

## Business Valuations

With all the business acquisitions and sales, divorces, litigation etc., these days sooner or later one of your clients will probably need a business valuation. If you don't regularly do valuations, the task may seem intimidating. Granted business valuations is an area of expertise that some practitioners devote themselves to; however, with some knowledge and the right tools it doesn't have to be an opportunity you shy away from. Even if you're not the one preparing the valuation, having some knowledge of the valuation process will help you analyze the results and advise your client.

In this white paper we're going to give you an overview of business valuations using the income approach. Armed with knowledge and the Consultant Edition of PlanGuru which has the tools you need to prepare the valuation, you'll be prepared to take on the challenge.

### The Income Approach

When it comes to valuing a privately held business as a going concern, the income approach is the most widely recognized approach. The income approach is based on the premise that the best way to measure the business' value is to measure the value of the net cash flows it produces. However, if it has assets that have a liquidation value higher than the value of the income stream the assets produce, an asset based approach may be more appropriate. An example might be a farm that has land that would be valuable for housing development.

Within the income approach several methodologies exist. Why do you need more than one? Each one provides conceptual differences that are going to produce different results. Since valuing a business is not an exact science, having multiple valuations methods will help you develop a consensus valuation. So what are the methods?

**Discounted Cash Flow Method** – If you took finance 101, you're probably familiar with the concept behind the discounted cash flow method. This method says the business' value is equal to the sum of the present values of future cash flows.

The process of valuing a company using this method entails:

- Forecasting normalized cash flow for an explicit number of future periods, usually not more than 5 years.
- Forecasting an average growth rate for cash flow for the periods following the explicit forecast period.
- Selecting the appropriate discount rate.

**Capitalized Cash Flow Method** – The capitalized cash flow method is an abbreviated version of the discounted cash flow method. It is abbreviated because it only requires forecasting cash flow for the first year and assumes a constant growth rate in net cash flows for all periods after the first year. If a company is in a start up phase or in a period where it expects to experience rapid growth for some period but then the growth rate to change, this method would not be appropriate. To compute the capitalized earnings method, you need to:

- Forecast normalized cash flow for the next year.
- Forecast an average growth rate for cash flow for future periods
- Selecting the appropriate discount rate.

**Excess Cash Flow Method** – Unlike the other 2 income methods, this method uses historical earnings rather than forecasted earnings for the purposes of determine the business' value. In addition, this method is not a pure income approach since it requires a determination of the fair market value of the company's tangible assets. This method attempts to estimate the value of intangible assets and then adds the fair market value of tangible assets to arrive at total value for the company.

The Excess Cash Flow Method was introduced by the US Treasury Department back in the 1920s and is still popular in valuing businesses for divorce cases especially in jurisdictions where goodwill is considered a non-marital asset. To compute a business' value using this method, you need to:

- Determine the normalized cash flows for preferably the 5 preceding years.
- Determine the fair market value of the "net tangible assets"
- Select appropriate rates of return for both tangible and intangible assets.

For all the methods, once you've determined the inputs described above, computing the value is a mechanical process, granted a complex one. The good news is that PlanGuru can help you forecast future cash flows. Plus, the Consultant Edition helps you with the normalization process and takes care of the computations specific to all three methods.

## **Business Valuations – Normalizing Earnings**

The first step in the valuation process using the income approach methods is defining historical and future cash flows of the business. Historical information will come from past financial statements and future cash flows from forecasts.

The next step is the normalization process. The normalization process involves eliminating or adjusting items that are not representative of appropriate benefit streams. The normalization process generally involves five categories of adjustments:

**1. Adjustments for ownership characteristics** – In closely held businesses it is not uncommon for the controlling shareholders to extract financial benefits from the business in excess of the fair market value of the services they're providing. They can take many forms including:

- Excess compensation
- Excess fringe benefits
- Excess rental payments
- Non-business travel and entertainment paid by the company
- Excess perquisites

Since the "willing buyer" of a control ownership could reduce these items to market levels, it is appropriate to add back these excess items to cash flow to reflect the additional economic benefits that would be available to the "willing buyer."

**2. Adjustments for GAAP departures, extraordinary, nonrecurring and/or unusual items** – The goal is to present a normal operating picture of cash flows. Consequently, it is appropriate to remove the effects of:

- Departures from GAAP
- Extraordinary items – such as the effects of a catastrophic event such as a fire or hurricane.
- Nonrecurring items and unusual items – such as purchase of fixed assets far beyond the company's historical norms.

**3. Adjustments for non-operating assets and liabilities and related income and expenses** – The income approach valuation method result in the valuation of the company's tangible and intangible operating assets. Therefore it is important to remove all non-operating assets and liabilities and their related income and expense. For example, if a company owned airplane was determined to be considered a non-operating asset. Any related rental income, repairs and maintenance expense, or interest expense should be removed from the operating stream benefit. Generally non-operating assets and liabilities are added back to the valuation at FMV.

**4. Taxes** – Income taxes represent a very real use to cash flow and must be considered carefully. Taxes should be based on the future income that was determined in the valuation process. In determining the tax on future income, you need to decide whether to use:

- Actual tax rates
- Highest marginal tax rate
- Average tax rate

The choice can have a significant impact on the after tax cash flows.

**5. Adjustments for synergies from mergers and acquisitions** – A merger can result in synergies such as the eliminations of office rent when operations are combined. If forecasts of future cash flow included rent on existing office space, the eliminating of the expense would take the form of an adjustment.

Normalization adjustments can have a significant impact on the benefit stream. Consequently, the normalization process deserves significant consideration.

## Business Valuations - Defining the Benefit Stream

The most common definitions of future economic benefits are net income and net cash flow. The usefulness of net income as a measure of economic benefit for valuation purposes lies in its familiarity as a measure of economic benefit. The problem with using net income as the economic benefit is that it is more difficult to develop discount and cap rates relative to net income. Cash flow rates of return are more readily available using traditional cost of capital techniques.

In recent years, net cash flow has become the most often used measure of future economic benefit because it generally represents the cash that can be distributed to equity owners without threatening or interfering with future operations.

**Defining Net Cash Flow** – Net cash flow is defined differently depending on the method of the income approach selected. Whether using the discounted cash flow or capitalized cash flow method, the analyst can elect to rely on the direct equity method or the invested capital method.

**Direct Equity Method** – In the “direct to equity” method cash flows related to servicing debt (interest and principal repayments) are taken into account and what is left is available to equity owners. This is the debt inclusive model and is computed as follows:

Net income after tax  
Plus: depreciation, amortization and other non-cash changes  
Less: incremental working capital needs  
Less: incremental capital expenditure needs  
Plus: new debt principal  
Less: repayment of debt principal  
Equals: net cash flow direct to equity

**Invested Capital Method** – The “invested capital” method excludes interest expense and debt principal proceeds and payments. The cash flows here are available to service both equity and interest bearing debt. To derive equity value using this method, actual debt is subtracted from the total value of the benefit stream. This is the debt free method and is computed as follows:

Net income after tax  
Plus: interest expense  
Plus: depreciation, amortization and other non-cash changes  
Less: incremental working capital needs  
Less: incremental capital expenditure needs  
Equals: net cash flow direct to invested capital

**The Benefit Stream and PlanGuru** – The business valuation feature of PlanGuru which is included in the Consultant Edition by default computes the benefit stream using the “invested capital” or debt free method. However, the cash flows can be easily converted to the “direct to equity” method by entering interest expense and changes in debt principal as normalization adjustments.

The method chosen effects the discount rate used in discounting or capitalizing the benefit stream. If you are using the “direct to equity” method, the discount rate should only include the cost of equity capital since the cost of debt is already built into the computations. If using the “invested capital” method, the discount rate will be the company’s average cost of capital for both debt and equity capital.

If significant refinancing or new financing is anticipated, converting the net cash flows to the “direct to equity” method maybe more appropriate.

## Determining the Discount Rate

In the income approach the value of a company is a function of 3 variables:

- The economic benefit stream (usually cash flow)
- The company’s growth potential
- The risk involved in receiving the benefits (i.e., the discount rate)

One of the most difficult and complex issues to deal with when valuing a company can be determining the appropriate discount or capitalization rate to use in valuing the benefit stream. Unfortunately, there is no source you can go to that will tell you the discount rate of a certain type of business should be X%. Developing a discount rate is subjective, even for valuation experts.

The discount rate, also referred to as the cost of capital represents the economic cost of attracting capital. The most important component determining cost of capital is the riskiness of the investment.

A company's cost of capital has 2 components, debt and equity. Each has a separate cost of capital. When future cash flows are computed on a "debt free" basis, you need to develop a weighted average cost of capital. If debt service is included in the forecasted cash flows, only a cost of capital for equity is needed.

If you have the PlanGuru Consultant Edition, by default it computes cash flow on a debt free basis. If you want to convert the amounts, "a cash flow to equity" basis you can add interest expense and principal payments on the debt back as normalization adjustments.

**Cost of Equity Capital** - Developing a cost of equity capital is the most difficult. There are several methods for developing the cost of capital. Some methods like the Capital Asset Pricing Model are very complex and beyond the scope of the non specialist. For small and medium sized businesses the Build-Up Method is the most commonly used methodology. In the Modified Build-Up Method equity cost of capital is computed as follows:

- Risk-free rate of return (example - rate of return on 20-year US Treasury Bond)
- + Equity risk premium (example - rate of return for S&P 500 – risk free ror)
- + Size premium (small companies are riskier than large companies therefore they must pay a premium to attract funds )
- +/- Industry risk premium (some industries are more or less risky)
- + Specific company risk
- = Cost of equity capital discount rate

The good news is that there are published surveys that can help you deal with the first 4 factors of the equation. The bad news is the surveys aren't free of charge. Ibbotson Associates [www.ibbotson.com](http://www.ibbotson.com) publishes cost of capital for over 300 industries. The other shortcoming of the Ibbotson surveys is that they only include publicly traded companies. Consequently, data on size premium may not include companies as small as most closely held companies.

Specific company risk is one of the most subjective areas of business valuation and measures internal risk unique to the company including such things as management, leverage, dependence on specific suppliers or customers.

**Cost of Debt Capital** – You can use the company's current borrowings to measure the cost of debt capital. However, current available rates should be checked against the company's actual rate. Since interest paid is deductible, the cost of debt is derived by multiplying the interest rate by 1 minus the entity's tax rate.

**Weighted Average Cost of Capital** – if cash flow was computed on a debt free basis (interest and principal payment were not included in the cash flow computations), the discount rate is the company's weighted average cost of capital, which is computed as follows;

Weighted average cost of capital =  
Cost of equity capital x Percentage of common equity in capital structure + After tax cost of debt \*  
Percentage of debt in capital structure.

In privately held companies where no market exists for the companies stock, market values must be estimated to assign weights to the capital structure components.

**Conclusion** – If you're ready to throw up your hands and say this all seems too difficult, I better leave this valuation stuff to experts, don't give up so easily. Remember even for the experts, there is a lot of subjectivity in coming up with a discount rate and there is no right answer.

Based on published information we've reviewed using the Modified Build-Up Method, the following might be reasonable guidelines:

Total of risk free and equity premium	9%
Size premium for small to medium privately held company	5 to 8%
Industry premium – depending on riskiness of industry	-2% to +7%

Specific company risk

0 to 10%

Obviously, the values you choose may be influenced by the purpose of the valuation. If you are doing it for estate tax purposes or you're representing a buyer, you choose toward the higher end of the ranges. Conversely if you're representing a seller, you be inclined to pick toward the lower end of the range.