

Valuation Methodology

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CHAPTER - 1

Introduction

- 1.1 In any sale process, the sale will materialize only when the seller is satisfied that the price given by the buyer is not less than the value of the object being sold. Determination of that threshold amount, which the seller considers adequate, therefore, is the first pre-requisite for conducting any sale. This threshold amount is called the Reserve Price. Thus Reserve Price is the threshold amount below which the seller generally perceives any offer or bid inadequate. Reserve Price in case of sale of a company is determined by carrying out valuation of the company. In companies which are listed on the Stock Exchanges, market price of the shares serves as a good benchmark for assessing the fair value of the company, though the market price is usually characterized with significant short-term variance due to investor sentiments being influenced by short-term events and environmental aspects. More importantly, most of the PSUs are either not listed on the Stock Exchanges or command extremely limited traded float. They are, therefore, not correctly valued. Thus, deciding the worth of a PSU is indeed a challenging task.
- 1.2 Another point worth mentioning is that valuation of a PSU is different from establishing the price for which it can be sold. Experts are of the opinion that valuation must be differentiated from price. While the fair value of an asset is based on the assessment of intrinsic value accruing from fundamentals on a stand-alone basis, varying return expectation and underlying strategic aspects for different bidders could influence the price. A purchase and sale would be possible only when two parties while forming different views as to the value of an asset, are eventually

able to reach agreement on the same price. It would be better appreciated by recognition of the fact that Government can only realise what a buyer is willing to pay for the PSU, as the purchase price ultimately agreed reflects its value to the buyer.

- 1.3 Another notable point is that valuation is a subjective figure arrived at by the bidder by leveraging his strengths with the potential of the company. Depending on the level of business synergy with the target company, perception of specific value realization and varying assessment regarding productivity, capex, etc., this figure may vary from bidder to bidder.
- 1.4 The guidelines on valuation, to be followed for all disinvestment transactions in the CPSUs, were prescribed at Chapter 18 of the manual titled “DISINVESTMENT: POLICY & PROCEDURES”, published by the Ministry of Disinvestment in 2001. In its 30th Report presented to the Lok Sabha/ Rajya Sabha on 23.4.2002, the Standing Committee on Finance (13th Lok Sabha), inter alia, recommended that the Government should “improve and modify the guidelines for evaluation of the assets of the PSUs under consideration for disinvestment which would take value of the land invariably into consideration”. The full text of the recommendations of the Committee in this regard is annexed. This booklet is being published in line with the recommendations of the Standing Committee on Finance and it outlines self-contained instructions on valuation methodologies and procedures to be followed for disinvestment in CPSUs.

CHAPTER - 2

Disinvestment Commission's Recommendations

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- 2.1 Keeping in view the above problems regarding valuation specific to a PSU, the issue was discussed in detail by the Disinvestment Commission in its First Report. Underlining the importance of valuation, the Commission felt that the valuation of equity of a firm gains importance in case of disinvestment of companies which are not listed or in cases where capital markets may not fully reflect the intrinsic worth of a share disinvested earlier.
- 2.2 Disinvestment Commission, in its Discussion Paper while emphasizing that valuation should be independent, transparent and free from bias, has discussed three methods of valuation:
- (i) The 'Discounted cash flow' (DCF) approach relates the value of an asset to the present value of expected future cash flows of the asset.

- (ii) The 'Relative valuation' approach is used to estimate the value of an asset by looking at the pricing of comparable assets relative to a common variable like earnings, cash flows, book value or sales.
- (iii) The 'Net asset value' approach provides another basis for valuation.

2.3 Regarding the application of Valuation Methods, Disinvestment Commission felt that the use of a particular method of valuation will depend on the health of the company being evaluated, the nature of industry in which it operates and the company's intrinsic strengths. The depth of capital markets will also have an impact on the valuation. For example, in the United Kingdom, the London Stock Exchange has helped in creating markets by enabling credible price discovery for the shares of privatized companies listed on the exchange. Although valuation methods will indicate a range of valuations, Disinvestment Commission felt that some discounts might need to be applied for arriving at the final value depending on the liquidity of the stock and the extent of disinvestment:

- a) 'Lack of marketability' discount takes into account the degree of marketability (or the lack of it) of the stocks being valued. This is applicable especially to cases, which had been disinvested earlier and have been referred for disinvestment again. Discount on this consideration stems from the fact that an investor will probably pay more for a liquid stock than for a less liquid one. However, the concern of an overhang of supply may adversely affect valuation even for liquid stocks.
- b) Disinvestment Commission felt that the extent of disinvestment in core, non-strategic & non-core PSUs would have a bearing on the valuation process. The transfer of a controlling block may help to reduce the discount that has to be applied, as the prospective investor would be willing to pay a certain 'control premium' towards enhanced management participation, board control and majority shareholder rights.
- c) If all the businesses of a PSU are not equally profitable, it may be necessary to restructure the business before disinvestment. However, if this is not possible, a minority discount may have to be applied.

2.4 Disinvestment Commission also sought to correct some erroneous perceptions about valuation. There is a general perception that since valuation models are quantitative, valuation is objective. The Commission felt that though it is true that valuation does make use of quantitative models, the assumptions made as inputs to the model leave plenty of room for subjective judgments. At the same time, there may be no such thing as a precise estimate of a value. Even at the end of the most careful and detailed valuation of a company, there could be uncertainty about the final numbers, as they are shaped by assumptions about the future of the company's operations.

2.5 Another wrong perception sought to be corrected by the Commission was the relationship attributed between valuation and market price. The benchmark for most valuations remains the market price (either its own price, if it is listed or that of a comparable company). When the

value from a valuation analysis is significantly different from the market price, the two possibilities are that either one of the valuations could be incorrect. The Commission felt that the valuation done before listing takes into account anticipated factors, whereas market price reflects realized events that are influenced by unanticipated factors. However, a specific valuation itself may not be valid over a period of time. It is a function of the competitive position of the company, the nature of market in which it operates and Government policies. Therefore, it may be appropriate to update or revise valuations.

2.6 In cases where strategic sale is done with transfer of management control, the Commission felt that asset valuation should also be done. The views of the Commission in this regard are as follows:

"Strategic sale implies sale of a substantial block of Government holdings to a single party which would not only acquire substantial equity holdings of upto 50% but also bring in the necessary technology for making the PSU viable and competitive in the global market. It should be noted that the valuation of the share would depend on the extent of disinvestment and the nature of shareholder interest in the management of the company. **Where Government continues to hold 51% or more of the share holding, the valuation will relate mainly to the shares of the companies and not to the assets of the company.** On the other hand, where shares are sold through strategic sale and management is transferred to the strategic partner, the valuation of the enterprise would be different, as the strategic partner will have control of the management. In such cases, the valuation of land and other physical assets should also be computed at current market values in order to fix the reserve price for the strategic sale.

To get best value through strategic sales, it would be necessary to have a transparent and competitive procedure and encourage enough competition among viable parties."

CHAPTER - 3

Valuation Methodologies being followed

3.1 Making a valuation requires an examination of several aspects of a company's activities, such as analysing its historical performance, analysing its competitive positioning in the industry, analysing inherent strengths/weaknesses of the business and the opportunities/threats presented by the environment, forecasting operating performance, estimating the cost of capital, estimating the continuing value, calculating and interpreting results, analysing the impact of prevailing regulatory frame work, the global industry outlook, impact of technology and several other environmental factors.

3.2 Based on the recommendations of the Disinvestment Commission and in keeping with the best market practices the following four

methodologies are being used for valuation of PSUs: -

- a) Discounted Cash Flow (DCF) Method.
- b) Balance Sheet Method.
- c) Transaction Multiple Method.
- d) Asset Valuation Method.

3.3 While the first three are business valuation methodologies generally used for valuation of a going concern, the last methodology would be relevant only for valuation of assets in case of liquidation of a company. In addition, in case of listed companies, the market value of shares during the last six months is also used as an indicator. However, most PSU stocks suffer from low liquidity and the price determination may not be always efficient. Moreover, there could be increased trading activity after announcement of the disinvestment, which could be on account of high market expectation of the bid price and even based on malafide intent. This could lead to the price being traded up to unsustainable levels, which is not desirable.

Discounted Cash Flow (DCF) method

3.4 The Discounted Cash Flow (DCF) methodology expresses the present value of a business as a function of its future cash earnings capacity. This methodology works on the premise that the value of a business is measured in terms of future cash flow streams, discounted to the present time at an appropriate discount rate.

3.5 This method is used to determine the present value of a business on a going concern assumption. It recognises that money has a time value by discounting future cash flows at an appropriate discount factor. The DCF methodology depends on the projection of the future cash flows and the selection of an appropriate discount factor.

3.6 When valuing a business on a DCF basis, the objective is to determine a net present value of the free cash flows ("FCF") arising from the business over a future period of time (say 5 years), which period is called the **explicit forecast period**. Free cash flows are defined to include all inflows and outflows associated with the project prior to debt service, such as taxes, amount invested in working capital and capital expenditure. Under the DCF methodology, value must be placed both on the explicit cash flows as stated above, and the ongoing cash flows a company will generate after the **explicit forecast period**. The latter value, also known as **terminal value**, is also to be estimated.

3.7 The further the cash flows can be projected, the less sensitive the valuation is to inaccuracies in the assumed terminal value. Therefore, the longer the period covered by the projection, the less reliable the projections are likely to be. For this reason, the approach is used to value businesses, where the future cash flows can be projected with a reasonable degree of reliability. For example, in a fast changing market like telecom or even automobile, the explicit period typically cannot be more than at least 5 years. Any projection beyond that would be mostly speculation.

3.8 The discount rate applied to estimate the present value of explicit forecast period free cash flows as also continuing value, is taken at the "Weighted Average Cost of Capital" (WACC). One of the advantages of the DCF approach is that it permits the various elements that make up the discount factor to be considered separately, and thus, the effect of the variations in the assumptions can be modelled more easily. The principal elements of WACC are cost of equity (which is the desired rate of return for an equity investor given the risk profile of the company and associated cash flows), the post-tax cost of debt and the target capital structure of the company (a function of debt to equity ratio). In turn, cost of equity is derived, on the basis of capital asset pricing model (CAPM), as a function of risk-free rate, Beta (an estimate of risk profile of the company relative to equity market) and equity risk premium assigned to the subject equity market.

3.9 For example, the following profit and loss account shows the computation of the Profit Before Depreciation, Interest and Tax (PBDIT) of Company X for the first year of business projections:

Figure 1 : Profit and loss account of Company X Rs million

Revenue	
Sales receipts	500
Expenses	
Consumption of material	300
Other overheads	50
Total expenses	350
PBDIT	150

3.10 Computation of Free Cash Flow to Firm ('FCF'): Free cash flow (FCF) for a year is derived by deducting the total of annual tax outflow inclusive of tax shield enjoyed on account of debt service, incremental amount invested in working capital and capital expenditure from the respective year's profit before depreciation interest and tax ("PBDIT") for the explicit period.

3.11 Therefore, for Company X, the computation of FCF would look like the following:

Figure 2: FCF computation for Company X

Rs million

	Year 1	Year 2	Year 3	Year 4	Year 5
PBDIT of Company X *	150	200	300	400	500
Less: Income tax (assumed)	-20	-40	-60	-80	-100
Less: Capital expenditure (assumed)	-50	-50	-50	-50	-50
Less: Incremental working capital (assumed)	-25	-50	-75	-100	-125
FCF	55	60	115	170	225

* Notice that a growth has been assumed in the PBDIT

Weighted Average Cost of Capital ('WACC')

3.12 The FCF is then discounted at a discount rate, which represents the WACC. The computation of the WACC is set out below:

Figure 3: WACC parameters

Cost of equity	Assumption
Risk Free Rate	Yield to maturity on Government of India Securities based on current traded value (preferably these should be of a long-term tenor beyond the forecast period i.e. minimum 10 years)
Beta	For the purpose of analysis, average unlevered beta of listed industry comparables is computed, which is then levered to the Company's own target debt equity ratio The levered (equity) Beta of a scrip is a measure of relative

	risk to market, arithmetically computed as covariance of equity and market return divided by variance of market return (over a long historical data run) followed with certain adjustments
Equity Risk Premium	= Beta * (Market Risk Premium) Market Risk Premium is equal to the difference of average market return and risk free rate #
Cost of Equity	=Risk Free Rate + (Equity Risk Premium*Beta)
Cost of debt	
Estimated Corporate Tax Rate	Current corporate tax rate in India
Comp's Pre-Tax Cost of Debt	Cost of debt provided by the Management
Comp's After-Tax Cost of Debt	Pre-Tax Cost of Debt*(1-Tax Rate) @
Target Debt equity ratio	Average debt equity ratio of the Company
WACC	(Debt/Total Capital)*(After-Tax Cost of Debt)+(Equity/Total Capital)*(Cost of Equity)

@ This is the tax shield referred to earlier.

Higher the beta means more riskier the stock, beta = 1 means the stock of the company is in perfect syncS with the sensex (average market return). Higher than one means the stock is more volatile (and hence more risky) than the sensex and lower than one means the stock is less volatile (and hence less risky).

3.13 To illustrate, for Company X, the computation of WACC typically could be as follows:

Figure4: WACC calculation for Company X

Cost of Equity		Assumptions
Risk Free Rate	9.00%	10-year Treasury GoI Bond Yield

Beta	1.50	Unlevered beta of industry comparables, levered to Company X debt equity ratio (high risk stock!)
Equity Risk Premium	9.00%	Total Stock Returns less Treasury Bond Total Returns. Market Risk Premium is equal to the difference of average market return and risk free rate. Average market return has been assumed to be 18% and beta has been assumed to be 1.5.
Cost of Equity	22.50%	= Risk Free Rate + (Equity Risk Premium*Beta)
Cost of Debt		
Estimated Corporate Tax Rate	35.70%	Current corporate tax rate in India
Comp's Pre-Tax Cost of Debt	16.50%	Cost of debt provided by the Management
Comp's After-Tax Cost of Debt	10.61%	Pre-Tax Cost of Debt*(1-Tax Rate)
Target Debt equity ratio	1.00	Average debt equity ratio of Company X for past five years
WACC	16.55%	(Debt/Total Capital)*(After-Tax Cost of Debt)+(Equity/Total Capital)*(Cost of Equity)

3.14 Based on the WACC, arrived as above, the FCF of each year is discounted to the present period. This factor is known as the discounting factor.

$$\text{Discount factor} = \frac{\text{Discount factor of previous year}}{(1 + \text{WACC})}$$

In year 1, the discount factor is equal to 1. Thus, the discount factor of Company X for the first year will be as follows:

$$\text{Discount factor for year 1} = 1 / (1 + 0.1655) = 0.858$$

$$\text{Discount factor for year 2} = 1 / (1 + 0.1655)^2 = 0.736, \text{ and so on for year 3 etc.}$$

3.15 Therefore, for Company X, the computation of discounted cash flow (DCF) is as follows:

Figure 5: DCF computation for Company X Rs million

	Year 1	Year 2	Year 3	Year 4	Year 5
FCF	55	60	115	170	225
Discounting factor based on WACC	0.858	0.736	0.632	0.542	0.465
Discounted cash flows	47	44	73	92	105

The value arrived through the submission of the DCF of the explicit period is known as the **primary value**. The primary value of the business of Company X as computed above is Rs 361 million.

Terminal Value

3.16 This value reflects the average business conditions of the Company that are expected to prevail over the long term in perpetuity i.e. beyond the explicit period. The DCF approach assumes that by the terminal date, the business will have achieved a steady state and will be growing at a constant rate.

At the end of the explicit period the terminal value is calculated as follows:

$$\text{Terminal Value} = \frac{\text{Terminal Cash flow (for last year of explicit period)} * (1 + g)}{\text{Discount Factor} - g}$$

Where; Discount Factor = Weighted Average Cost of Capital, and;

g = Estimate of average long term growth

rate of cash flows in perpetuity assumed to be 5%

Therefore, for Company X, the computation of terminal value is as follows:

$$\text{Terminal Value} = 105 * (1 + 0.05) / (0.1655 - 0.05) = \text{Rs. 951 million}$$

3.17 This is further discounted to the valuation date to provide the contribution of continuing cash flows in the total net present value. This net present value is commonly known as the "Enterprise Value" (EV) which is the sum of value of debt as well as equity. To arrive at the Equity value, the outstanding net debt as on the valuation date is deducted from the Enterprise value.

Figure 6: Valuation of Company X based on DCF methodology Rs million

	Rs million
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Primary value	361
Terminal value	951
Enterprise value	1,311
Add: Value of surplus land outside factory area (assumed)@	200
Less: debt (assumed)	-600
Equity value of Company X	911

@ This is being shown to illustrate that DCF captures only cash flows from core business. Therefore, the non-core asset value should be added to arrive at EV.

3.18 The DCF methodology is the most appropriate methodology in the following cases:

- Where the business is being transferred / acquired on a going concern basis;
- Where the business possesses substantial intangibles like brand, goodwill, marketing and distribution network, etc;
- Where the business is not being valued for the substantial undisclosed assets it possesses.

3.19 The DCF methodology is considered to be the best methodology for valuation the world over because it takes into account all the factors relevant for valuation. It takes into consideration all the cash flows available to stakeholders of a firm and the necessary outflows, as estimated for the future. Further, the net present value takes into account the cost of debt, cost of equity and target capital structure. It also takes into account the risks to which the enterprise is exposed. The discount rate (i.e. the average expected return on capital employed) is based on the overall risk perception of the business. It also takes into account the value of the non-core assets of the company. Any business has two kinds of assets - core assets that are a part of the business and non-core assets that are not directly utilized as part of core operations and hence can be treated as surplus assets. The asset value of core assets is reflected in the cash flows of the company and, therefore, should not

be added separately to it. However non-core assets are not reflected in the cash flows. Therefore, asset valuation of non-core assets should be done separately and should be added to DCF valuation.

3.20 Being fundamentally driven by future business plan of the company and associated cash flows, a prudent DCF valuation should be able to capture the capital costs for renovation and modernization of plant and machinery. The age and condition of assets like plant and machinery and their replacement value would be relevant for estimating expenditure on their replacement whenever necessary. This expenditure will reduce cash flows and DCF value. Valuation of plant and machinery would be a relevant item that would influence the DCF valuation. For example, a person acquiring a company operating a fleet of taxis would examine the conditions of vehicles for valuation of the company. If the vehicles need replacement of a low cost item like hub caps, the impact on DCF will be less than if they need to replace gear boxes in a high proportion of vehicles. The person would also calculate DCF with reference to the demand for taxis, the average mileage, cost of maintenance etc. Valuation of plant and machinery is not a simple addition to DCF, but a factor to be taken into account while calculating DCF. In such calculation, plant and machinery may be a net negative factor in the DCF if replacement costs are high. Where surplus land would be sold this would be a positive factor. If the sale of land can cover the cost of plant replacement the net effect would be neutral on DCF.

3.21 For a going concern, various intangibles like brand equity, market share, competition, etc have a significant bearing on the valuation of the company. One cannot place a money value for these factors. They have no financial value of their own that can be measured in money terms. Hence, there is no way of evaluating them in any other methodology. DCF is the only methodology, which takes into account these factors by incorporating them intrinsically in estimated cash flows. In calculating DCF, different assumptions will be made of market share, competition from imports etc, which are translated into financial terms. Sensitivity analysis can also be made for different assumptions. The Financial Advisor and the Seller should exercise the judgment on the most likely financial impact of the intangible assets the company possesses, on cash flows and also on the discount rate to be applied while arriving at the optimum DCF value, as strong intangible assets would help reduce the overall risk perception of the company.

3.22. In a strategic sale, the bidders take into account not only DCF valuation, but also a premium for management control. Premium for management control would be a subjective item for each bidder and will be reflected in the competitive bids. Therefore, the seller, while calculating the Reserve Price, should not incorporate this premium in the valuation amount separately. Since there is no scientific method to quantify the control premium, it may be arbitrary to add control premium while arriving at the Reserve Price. In the book, “Corporate Valuation: Tools for Effective Appraisal and Decision Making” by Bradford Cornell, it is stated “Without knowing why premiums are paid it is impossible to determine whether it is reasonable to apply a premium (or the associated discount) to the appraiser target. In this respect both research and common sense support the proposition that a buyer is willing to pay more than the market price for a controlling interest in a company only when the buyer believes that the future cash flow of the company, and thereby the value of the company, can be increased once it is under his/her control.” Further, it states, “...if the appraiser cannot identify what a buyer of the appraiser target would change to increase cash flow, then there is no reason to assume that a control premium exists.”

3.23 In the broad conclusions, of the Proceedings of the Seminar on **Disinvestment in Public Sector held by Comptroller and Auditor**

General of India in New Delhi on 11th/12th October, 2001, it was clearly indicted that “Reserve Price should not include Control Premium.” The following conclusions were made:

- There were considerable discussions on issues relating to valuation and the fixation of reserve price. Valuation was an essential exercise for the Vendor and the Purchaser but a firm or fixed price was impossible to get. Two independent valuations often gave widely different values. Valuation was more an art than a science. Regarding Reserve Price, it was generally felt that a Reserve Price should be fixed, as it is essential that any seller established a benchmark value for the company to be sold. In any case it should be more than the liquidation value.
- It was widely accepted that the most effective method of obtaining the best price possible would be to have bids from a large fleet of competitors rather than pegging reserve price at artificially inflated levels.
- It was also recognized that valuation would be quite subjective and that it was possible that different valuations could yield widely varying figures.

3.24 **Balance Sheet method**

The Balance sheet or the Net Asset Value (NAV) methodology values a business on the basis of the value of its underlying assets. This is relevant where the value of the business is fairly represented by its underlying assets. The NAV method is normally used to determine the minimum price a seller would be willing to accept and, thus serves to establish the floor for the value of the business. This method is pertinent where:

- The value of intangibles is not significant;
- The business has been recently set up.

3.25 This method takes into account the net value of the assets of a business or the capital employed as represented in the financial statements. Hence, this method takes into account the amount that is historically spent and earned from the business. This method does not, however, consider the earnings potential of the assets and is, therefore, seldom used for valuing a going concern. The above method is not considered appropriate, particularly in the following cases:

- When the financial statement sheets do not reflect the true value of assets, being either too high on account of possible losses not reflected in the balance sheet or too low because of initial losses which may not continue in future;
- Where intangibles such as brand, goodwill, marketing infrastructure, and product development capabilities, etc., form a major part of the value of the company;

- Where due to the changes in industry, market or business environment, the assets of the company have become redundant and their ability to create net positive cash flows in future is limited.

3.26 **Market Multiple method**

This method takes into account the traded or transaction value of comparable companies in the industry and benchmarks it against certain parameters, like earnings, sales, etc. Two of such commonly used parameters are:

- Earnings before Interest, Taxes, Depreciation & Amortisations (EBITDA).
- Sales

Although the Market Multiples method captures most value elements of a business, it is based on the past/current transaction or traded values and does not reflect the possible changes in future of the trend of cash flows being generated by a business, neither takes into account the time value of money adequately. At the same time it is a reflection of the current view of the market and hence is considered as a useful rule of thumb, providing reasonableness checks to valuations arrived at from other approaches. Accordingly, one may have to review a series of comparable transactions to determine a range of appropriate capitalisation factors to value a company as per this methodology.

i) EBITDA multiple

The EBITDA multiple or the earnings method is based on the premise that the value of a business is directly related to the quantum of its gross profits. The net profits are adjusted to reflect the operating recurring profits of the business on a standalone basis (i.e. after deducting extraordinary or unusual items, or items of a non-recurring nature). Further, the profits are adjusted for non-cash items (including depreciation and amortisation) and other factors, such as interest and taxation (which vary from business to business) to derive EBITDA (Earnings Before Interest, Taxation, Depreciation and Amortisations).

The EBITDA multiple method takes into account the value or consideration paid by acquirers of similar businesses, and is computed by dividing the total consideration paid (after adjusting for any debt assumed) by the EBITDA to derive a multiple, which can be applied to the EBITDA figure of the business being valued. i.e. adjusted maintainable EBITDA are capitalised by an appropriate factor ("capitalisation factor") to arrive at the business value.

EBITDA multiple = Enterprise Value / EBITDA

Where:

Enterprise Value (EV) = Market value of Equity + Market value of Debt

EBITDA = Earnings Before Interest, Tax, Depreciation and Amortization

To illustrate, if we are valuing Company X with EBITDA of Rs. 150 million and in a similar transaction EV/EBITDA has been 10 (EBITDA multiple) then EV of Company X would be worked out as Rs. 1500 million and then debt would be deducted to arrive at the equity value of Company X.

ii) Sales multiple

The sales multiple techniques are based on a similar analysis of relevant acquisitions and are the ratio of Enterprise Value to the current sales (net of excise duty, sales tax and non-recurring extra-ordinary income). It is calculated as follows:

- $\text{Sales multiple} = \text{Enterprises Value} / \text{Net sales of the current year}$

To illustrate, if we are valuing Company X with sales of Rs. 500 million and in a similar transaction EV/Sales has been 4 (Sales multiple) then EV of Company X would be worked out as Rs. 2000 million. Then debt would be deducted to arrive at the equity value of Company X.

3.27 The Transaction Multiple methodology suffers from the following drawbacks:

- Actual money required to earn the maintainable profits / sales of the business as a going concern (for instance, future capital expenditure) are not considered.
- This methodology does not take into account the time value of money.

Notwithstanding these limitations, these multiples are widely used by investors to arrive at benchmark values for a company.

3.28 Asset Valuation Methodology

The asset valuation methodology essentially estimates the cost of replacing the tangible assets of the business. The replacement cost takes into account the market value of various assets or the expenditure required to create the infrastructure exactly similar to that of a company being valued. Since the replacement methodology assumes the value of business as if we were setting a new business, this methodology may not be relevant in a going concern. Instead it will be more realistic if asset valuation is done on the basis of the new book value of the assets. The asset valuation is a good indicator of the entry barrier that exists in a business. Alternatively, this methodology can also assume the amount

which can be realized by liquidating the business by selling off all the tangible assets of a company and paying off the liabilities.

3.29 The asset valuation methodology is useful in case of liquidation/closure of the business. In this case certain adjustments may have to be made to the equity value arrived at by this method including settlement of all borrowings on the company's balance sheet on the date of valuation and settlement of employee dues. These adjustments should include all the process related cost involved in closure and liquidation. For example, in the case of the settlement of the employee dues, the assumed severance packages may have to be calculated based on the latest available VRS schemes for the PSU or other such modes that help in determining the most appropriate amount of settlement that the employees will have to be paid in the event the PSU shuts down its operations. The following example demonstrates the value of Company X based on asset valuation methodology:

Figure 8 : Asset Valuation of Company X

Rs million

Part A: Immoveable assets (valued by Government approved valuer)	
Value of buildings in factory area	100
Value of buildings at staff colony	50
Value of surplus land outside factory area	200
Part B: Moveable assets (valued by Government approved valuer)	
All moveable assets	250
	600
Add: Other assets as per latest balance sheet	
Value of current assets as per last audited accounts	300
Cash balance as per last audited accounts	250
	550
Less: Liabilities	
Estimated Voluntary retirement scheme cost for all employees	-250
Total outstanding borrowings including bank loans, government loans, current	-650

liabilities (trade creditors, non trade creditors and statutory liabilities)	
	-900
Equity value	250

3.30 In a strategic sale process, however, the proposal is normally to transfer management control of a going concern to a strategic partner. These concerns may contain surplus assets as land and building which may not form part of the core assets required for operations and hence their fair value may not be captured if the valuation of subject entity is based on DCF or Market Multiples approaches. To protect this, certain restrictions are imposed on the strategic partner on usage and disposal of such surplus assets e.g. the land and property of the business cannot be sold or put to alternate use by the strategic partner. However, certain economic benefits from such assets would still accrue to an extent to the strategic partner as the owner of majority interest in the company. Accordingly, while the asset valuation method may not provide the best estimate of the value of the enterprise, application of this approach to surplus assets would help provide a better assessment of the Reserve Price. In practice, it has been used so far for valuing the CPSUs under disinvestment because the Disinvestment Commission had recommended that this method should also be followed for valuation in the case of strategic sale.

3.31 The Asset Valuation approach suffers from certain very serious limitations. These are detailed below:

- (i) Practically, it is extremely difficult to determine the exact replacement cost of the assets owned by a company. This is so on account of number of reasons, such as
 - (a) changes in technology over a period of time (resulting in certain assets not being produced at all or being produced with far more efficiencies than earlier)
 - (b) absence of a marketplace where such assets are or can be traded
 - (c) inability of the seller to be able to actually realise the value of assets in one go should the company be liquidated
 - (d) changes in the duty structure (like excise, import duties, etc which may impact the value of the asset over

different periods
of time) etc.

- (ii) The Asset Valuation approach also does not take into account the very purpose for which a company acquired the assets, i.e., for future economic benefits. Hence, the historical or replacement cost of a particular asset may tend to convey a wrong picture of the value that the buyer may perceive in the asset. These factors often tend to result in a higher value being attributed to the assets and the companies, if the asset valuation approach is followed. Assets are bought and sold for their future economic benefits, and for established and running businesses; the economic benefits of owning the assets are far more relevant than the historical cost or replacement cost of the assets.
- (iii) The Asset Valuation approach also tends to overlook the intangible assets that a company, over a period of its existence tends to build, such as goodwill, brands, distribution network, customer relationships, etc, all of which are very important to determine its true intrinsic value.
- (iv) In the case of a majority of the PSUs it may be found that the replacement cost or liquidation value is higher than the intrinsic value of the company, if determined on the basis of the company's future profitability (cash flows). As against this, a company, which has been generating very healthy returns and has built strong brand equity, goodwill etc., will tend to command a value that is far higher than the value of its tangible assets.

3.32 The abovementioned limitations of the asset valuation approach have been highlighted very clearly in the valuation reports submitted by the Advisors in different cases of valuation so far. In case of strategic sales, the Advisors have expressed that the Discounted Cash Flow approach may be the most appropriate methodology to be relied upon for valuing businesses on a going concern basis.

3.33 It should be noted that the DCF methodology expresses the present value of the business as a function of its future cash earning capacity. This methodology works on the premise that the value of a business is measured in terms of future cash flows, discounted to the present time at an appropriate discount rate. The methodology is able to capture the value of all the tangible and intangible assets of the Company based on the possible future cash flows. The value of all the intangibles of a company such as brand, marketing and distribution network and goodwill get captured either in the form of higher sales or as higher profits of the company in comparison to its competitors who may not have as strong or similar brand or distribution network. Hence, the asset valuation approach may be useful only for a limited purpose of valuing the non-core assets where it is felt that DCF approach (or market multiples or book value/ balance sheet approach) is not able to capture the fair value of such assets.

CHAPTER - 4

STANDARDISING THE VALUATION APPROACH & METHODOLOGIES

4.1 Although the aforesaid valuation methodologies being followed are broadly based on the Discussion Paper of the Disinvestment Commission and the best market practices, it is necessary to standardize the valuation methodology for all PSU disinvestments so that there are no variations from case to case. Therefore, **all the four methodologies for valuation should be followed for all PSU disinvestments**, with further improvements in respect of DCF Method and Asset Valuation Method as detailed below, for arriving at a range of valuation figures, to arrive at the indicative Benchmark or Reserve Price.

4.2 **DCF Method**

In the DCF method, while computing the cash flows, cash out flows for renovation and modernization of plant and machinery should also be discounted for arriving at realistic figures. Since non-core assets are not reflected in the cash flows, the Asset Valuation Method should separately value the non-core assets and they should be added to the valuation figure arrived at by the DCF method.

4.3 **Asset Valuation**

In general, the approach should be used primarily to value the non-core or surplus fixed assets, whose value are not appropriately accounted for in the valuation by DCF or other approaches. However, in cases, where the entity has significant non-core assets and where the application of Asset Valuation approach to the enterprise is deemed necessary, following should be noted:

- The Asset Valuation would be more realistic, if we compute the value of only the realizable amount, after discounting the non-realizable portions. The realizable market value of all real estate assets, either owned by the company as freehold properties or on a lease/rental basis will be determined, assuming a non-distress sale scenario. The value would be assessed after taking into account any defects/restrictions/encumbrances on the use/lease/sublease/sale etc. of the properties or in the title deeds etc.
- Since Asset Valuation normally reflects the amount which may need to be spent to create a similar infrastructure as that of a business to be valued or the value which may be realised by liquidation of a company through the sale of all its tangible assets and repayment of all liabilities, adjustments for an assumed capital gains tax consequent to the (hypothetical) outright sale of these assets as also adjustments to reflect realization of working capital, settlement of all liabilities including VRS to all the employees will have to be made.

Annexure

Text of the Recommendations on Valuation, as contained in the 30th Report of the Parliamentary Standing Committee on Finance

The Committee note that the asset valuation guidelines are inadequate and vague especially on the issue of land valuation of the disinvested PSU. Though the Government has taken the position that land value of a company under consideration for disinvestment is computed as part of the assets,

the actual land value is not considered in most of the cases when the PSU concerned is disinvested / sold to another party. Hence, the Committee do not subscribe to the view of the Government that the value of the assets which are not giving income to the company is questionable. The Committee are of the view that since land is a tangible asset which has value irrespective of whether it fetches income at a particular time, the land should be valued separately and should be factored into the computation of the total value of the assets of the company which is disinvested.

The Committee, therefore, recommend to the Government to improve and modify the guidelines for evaluation of the assets of the PSUs under consideration for disinvestment which would take value of the land invariably into consideration.