

VALUATION OF UNLISTED COMPANIES: A SYNTHESIS AND SOME PROBLEMATIC ISSUES

Rudy A. Jacob, Pace University

ABSTRACT

Commercial litigation controversies frequently involve claims for damages where the value of a business must be determined. For example, a dissident shareholder may sue for his or her share of a business because of the wrongful acts of other shareholders. A corporation or partnership dissolution may require the valuation of a business in order to equitably distribute the assets among the involved parties. Not infrequently, divorce cases may require the valuation of a business where the major asset of the litigants may be a business. This paper discusses the valuation approaches that are generally used to value non-publicly traded businesses in litigation disputes. Specifically, we show the similarities and differences in the approaches and the level of uncertainty that may be involved in estimating some of the parameters in the various models. We argue that certain methods may have a comparative advantage over others given the industry, the availability of data, and the situation.

INTRODUCTION

Commercial litigation controversies frequently involve claims for damages where the value of a business must be determined. For example, a dissident shareholder may sue for his or her share of a business because of the wrongful acts of other shareholders. A corporation or partnership dissolution may require the valuation of a business in order to equitably distribute the assets among the involved parties. Not infrequently, divorce cases may require the valuation of a business where the major asset of the litigants may be a business. The Internal Revenue Service (IRS) may question the value placed on a stock in a charitable contribution transaction. While these examples are not meant to be exhaustive, they do clearly show several litigation contexts that demand a business valuation.

In general, this valuation is necessary because no clearly established, independent value of a business may exist that is satisfactory to all parties involved. This frequently occurs for closely held businesses where the stock of the company was never traded in an open market, or no arm's length negotiated transaction ever took place. Moreover, even when an arm's length transaction may exist, these transactions may have occurred at a time that is too far distant from the relevant valuation date to be useful to the trier of facts in any litigation dispute. Although this paper focuses on the market value of unlisted companies, it should be noted that some questions may arise as to whether the traded price of even the stock of a publicly traded company indicates its fair market value. For example, stocks that are traded thinly or infrequently may be selling at a discounted price because of asymmetric and insufficient information in the market place.

The purpose of this paper is to discuss the valuation approaches that are generally used in litigation disputes. In a survey of economists, respondents not only disagree on which approach to

use but also on the specifics in implementing the approaches (Hubbard & Waldron, 1988). Specifically, we show the similarities and differences in the approaches and the level of uncertainty that may be involved in estimating some of the parameters in the various models. We argue that certain methods may have a comparative advantage over others given the industry, the availability of data, and the situation.

DEMONSTRATING BUSINESS DAMAGES

Actual or compensatory damages are those damages suffered by a plaintiff as a consequence of the defendant's wrongful conduct. These damages can include incremental or out-of-pocket costs or lost business value or lost profits.

For the plaintiff to recover damages at least three primary requirements must be satisfied (Weil, et al.,1995). First, the plaintiff must show that the wrongful act of the defendant was the "proximate cause" of the sustained damages. Proximate cause does not mean the only cause but must at least be the major cause. Secondly, the plaintiff must prove damages with reasonable certainty by providing sufficient evidence to demonstrate that the claimed loss does exist. The loss must be specifically identified and documented. Thirdly, to recover, the plaintiff must show that the lost business value was a foreseeable consequence of a breach of the contract or commission of a tort

Once the damages have been proven, the forensic economist can quantify these damages by using a variety of methods. Since damage estimates by their very nature reflect some degree of uncertainty, the method used to determine lost business value does not necessarily have to be exact. However, the estimate of loss should not be unreasonable and should not be based on wanton speculation and conjecture. Indeed, the damage claim must be reasonable, supported by the facts of the case, and be based upon methods that are generally grounded in sound economic and financial theory. When these criteria are met, the speculation involved in valuing a company is greatly minimized.

MEASURING LOST BUSINESS VALUE

Few financial economists would argue over the general proposition that the value of a firm is the present value of the stream of future expected earnings that will be generated by the firm. As a matter of fact, the value of anything can be defined in this light if one is willing to substitute benefits for earnings. Accepted valuation approaches, which try to measure the above stream, generally include the following:

Discounted future earnings and discounted cash flows (DCF).

41. Market multiple.
42. Asset valuation.
43. Comparable sales.
44. Prior transactions

DISCOUNTED FUTURE EARNINGS AND CASH FLOW APPROACHES. The DCF approach is based on the premise that the value of a business is the present value of the future economic income

available to the owners of a business, discounted at a risk-adjusted discount rate. This approach is a step-by-step procedure of calculating the present value of the future stream of earnings of the firm as a going concern. It is clear that the concept of earnings used in this type of model, which emanates from the finance literature, is more related to cash flow than to accounting earnings. In the theoretical development of this model, earnings are generally defined as the cash flows after the replacement of depreciated assets. Thus, accounting net income is not the correct variable for this model. Only in a very stylized world characterized with a number of cogent assumptions will accounting net income meet the aforementioned definition of cash flow.

Free cash flow has been suggested by some as the appropriate variable to use in this model. It is defined as the cash available to debt- and equity holders after investment. Free cash flow, which explicitly adjusts for replacement of depreciable assets and new investment, is theoretically available to shareholders to be distributed as dividends. Thus, discounting interim free cash flows plus the company's terminal value would provide a useful measure of the firm's value.

Forecasting future free cash flow is by no means a simple task. It is unlikely that any type of extrapolative models or index models would do a good job in forecasting free cash flows. (These are "mechanical models" in that forecasts are made mechanically using the statistical properties of these models without any further judgment on the part of the forecaster.) And even if the expert builds a sophisticated econometric model using balance sheet and income statement data, this would necessitate forecasting right hand side variables which, undoubtedly, would invite further controversy.

As alluded to earlier, future cash flow streams must be discounted back to the present at some discount rate that reflects the risk complexion of these flows. No simple formula exists for determining this discount rate. However, less speculation is involved if this rate could be rooted in market generated information. For example, if one can identify a similar, publicly listed firm in the same industry, one can use the Capital Asset Pricing Model (CAPM) to estimate the cost of equity capital and, if necessary, the weighted average cost of capital (WACC) of the firm. (The weighted average cost of capital is a weighted average of the required rates of return of all providers of capital. It is based on the relative proportion of debt and equity in the company's capital structure.)

Although the expert may feel a little comfortable in developing an estimate of the discount rate that is rooted in market data, he/she must still temper this estimate with good judgment. For example, is management too optimistic in its sales' forecasts? Is there a significant probability that the future cash flow streams will not be achieved given the extant organizational problems? Is the company in question more highly levered than similar companies in the industry? Positive answers to these questions would suggest higher operating and financial risk, thus requiring an increase in the discount rate. To check on the reasonableness of some of the assumptions that were made in estimating the parameters used in calculating the present value of the free cash flow streams, the expert may perform sensitivity analysis by varying some of these assumptions. This type of "if-then" analysis not only provides a reality check but would suggest the variables for which the expert may want to develop a more accurate forecast.

Although few economists would question the theoretical underpinnings of the DCF model, its application in practice requires numerous assumptions resulting in the expert swimming in murky waters. Of course, the less speculative this model's parameters' estimates are, the greater the likelihood that the trier of fact will accept the expert's valuation.

MARKET MULTIPLE. A second valuation approach relies on market multiples for comparable firms. This approach assumes that a firm's value is determined by the risk/reward characteristics of comparable firms in the same industry. The expert can calculate the value of the unlisted company as the product of the market-generated price/earnings or price/cash-flow ratio of publicly traded companies in the same industry (for example, the average P/E ratio of firms in the industry) and the most recent earnings of the firm. Since earnings and cash flow are specifically defined by the Securities and Exchange Commission (SEC), less speculation is involved in defining these variables. Moreover, a separate forecast does not have to be made for the discount rate. However, it is not a non-trivial task in determining the amount of earnings or cash flow to use in this approach. For example, if the earnings of the company fluctuate significantly from period to period, simply using the most recent earnings may distort considerably the true earnings potential of the company.

Based on the above discussion, it is quite clear that if this valuation is to be valid, the expert must exercise care in choosing publicly listed companies that are comparable to the non-publicly traded company in such areas as financial and operating leverage, size, liquidity, diversity of operations, market share, operating strategies, growth prospects, and so on. Using industry data may mitigate some of these problems since the risk/reward ratio of firms are influenced by market forces that are common to all firms in the industry. This indeed is the basic tenet underlying the CAPM.

ASSET VALUATION. This approach relies on the valuations of individual assets and liabilities. This method is extremely difficult to apply because of the lack of publicly available information for the assets of the company. The valuation of intangible assets, such as patents, trademarks, special suppliers' arrangements, etc., also presents some special problems. Furthermore, the expert would have to make a decision whether to value the company as a going concern or one where the assets will be liquidated. The value-in-use of an asset generally differs from the value-in-exchange.

This approach is generally most useful for companies with significant investments in real estate where fair market valuations are publicly available, and the earnings potential of the companies is manifested more in the balance sheet than in the income statement. The asset valuation approach is totally useless in valuing companies where the major assets is human capital, which is not even listed on the balance sheet. Moreover, since this approach is only valid when it reflects a valuation that is greater than the present value of the firm's stream of earnings as a going concern, the value of the firm as an on-going enterprise must be calculated.

COMPARABLE SALES. Recent comparable sales transactions of similar firms may provide invaluable information to the expert in valuing a specific company. The recent sale of a similar business is indicative of the price one is willing to pay today for an expected future stream of earnings. The transaction must reflect fair market value and, if applicable, appropriate adjustments must be made for any discounts or premiums in the sale.

In any event, the same level of scrutiny, as discussed in the previous methods, must be applied in evaluating the risk and return characteristics of the subject company and the comparable company. For example, one may want to calculate the P/E multiple of the comparable company and then determine whether the earnings and risk complexion of the comparable company bear any semblance to that of the subject company being valued. This analysis may result in adjusting the price up or down to compensate for any differential risk that may be present. The more comparables and the

greater the similarity in terms of size, location, nature of the business, earnings history, etc., the more valid the valuation.

PRIOR TRANSACTION. If the expert is lucky enough, a recent transaction in the subject company's stock may have been executed. However, the expert must ascertain whether the sale was between unrelated parties and was negotiated in good faith. In essence, an arm's-length transaction where no undue pressure is placed on the buyer or seller, and all relevant financial information is made available to the buyer, is indicative of sound valuation.

CONCLUSION

In a conceptual framework, each of the approaches can be viewed as a way to value a firm's economic income streams. Since it is unlikely that these different approaches will yield the same value, the expert must reconcile these values. Normally, a single value is presented to the court although it is not unusual to have a range of values.

Some economists may favor an approach that is rooted in market-generated information, since in the eyes of the court this valuation of the subject company seems less speculative. However, given the context and situation, the expert may know a priori that a certain method is more acceptable over other methods to both the profession and the courts. As suggested earlier service companies, whose main asset is human capital, and thus not listed on the balance sheet, should be valued more on their earnings generating process rather than on the fair market value of their assets and liabilities. On the other hand, asset holding companies such as real estate firms are typically valued using an asset-based approach.

It is clear that valuing companies is not a science; it's an art where considerable judgment must be exercised and both quantitative and qualitative variables must be assessed. Sound economic reasoning with expert judgment can immensely minimized the speculation that may plague this type of analysis.

REFERENCES

- Hubbard, C.M. and D.G. Waldron (1988). "The Valuation of a Closely Held Firm: Differences in Expert Opinion," *Journal of Forensic Economics*, December 1988, pp.47-54.
- Weil, R., M. Wagner & P. Frank (1995). "Litigation Service Handbook," Wiley, 2nd edition.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.