Beginning ESOP Valuation

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There are three valuation approaches and certain adjustments to the value. We will discuss below how these methods work and when they might be appropriate.

Asset Based Approach

The *Asset Based Approach* is a general way of determining a value indication of a business’s assets and/or equity interest using one or more methods based directly upon the value of the assets of the business less liabilities.

Examples of situations requiring the asset approach:

* The company being valued is an investment company of some type. For example, it invests primarily in real estate and/or stocks and bonds. A real estate investment trust would be an example of a company where an asset approach might be appropriate.
* The block of shares being valued is large enough to force a liquidation of the company.
* The company whose stock is being valued may be liquidated in the near future.
* The block of shares being valued is a controlling block and the market and asset values are much smaller than the net asset value.
* We may, in part, use an asset approach if the company whose stock is being valued has non-operating assets. For example, if the company owns real estate that is not being used in the operations of the business, such an asset would be a non-operating asset. The book value of this asset would be subtracted from the total value of the assets of the balance sheet, and the fair market value of this real estate would be added to the operating value of the company. All income generated by this real estate would be eliminated from the income statement.

Income Based Approach

The *income based approach* is a general way of determining a value indication of a business, business ownership interest or security using one or more methods wherein a value is determined by converting anticipated benefits.

The income approach and the market approach are not as distinct from each other as one might suppose.

For example, in the application of the income approach, if we are applying the capitalization of cash flow valuation method, we might use some type of market data upon which to base a capitalization rate or a discount rate. Are we using the income approach or the market approach?

 For our purposes in this discussion, we will assume that the capitalization of cash flow method and the discounted future cash flow method are both income approaches.

Capitalization of Cash Flow

1. Estimate the capitalization rate

There are many ways to do this, but generally the formula is as follows:

 Risk-free rate of return (usually 20-year treasury bonds)

 + Equity risk premium

 + Small stock premium

 + Company-specific risk premium

This yields the *discount rate* or *expected rate of return* as it is sometimes referred to.

We then subtract the long-term growth rate to yield the *capitalization rate*.

As complicated and controversial as the estimation of a capitalization rate can be, the estimation of the *cash flow capacity* figure is typically even more difficult.

2. Estimate the *cash flow capacity*

The cash flow capacity (or earning capacity) is the level of sustainable cash flow that a company can maintain excluding extraordinary and non-recurring items.

It can involve using the most recent cash flow figure, some type of averaging or some other estimate.

When the cash flow has a very steady increase, both historically and prospectively, as shown below, estimating the cash flow capacity is relatively simple.

The historic cash flows are shown in blue and the prospective cash flows are shown in red. If the projections provided by management are realistic, we would probably lean toward the 2011 cash flow figure as being the cash flow capacity of this company.

When the cash flow is erratic, as shown below, deciding on a cash flow capacity is made much more difficult for the appraiser.

Here the company has no discernible pattern of generating cash flow. Also, note that management’s forecasts appear to bear little resemblance to the company’s historic performance. This can make it difficult for the appraiser.

A simple average or a weighted average may have no relevance depending upon the facts and circumstances.

The mean average of the last four year’s cash flows is $1,131,250. The weighted average for the last four years with increasing weights from one to four is $1,302,500. Yet management predicts that the cash flow for 2012 will be $2,400,000.

What is the cash flow capacity that we divide the capitalization rate into?

Let us assume a capitalization rate of 14%.

If we use the mean average of the historic cash flows to estimate the cash flow capacity, the value would be $8,080,357.

If we use the weighted average, the value would be $9,303,571.

If we use the cash flow projected for 2012, the value would be $17,142,857.

You can see the difficult task that is set before the appraiser!

Discounted future cash flow method

This method bases the value on the projections of cash flow provided by the management of the company to be valued. We use the discount rate that we covered in the discussion of the capitalization of cash flow method to discount the expected cash flows to the valuation date.

As in the case of the capitalization of cash flow method, we depend upon investment data, in the form of a discount rate and capitalization rate, and cash flows. In this case, the future cash flows were projected by management.

One difficulty of using the discounted future cash flow method is that management can effectively control the ultimate value of the company through its cash flow projections. If management inflates the projections, the value would, of course, be inflated. In the chart that we just discussed, we see that management forecasted much higher cash flows into the future than there were in the past. In the next chart below, we see the classic *hockey stick*.

In the last two charts, we can see that some exploration of the validity of the projections is necessary in order for this valuation method to be used to produce near realistic results.

We keep close track of how reliable the Company is at achieving its projections when we do the valuation annually. When we apply the discounted future cash flow valuation method, the historic reliability of the Company’s projections will be considered in our choice of a discount rate or a *probability adjustment*.

Another distorting factor in the application of the discounted future cash flow method is the *terminal value*. In the last year of the projection, we anticipate what the Company will be worth in that year. This figure is usually based upon the cash flow that is expected to be generated by the company in that year. If, therefore, that last year’s cash flow figure is particularly high, the whole valuation may be distorted.

In the next three charts, below, we show a comparison between projections (revenue, EBITDA and EBITDA margins) made in 2010 and those made in 2011:

Revenue Projections: Last Year and This Year

EBITDA Projections: Last Year and This Year

EBITDA Margin Projections: Last Year and This Year

As can be seen, management in 2011 is now forecasting lower revenue and sharply lower margins and profits.

The next chart shows how successful a company has been at forecasting its EBITDA since 2005:

Historic Success At Forecasting Next Year’s EBITDA

As can be seen, the success rate has been somewhat mixed.

Adjustments to Value

 A very simplified illustration of control and marketability adjustments is shown below. This is known as a “level of value” chart.



Non-controlling versus controlling interests

This is a complicated issue. There is some question as to whether ESOP stock can be valued on a controlling-interest basis (*Eckelcamp* etc.), whether that valuation is for the initial ESOP purchase or if it is for an annual update. For purposes of this discussion, we will assume that it is possible to value ESOP stock on a controlling-interest basis.

*What is control?*

It should be up to the ESOP’s counsel to decide whether the ESOP owns a controlling interest in the company. “Control” can mean owning over 50% of the common stock and may have something to do with the actual control that the ESOP trustees have over the policies of the company.

*Discount for lack of control versus control premium*

Different valuation methods applied in different ways may yield either a controlling value or a non-controlling value. So, if the desired result is a non-controlling interest value, we would not necessarily apply a minority discount since the method being applied may actually yield a non-controlling (or minority) interest value.

Likewise, if the desired result is a controlling interest value, we would not necessarily apply a control premium since the method being applied may actually yield a controlling interest value.

Many appraisers believe that the application of the capitalization of cash flow method or a market method using publicly-traded guideline companies yields a non-controlling value. There is some controversy on this subject.

Typically, values yielded by non-publicly-traded companies will be controlling values because the transactions upon which the values are based are sales of whole companies. Then there may be adjustments necessary when the transaction is an asset sale as opposed to a stock sale.

Some appraisers contend that there should be no such thing as a control premium. Their argument is that if there is a difference between a non-controlling interest and a controlling interest value, that difference would be represented by additional cash flows that would be available to co-owners because of the control. I believe that even if there are no additional cash flows evident from the acquisition of a controlling interest in a company, there is still additional value that accompanies control.

Discount for lack of marketability

If the ESOP stock is not publicly-traded, the stock should be valued on a *non-marketable interest basis*.

Many appraisers believe that the application of the capitalization of cash flow method or a market method, using publicly-traded guideline companies, yields a marketable interest value. In order to translate this marketable interest value into a non-marketable interest value, we typically apply a discount for lack of marketability.

These discounts are often based upon studies of either initial public offering (“IPO”) discounts and/or discounts found in restricted stock studies. There are a number of IPO and restricted stock studies that appraisers use to help them estimate a discount for lack of marketability.

There are several factors that are typically considered in estimating a discount. They include:

* The size of the block being valued.
* The profitability of the company.
* The financial condition of the company.
* Any agreement, such as an ESOP trust agreement, that may create a market for the stock of the company.

The final factor is the justification for estimating relatively low levels of discounts for lack of marketability for ESOP stock.

Discussion

A copy of this handout along with the lecture slides is available at

<http://advancedval.com/publications.html>

THE BACKGROUND OF BARRY R. GOODMAN

He has the following professional designations that require an examination:

Chartered Financial Analyst

Certified Business Appraiser

Certified Public Accountant

Accredited in Business Valuation

Accredited Senior Appraiser - American Society of Appraisers

Fellow - Financial Analysts Federation

Certified Financial Planner

In addition, he is active in the following organizations:

American Society of Appraisers

(Business Valuation Specialty)

American Institute of Certified Public Accountants

Greater Washington Institute of Certified Public Accountants

(Valuation Committee)

Employee Stock Ownership Association

(Business Valuation Advisory Committee/Chairman of Leverage Buyout Sub-Committee)

National Economists Club

Washington Society of Investment Analysts