DCF Valuation of Shares
Unlisted Companies
Overview & Practical Case Study

Presentation at Ashram Road CPE Study Circle & Navjivan CPE Study Circle Meeting
16th January, 2020

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CONTENT

VALUATION TRUTHS

- ‘PRICE is what you pay & VALUE is what you get’ [Warren Buffet]
- Buyer’s success: Value (-) Price   Seller’s success: Price (-) Value
- ‘Valuation is starting point of negotiation – Final price is only result of negotiation’.
- ‘DCF: Cash is King – Consider cash flow and net profits’.
- ‘Common sense is as sense which is not common, that is why valuation’.
- ‘Wisdom begins with calling things by their right names’.
- ‘Some men know the price of everything and the value of nothing’. [Oscar Wilde]
- ‘It’s better to be roughly right than to be precisely wrong’ [J.M. Keynes]
- ‘Appraisers have a value in mind before they start the process and try to back into it’. [Aswath Damaodaran]
- ‘It’s stupid the way people extrapolate the past and not slightly stupid, but massively stupid’. [Charlie Munger]
- ‘Some companies are worth more dead than alive’.

VALUATION TIPS

(James R. Hitchner – Valuation Expert at USA)

- Value is future looking. **Investor buy tomorrow's cash flow**, not yesterday's or even today's.
- The **past performance is only relative** to the extent that it is indicative of the company's future performance.
- Common mistake by valuer is they **drop into text without discussion** how it relates to the valuation conclusion.
- Valuer needs to develop the **appropriate normalizing adjustment in cash flow** for recurring/non-recurring items.
- **Identification of the value drivers** differs from enterprise to enterprise.
- For terminal value, valuer need to **estimate sustainable growth in perpetuity** and not just short term growth.
- **Systematic risk captured by 'Beta'**, while it is very difficult to estimate unsystematic risk.
- In market approach, **challenge to valuer is finding out proper market comparable companies** & using discount and premiums for not exactly comparable companies.
- The **discount and premium** with thorough understanding of the subject company.
- **Assumption and limiting conditions** should be properly examined and putted into the engagement letter/valuation report, after reviewing enterprise facts and circumstances.
- Apply **key person** discount properly and its cash flow affection. Key person's succession plan should be properly reviewed.

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IVS-103 – VALUATION APPROACHES & METHODS (Issued by ICAI RVO)

Market Approach

- Market Price Method
- Comparable Companies Multiple Method (CCM)
- Comparable Transaction Multiple Method (CTM)

Income Approach

- **Discounted Cash Flow (DCF) Method**
- Relief from Royalty (RRF) Method
- Multi-Period Excess Earning Method (MEEM)
- With or Without Method (WWM)
- Option Pricing Models (Black-Scholes, Merton Formula, Binomial [lattice] Model

Cost Approach

- Replacement Cost Method
- Reproduction Cost Method

MARKET APPROACH

What is Market Approach ?

- It is a valuation approach that uses prices and other relevant information generated by market transactions involving identical or comparable (i.e., similar) assets, liabilities or a group of assets and liabilities, such as a business.

When Market Approach should applied?

- Where the asset to be valued or a comparable or identical asset is traded in the active market;
- There is a recent, orderly transaction in the asset to be valued; or
- There are recent comparable orderly transactions in identical or comparable asset(s) and information for the same is available and reliable.

When Market Approach should not be applied?

- Where the asset has fewer identical or comparable assets (market comparable);
- The asset to be valued or its market comparables are not traded in the active market;
- Sufficient information on the comparable transaction(s) is not available;
- There is no recent transaction either in the asset or in the market comparables; or
- There are material differences between the asset to be valued and the market comparables,_which require significant adjustments.

INCOME APPROACH

What is Income Approach?

- It is valuation approach that converts maintainable or future amounts (i.e. cash flow or income and expenses) to as single current (i.e. discounted or capitalized) amount. The fair value measurement is determined on the basis of the value indicated by current market expectations about the future amounts. This approach involves discounting future amounts (cash flows / income / cost savings) to a single present value.

When Income Approach should applied?

- Where the asset does not have any market comparable or comparable transaction;
- Where the asset has fewer relevant market comparable; or
- Where asset is an income producing asset for which the future cash flows are available and can be reasonably be projected.

When Income Approach should not be applied?

- The asset has not started generating income or cash flows
- There is significant uncertainty on the amount and timing of income / future cash flows; or
- The client does not have access to the information relating to the asset being valued.

COST APPROACH

What is Cost Approach ?

- Cost approach is a valuation approach that reflects the amount that would be required currently to replace the service capacity of an asset (often referred to as current replacement cost). In certain situations, historical cost of the asset may be considered by the valuer where it has been prescribed by the applicable regulations / law / guidelines or is appropriate considering the nature of the assets.

When Income Approach should applied?

- An asset can be quickly recreated with substantially the same utility as the asset to be valued;
- In case where the liquidation value is to be determined; or
- Income approach and / or market approach cannot be used.

When Income Approach should not be applied?

- The asset has not yet started generating income / cash flows (directly or indirectly);
- As asset of substantially same utility as the asset to be valued can be created by there are regulatory or legal restrictions and involves significant time for recreation; or c) the assets was recently created.

DCF INTRODUCTION

DCF valuation is the present value of future free cash flows discounted at a specific risk adjusted rate.

- Value derived from future earnings.
- Approach based on Free Cash flows after meeting capex and working capital.
- Assumes the business as a ‘going concern’.
- Impact of financial gearing is captured.
- Useful for asset and non-asset based companies where projection is possible.
- Can be applied to companies with negative earnings or net worth
- Factors ‘Risk’ in discount rate.

DCF STEPS

Review Business & Business Plan	• Analyse Historical Performance of the business. Understand the business & its business plan. Identify the value drivers.
Projections / FCF	• Project the operating result & Free Cash Flow over the forecast period (which can be typically 3 years to 10 years).
Discount Rate	• Estimate the cost of capital to the company by determining present cost of funding & targeted cost of funding. Apply discount & premium.
Present Value	• Determine the present value of enterprise by discounting the projected cash flow at their present value.
Terminal Value	• Estimate perpetual growth rate / exit multiple at the end of forecast period & determine its present value by discounting at cost of capital.
Adjustments	• Adjust for all the surplus assets & liabilities (other than business assets) which are used in cash flow projections. Apply discount & premium.

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DCF WACC COMPUTATION

Cost of debt

12%		25%		9%
Cost of debt	x (1-	Tax rate	) =	Net cost of debt

say, 25%

x [Debt/Total capital]%

Target capital structure = Cost of Capital

13.5%

Cost of equity

7%		8%		15%
Risk-free rate	+	Market equity risk premium	=	Cost of equity

say, 75%

x [Equity/Total capital]%

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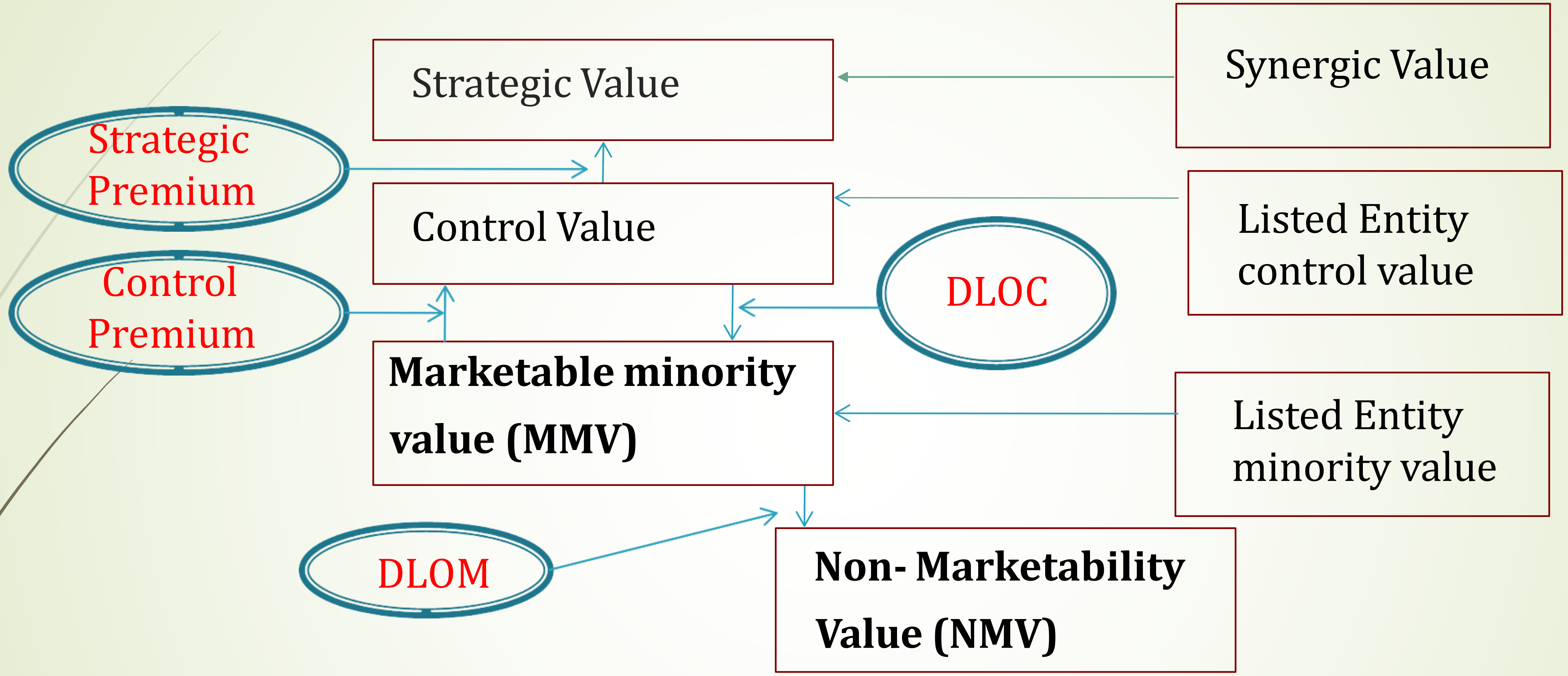
DISCOUNT & PREMIUMS



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DCF – COST OF EQUITY

Cost of equity is calculated using the Capital Asset Pricing Model ('CAPM'):

Cost of Equity = Rf + (Rm – Rf)* ß

Where:	Rf	= Risk Free Rate
	Rm	= Market Return
	(Rm – Rf)	= Equity Risk Premium
	ß	= Beta

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ADVANTAGES OF DCF VALUATION

- It is based upon an asset's fundamentals, it is comparatively less exposed to market moods and perceptions.
- Good investors buy businesses, rather than stocks (Warren Buffet), DCF valuation is the right way to think about what you are getting when you buy an asset.
- DCF valuation makes you understand underlying characteristics of the firm, and understand its business & assumptions you are making.

LIMITATIONS OF DCF VALUATION

- It requires far more inputs and information than other valuation approaches.
- Inputs are difficult to estimate and can be manipulated.
- For Analysts, every stock may find undervalued / overvalued in comparison to market stock.

SPECIFIC ASPECTS – LONG TERM DEBT

- Interest NOT considered as cost/ outflow
- Interest considered for WACC computation, net of tax
- LT debt outstanding reduced from EV

SPECIFIC ASPECTS – SHORT TERM DEBT

- Interest considered as cost/ outflow
- Interest NOT considered for WACC computation
- Movement in Bank O/D considered as part of Working Capital movement

SPECIFIC ASPECTS – SHARE APPLICATION MONEY

- Outstanding share application money to be considered as debt
- To be reduced from EV
- Above treatment suggested, since number of shares that would be allotted is not known

SPECIFIC ASPECTS – ALLOTMENT OF SHARES

- PV of such allotments to be reduced from EV
- Similar treatment for Long Term debt raised during Explicit Period
- Above treatment suggested, since number of shares that would be allotted is not known

SPECIFIC ASPECTS – PRE & POST MONEY

- DCF Valuation to be based on Pre Money terms
- However, Post Money cash flows to be considered
- Amount obtained on allotment of shares to be considered as Debt
- Similar treatment as Allotment of Shares during Explicit Period
- Pre allotment number of shares to be considered

SPECIFIC ASPECTS – PREFERENCE SHARES

- Considered on par with Long Term Debt
- Preference dividend rate with DDT to be considered for WACC purposes
- To be reduced from Enterprise Value along with Debt for Equity Shareholders Value

SPECIFIC ASPECTS – BUSINESS ASSETS

- DCF method is based on Cash Flows
- Income from Business Assets included in Cash Flows
- Value of Business Assets implicitly captured in Cash Flows
- Fair Value of Assets used for the purpose of business not relevant
- Disposals and acquisitions to be reflected in Cash Flows

SPECIFIC ASPECTS – SURPLUS ASSETS

- Refers to assets not actively used for the purpose of business
- Income from such assets NOT to be considered for Cash Flows
- Disposals and acquisitions NOT to be reflected in Cash Flows
- Fair value of such assets to be added to EV

SPECIFIC ASPECTS – CASH & CASH EQUIVALENTS

- Operating cash requirements to be considered
- Current cash and bank balance beyond requirement to be considered as Surplus Assets

SPECIFIC ASPECTS – TRADE INVESTMENTS

- Income from such investments to be considered for Cash Flows
- Disposals and acquisitions to be reflected in Cash Flows
- Generally, consolidated Cash Flows can be considered in case of subsidiary companies
- Alternatively, DCF value of subsidiary companies can be added to DCF value of parent company

SPECIFIC ASPECTS – NON TRADE INVESTMENTS

- Income from such investments NOT to be considered for Cash Flows
- Disposals and acquisitions NOT to be reflected in Cash Flows
- Fair value of investments to be added to EV

FEW JUDICIAL POSITION IN INDIA FOR VALUATION

Supreme Court:

(i) Commissioner of Wealth Tax Vs. Mahadeo Jalan (SC -1972)

- Unlisted co. – Dividend earning or Yield method.
- Normalisation of financial statement should be carried out.
- Generally yield method to use, exceptionally breakup method.

(ii) Commissioner of Gift Tax Vs. Kusumben D. Mahadevia (SC -1979)

- Going concern – key is profit earning capacity.
- Breakup method – not appropriate in going concern.
- For assessing future earning capacity of investment co., asset backing to determine maintainable profit would be relevant consideration.

(iii) Commissioner of Wealth Tax Vs. Bharti Hari Singhania & Others (SC - 1994)

- For going concern – dividend yield & profit earning capacity. Profit earning should be considered on reasonable commercial basis. Normalisation of profit and normalisation of setback being temporary in nature should be considered.
- Not proper to lay-down hard & fast rules.

FEW JUDICIAL POSITION IN INDIA FOR VALUATION

Supreme Court:

(iv) Hindustan Lever Employee's union Vs. Hindustan Lever Ltd. (SC - 1994)

- Emphasis made on reputation of valuer.
- Mathematical accuracy not required in valuation, it should be carried out in accordance with law & it should be carried out by independent body.
- Factors should be considered to determine exchange ratio: a) Stock exchange price before announcement of bid b) Dividend presently paid c) Ratio of tax earning to dividend d) Relative gearing of two cos. e) Voting strength in merged enterprise f) Past history of prices of two cos

(v) Miheer H. Mafatlal Vs. Mafatlal Industries (SC - 1996)

- Held when exchange ratio arrived by recognised CA firm being expert in valuation & not mistake in report found, it is not for court to substitute its exchange ratio, when same is adopted by majority shareholders of 2 cos.

(vi) Dr. Mrs. Renuka Datla Vs. Solvay Pharmaceuticals (SC - 2003)

- Most important judgement of supreme-court for intrinsic value of shares & for control premium for minority shareholders.
- If projections are not reliable, DCF can be avoided.
- Held when exchange ratio arrived by recognised CA firm being expert in valuation & not mistake in report found, it is not for court to substitute its exchange ratio, when same is adopted by majority shareholders of 2 cos.

FEW JUDICIAL POSITION IN INDIA FOR VALUATION

Recent:

(vii) Agro Porfolio Pvt. Ltd. Vs. ITO, New Delhi (ITAT-New Delhi - ITA No.-2189/Del/2018-AY 14-15)

- AO Rejected valuation given by merchant banker SPA Advisors Pvt. Ltd. issued as per DCF method to arrive FMV of share for the section u/s. 56(2)(vii)(b).
- Assessee officer has gone into details of each & every factor of DCF: Cash flow projections to Equity, Risk free rate of return, Expected return from market, Beta & raised questions on it applicability looking to facts & circumstances of the company.
- Looking to the long disclaimer in valuation report, it clearly established that no independent enquiry caused by merchant banker.

THANK YOU

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