INMACS

Valuation Application

CS VAIBHAV JAIN

B.COM (H), FCA, ACS, LLB, MBF (ICAI), FAFD (ICAI), REGISTERED VALUER (S&FA)

+91 9711310004 | VAIBHAVJAIN@INMACS.COM

Business Combination

Definitions of Business Combination:

- The term Business Combination refers in general to any set of conditions in which two or more organizations are joined together through common ownership.
- It is the term applied to external expansion in which separate enterprises are brought together into one economic entity as a result of one enterprise uniting with or obtaining control over the net assets and operations of another enterprise.

INMACS

Types of Business Combination

Business Combination can take place in the following forms:

- Amalgamation
- Merger
- Demerger
- Arrangement
- Restructuring

Business Combination Valuation General Proposition

- In a business Combination, attempt is not to arrive at absolute values of the shares of the companies, but their relative values, on a stand alone and as is where is basis, to arrive at the exchange / entitlement ratio.
- A relative valuation is based on various methodologies and various qualitative factors relevant to each of the companies and the business dynamics and growth potential of the businesses of respective companies.
- Evaluation on stand alone basis – post business combination synergies not to be considered.
- In a business combination, wherein the economic and voting interest of the shareholders remains the same (pre and post combination), commercially no valuation is required.

INMACS

Valuation Methodologies

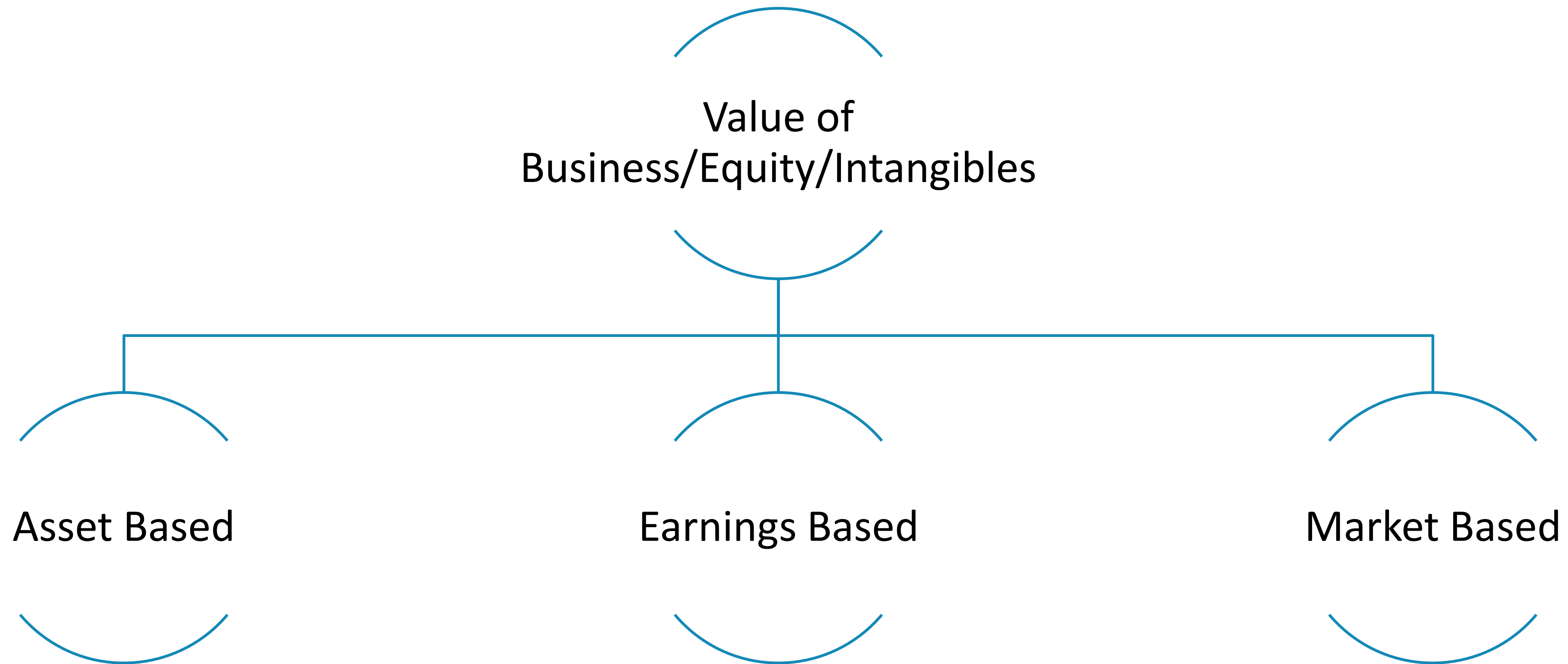
Valuation of any project or business is not an exact science and ultimately depends upon what it is worth to a serious investor or buyer who may be prepared to pay a substantial goodwill. This exercise may be carried out using various methodologies, the relative emphasis of each often varying with:

- whether the entity is listed on a stock exchange
- industry to which the Company belongs
- past track record of the business and the ease with which the growth rate in cash flows to perpetuity can be estimated
- Extent to which industry and comparable company information is available.

The results of this exercise could vary significantly depending upon the basis used, the specific circumstances and professional judgment of the valuer. In respect of going concerns, certain valuation techniques have evolved over time and are commonly in vogue.

INMACS

Valuation Methodologies



Asset Approach
Intrinsic Value/Net Asset Value

This method determines the worth of a business by the assets it possesses. It involves examining every asset held by the company, both tangible and intangible. A great degree of detail is required in order to arrive at a fair valuation. The value of intangibles is referred to as the company's goodwill, the difference in value between the company's hard assets and its true value.

The value arrived at under this approach is based on the audited financial statements of the business and may be defined as Shareholders' Funds or Net Assets owned by the business. The balance sheet values are adjusted for any contingent liabilities that are likely to materialise.

The Net Asset Value is generally used as the minimum break-up value for the transaction since this methodology ignores the future return the assets can produce and is calculated using historical accounting data that does not reflect how much the business is worth to someone who may buy it as a going concern.

Intrinsic value is at the core of fundamental analysis since it is used in an attempt to calculate the value of the total assets of the business and then compare it with the fair value.

Income Approach
Discounted Cash Flows Method

This valuation method based on free cash flow is considered a strong tool because it concentrates on cash generation potential of a business. This valuation method uses the future free cash flow of the company (meeting all the outflows and expenses) discounted by the firm's weighted average cost of capital (the average cost of all the capital used in the business, including debt and equity), plus a risk factor measured by beta. Since risks are not always easy to determine precisely, Beta uses historic data to measure the sensitivity of the company's cash flow, for example, through business cycles.

The Discounted Cash Flow Method indicates the Fair Market Value of the business based on the value of the cash flows that the business can be expected to generate in the future.

Income Approach
Discounted Cash Flows Method

Characteristics of DCF Valuation

- Forward-looking and focuses on cash generation
- Recognizes time value of money
- Allows operating strategy to be built into a model
- Only as accurate as assumptions and projections used
- Works best in producing a range of likely values

To compute the value of Equity, Free Cash Flows to Equity Holders are discounted by the cost of Equity (Ke). Free Cash Flows to Equity Holders are arrived at after deducting interest expense on debt and adjusting for increase/decrease in debt in the Free Cash Flows to firm.

The free cash flows are projected for a certain number of years and then discounted at a discount rate that reflects a company's cost of capital and the risk associated with the cash flows it generates.

Income Approach
Discounted Cash Flows Method

Characteristics of DCF Valuation

- Forward-looking and focuses on cash generation
- Recognizes time value of money
- Allows operating strategy to be built into a model
- Only as accurate as assumptions and projections used
- Works best in producing a range of likely values

To compute the value of Equity, Free Cash Flows to Equity Holders are discounted by the cost of Equity (Ke). Free Cash Flows to Equity Holders are arrived at after deducting interest expense on debt and adjusting for increase/decrease in debt in the Free Cash Flows to firm.

The free cash flows are projected for a certain number of years and then discounted at a discount rate that reflects a company's cost of capital and the risk associated with the cash flows it generates.

Income Approach
Other Methods

Other Methods – Used in specific cases

- Earnings Capitalisation
- Royalty Relief method
- Contribution / Excess earnings method
- Incremental Cash Flow Method.

Market Approach
Comparable Company Market Multiple Method

Under this methodology, market multiples of comparable listed companies are computed and applied to the business being valued in order to arrive at a multiple based valuation. The difficulty here is in the selection of a comparable company since it is rare to find two or more companies with the same product portfolio, size, capital structure, business strategy, and profitability and accounting practices.

Whereas no publicly traded company provides an identical match to the operations of a given company, important information can be drawn from the way comparable enterprises are valued by public markets.

Market Approach
Comparable Transactions Multiple Method

This approach is somewhat similar to the market multiples approach except that the sales and EBITDA multiples of reported transactions in the same industry in the recent past are applied to the sales and EBITDA of the business being valued.

Market Approach
Price Earnings Multiple Valuation

The price-earnings ratio on (P/E) is simply the price of a company's share of common stock in the public market divided by its earnings per share. By multiplying this P/E multiple by the net income, the value for the business could be determined. This valuation method provides a benchmark business valuation as the non-listed companies wishing to use this method; a comparable quoted company /sector should be used.

Share exchange ratio

- Weightages considered in arriving at the relative fair value of the equity shares are generally:
  - Net asset value methodology : 1
  - Market methodology : 2
  - Earnings methodology: 2
- Generally predominant weightage given to market and earnings method considering that the proposed business combination is on a going concern basis

INMACS

Distressed Asset Valuation

- A distressed asset is one which is in major financial difficulty, usually either in default or close to default. This will have caused the asset to greatly devalue.
- An asset that is put on sale, usually at a cheap price, because its owner is forced to sell it. There could be various reasons for this, including bankruptcy, excessive debt and regulatory constraints. Debt itself can be sold on to a new owner at below face value (distressed debt).
- Distressed assets can be a good opportunity to buy if the investor believes the difficulties can be overcome.

Distressed Asset Valuation (Contd)

- Traditional valuation techniques are built on the assumption of a going concern, i.e. A firm that has continuing operations and there is no significant threat to these operations.
- When there is a significant likelihood that a firm will not survive the immediate future (next few years), traditional valuation models may yield an over-optimistic estimate of value.
- The discount rate (costs of equity and capital) can be adjusted for the likelihood of distress. In particular, the beta (or betas) used to estimate the cost of equity can be estimated using the updated debt to equity ratio, and the cost of debt can be increased to reflect the current default risk of the firm. This adjusts for the additional volatility in the cashflows but not for the truncation of the cashflows.

Dealing with distress in DCF Valuation

- **Simulations:** You can use probability distributions for the inputs into DCF valuation, run simulations and allow for the possibility that a string of negative outcomes can push the firm into distress.
- **Modified discounted cashflow valuation:** You can use probability distributions to estimate expected cashflows that reflect the likelihood of distress.
- **Going concern DCF value with adjustment for distress:** You can value the distressed firm on the assumption that the firm will be a going concern, and then adjust for the probability of distress and its consequences.
- **Adjusted present value:** You can value the firm as an unlevered firm and then consider both the benefits (tax) and costs (bankruptcy) of debt.

INMACS

Start Up Entities Valuation

What is a Start-up Entity:

- A startup is a company that is in the first stage of its operations. These companies are often initially bankrolled by their entrepreneurial founders as they attempt to capitalize on developing a product or service for which they believe there is a demand.
- Due to limited revenue or high costs, most of these small-scale operations are not sustainable in the long term without additional funding from venture capitalists.

Value your Start Up with the Comparable Transactions Method

The Comparable Transactions Method is meant for both pre and post-revenue Start-Ups.

Most of the time, you can just take lines from the P&L : sales, gross margin, EBITDA, etc. for making valuation under Comparable Transaction Method.

These factors of the concerned start up entity are compared with the similar factors of another entity in the same /similar industry to get comparable results.

Value your Start Up with the Comparable Transactions Method

The Comparable Transactions Method

	Somebody elses's box	Your box
Number of users	100,000	55,000
Valuation	*Rs. 100 Million*	?

Valuation of Small and Medium Enterprises

INMACS

Definitions of **micro, small & medium enterprises**:

In accordance with the provision of micro, small & medium enterprises development (MSMED) act, 2006 the micro, small and medium enterprises (MSME) are classified in two classes:

A) Manufacturing Enterprises:- The enterprises engaged in the manufacture or production of goods pertaining to any industry specified in the first schedule to the industries (development and regulation) act, 1951) or employing plant and machinery in the process of value addition to the final product having a distinct name or character or use. The manufacturing enterprise are defined in terms of investment in plant & machinery.

B) Service enterprises:- The enterprises engaged in providing or rendering of services and are defined in terms of investment in equipment.

Five approaches for valuation

1. Discounted cash flow (DCF) valuation
2. Liquidation and accounting valuation
3. Relative valuation
4. Contingent claim valuation (real options)
5. Goodwill valuation

All of these approaches have their own characteristics. Moreover, the advantages and disadvantages of the several approaches will be described in the next paragraphs.

DISCOUNTED CASH FLOW (DCF) VALUATION

The DCF method relies on the future cash flows, where other valuation approaches will use the past.

The following formula will present the DCF method:

$$\sum_{t=1}^{n} \{ \text{Expected future cash flow}_t / (1+\text{discount rate})^t \} + \text{Residual value}_n / (1+\text{discount rate})^n$$

The generated future cash flows are represented by period 1, 2 till n. Year n is the last year and the residual value is added to represent the future cash flows after this moment.

The residual value is calculated as follow:

$$\text{Residual value} = \text{Future cash flow}_n * (1+\text{growth rate}) / (\text{discount rate} - \text{growth rate})$$

LIQUIDATION AND ACCOUNTING VALUATION

INMABS

The liquidation and accounting approach estimates the value of the company's assets. Methods in this approach consider that a company's value lies in the balance sheet, it determines the value from a static viewpoint. This approach, also named as asset-based valuation, estimates the value of the present assets.

Some specific methods in the asset-based valuation are: -

- Book value
- Adjusted Book Value
- Liquidation value

Book value: The book value of the company is the difference between the value of the total assets and liabilities. In other words, the book value is the shareholder's equity (capital and reserves). The value which is presented in the balance sheet is used in this method.

Book value (shareholder's equity) = total assets - total liabilities

Hence, the following question frequently arises when this method is used: "is the book value the same as the market value"?

LIQUIDATION AND ACCOUNTING VALUATION (Contd)

ADJUSTED BOOK VALUE: The adjusted book value will be used to overcome the differences in book and market value. All balance sheets items are, where necessary, adjusted to a (more) suitable market value.

LIQUIDATION VALUE: Another method of the asset-based valuation is the use of liquidation value: “value assets based upon the presumption that they have to be sold now”. Liquidation expenses are distracted from the net worth.

Liquidation value = book value / adjusted book value – liquidation expenses

RELATIVE (MULTIPLE) VALUATION

The relative approach values the assets by pricing of 'comparable' assets relative to a common variable (earning, cashflows, book value or sales). The following three steps are essential in the relative valuation:

1. Finding comparable assets that are priced by the market
2. Scaling the market price to a common variable
3. Adjusting for differences across assets

Four basic principles must be keep in mind for a proper multiple valuation:

1. Use the right peer group (not only based on industry, also on ROIC and growth)
2. Use forward-looking multiples
3. Use enterprise-value multiples
4. Adjust the enterprise-value-to-EBITDA-multiple for non-operating items.

RELATIVE (MULTIPLE) VALUATION (Contd)

Some examples of frequently used multiples are the EBIT, EBITDA, sales, book value and price earnings multiple.

EBIT multiple = $Company\ value/EBIT$

Book value multiple = $Company\ value/Book\ value\ assets$

EBITDA multiple = $Company\ value\ /EBITDA$

Price earnings ratio = $Common\ equity\ value\ /Earnings$

Sales multiple = $Company\ value\ /Total\ revenues$

Relative valuation uses peer groups, so this method reflects the (current) market. Thereby, it's quite simple to calculate.

CONTINGENT CLAIM VALUATION

"Contingent claims analysis (CCA) is the application of option-pricing theory to the valuation of assets, the future value of which depends, in turn, on the future value of other assets". This approach is contingent on the occurrence of certain events.

The most simplified formula for the company valuation by real options is:

Company value = value of existing operations + value of real options

The value derives from the underlying assets, whereby these assets often are valued by their discounted future cash flows. This applies for both the existing operations and the real options.

INMACS

GOODWILL VALUATION

Goodwill is the value a company has above its book value, it represents the value of the intangible assets. While goodwill is not always presented on the balance sheet, it is the benefit and advantage of the company. How to determine the value of the goodwill, “valuing the company’s assets and then add a quantity related with future earnings”.

While there are several goodwill valuation methods, some examples are presented below:

Company value = net asset value + (coefficient * net income)

In this formula the goodwill is valued with a certain coefficient to the net income.

Instead of the net income, another method will use a percentage of the total revenue as representation of the goodwill.

Company value = net asset value + (percentage * total revenue)

VALUATION OF CYCLICAL FIRMS

What is a cyclical industry:

A cyclical industry is a type of industry that is sensitive to the business cycle, such that revenues generally are higher in periods of economic prosperity and expansion and are lower in periods of economic downturn and contraction.

Companies in cyclical industries can deal with this type of volatility by implementing employee layoffs and cuts to compensate during bad times and paying bonuses and hiring en masse in good times.

VALUATION OF CYCLICAL FIRMS

The Dark Side of valuation:

Base year fixation:

- When valuing companies, we tend to put a great deal of weight on current financial statements. Most corporate valuations are built with the current year as the base year, with little heed paid to the firm's own history or the performance of the overall sector.
- This fixation of the current year's numbers is always dangerous with cyclical firms for a simple reason.
- The consequences of using the most recent year's numbers as a base become obvious:
  - If the base year is at the peak or close to the peak of a cycle, and we use the numbers from that year as the basis for valuation, we will over value companies.
  - If the base year represents the bottom or trough of a cycle and we use the earnings from that year to value companies, we will consistently under estimate their values.

VALUATION OF CYCLICAL FIRMS

The Light Side of valuation:

Discounted Cash-flow valuation:

- The discounted cash flow value of a company rests on four inputs – earnings and cash flows from existing assets, the growth in these cash flows in the near term, a judgment on when the company will become mature and a discount rate to apply to the cash flows.
- Using this framework, we develop two ways of adapting discounted cash flow valuations for cyclical companies.
- In the first, we normalize our estimates for all four of these inputs, using normalized cash flows, growth rates and discount rates to estimate a normalized value for a firm.
- In the second, we try to adjust the growth rate in the cash flows to reflect where we are in the cycle – setting it to low or even negative values at the peak of a cycle (reflecting the expectation that earnings will decline in the future) and high values at the bottom of a cycle.

VALUATION OF INVESTMENT ENTITIES

Definition of an Investment Entity:

An investment entity is an entity that:

A) Obtains funds from one or more investors for the purpose of providing those investor(s) with investment management services (investment services condition)

B) Commits to its investor(s) that its business purpose is to invest funds solely for returns from capital appreciation, investment income, or both (business purpose condition)

C) Measures and evaluates the performance of substantially all of its investments on a fair value basis (fair value condition).

VALUATION OF INVESTMENT ENTITIES

Valuation of a public company:

A Public company being an investment entity must demonstrate that fair value is the primary measurement attribute used. Therefore while conducting valuation of public company, it must not go beyond the Fair Market Value available with the valuer.

Valuation of a Closely held company:

- A Closely held company can be valued using Discounted Cash-flow method after taking into consideration the two lacking factors, viz Discount on lack of Control and Discount on Lack of Marketability.
- Both these factors can either be positive factors or negative factors depending on the facts and circumstances of the case. Accordingly the effect of the same will be considered while conducting the valuation.

VALUATION FOR INSURANCE COVERAGE

What is an Insurance Company:

- A business that provides coverage, in the form of compensation resulting from loss, damages, injury, treatment or hardship in exchange for premium payments. The company calculates the risk of occurrence then determines the cost to replace (pay for) the loss to determine the premium amount.
- An insurance company provides cover against Land, Building, assets of the company.
- In any case, the insurance companies, while making compensation, can not go beyond the risk covered, for which they make a pre assessment of various risks associated with the asset insured.
- There exists various financial risks associated with the assets owned by the entities against which they prefer insurance coverage. Valuation of any such financial risk connected with the assets is covered under the purview of actuarial valuer.

INMACS

VALUATION FOR INSURANCE COVERAGE

What is an Insurance Company:

- A business that provides coverage, in the form of compensation resulting from loss, damages, injury, treatment or hardship in exchange for premium payments. The company calculates the risk of occurrence then determines the cost to replace (pay for) the loss to determine the premium amount.
- An insurance company provides cover against Land, Building, assets of the company.
- In any case, the insurance companies, while making compensation, can not go beyond the risk covered, for which they make a pre assessment of various risks associated with the asset insured.
- There exists various financial risks associated with the assets owned by the entities against which they prefer insurance coverage. Valuation of any such financial risk connected with the assets is covered under the purview of actuarial valuer.

INMACS

OUR OFFICES

HEAD OFFICE
4696, BRIJ BHAWAN, 21A, ANSARI ROAD, DARYAGANJ, DELHI - 110002
CA Vinod Jain
Mob +91-98110-40004

CORPORATE OFFICE
101, GLOBAL BUSINESS SQUARE, BUILDING NO. 32, SECTOR 44, GURGAON – 122002
CA Vaibhav Jain
Mob +91-97113-10004

NEW DELHI OFFICE
909, CHIRANJIV TOWER, 43, NEHRU PLACE, NEW DELHI - 110019
CA Aastha Jain
Mob +91-99999-03556

MUMBAI OFFICE
SHOP-G/07, OM SAI ENCLAVE CHS LTD, POONAM SAGAR COMPLEX, MUMBAI (THANE) – 401107
CA SHWETA JAIN
Mob +91-99207-37198

CHANDIGARH OFFICE
SCO-705,1ST FLOOR, NAC MANIMAJRA, CHANDIGARH - 160101
CA PARDEEP DIWAN
+91-98153-22348

GLOBAL SHARED SERVICES
UNIT NO – GF/001, TOWER NO - 2, PLOT -21, SECTOR-TECH ZONE-IV, GREATER NOIDA - 201308
CS YUGESH VERMA
Mob +91-99712-94323

thank you!

Vaibhav Jain
B.Com (Hons.), FCA, ACS, LLB, MBF(ICAI), FAFD (ICAI), Registered Valuer (S&FA)
+91 9711310004 | vaibhavjain@inmacs.com
Director | INMACS

https://twitter.com/vaibhavjain_ca

www.linkedin.com/in/vaibhavjainca