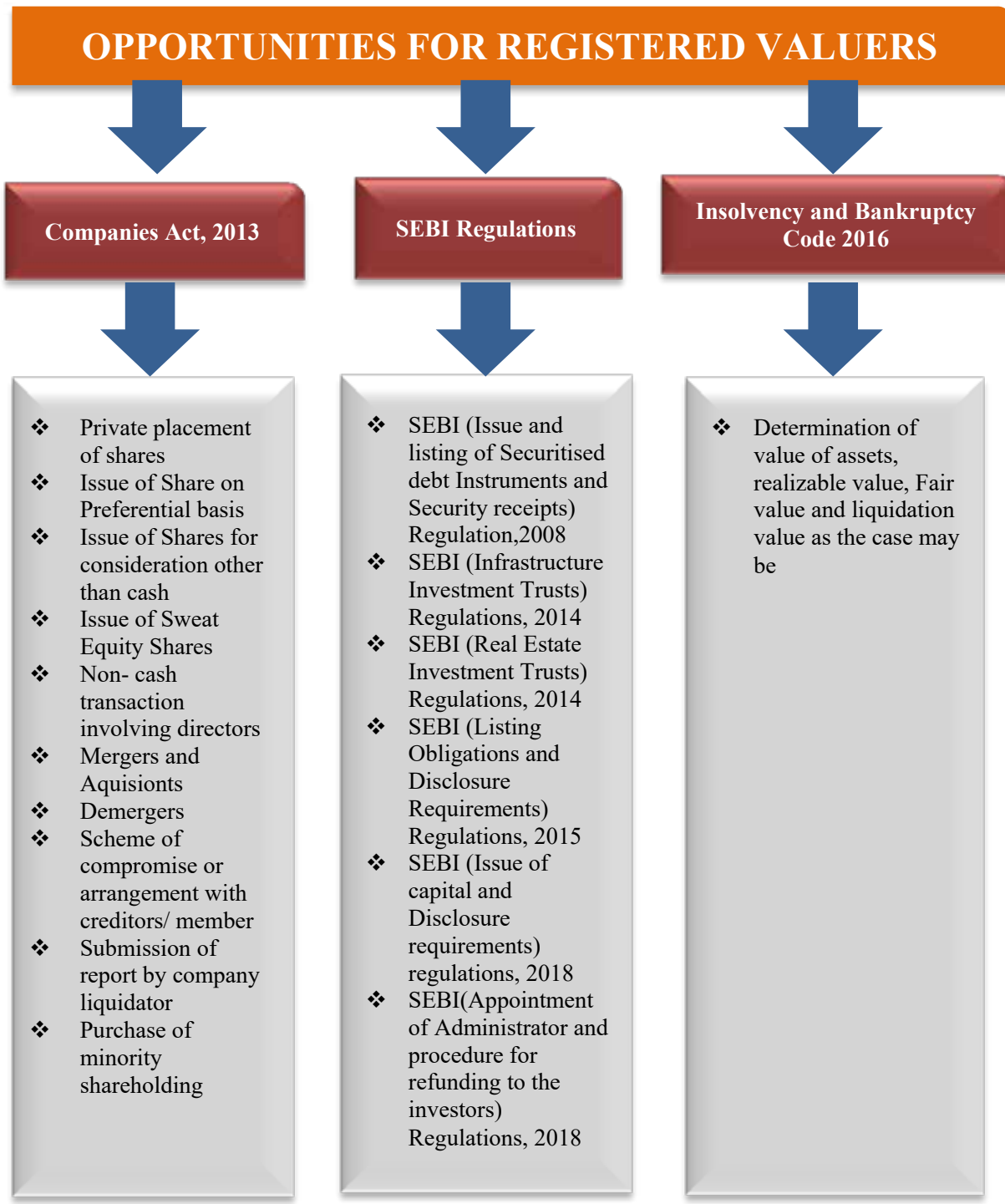
a. Physical inspection of each of the properties
b. Conducting the relevant market research in the specific markets in order to arrive at the requisite assumptions for the value
c. Providing valuation conclusion for the property through relevant method
d. Review of one-time sanctions/approvals, clearances, material litigations, revenue pendencies,
e. Preparation of the valuation report in accordance with the Schedule V of the SEBI REIT Regulations

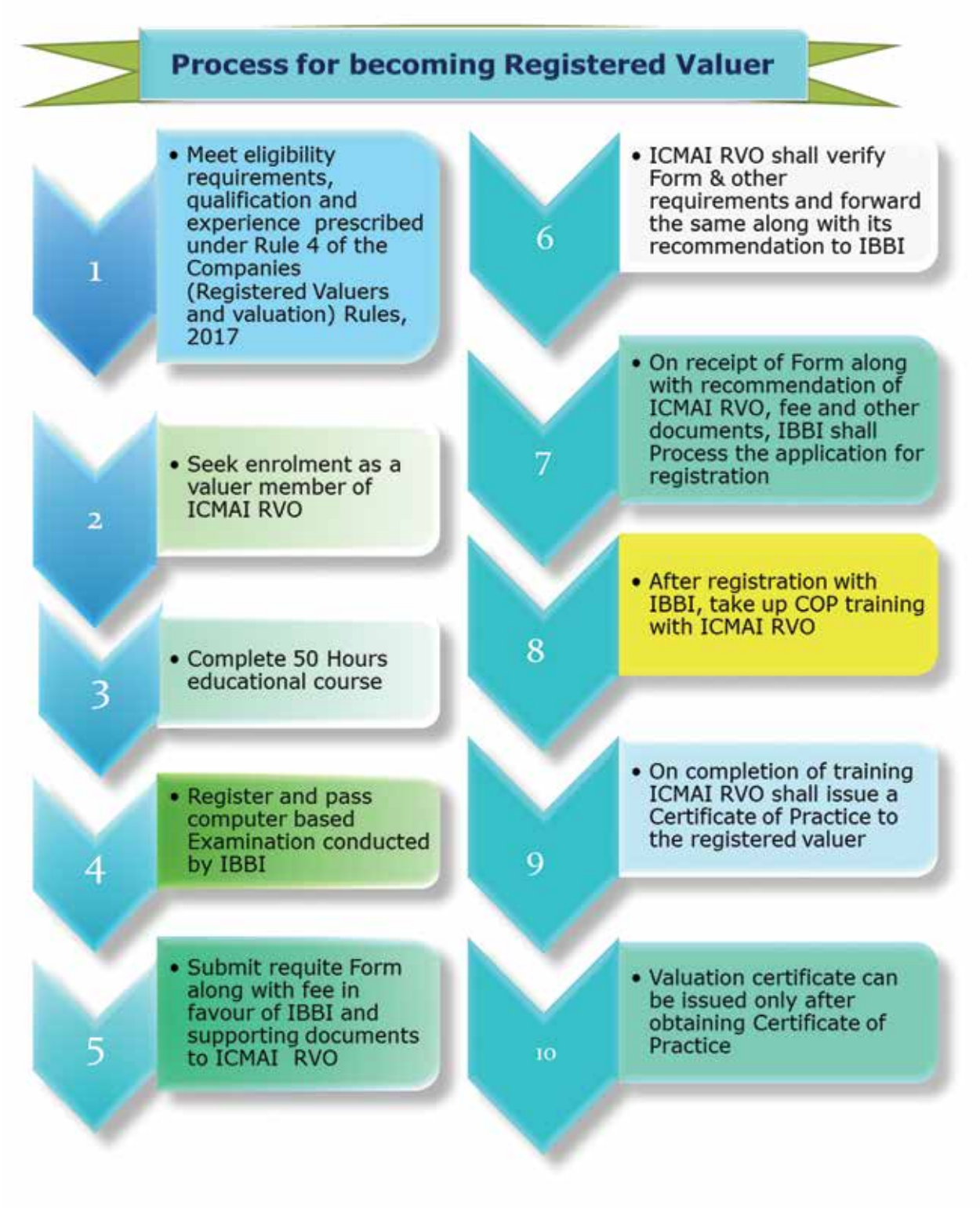
Mandate	The Investment Manager of XXXX appointed the valuer on behalf of the XXXX
Basis of Valuation	Market Value as defined in the International Valuation Standards published by IVSC
Premise of Value	Existing use Value
Valuation Mandate Date	June 2019 (IPO) and September 2020 (Semi Annual reporting)
Physical Inspection Date	September 2019 (IPO) and March 2021 (Annual valuation)
Time Stipulation of The Assignment	30 days from the end of first half and second of each financial year
Team of Physical Inspectors and Others	The Valuer and support staff
Brief Description About Inspection	The inspections comprised comprised visual inspection of completed/operational buildings comprising the property, visits to their key utility areas like LT electric room, pump room, HVAC installations, power back up, STP and under-construction building. The common areas within the operational buildings were visited on a sample basis as the areas under tenant occupation had access restriction. Additionally, the accessible portions of under construction buildings/projects were also visited to understand the physical progress.
Valuation Approach & Methodology	➢ **Income Approach** The income approach is based on the premise that value of an income - producing asset is a function of future benefits and income derived from that asset. There are two commonly used methods of the income approach in real estate valuation namely, direct capitalization and discounted cash flow (DCF). ➢ **Income Approach - Direct Capitalization Method** Direct capitalization involves capitalizing a 'normalized' single - year net income estimated by an appropriate yield. This approach is best utilized with stable revenue producing assets, whereby there is little volatility in the net annual income. ➢ **Income Approach - Discounted Cash Flow Method** Using this valuation method, future cash flows from the property are forecasted using precisely stated assumptions. This method allows for the explicit modelling of income associated with the property. These future financial benefits are then discounted to a present-day value (valuation date) at an appropriate discount rate. A variation of the Discounted Cash Flow Method is mentioned below: ➢ **Income Approach - Discounted Cash Flow Method using Rental Reversion** The market practice in most commercial/ IT developments involves contracting tenants in the form of pre-commitments at sub-market rentals to increase attractiveness of the property to prospective tenants typically extended to anchor tenants. Additionally, there are instances of tenants paying above-market rentals for certain properties as well (primarily owing to market conditions at the time of contracting the lease). In order to arrive at a unit value for these tenancies, we have considered the impact of such sub/above market leases on the valuation of the subject property. For the purpose of the valuation of Income Approach - Discounted Cash Flow Method using Rental Reversion has been adopted Assumptions, Departures and Reservations

Key Challenges	➢ Multiple site visits across four cities and study of multiple micro markets within restricted time period. Site visits involved visiting of the common area facilities, tenant premises and under construction buildings. Coordination between the developer, tenant was challenging as most of the buildings were multi tenanted. However, with the clear site visit plan, able to complete the site visits within a specified time. ➢ The portfolio of properties valued include multi-tenanted commercial buildings, SEZ buildings, under construction buildings, hospitality developments and other ancillary use developments. Arriving at the valuation of multiple type of buildings in compliance with the regulatory guidelines was challenging. With extensive data collection, market research and coordinating with other intermediaries (Like IPC's) able to arrive at the market value of each of the asset types with utmost efficiency. ➢ Coordination with client and intermediaries for the valuation review report. Effectively coordinated with client and intermediaries in aligning the report formats and other documentation processes. ➢ Continuous deliberation with other fiduciaries like lawyers, architects and auditors to ensure thorough diligence of the properties from physical, commercial and legal perspective so that the valuation reports can clear the regulatory scrutiny properly.
Outcome or Conclusion	Successfully submitted the valuation reports within a stipulated time, Valuation reports were used in initial listing of XXXX and subsequent financial reporting publications of XXX, which was listed on Indian stock exchanges in August 2020.

SNAPSHOTS

INDEPENDENCE DAY CELEBRATION AT NOIDA OFFICE


OPPORTUNITIES FOR REGISTERED VALUERS
Companies Act, 2013
Private placement of shares
Issue of Share on Preferential basis
Issue of Shares for consideration other than cash
Issue of Sweat Equity Shares
Non- cash transaction involving directors
Mergers and Aquisionts
Demergers
Scheme of compromise or arrangement with creditors/ member
Submission of report by company liquidator
Purchase of minority shareholding
SEBI Regulations
SEBI (Issue and listing of Securitised debt Instruments and Security receipts) Regulation,2008
SEBI (Infrastructure Investment Trusts) Regulations, 2014
SEBI (Real Estate Investment Trusts) Regulations, 2014
SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015
SEBI (Issue of capital and Disclosure requirements) regulations, 2018
SEBI(Appointment of Administrator and procedure for refunding to the investors) Regulations, 2018
Insolvency and Bankruptcy Code 2016
Determination of value of assets, realizable value, Fair value and liquidation value as the case may be


Process for becoming Registered Valuer
1
• Meet eligibility requirements, qualification and experience prescribed under Rule 4 of the Companies (Registered Valuers and valuation) Rules, 2017
2
• Seek enrolment as a valuer member of ICMAI RVO
3
• Complete 50 Hours educational course
4
• Register and pass computer based Examination conducted by IBBI
5
• Submit requite Form along with fee in favour of IBBI and supporting documents to ICMAI RVO
6
• ICMAI RVO shall verify Form & other requirements and forward the same along with its recommendation to IBBI
7
• On receipt of Form along with recommendation of ICMAI RVO, fee and other documents, IBBI shall Process the application for registration
8
• After registration with IBBI, take up COP training with ICMAI RVO
9
• On completion of training ICMAI RVO shall issue a Certificate of Practice to the registered valuer
10
• Valuation certificate can be issued only after obtaining Certificate of Practice

EDUCATIONAL QUALIFICATION & EXPERIENCE

FOR 50 HOURS EDUCATIONAL COURSE

Asset Class	Eligibility/ Qualification	Experience in specified discipline.
Plant and Machinery	(I} Graduate in Mechanical, Electrical, Electronic and Communication, Electronic and Instrumentation, Production, Chemical, Textiles, Leather, Metallurgy, or Aeronautical Engineering, or Graduate in Valuation of Plant and Machinery or equivalent; (ii) Post Graduate on above courses.	(i) Five years (ii) Three years
Land and Building	(i) Graduate in Civil Engineering, Architecture, or Town Planning or equivalent; (ii) Post Graduate on above courses and also in valuation of land and building or Real Estate Valuation (a two-year full time post-graduation course).	(i) Five years (ii) Three years
Securities or Financial Assets	(i) Member of Institute of Chartered Accountants of India, Member of Institute of Company Secretaries of India, Member of the Institute of Cost Accountants of India, Master of Business Administration or Post Graduate Diploma in Business Management (specialisation in finance). (ii) Post Graduate in Finance	Three years
Any other asset class along with corresponding qualifications and experience in accordance with rule 4 as may be specified by the Central Government. *Note: The eligibility qualification means qualification obtained from a recognized Indian University or equivalent Institute whether in I ndia or abroad.".*		

PROCESS FOR IBBI EXAMINITION

a. The candidate may enroll for the examination on payment of the fee as prescribed by IBBI
b. Online examination with objective multiple-choice questions
c. The duration of the examination is 2 hours
d. Wrong answer attracts a negative mark of 25% of the assigned for the question
e. A candidate needs to secure 60% of marks for passing.

FORMAT AND FREQUENCY OF EXAMINATION

a. The examination is conducted online (computer-based in a proctored environment) with objective multiple-choice questions;
b. The examination centers are available at various locations across the country;
c. The examination is available on every working day;
d. A candidate may choose the time, the date and the Examination Centre of his choice for taking the Examination. For this purpose, he needs to enroll and register at https://certifications.nism.ac.in/nismaol/
e. A fee of Rs.1500 (One thousand five hundred rupees) is applicable on every enrolment;
f. The duration of the examination is 2 hours;
g. A candidate is required to answer all questions;
h. A wrong answer attracts a negative mark of 25% of the marks assigned for the question;
i. A candidate needs to secure 60 % of marks for passing;
j. A successful candidate is awarded a certificate by the Authority;
k. A candidate is issued a temporary mark sheet on submission of answer paper;
l. No workbook or study material is allowed or provided;
m. No electronic devices including mobile phones and smart watches are allowed; and
n. Use of only a non-memory-based calculator is permitted. Scientific Calculators (memory based or otherwise) are not allowed.

ICMAI REGISTERED VALUERS ORGANISATION

RECOGNISED RVO UNDER INSOLVENCY AND BANKRUPTCY BOARD OF INDIA

GUIDELINES FOR ARTICLES

The articles sent for publication in the journal "The Valuation Professional" should conform to the following parameters, which are crucial in selection of the article for publication:

- The article should be original, i.e. Not Published/ broadcasted/hosted elsewhere including any website.
- A declaration in this regard should be submitted to ICMAI-RVO in writing at the time of submission of article.
- The article should be topical and should discuss a matter of current interest to the professionals/readers.
- It should preferably expose the readers to new knowledge area and discuss a new or innovative idea that the professionals/readers should be aware of.
- The length of the article should not exceed 2500-3000 words.
- The article should also have an executive summary of around 100 words.
- The article should contain headings, which should be clear, short, catchy and interesting.
- The authors must provide the list of references, if any at the end of article.
- A brief profile of the author, e-mail ID, postal address and contact numbers and declaration regarding the originality of the article as mentioned above should be enclosed along with the article.
- In case the article is found not suitable for publication, the same shall be communicated to the members, by e-mail.

ICMAI REGISTERED VALUERS ORGANISATION

RECOGNISED RVO UNDER INSOLVENCY AND BANKRUPTCY BOARD OF INDIA

PROMOTED BY: THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

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