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VALUATION INTRICACIES

Article Particulars

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Dr.V.SHANTHI
Associate Professor & Head, Department of Corporate Secretaryship
Ethiraj College for Women, Chennai, Tamil Nadu, India

Abstract

The valuation of business encompasses a set of procedures used to estimate the economic value of an owner's interest in the business. The success of personal decision making and planning hinges on creating a realistic understanding of the value of the business and the value of the shares in business. Several methods of valuation are available, but the choice of the suitable method has more to do with the valuer's experience and expertise. This article makes an assessment of the finer aspects of the techniques of valuation and provides the intricate details and issues that one would encounter in the valuation of a company. This article also seeks to provide an in-depth knowledge of the various methods that exist for the purpose of valuation.

Keywords: *Discounted Cash flow Valuation (DCF), Economic Value Added (EVA), Option valuation and Relative Valuation (RV).*

Introduction

Valuation is a method of estimating the economic value of an asset or capital. The premise of valuation is that a reasonable estimate of value for most of the assets can be made. Knowing what an asset is worth and what determines that value is a pre requisite for intelligent decision making, in choosing investments for a portfolio, in deciding the appropriate price to pay or receive in a takeover and in making investment and financing choices when running a business. Every asset has an intrinsic value that can be estimated, based upon its characteristics in terms of cash flows, growth and risk. Intrinsic value is the strength of a stock and greater this value, the more it is a safe bet from the point of view of investment.

The accounting view of value of an asset is to a large extent grounded in the notion of historical cost, where loss in the value of an asset is associated with the ageing of the asset. In comparison, a valuation technique is able to make reasonable estimates of value by quantifying future benefits with reasonable precision, as it treats an asset as a resource that has the potential to generate future cash inflows or to reduce future cash outflows. A company's value is different for different buyers and it may also be different for the buyer and the seller. Value is the quantity agreed between the seller and the buyer in the sale of a company and is not the same as price.

Valuation Need and Implications

Managers who make good strategic decisions based on analysis of intrinsic value, the financial markets reward them by setting stock prices according to their company's financial fundamentals. This relationship helps the manager put the company's resources to their best use and create maximum value for shareholders. Whenever deviations occur between intrinsic and market prices, the stock market corrects itself within a few years to its intrinsic valuation level. Hence the Corporate Managers and investors need to understand the true, intrinsic value of companies to exploit any market deviations if and when they occur by proper timing of the implementation of strategic decisions.

Valuation also provides a road map for increasing a firm's future growth, helping to recognize what adds to its worth by improving future business decisions. Managers who focus on shareholder value will create healthier companies than those who do not. Healthier companies will in turn lead to higher economies, more career and business opportunities for individuals and higher standards of living.

In an efficient market, the market price is the best estimate of value. But when inefficiency prevailed in the market, it was assumed to make some mistakes in assessing value and these mistakes can occur over entire sectors and sometimes even the entire market. Assets were incorrectly priced over time and are assumed to get corrected automatically with the receipt of new information. Valuation acts as a catalyst needed to move price to value as needed for an active investor who makes logical decisions of investment with long term horizon. Hence, using valuation would allow the market to correct its valuation mistakes and for price to revert to its true value. Research evidence on the Indian stock market shows that possibilities of undervaluation and overvaluation exist for sizeable amounts of stocks.

Today, India is the biggest among the emerging market economies. The Indian stock market holds a place of prominence with bourses such as Bombay Stock Exchange (BSE) and National Stock Exchange (NSE). The BSE is one of the world's oldest stock exchanges with a total number of companies double that of the London Stock Exchange. National Stock Exchange is the best in terms of sophistication and advancement of technology. Inspite of advancements several studies have proved the inefficiency existing in the stock markets. Though the stock markets are rapidly moving towards efficiency and there is a lower possibility of making abnormal gains in the process, still inefficiency persists. *The implication of inefficiency is that companies with low true values may be able to mobilise a lot of capital while companies with high true values may find it difficult to raise capital*. This disrupts the investment scenario in our country and also has an impact on productivity. The major problem for the economy is that the investment funds are not appropriately channelized to where they are mostly useful. This resource misallocation in the long run is destructive as it would hinder the sustainable development of the economy. Hence there is a need for a proper allocation of

resources as the stock prices should match the intrinsic value of the stock. In other words, the investors should pay the prices which reflect the true worth of the stock thereby channelizing funds to where it can be most effectively used. The valuation of firms is fundamental for identifying and stratifying the main factors affecting value. Valuation helps in identifying and strengthening businesses which are sustainable. It enables the management to make investment and strategic decisions effectively. Further, more sustainable companies are recognized and rewarded leading to a faster growth of the economy.

However the problem arises when stock markets are bearish; and when all the stock prices fall. The suppressed market conditions leads to pessimism among the investors who want to get out of equities. Most of the investors in this pessimistic environment do not differentiate between good and bad investments. Many promoters of MNCs use this kind of undervaluation to their advantage and acquire the remaining shares at a lower valuation and apply for delisting. In the long run, the minority interest is affected as they stand to lose the possible gains that could be made from MNCs.

The purpose of any valuation method is to provide the true and fair value of the asset. Valuation is of immense utility for Equity Research Analysts whose job is to follow the movement of stock in sectors and make recommendations on the most undervalued and overvalued stocks in a sector. Its use to Equity Portfolio Managers is substantial as they have to be fully invested or stay close to fully invested. Valuation also serves as a benchmark for comparison to the owners to perceive how well the business is operating as compared to other similar businesses in the same industry. Valuation is indispensable for raising expansion capital from lending institutions and venture capitalists. Besides it helps in valuing company's stock for the development of Employee Stock Option Scheme (ESOP) or bonus stock to determine the price of an Initial Public Offering (IPO). Similarly a buyback of shares requires the use of valuation.
Today, the compensation systems based on stock prices like stock grants and warrants has become a standard component of most management compensation packages. Inefficiencies in the market could even reward or punish managers on the performance of the stock. Thus, a firm whose stock price has gone up is viewed as creating value and if the stock price has declined it has destroyed value. Hence, compensation systems based on the stock prices would also go wrong. Thus, a firm may see its stock prices go up and its top management rewarded, even as it has destroyed value. The management with a focus on the long term shareholder creation, rewards on the basis of the company's Economic Value Added (EVA).

Valuation is useful in circumstances such as mergers and acquisitions. Valuation in an emerging market like India is gaining importance for joint ventures, mergers and acquisitions, restructuring and value based management. The total number of merger and acquisition deals of Indian companies was the highest ever in a decade and it is expected that the momentum would pick up in the future years. The significance of

valuation methods to determine the target price and help in timing the sale of the business is invaluable in such circumstances. Business valuation could impart insights into a company's strengths and weaknesses.

Choice of Methods for Valuation

A valuation system should also include the four main drivers of enterprise value: profitability, competition, growth and cost of capital**.** DCF, RV and EVA are frequently used in the Indian context. The study evaluates each of the methods by means of comparative analysis. The Discounted Cash flow Valuation method as it is independent of leverage and determines the company's capability to pay off its debt and equity claims. With its wide application by companies in India, EVA has been one of the most popular methods for valuation of firms. The current study also analyses the use of Relative Valuation as a common and convenient tool in the hands of an investor. In the last few years, Option valuation has been recognized as an alternative in the valuation of investment opportunities in real markets.

Methods of Valuation

Academic literature suggests that there are many valuation methods useful for the valuation of firms. It is important to obtain knowledge of various valuation methods and previous research in this field to gain insight of the suitability and accuracy of these models. Benninga and Sarig, (1997) advised to use more than one valuation method to estimate the firm value because there is a great deal of uncertainty in relation to value estimation as it involved predicting the returns of the company and if the different methods gave the similar results it meant that the estimated value was reliable. Francis et al., (2000) examined whether the theoretically equivalent models give the same intrinsic value in practice.

Cash Flows in Valuation

The Cash Flow statements gained the attention of the International Accounting Standard Board (IASB) and more studies had been conducted to examine the incremental information content of cash flows over earnings (Finger, 1994; Clubb, 1995; Barth et al., 2001). These studies concluded that cash flows had information content. Distortions in valuation based on financial statements are possible as earnings can be inflated in the short term due to the fact that accounting profits were subjective. Here, the importance of free cash flows was stressed as free cash flows were ranked first in the order of importance in comparison to accounting variables (Imam et al., 2008). Hence, it is emphasized to use cash flows for carrying out the valuation of firms.

Discounted Cash Flow Valuation

It was documented that almost fifty percent of all financial analysts used a Discounted Cash Flow (DCF) method when valuing potential objects to acquire (Hult,

1998). In Discounted Cash Flow (DCF) valuation, the present value of the asset is the present value of the expected cash flows of the asset discounted back at a rate that reflects the riskiness of these cash flows. Damodaran, (2006).The Cash flow discounting methods were based on the detailed, careful forecast, the generation of the cash flows corresponding to the company's operations for each period. The DCF is argued to be the best model by Kaplan and Ruback, (1995) and Fernandez, (2002), most frequently used model in firm valuation and capital budgeting decision. Gitman and Trahan (1995); Graham and Harvey (2001) and Imam et al., (2008) have regarded DCF as one of the most important valuation methods.

Skantz and Marcheini, (1992) used a DCF model to value liquidating firms when the cash flows and growth patterns were known. They concluded that the market appeared to value stocks by discounting expected cash flows using a risk-adjusted required rate of return. The uniqueness of their sample however made a generalization to going concern companies difficult. In a study Absiye and Diking (2001) found that all seven of their respondents, who were analysts, used the DCF method when they were conducting a firm valuation, the other valuation methods were just used as complements to the valuation done by the DCF method.

Relative/Multiple Valuation

The valuation is based on the rationale that perfect substitutes should sell for the same price (Baker and Ruback, 1999) and very often used in practice (Damodaran, 2006 Imam et al., 2008) for when Companies A and B are comparable firms and Company A has twice as much sales as Company B; Company A should trade at twice the price of Company B. Popularity of this method is its simplicity (Yoo, 2006).

Relative valuation can be performed with several multiples like Price/Earnings (P/E), Price/Book value (P/B) and Price/Sales (P/S). Alford (1992) found that the multiples method was more accurate than earnings. This was also supported by Erik Lie and Heidi Lie (2002) who tested the accuracy of ten different multiples in an empirical study of 8,621 companies. The Price/Book value (P/B) ratio generated exact and unbiased results than other multiples like Price/Earnings (P/E) and Price/Sales (P/S). (Koller et al.,2003). The P/E ratio generated imprecise results as it is affected by the capital structure of the company and earnings are affected by the non operating revenues and surplus. Price/Sales (P/S) showed less accurate results according to Lie and Lie (2002)

Kim and Ritter (1999) analyzed valuation using the multiples method based on P/E and P/S ratios and found satisfying results only when future forecasted numbers were used. They concluded that the firm gave more accurate results for older than younger firms. As an alternative to the P/E ratio, the EV/EBITDA, being capital structure-neutral is often used to value cash-based businesses.

The other common multiples included cash flow and EBITDA multiples, revenue multiples, asset multiples and operating multiples. Boatsman and Baskin, (1981), Foster,

(1986) documented that selecting comparables from the same industry could improve comparability because they use the same accounting standards and methods. Penman (2001) proposed that different accounting methods for comparables and target firm create implementations problems with method of comparables.

Use the harmonic mean as it is always lower than the simple mean because using a simple mean multiple overestimates the value. Liu et al., (2002) found that harmonic mean outperformed the mean or median ratio of multiples. Similarly, Barker and Ruback (1999) suggested to use harmonic mean to estimate industry multiple. After calculating harmonic mean for each year multiples, firms were sorted by industry classification code (Standard Industrial Classification code). Alford (1992) found that the best criterion for selecting comparables firms was either industry membership or a combination of risk and earnings growth rates. He documented that accuracy improved when the number of SIC digits of the comparable firm were increased up to three digits.

The greatest difficulty experienced in Multiple Valuation is to find comparable firms. Multiple valuations require many comparable firms on the industry and these firms were required to be priced correctly (Damodaran, 1994). Comparable firms were those that are similar in terms of profitability, growth potential, business risk and financial risk. Cheng and Mc Namara (2002) recommended that the industry was the most important factor for selecting comparable firms. Hence the use of industrial classification could be easily adopted for comparable firms. Benninga and Sarig, (1997) felt that multiples method was not used as a primary method to value the company but as a secondary method hence Relive valuation could be used to verify the results.

The enterprise value and equity value in multiple valuation was found to be lower than DCF valuation. (Doreen Nassaka and Zarema Rottenburg, 2011) Multiples valuation was based on historical values or forecasted figures. Forecasted earnings are used instead of historical data whenever possible (Koller et al., 2005).Hence using forecasted figures would improve the relative valuation results.

Real Option Valuation

Contingent Claim /Real Option valuation of an asset depends on whether or not an event occurs. The present value of options was then discounted back to the present.
Real Option valuation is a powerful tool in investment-intensive industries where companies make investments in sequences involving a high degree of uncertainty. Some of these industries include Energy, Oil and Gas and Research and Development intensive industries like Biotechnology, Pharmaceutical and other High Technology industries with high marketing investments. Real Option valuation considered the flexibility that was inherent in many projects more than DCF. Hence management possibilities to expand an investment or to abandon a project are given at a correct

value. Thomas E. Copeland (2000) has done several researches on valuation and propagates that Real Option valuation is better as a valuation method.

Economic Value Added

Residual income is also known as abnormal earnings, or Economic Value Added (EVA). EVA® was an analytical tool to estimate a company's economic profit. It was developed in 1982 by Joel Stern and G. Bennett Stewart III (Grant, 1996). Since then, EVA® became a registered trademark owned by Stern Stewart & Co. Luber (1996)confirmed that a positive EVA over a period of time would also have an increased Market Value Added (MVA) while negative EVA would bring down MVA as the market loses confidence in the competence of a company to ensure a handsome return on the invested capital.

Positive EVA results through years does not mean that the company operated well, but it might be that the situation occurred when the invested capital used in accounting return was too small. The EVA input was less than DCF valuation. The metric needed data extracted from Income Statement and Balance Sheet to calculate the surplus value between NOPAT and capital cost rate. Stewart (1991) emphasized that to get significant benefits, EVA be fully integrated into a company linking executive compensation for improvement in EVA.

Comparison of Valuation Methods

DCF valuations are complete with incorporation of cash flows, time value of money, discount rate, growth rates and forecasts. EVA valuations are identical to DCF valuations, but it did not involve future cash flows forecasting and the measure the present value like DCF valuation does. This has also been endorsed by (Wilson, 1997). One can adopt any method of valuation depending on the availability of information. All the methods in practice do not help in arriving at the same intrinsic price. But the values are closer and differences arise due to assumptions made under each. From the financial statements one can use the DCF or EVA methods and further verify using the Relative valuation method.

References

1. Absiye, K. & Diking, J. (2001). "Värdering av Unga Tillväxtbolag – Risker, Värderingsmodeller och Värdegrundande Egenskaper," Master Thesis, Kostnads - och intäktsanalys, Handelshögskolan vid Göteborgs Universitet.
2. Alford, A. (1992). The Effect of the Set of Comparable Firms on the Accuracy of the Price-Earnings Valuation Method**,** *Journal of Accounting Research,* 30 (1), 94-108.
3. Aswath Damodaran 2006 Valuation approaches and Metrics: A survey of the theory
4. Aswath Damodaran, (1994). *Damodaran on Valuation-Security Analysis for investment and Corporate Finance,* Study Guide, USA: Wiley Publications.

5. Aswath Damodaran, (2006). *Valuation Approaches and Metrics, A survey of theory and Evidence,* Stern School of Business, United States of America: New York Publisher's Inc.
6. Baker , M., & Ruback, R. (1999). Estimating industry multiples. Working paper, Harvard University, Cambridge, MA.
7. Barth, M., Cram, D. & Nelson, K. (2001). Accruals and the Prediction of Future Cash Flows, *The Accounting Review*, 76(1), 27-58.
8. Benninga, Simon Z. & Oded H. Sarig, (1997). *Corporate Finance. A Valuation Approach*, New York: Mcgraw-Hill.
9. Boatsman James, R. Baskin & Elba F. (1981). Asset valuation with incomplete markets, *The Accounting Review*, 56(1), 38–53.
10. Cheng, C.S.A. & McNamara, R. (2000). The Valuation Accuracy of the Price Earnings and Price-Book benchmark valuation methods*, Review of Quantitative Finance and Accounting*, 15(4), 349 – 370.
11. Club, D. (1995). An Empirical Study of the Information Content of Accounting Income, Funds Flow, and Cash Flows in the UK, *Journal of Business Finance and Accounting*. 22(1-2), 35-52.
12. Copeland Tom, Koller Tim, Murrin Jack (2000). *Valuation: measuring and managing the value of companies*, (3th ed.). United States Of America: McKinsey & Company.
13. D. Venanzi, Financial Performance Measures and Value Creation: The State of the Art, SpringerBriefs in Business, DOI: 10.1007/978-88-470-2451-9_2,
14. David Frykman, Jakob Tolleryd T he Financial Times Guide to Corporate Valuation Pearson UK.
15. D Mukherjee, T. A. Pai Management Institute, Manipal, India-2007 Comparative Analysis of Indian Stock Market with International Markets
16. Doreen Nassaka & Zarema Rottenburg, (2011). Analysis of Corporate Valuation theories and a valuation of ISS A/S, Aarhus School of Business and Social Sciences Aarhus University, Denmark
17. Erik Lie, & Heidi, Lie J. (2002). Multiples Used to Estimate Corporate Value. *Financial Analysts Journal,* 58(2), 16-36.
18. Fernández, P. (2002). *Company valuation methods, the most common errors in valuations*. (IESE Research Papers no 449), 1-33. Retrieved on 13 May 2011 from http://www.iese.edu/research/pdfs/di-0449-e.pdf
19. Finger, C.A. (1994). The Ability of Earnings to Predict Future Earnings and Cash Flow. *Journal of Accounting Research*, 32 (2), 210-223.
20. Foster, George (1986). *Financial Statement Analysis* (2nd ed.). Englewood Cliffs, New Jersey: Prentice Hall, Inc.
21. Francis, J., P. Olsson, and D. Oswald. (2000). Comparing the accuracy and explainability of dividend, free cash flow, and abnormal earnings equity value estimates. *Journal of Accounting Research* 38(1), (Spring), 45-70.
22. Gitman, L.J. & Trahan, E.A. (1995). Bridging the theory-practice gap in corporate finance: A survey of chief financial officers, *The Quarterly Review of Economics and Finance*, 35(1), 73–87

23. Graham, J.R. & Harvey, C.R. (2001). The theory and practice of corporate finance: Evidence from the field, *Journal of Financial Economics*, 60(2-3), 187–243.
24. Grant, J (1996). Foundation of EVA for Investment Management; Just in time, EVA, *Journal of Financial Managemen*t, 23 (1), 41-45.
25. H Kusuma - 2014 The Incremental Information Content of the Cash Flow Statement: An Australian Empirical Investigation
26. Hult, (1998).M. *Värdering av Företag,* Stockholm, Liber Ekonomi.
27. Imam, S., Barker, R. & Clubb, C. (2008). The use of valuation models by UK investment analysts. *European Accounting Review* 17(3), 503-535
28. Kaplan, S.N. & Ruback, R. (1995). The Valuation of Cash Flow Forecasts: An Empirical Analysis, *Journal of Finance*, 50(4) (September):1059–1193.
29. Kim, Moonchul & Ritter, Jay R. (1999). Valuing IPOs, *Journal of Financial Economics*, 53(3), 409 – 437.
30. Koller, T. Goedhart, M. & Wessels, D. (2005). *Valuation: Measuring and Managing the Value of Companies.* McKinsey & Company, (4th ed.). New York: John Wiley & Sons.
31. Liu, Jing/Nissim, Doron/Jacob Thomas, (2002). Equity valuation using multiples, *Journal of Accounting Research*, 40(1), 135–172.
32. Luber, R.B.(1996).Who are the real wealth creators? Fortune, December, 2-3, 1996.
33. McKinsey & Company Inc., Tim Koller, Marc Goedhart - 2010 Valuation: Measuring and Managing the Valuation of companies
34. P Fernández :Company valuation methods:The most common errors in valuations
35. Pablo Fernandes 2002,Valuation Methods and Shareholder Value creation
36. Penman, S. (2001). *Financial Statement Analysis and Security Valuation*, New York: McGraw-Hill/Irwin.
37. Penman, S. (2001). On Comparing Cash Flow and Accrual Accounting Models for Use in Equity Valuation, *Journal of Contemporary Accounting Research*. 18 (4), 681–692.
38. Skantz, T. and R. Marchesini, (1987). The effect of voluntary corporate liquidation on shareholder wealth, *Journal of Financial Research*, 10(1): 65-75.
39. Stewart, G.B. (1991). *The Quest for Value: A Guide for Senior Managers*, New York: Harper Business.
40. Wilson, J. (1997). Economic value added EVA®. Retrieved January 22, 2013 from Pricing Online: http://pricing.online.fr/docs/economicvalueadded.pdf
41. Yoo, Y.K. (2006), *'The Valuation Accuracy of Equity Valuation Using a Combination of Multiples'*, Review of Accounting and Finance, 5(2), 108-23.
42. Electronic References
43. https://en.wikipedia.org/wiki/Business_valuation
44. https://pl.scribd.com/presentation/257191877/Corporate-Valuation-9-9-12-1
45. pages.stern.nyu.edu/~adamodar/New_Home_Page/background/valintro.htm
46. pages.stern.nyu.edu/~adamodar/New_Home_Page/invemgmt/effdefn.htm
47. pages.stern.nyu.edu/~adamodar/pdfiles/DSV2/DSV2.pdf
48. people.stern.nyu.edu/adamodar/New_Home_Page/littlebook/assetvalue.htm
49. www.stern.nyu.edu/~adamodar/pdfiles/papers/octopus.pdf
50. www.valuebasedmanagement.net/methods_afg_economic_margin.html