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A Business Valuation Newsletter for Business Owners and the Professionals Who Advise Them

Reaching a Conclusion of Value: Reflections on the Use of Market Data

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Most of us valuation analysts love dealing with the details of financial analysis. We immerse ourselves in the details of items like determining the precise rate of return, an exact future growth rate, or the precise method of considering the timing of an expected future cash flow. What sometimes gets lost in the details of this analysis, though, is that our job is to determine a value that is representative of the price that would occur in the relevant market. In the end, we are not supposed to come up with the best theoretical financial analysis but, rather, the price that is likely to be realized in the market. Heated discussions about things like the exactly correct equity risk premium or the appropriateness of the size premium are important and intellectually stimulating but they should not deflect attention from the proper emphasis on answering the question of essence: Is the conclusion of value the likely price that would be agreed to in the market? While I do not discount the importance of financial analysis considerations, it is important that the objective of the financial analysis is to determine the price likely to prevail in the market.

Not only is it common sense that a fair market value should reflect the market but it is also a requirement for federal tax fair market value determinations. Federal Estate Tax Regulations Section 20.2031-1(b) provides (among much other guidance), "Nor is the fair market value of an item of property to be determined by the sale price of the item in a market other than that in which such item is most commonly sold to the public, taking into account the location of the item wherever appropriate." I have always taken this as a directive that I had to consider the effect of the specific market and not some general notion of a market. This means that for a private company, we have to specifically determine the price in the market for a private company or an interest in the private company.

This is all a laudable enterprise, but showing that the concluded value is the likely market price for a private company is a uniquely challenging task. The best theoretical way to do this would be through the use of exactly comparable market data – a sale of this exact interest close in time. Of course, this is almost

never available for the private companies most of us value. So we fall back to the next best way, which is market data that has a "reasonable basis for comparison." (These words are directly from ASA Business Valuation Standard V.) Unfortunately, this kind of data is also difficult to come by. This lack of data doesn't lessen the obligation to determine a price grounded in the market, but it does mean that a methodology short of direct comparison needs to be used.

In the absence of specific market data, one way to incorporate the effect of the market is to duplicate the process used by investors in private companies. I take comfort in the fact that transactions of private companies frequently take place and the buyers and sellers of these companies face all of the same information difficulties that we do.

The way that I think the market works for most private operating companies is through a process which involves a combination of the income approach and the market approach. I am influenced in my thinking by a survey effort I undertook with a number of my associates many years ago when I was a partner at a big accounting firm. We called a number of clients and others who were active acquirers of businesses. This wasn't a large survey but it did involve in-depth discussions with private equity investors. What I found was that the best way to characterize the market price was through a process. The price most of the buyers were willing to pay was generally based on consideration of multiples prevailing in the market plus consideration of an adequate internal rate of return or present value.

EXPERT TIP

While I do not discount the importance of financial analysis considerations, it is important that the objective of the financial analysis is to determine the price likely to prevail in the market.

The multiples mentioned were MVIC/EBIT and EBITDA in an approximate range of 3-7 and most of the investors did consider that the range changed over time based on the state of the market. The internal rates of return for private equity investors were in a range of 25 percent to 40 percent and the internal rates of return for strategic investors were in a range of 10 percent to 20 percent. The return required in a specific deal also considered the general returns believed to be demanded in the market at the time of the deal. The multiple was applied to a representative income number that was based on the buyer's analysis of where the company was today, where it was headed, and what that buyer could do with it. This was all an iterative process in which the investor was assessing whether the multiple and the rate of return were too high or low given the expected future opportunity and risk.

This survey effort is now about 25 years old, but I don't think that the general conclusion has changed much in the way the process is carried out or the range of multiples or rates of return. What leads me to say things haven't changed much are the survey results from the ongoing Pepperdine Private Capital Markets Project. This survey shows multiples and rates of return similar to the range discussed above. Also, the *Pratt's Stats Private Deal Update* shows EBITDA multiples for the smaller companies it covers in the 2-4 range.

So my overall approach in valuing an operating company has been to try to replicate the process that the private equity investors told me about. I had to turn it around a little bit, but the results are the same. I carry out an income approach that takes in everything that I think an investor would consider and then use market data to help me determine whether this makes sense.

My idea of how the income approach should look is that it should represent what I believe an investor in the market would do. The projection of income, the projection period (if it's a dcf), the rate of return, and the assumed amount of debt are all based on my perception of what would prevail in the market. The emphasis in the income approach is to make it reflect what market participants would do. Theoretical considerations are good but only if I believe that market participants would use them. The Pepperdine survey data is of some help in getting an idea of what market participants are thinking.

The market data I use is based on the best data available for the particular case. I always consider as best I can the current state of the market. Some sense of this can be obtained from *Pratt's Stats Private Deal Update* (published periodically by Business Valuation Resources) and the Pepperdine survey data. Also, I always look at Pratt's Stats and Bizcomps for specific guideline companies. A time or two, I've found a company of the right size,

line of business and close in time. I wish it happened more often, but this is a rare occurrence. I seldom find specific transactions where I can convince myself that there's a reasonable direct comparison without a stretch of the logic. The quantity and quality of information about the companies included in the databases makes direct reliance on specific transactions problematical. A very significant issue is that the investor's assessment of important qualitative issues such as the risk and opportunity can't be gleaned from the data.

Also, I look for reasonable public guideline companies to include in my market data if the subject company is large enough or has appropriate growth characteristics for smaller companies. It is an even rarer occurrence that I can find such a company with a convincing reasonable basis for comparison.

The way I use the market data to determine that the income approach appears reasonable is to consider the factors that affect the price. Some of these are the size of the business, the debt-bearing capacity of the company, stable history of cash flow and likelihood of continuation, risk of the company, expected future growth, competition and barriers to competition. Both the *Private Deal Update* and the Pepperdine survey show multiples by size but beyond that I don't have a way to quantify the effect of these factors. It is a subjective adjustment. Although this is a judgment call, it seems obvious to me that a company with good marks in all of these factors would command a higher multiple than one not so blessed.

Even though I seldom find private transactions or public companies that are good direct comparisons, if there are a number of observations available, the range of information from these sources can sometimes be extremely useful in showing a pattern and range of pricing. In some industries, I may find that multiples of book value, sales or EBITDA provide a range of pricing that should be considered. Also, this market data can be useful in highlighting a case that falls outside of the general methodology I have laid out above.

I've also got to point out that there are a number of situations that fall outside of the general scheme I've discussed. Examples include start-up companies, troubled companies, and industries with unique factors that lead to a different pricing methodology. These are usually cases where the classic income approach may not be the primary approach.

In the *ASA Business Valuation Standard on Reaching a Conclusion of Value*, the heading for Paragraph III now reads "Selection and Weighting of Methods." I was the chairman of the committee that originally wrote this standard and we did not use the term "weight." Instead, it read "weigh." This was not a typo but was intentional. It is too bad that it was changed in a subsequent revision because it changed the meaning. The original idea for the term "weigh" was that when you reached a conclusion you would not always use a mathematical weighting, but rather you would consider all the approaches together and weigh the results of different approaches and methods to reach a judgment on the best conclusion. The general scheme I have discussed above is just such a weighing process where an income approach and market data are considered together to formulate the final conclusion.

It is our task as business valuators to determine the likely market price that we believe would prevail in the market. It would be pleasant if there was hard and fast market data that could be used to "prove" such a value, but this can seldom be done in a precise way. Unfortunately, the market itself isn't based on such data and participants use the kind of information and the process I have discussed above to determine a price that is in line with their unique goals and perceptions. The best approach to determine the market price is to duplicate the process used by likely market participants and with assumptions that are believed likely to be used by them.

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CAPITAL STRUCTURE OF PRIVATE FIRMS

Capital structure is the mix of debt and equity to finance a firm's assets. To value firms, the mix is used to estimate a firm's total cost of capital for applying the income approach with present value calculations. One discounts a firm's estimated future cash flows to a present value by its weighted average cost of capital to determine the enterprise value.

Private firm capital structure is difficult to observe. Data are generally private and not easily collected. Valuation practitioners may assume that private firms are financed like listed firms and use capital structures of listed firms to proxy for private firms. They might assume the average or median capital structure of listed firms in a particular industry proxy for the capital structure of a private firm in that industry.

What is the evidence on private firm capital structure? Brav (2009) compares capital structures of listed and unlisted firms in the UK and observes they differ. He finds that private firms tend to rely almost exclusively on debt financing when seeking external capital. He also finds that private firms have higher leverage ratios and tend to avoid external capital markets. Moreover, private firms rely more exclusively on the internal capital generation. Brav also finds that unlisted firms have average leverage ratios about 50 percent higher than listed firms. Moreover, such firms use more short-term debt rather than long-term debt on average. Private firms have almost 75 percent higher average short-term debt to long-term debt ratios compared to listed firms. Crain (2013) finds that private firms have mean and median leverage ratios of approximately 50 percent and short-term leverage ratios over twice as large as long-term leverage ratios.

Over the past several decades, the finance literature has had two main theories of capital structure: the trade-off theory and the pecking order theory. The trade-off theory explains firm capital structure as a trade-off between the benefits and costs of borrowing. Corporations generally receive tax benefits by borrowing as loan interest reduces taxable income. Other things being equal, companies have an incentive to use debt over equity for firm finance. Rising bankruptcy risk, however, puts constraints on managers from borrowing excessively. The trade-off theory predicts that firms use debt for finance until the marginal cost of debt equals the marginal cost of equity. At this point is a firm's optimal capital structure.

The pecking order theory of capital structure largely explains firm finance in terms of information asymmetry. Insiders have more information about their firm than outsiders such as lenders and equity investors. This perception increases risk for capital suppliers, who require higher returns as compensation. Firms with higher information asymmetry have higher costs of capital. Although the pecking order theory applies to all firms, it predicts the effects are stronger in private firms. Small and medium enterprises (SMEs) tend to have greater information asymmetry compared to listed firms. On average, listed firms produce higher quantity and quality information. Private firms face higher costs of capital and higher monitoring costs since capital suppliers seek more information. Firm managers demand less capital from external sources as costs increase, especially new equity. The pecking order theory predicts that managers have a hierarchy of preferred sources of capital. Firms prefer internal over external finance, and debt over equity when seeking external sources. The "pecking order" sources are internal funding such as retained earnings (and perhaps owner savings for SMEs), private debt such as bank loans and leasing, and equity capital from outside investors as a last resort. Optimal capital structure has no role in the pecking order theory as firm managers instead apply this hierarchy for finance. Firms first access internal sources such as retained earnings to the extent funds are available, then external debt, and then external equity if needed.

Empirical tests on listed firms offer some evidence for both the pecking order and trade-off theories. Further, Cole (2013) and Crain (2013) find evidence for both theories in unlisted firms.

The evidence shows that SMEs and listed firms have different capital structure on average. Evidence shows that unlisted firms tend have higher leverage ratios than listed firms. Theory and evidence suggest that SMEs prefer internal over external finance. Thus, simply assuming that mean industry leverage ratios of listed firms proxy for unlisted firm leverage does not seem reasonable on average.

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