INTRODUCTION

Generally, the value of a company is based on its earnings- and cash-flow-generating abilities. Specifically, the value of a company is often calculated as the present value of all the cash flow it can reasonably be expected to generate in the future.

The income approach—discounted cash flow (DCF) method—is based on the calculation of a present value of a business’s anticipated future cash flow. The two components of the DCF method are (1) the financial projections (i.e., the anticipated future cash flow) and (2) the estimation of an appropriate risk-adjusted required rate of return used to discount the estimated future cash flow back to present value.

Financial projections can also be important in the selection of pricing multiples when applying the market approach (for example, in the market approach guideline transaction method and the guideline publicly traded company method). All else equal, a valuation analyst will typically select a higher pricing multiple (e.g., a price-to-earnings pricing multiple) for a company with higher projected earnings or cash flow growth.

Typically, the analyst does not directly participate in the preparation of the company financial projections. However, the analyst should perform a sufficient amount of due diligence and quantitative/qualitative analysis with regard to management’s financial projections. Such due diligence procedures typically are necessary to properly estimate the value of the subject company.

The financial projections used in an ESOP sponsor company valuation should be (1) consistent with the employer company’s expected future growth prospects and (2) reasonable or reconcilable in comparison to the employer company’s historical operations and the industry in which it operates. An ESOP sponsor company valuation based on unreasonable financial projections can often yield an unreasonable value (i.e., “garbage in, garbage out”).

This discussion describes the (1) role of projections within the income approach—discounted cash flow method, and (2) proposed procedures that may be used to facilitate proper treatment and reliance on management-prepared projections in an ESOP sponsor company valuation.

THE DCF METHOD AND MANAGEMENT-PREPARED PROJECTIONS

The DCF method estimates the value of the employer company as the present value of the employer company’s prospective net cash flow (NCF) generating capacity. This valuation method typically
combines an analysis of a discrete NCF projection period (e.g., a five-year projection period) with an analysis of the residual value of the employer company (often based on the direct capitalization of a single-period NCF as an annuity in perpetuity).

Generally, the DCF method is less influenced by the effects of short-term aberrations in employer company performance or in investment market dynamics.

The DCF method is a generally accepted valuation method in an ESOP employer stock valuation. The long-term perspective of the DCF method is consistent with the long-term investment time horizon of the ESOP. The DCF method tends to mitigate short-term aberrations for the following reasons:

1. It is a prospective, or forward-looking, analysis involving a long-term cash flow projection.
2. The net cash flow projections generally predict a return to normalized financial performance, even if recent performance has been unusually superior or inferior compared to the normal financial performance of the employer company.
3. The longer projection period, often five years or more, may better reflect the earnings capacity, cash flow capacity, and dividend-paying capacity of the employer company over a long-term investment horizon.

The analyst may also consider the application of income normalization procedures in the DCF method. The base period on which the cash flow projections are made should be a normalized period. Trending based on a particularly depressed or inflated performance period may produce unrealistic cash flow projections.

Further, the residual value analysis—the valuation of the employer corporation at the end of the discrete projection period—should also consider a long-term investment time horizon.

Finally, the investment yields used to estimate an appropriate present value discount rate generally should be derived from the analysis of long-term investment returns. A common discount rate method involves using the weighted average cost of capital. The weighted average cost of capital blends the cost of debt and the cost of equity. It is common for such capital costs to be based on long-term investment returns for debt and equity.

Generally, the indication of value resulting from the DCF method should represent the value of the ESOP-owned employer securities that is consistent with its long-term financial performance and the long-term investment objectives (i.e., risk tolerance and return preference) of the ESOP participants.

It may be reasonable to assume that a hypothetical willing buyer would also have similar long-term expectations and objectives.

**Forecast versus Projection**

While it may seem unimportant, the simple labeling of the estimated future earnings of a business, as either a forecast or a projection, is a topic of discussion within the valuation industry. As presented in *Understanding Business Valuation* and *PPC's Guide to Business Valuations*, the differentiation between a forecast and a projection is as follows:

1. **Financial forecast.** Prospective financial statements that present, to the best of the responsible party's knowledge and belief, an entity's financial position, results of operations, and cash flows. A financial forecast is based on the responsible party's assumptions reflecting the conditions it expects to exist and the course of action it expects to take.
2. **Financial projection.** Prospective financial statements that present, to the best of the responsible party's knowledge and belief, given one or more hypothetical assumptions, an entity's expected financial position, results of operations, and cash flows. A financial projection is sometimes prepared to present one or more hypothetical courses of action for evaluation, as in response to a question such as, “What would happen if...?”

According to *Understanding Business Valuation* and *PPC's Guide to Business Valuations*, the analyst should refer to the employer company management-prepared estimated future earnings as a financial forecast.

However, as previously discussed, there exist differing points of view. For instance, as noted in *Valuing a Business*, author Shannon Pratt prefers the term “projected” in defining the estimated future benefits of ownership of a business. Similarly, as noted in *Financial Valuation Applications and Models*, author James Hitchner applies the term “projections” to define estimated future cash flow or economic benefits.

*PPC* and Gary Trugman, author of *Understanding Business Valuation*, prefer to use the term “forecast” rather than “projection” based on the definitions provided above. For purposes of this discussion, the term “projection” will encompass all employer company management estimations of future cash flow, earnings, or benefits to be utilized in the income approach—DCF method.

Further, an analyst typically should not use the term “forecast” unless he or she is prepared to be the “responsible party” for all of the financial information.
used to prepare the forecast. A projection, however, generally means that the analyst is using data that has been provided by a third party (i.e., employer company management), and adjusted, if necessary, by the valuation analyst.

**Expected Cash Flow**

When completing the DCF method, the projections should be based on the sponsor company's expected cash flow. The sponsor company's expected cash flow typically does not represent the “best case” cash flow scenario or the “worst case” cash flow scenario. Instead, the sponsor company's expected cash flow typically represents a level in between the high and low case scenarios.

In theory, the sponsor company’s expected cash flow should incorporate a probabilistic range of potential outcomes. In practice, a sponsor company’s expected cash flow generally is understood to represent the “most likely case” cash flow.

**Use of Historical Financial Data in Preparing Projections**

The DCF method ultimately may not provide a meaningful value indication based on the fact that any DCF analysis is only as good as the underlying data and assumptions incorporated in the analysis. A DCF method may be prepared by the valuation analyst with the best of intentions. However, it may be dependent on flawed data.

It is common for historical results to be used as a starting point or basis for management-prepared projections. For a variety of reasons, reliance on historical financial information can result in misleading information for purposes of preparing projections. That is, the historical financial statements may not appropriately reflect the value inherent in the employer company’s operations on a forward-looking basis.

For example, the historical financial statements may include revenue and/or expense items that are not expected to recur. Historical financial statements should be properly normalized in order to reflect a reasonable level of recurring expected revenue and expense.

Additionally, the sponsor company and/or the subject industry may be undergoing substantial change. In essence, historical company/industry results cannot simply be assumed to be indicative of prospective company/industry results.

**General Due Diligence Related to Management-Prepared Projections**

It is intuitive that wholesale acceptance of management projections, when applying the DCF method in an ESOP employer stock valuation, may reduce or eliminate the analyst's objectivity. If data provided by management is blindly accepted by the analyst as being appropriate and reasonable, the conclusion of value may not be indicative of the expected cash flows of the sponsor company.

When completing the DCF method in an ESOP valuation, the analyst's due diligence process generally should include a detailed analysis of the assumptions on which management's projections are based. As presented in *Understanding Business Valuation*, several general factors that the valuation analyst should consider in analyzing management projections include (1) company-specific factors, (2) economic conditions, and (3) industry trends.

When considering company-specific factors, *PPC's Guide to Business Valuations* suggests carefully analyzing the financial projection assumptions related to (1) revenue and receivables; (2) cost of sales and inventory; (3) other costs/expenses (e.g., selling, general, and administrative expenses); (4) property and equipment (capital expenditures), including the related depreciation; (5) capital structure; and (6) income taxes.

**Reasonableness of Management-Prepared Projections**

One of the purposes of the due diligence procedures related to management-prepared projections is to assist the analyst in assessing the “reasonableness” of the projections. That is, do the projections present a “reasonable” estimate of the expected cash flows for the sponsor company?

There are no clear and defined guidelines on specifically measuring the “reasonableness” of projections. However, the term “reasonableness” in this context generally relates to an analyst’s judgment based on consideration of factors such as the following:

1. Consistency regarding the sponsor company’s growth prospects
2. Comparability to the sponsor company’s historical results
3. Achievability based on the sponsor company’s operating capacity and expected future capital expenditures
4. Comparability to the overall industry historical and forecasted results
5. Comparability to earnings and growth estimates for comparable/guideline publicly traded companies
6. Consistency with regard to the expected future outlook of the regional, domestic, and international (if applicable) economy

**SUMMARY AND CONCLUSION**

The income approach, DCF method, is based on the calculation of the present value of a business’s anticipated future earnings. The two components of the DCF method are (1) the estimation of future economic earnings and (2) the estimation of an appropriate risk-adjusted required rate of return used to discount the estimated future earnings back to present value.

Management projections used in the DCF for purposes of an ESOP valuation should be based on the expected cash flows of the employer company. Such projections should be reasonable, achievable, and properly documented. Factors to consider in analyzing projections include employer company growth prospects, historical financial results, operating capacity, expected capital expenditures, and the expected future outlook of the relevant industry and the economy.

Many of the issues regarding the use of management-prepared projections to complete an ESOP valuation may be mitigated or eliminated by adhering to a consistent process that contemplates the factors identified above.

**Notes:**

1. There may be instances where it is necessary and/or appropriate for a valuation analyst to assist management in preparing the projections and/or adjusting projections prepared by management.


8. Fatema advises clients in corporate transaction matters, including strategic affiliations, hospital-physician integration, hospital mergers, joint ventures, tax-exempt bond financing, and consolidations of physician groups. She regularly prepares corporate governance documents, medical staff bylaws, professional services agreements, physician employment and recruitment agreements, and management contracts.

Fatema has a particular interest in counseling hospitals in their efforts to ensure a cooperative environment between the hospital and its medical staff. She reviews and updates medical staff governance documents and policies, represents hospitals during fair hearing proceedings, and has defended hospitals in litigation.

**About the Award**

Chris and Fatema’s article is recognized for its contribution to, and advancement of, the professional literature related to the discipline of health-care-related valuation. The ten criteria for the selection of this literary achievement award are as follows:

1. Originality of the topic and of the conceptual ideas
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7. Quality and organization of the discussion presentation
8. Depth and development of the analysis presented
9. General usefulness to *Insights* readers
10. General level of interest to *Insights* readers

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