



Master of Business Administration

Module 4

Finance and Growth Strategies

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Assignment Question:

Compare and contrast the alternative methods that can be used to value a company.

Undoubtedly, Valuation is of great help to managers and their advisers to assess the impact of their financial decisions on the company's shareholders, as good decisions create value, whereas poor decisions destroy value. Further, they might value a company using some methods and techniques for reasons such as: acquisition, take-over bid, stock market floatation, i.e. an initial public offering (IPO), privatization, trade sale or a management buy-out, and assessing estate taxes. A clear examination of the various valuation methods and techniques shows points of similarities and dissimilarities. They are similar in their focus but different in the ways of accounting practices and similar in that they ignore something in the valuation, all these methods are with limitations and problems. Nevertheless, these various valuation techniques are becoming more and more prevalent as guides for corporate financial managers and their advisers. Moreover, There are many methods and techniques that can be used to determine value, some are subjective and others are objective in the sense that some methods focus on value of assets and liabilities, others focus on Profit and Loss Account, look at the company's management, the composition of its capital structure, prospect of future earnings, and market value of assets. However, Judging the contributions of a company's management would be more of a subjective valuation technique, while calculating intrinsic value based on future earnings would be an objective technique. At this stage, lights will be shed on the most popular and commonly used valuation methods showing their focus, limitations and problems. The models to be illustrated are: Net Asset Value (NAV), Price-Earnings Ratio (P/E Ratio), Discounted Cash Flow (DCF), Free Cash Flow (FCF) Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA), Shareholder Value Added (SVA), Net Present Value (NPV), Internal Rate of Return (IRR), and Payback Period. Throughout the definitions, illustrations, advantages and disadvantages of the above-mentioned methods and techniques, they will be assessed, compared and contrasted.

Net Asset Value (NAV)

“In accounting terms, the total value of the company is the book value of all its assets, whatever the method of financing. However, the valuation for a take-over hinges on valuing the equity stake – the value of the owner’s stake, net of all liabilities. This is the net asset value (NAV), usually regarded as the minimum amount that must be offered to persuade the owners to relinquish their control.” (University, Leicester. *Finance and Growth Strategies*.P:7.12)

Net Asset Valuation (NAV) = total assets less total liabilities

Problems and limitations with the NAV.

The NAV is mainly focused on taking at face value the figures presented in the accounts, for example ; the book values .The main problem of the NAV method that it views the company merely as a set of assets rather than as an income-generating activity. The NAV ignores the company’s earnings. Moreover, the biggest problem with the NAV method is the fact that the shareholder is not compensated for the future earnings potential of the entity. Also other intangible assets , such as : brand names and human capital, can often be the most valuable assets in the company ,as it is very difficult to get the actual , real and fair value of these intangible assets . However, in reality, there may be limitations and problems with values of both assets and liabilities.

“Stated fixed asset values are based on historic cost less depreciation. Different depreciation methods result in different values of fixed assets. Whatever the method of depreciation, the book values are unlikely to correspond to market values.” (University, Leicester. *Finance and Growth Strategies*.P:7.13)

“Values of stock may not be reliable, especially if the accounts were prepared some time ago. (They could be up to a year old.) Companies often ‘window dress’ their accounts at year-end to make them appear stronger at year-end than is typically the case during the operating year .” (University, Leicester. *Finance and Growth Strategies*.P:7.13)

“Some liabilities are ‘off-balance sheet’, such as guarantees to other companies.” (University, Leicester. *Finance and Growth Strategies*.P:7.13)

“The NAV is of most help when a company is making losses, or has a collection of assets which have a much greater value when put to some alternative use, for example, farming land converted to a housing estate.” (University, Leicester. *Finance and Growth Strategies*.P:7.14)

Price-Earnings Ratio (P/E Ratio)

“The simple relationship between current or expected earnings per share and the current market price of the stock is often quoted by both management and owners. The ratio also is called the earnings multiple, and it is used as a broad indicator of how the stock market is judging the company’s earnings performance and prospects. The calculation is quite straightforward, and relates current market prices of common shares to the most recent available earnings per share on an annual basis:” (Erich A. Helfert, D.B.A. *Financial Analysis: Tools and Techniques*.P:123)

A valuation ratio of a company's current share price compared to its per-share earnings.

Calculated as:

$$= \frac{\text{Market Value per Share}}{\text{Earnings per Share (EPS)}}$$

Also sometimes known as "price multiple" or "earnings multiple".

Problems with the P:E ratio approach

“The main problem of this method is that it is based on valuing accounting profits rather than cash flows. The earnings figure can be distorted by divergent accounting policies – by adopting different depreciation policies. The possible future growth in the company’s earnings is to be considered this suggests that the valuation from the seller’s perspective could well fall short of the valuation of the buyer, who in turn will try to hide this from the seller! This reflects the inherent ‘game-playing’ role of valuation in a take-over situation.” (University, Leicester. *Finance and Growth Strategies*.P:7.15)

Therefore the investor has to avoid basing a decision on this measure alone.

Discounted Cash Flow (DCF)

“The financial tool that is used to evaluate investment opportunities is called discounted cash flow (DCF).” (Edward Fields, *The Essentials of Finance And Accounting For Nonfinancial Managers*.P:152)

(DCF) is calculated as follows:

$$DCF = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \dots + \frac{CF_n}{(1+r)^n}$$

CF = Cash Flow

r = discount rate (WACC)

“A DCF valuation has the advantage of focusing not on profits, but on cash flows which are less easily distorted by accounting manipulation. Also, of course, DCF uses the investor’s required return as the basis for assessing the value of those cash flows. Rather like the EBITDA approach, we would have to add back non-cash items to Minnow’s profit after tax, primarily depreciation, viz.” (University, Leicester. *Finance and Growth Strategies*.P:7.17)

Problems with the DCF approach

DCF valuation model is powerful, but it has limitations. DCF is merely a mechanical valuation tool, which makes it subject to the axiom "garbage in, garbage out". Small changes in inputs can result in large changes in the value of a company. Instead of trying to project the cash flows to infinity, a terminal value approach is often used. A simple annuity is used to estimate the terminal value past 10 years, for example. This is done because it is harder to come to a realistic estimate of the cash flows as time goes on.

“Problems with DCF centre on specifying the key variables involved:

- . can future investment levels be accurately projected? To do this requires detailed knowledge of the firm’s growth strategies.
- . most valuations of this type project cash flows over only 5–10 years or so for this reason, but build in a residual value to indicate the likely value of the company at the end of the horizon period. This is very largely guesswork, although errors are moderated by the heavier discounting of more distant cash flows.

- how can we measure the discount rate? When valuing the equity, we need to know what rate of return is required by shareholders. If we are dealing with an acquisition, then the valuation is effectively an investment appraisal and the return required by the bidders' shareholders should be used in the normal way. However, if the 'project' is to develop a different line of business activity, adjustment should be made for any risk differential.
- over what time period should we assess value? This partly depends on the size of company – small companies are more exposed to risk and are more likely to have short lives. Market positioning factors are also relevant. Company lifecycles often correspond to their project lifecycles and the periods over which they enjoy competitive advantages.
- should we accept the current earnings figure? There are two reasons why we might want to adjust the earnings and hence the cash flow. First, the current figure may be untypically high or low. Taking an average over the past few years may overcome this problem. Second, we may want to build in growth potential. This is easily done as a numerical exercise, but choosing the appropriate rate to incorporate is a problem. One approach is to take a forecast rate of growth of the industrial sector of which the company is a member.” (University, Leicester. *Finance and Growth Strategies*.PP:7.18:7.19)

Free Cash Flow (FCF)

“This is one measure of free cash flow (FCF), which means the cash flow free of all obligations including ongoing replacement investment requirements. Thus it is ‘free’ for disposal by the directors on discretionary strategic investment and/or dividend payments. You should be a little wary of this concept as different people define and measure the FCF in different ways. For example, it is very common to define FCF as the cash flow remaining after all investment expenditures, including strategic investment.” (University, Leicester. *Finance and Growth Strategies*.P:7.17)

As defined above (FCF) is a measure of financial performance calculated as operating cash flow minus capital expenditures. In other words, free cash flow (FCF) represents the cash that a company is able to generate after laying out the money required to maintain or

expand its asset base. Free cash flow is important because it allows a company to pursue opportunities that enhance shareholder value. Without cash, it's tough to develop new products, make acquisitions, pay dividends and reduce debt.

$$\begin{array}{r} \text{Net Income} \\ + \text{Amortization/Depreciation} \\ - \text{Changes in Working Capital} \\ - \text{Capital Expenditures} \\ \hline = \text{Free Cash Flow} \end{array}$$

FCF sometimes involves specious calculations of the current receivable. When a company reports revenue, it records an account receivable, which represents cash that is yet to be received. The revenues then increase net income and cash from operations, but that increase is typically offset by an increase in current accounts receivable, which is then subtracted from cash from operations. When companies record their revenues as such, the net impact on cash from operations and free cash flow should be zero since no cash has been received.

However, finding an all-purpose tool for valuating the company still proves elusive. Like all performance metrics, FCF has its limitations. On the other hand, provided that investors keep their guard up, free cash flow is a very good place to start hunting.

Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA)

It focuses on company's financial performance which is calculated as follows:

$$\text{EBITDA} = \text{Revenue} - \text{Expenses (excluding tax, interest, depreciation and amortization)}$$

EBITDA can be used to analyze and compare profitability between companies and industries because it eliminates the effects of financing and accounting decisions. "An intermediate concept currently in vogue is that of EBITDA, an unattractive acronym standing for Earnings Before Interest Taxes, Depreciation and Amortization. EBITDA is equivalent to operating profit with depreciation ('amortization' generally refers to the writing-down of intangible assets) added back. As such, it is a measure of the basic

operating cash flow before deduction of taxation, but ignoring working capital movements.

Many companies use EBITDA as a measure of performance, especially when related to capital employed. For example, Blue Circle, the UK building materials group, and E.On, the German utility and chemicals group, evaluate the performance of both the whole firm and individual business units by using a measure known as Cash Flow Return on Investment (CFROI). This is essentially a cash-based measure of return on capital employed, which is not influenced by the capital structure. In other words, being expressed before interest and tax, and being based on total assets, it is independent of financing policy, which determines the 'share-out' of the operating profit and cash flow as between interest payments, taxation and profits for shareholders." (University, Leicester. *Finance and Growth Strategies*.P:7.16)

One of the biggest reasons for EBITDA's popularity is that it shows more profit than just operating profits. It has become the metric of choice for highly leveraged companies in capital-intensive industries such as cable and telecommunications. In the absence of other considerations and models, EBITDA provides an incomplete and dangerous picture of financial situation.

The Limitations of EBITDA: No Substitute for Cash Flow, Skews Interest Coverage, Ignores Quality of Earnings, and Makes Companies Look Cheaper Than They Really Are
The main problem of EBITDA it doesn't give a complete picture of a company's performance. In many cases, investors may be better off avoiding EBITDA or using it in conjunction with other, more meaningful metrics.

Shareholder Value Added (SVA)

A value-based performance measure of a company's worth to shareholders. The basic calculation is net operating profit after tax (NOPAT) minus the cost of capital from the issuance of debt and equity, based on the company's weighted average cost of capital:

$$\mathbf{SVA = NOPAT - Cost of Capital}$$

"There are a number of advantages and disadvantages of SVA.

Advantages:

- it is quite simple to apply using spreadsheet analysis; this can easily be adapted to assessing the sensitivity of the results to changes in key variables,
- it is applicable to both whole firms and also to business units; in the latter case, one can ignore financing complexities and focus more clearly on inherent business activity value,
- it derives from, and is compatible with, the DCF method of investment appraisal; it can thus be used to show how a proposed investment will affect firm value,
- it utilises the key value drivers identified by Rappaport; these can be adapted for internal performance measurement and evaluation, e.g. in the area of working capital management,
- it can be used for bench-marking the firm against other companies.

Disadvantages:

- using constant percentage increases is often unrealistic
- although sensitivity analysis can be used to examine the implications of variable rates of change,
- it is difficult to apply from an external perspective, when lack of data limits the outsider's ability to value business units,
- it may give a veneer of accuracy which is potentially confusing when the SVA result diverges significantly from the market value. When using SVA, as with any other model, caution is appropriate." (University, Leicester. *Finance and Growth Strategies*.P:7.32)

Net Present Value (NPV)

"The net present value (NPV) method of evaluating capital investment opportunities is a DCF technique that takes the time value of money into account. These DCF techniques discount future cash flows to their present value, based on an appropriate interest (discount) rate. The net present value method determines the present value of the cash

inflows and compares the result to the present value of the cash outflows at a specified discount rate (may be the company's cost of capital or a desired minimum rate of return, which is referred to as its hurdle rate).

The NPV is the difference between the present value of the cash inflows and the present value of the cash outflows. If NPV as calculated is positive, then the capital investment is acceptable quantitatively as it is projected to earn a return higher than the discount rate used in the calculations. If NPV is negative, the capital project is quantitatively unacceptable since it is projected to generate a rate of return less than the targeted return". (Reider, Rob & Heyler, B.Peter, *Managing Cash Flow An Operational Focus*.P:246)

Calculated as follows:

$$NPV = \sum_{t=1}^T \frac{C_t}{(1+r)^t} - C_0$$

Internal Rate Of Return (IRR)

"The internal rate of return (IRR) is a capital investment method that determines the actual rate of return on a proposed capital project considering the time value of money. This technique is sometimes called the time-adjusted rate of return. It is similar to the NPV method, but instead of determining whether the project produces a desired rate of return, the IRR method calculates the actual rate of return being generated by the project. The calculated actual rate of return can then be reviewed to decide if the project return is acceptable. Calculation procedures for IRR depend on whether the capital project has even or uneven cash flows. ". (Reider, Rob & Heyler, B.Peter, *Managing Cash Flow an Operational Focus*.P:246)

"The following matrix highlights in simple form the two methods under discussion above, and some key attributes of each. ". (Reider, Rob & Heyler, B.Peter, *Managing Cash Flow an Operational Focus*.P:248)

<i>Technique</i>	<i>Description</i>	<i>Purpose</i>	<i>Advantages</i>	<i>Disadvantages</i>
Net Present Value (NPV)	Net value of expected cash flows discounted for the time value of money	To estimate gain or loss in constant time period terms; to compare alternative investments of similar dollar magnitude	Considers time value of money; allows easy comparison of investments of like dollar amounts	Requires estimation of a discount rate; difficult to interpret results; compares only investments of like amounts
Internal Rate of Return (IRR)	Exact discount rate at which the net present value of the investment is zero	To calculate actual return of the investment in percentage terms	Considers time value of money; provides standard method for evaluating investments of any amount	Time consuming and complex; results must be developed iteratively through trial and error

Payback Period

“This method calculates how many years it will take – in cash terms – to recover the initial investment, on the assumption that the shorter the payback period, the better the investment. Based on the cash flows for each project:” (Paul M. Collier, *Accounting for Managers: Interpreting accounting information for decision-making*. P: 186).

Calculated as:

$$= \frac{\text{Cost of Project}}{\text{Annual Cash Inflows}}$$

Conclusion

To conclude, there are other valuation approaches and methods which are not discussed and illustrated in this assignment, mainly the focus was on the most popular models. While these various methods are with problems and limitations in some respects, they are still very useful for all financial managers.

Due to the fact that some valuation methods are better suited to certain business types than others; therefore, we should not use any one valuation method without considering other methods or other factors.

One method may overlook key aspects of the business that will be uncovered only after further investigation required for another method is completed.

Moreover, it would be difficult to convince a well-informed potential buyer to purchase a company for a price defined only by using such a formula or a valuation method. Also from the seller's perspective, there is no guarantee that the company is not worth more than the amount arrived at by using a simple formula without basis. In fairness to both parties, the appraiser should not be taking the easy way out of this task.

Therefore, it is a must that when valuing a company, one or two methods of valuation that make the most sense are to be used or applied to arrive at a range of fair values for a company.

It is an essential aspect of the valuation process that while detailed methods of valuation can provide a solid starting point, which often remains all they provide. Having valued a company using more than one methods; nevertheless, still the final negotiated price deal can vary widely and depend on diverse factors, including: market conditions, timing of the negotiations and of the valuation date, internal motivation and goals of both buyer and seller, operating synergies that will result from the transaction, the structure of the transaction and other factors that may not even be explicitly defined.

References:

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