

Valuation Methodology: Income Approach

As discussed earlier in this study, the value in a larger, profitable business is an owner's ability to receive profits and experience the increase in value of his or her respective share of the business as growth continues, also known as capital appreciation. In this instance, the Income Approach to valuation, which measures the value of the internal benefit stream received by a business's owner is an appropriate approach to determining value.

The Income Approach is based on the concept that a business's value lies in the future economic benefits that will flow to the owner of that business. In all variants of the Income Approach, the value of the forecasted economic benefits is adjusted for risk and the time value of money using either

a capitalization rate or discounting process. There are two commonly used methods of valuation under the Income Approach: Capitalization of Future Benefits Method or the Discounted Future Benefits Method. In the context of valuing financial services businesses, "future benefits" most commonly refers to projected revenue, earnings, and/or cash flow.

CASH FLOW VS. EARNINGS BENEFIT STREAMS

Economic benefit streams are typically a measure of earnings or a measure of cash flow. Most business owners are familiar with levels of earnings, such as Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA), Earnings Before Interest and Taxes (EBIT), Discretionary

Figure 13.1 Valuation Methodology Flow

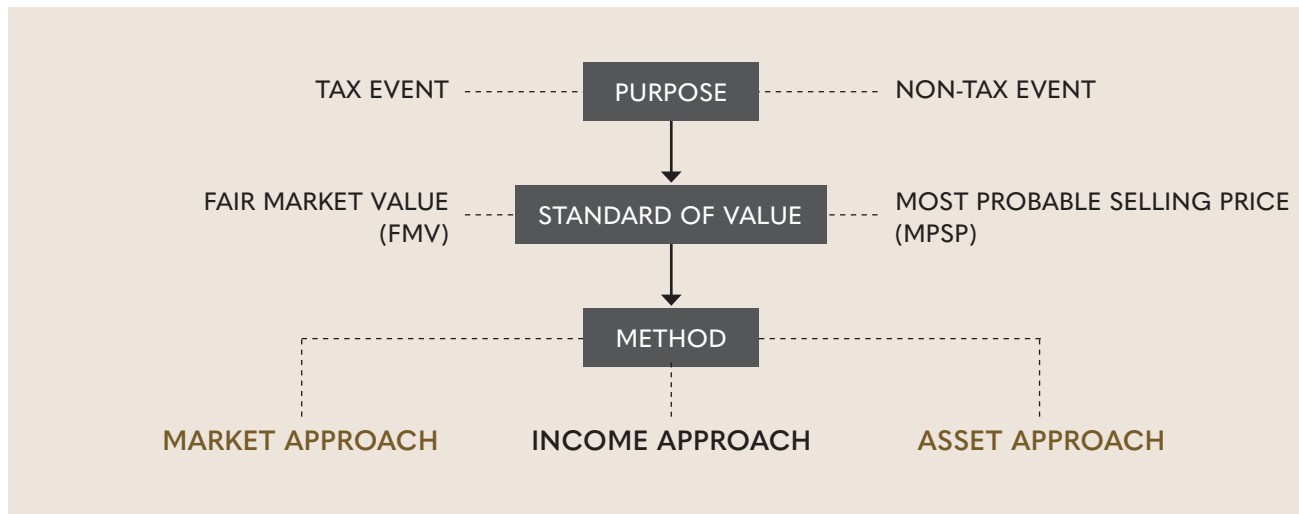


Table 13.2 Business Cash Flow Calculations

NORMALIZED NET INCOME	NORMALIZED NET INCOME
+ Depreciation & Amortization	+ Depreciation & Amortization
+/- Changes in Working Capital	+/- Changes in Working Capital
- Anticipated Capital Expenditures	- Anticipated Capital Expenditures
+ After Tax Interest	+ After Tax Interest
	+/- Changes in Long-Term Debt
= NET CASH FLOW TO INVESTED CAPITAL	= NET CASH FLOW TO EQUITY

Earnings/Earnings Before Owner Compensation (EBOC), and Gross Revenues. These specific benefit streams are more commonly applied in the context of the Market Approach, as they are typically capitalized using pricing multiples derived from transaction data from comparable businesses (as described earlier in the study). Cash flow is a more commonly used benefit stream in the context of an Income Approach. As opposed to an earnings benefit stream, which measures various levels of profitability within a business, cash flow measures the flow of a dollar from the top line of the business down to the various stakeholders in the business, which can include both debtors and investors. In *Understanding Business Valuation: A Practical Guide to Valuing Small to Medium Sized Businesses*, Gary R. Trugman compares cash flow to a measure of earnings as follows:

A valuation analyst will frequently find that using cash flow is a better measure of the company's earning capacity. This is particularly true when a more realistic picture is being sought of the amount of money that will be available to pay to the owners of the business as a return on their investment. Many profitable companies go out

of business, but it is rare that we see a business with solid cash flow go under.¹

There are two common measures of cash flow in a business: 1) net cash flow to equity, and 2) net cash flow to invested capital. Net cash flow to invested capital is a measure of the cash available to debt and equity holders in a business after all operational expenses have been paid. Net cash flow to equity (sometimes called free cash flows to equity) is a measure of the cash available to equity holders in the business after all long-term, interest-bearing debt has been serviced. Table 13.2 is a basic calculation of both benefit streams for comparison.

The main difference between the two benefit streams is the service of long-term debt. Net cash flow to invested capital as a general rule best represents the economic benefit to all of the providers of capital.² Therefore, it is the most commonly utilized measure of cash flow as a benefit stream. However, in instances where a company has a substantial amount of long-term debt on the books and the intended user of the report is a potential equity partner, net cash flows to equity provides a more accurate representation. Again, the purpose and use of

¹Trugman, Gary R., *Understanding Business Valuation: A Practical Guide to Valuing Small to Medium Sized Businesses*, 4th Edition. (Durham, NC: AICPA, 2012).

²Pratt, Shannon P., Grabowski, Roger J., and Brealey, Richard A., *Cost of Capital: Applications and Examples*, 5th Edition. (Hoboken, NJ: John Wiley & Sons, 2014), 16.

the valuation report will inform what benefit stream should be selected.

The selection of an appropriate discount rate or capitalization rate goes hand-in-hand with the selection of a benefit stream, be it earnings or cash flow. Both discount rates and capitalization rates are intended to express the rate of return required by investors in the marketplace to attract investment in businesses similar to the business being valued.

CAPITALIZATION OF FUTURE BENEFITS

The Capitalization of Future Benefits Method is the simpler of the two methods under the income approach in form and function. The formula below illustrates the components of this method and their function:

$$V=B/R$$

In the formula above, “B” represents a defined benefit stream (i.e. gross revenue, earnings, cash flow); “R” represents the required rate of return on the benefit stream, which is represented by the capitalization rate chosen by the appraiser; and “V” represents the resulting value.

There are a few assumptions made here. First, all of the tangible and intangible assets are indistinguishable parts of the business and no attempt is made to separate their values. Second, and most importantly, the capitalization process assumes that the selected benefit stream will grow in perpetuity at a consistent rate. When growth is expected to be uniform, the selected benefit stream “B” is the first forecasted year (current year plus one year of growth).

While the basic calculation under the Capitalization of Future Benefits Method is relatively simplistic, the calculation of the benefit stream and the selection of the long-term growth rate must be made with care. Any mistake in these inputs can result in an unrealistic valuation. For example, if a long-term sustainable growth rate is unsupported based on the history and the knowable facts about the business, the appraiser will overvalue the benefit stream. Likewise, incorrect assumptions could cause a business to be significantly undervalued.

DISCOUNTED BENEFIT STREAM

Unlike the Capitalization of Future Benefits Method, the Discounted Benefit Stream Method, often referred to as the Discounted Cash Flow Method, assumes that the benefit stream being analyzed will continue to grow in a non-linear pattern for a period of time until it stabilizes and then continues to grow (or decline) at a consistent rate. This method assumes that the value of the business is equal to the future cash flows or earnings of the business discounted back to present value, plus the terminal value of the business. Using this valuation method allows the appraiser to select varying growth rates for the business over the forecasted period using input from management, projections for the growth of the industry, and forecasted growth of the economy as a whole.

Similar to the Capitalization of Future Benefits Method, the Discounted Future Benefits Method requires selecting a benefit stream and a corresponding rate of return, which is represented by a discount rate, not a capitalization rate.

The key distinction between the use of a discount rate and a capitalization rate is

that there is no growth assumption built in to a discount rate. Rather, the relationship between the discount rate and capitalization rate can be illustrated by the following formula:

$$\text{Discount Rate} = \text{Capitalization Rate} + \text{Long-Term Sustainable Growth Rate}$$

A crucial part of any valuation analysis made by a certified appraiser is selecting an appropriate discount rate or capitalization rate that aligns with the benefit stream being valued.

CAVEATS TO DISCOUNT RATES AND BENEFIT STREAMS

In both the Capitalization of Future Benefits and Discounted Future Benefits Methods, the selection of an appropriate benefit stream and discount rate are essential. These two elements are not selected in isolation, and both are affected by the purpose of the valuation.

In *Understanding Business Valuation*, Trugman points out some factors that warrant special consideration:

1. *The nature of the business and its capital structure;*
2. *The purpose and function of the appraisal; and*
3. *The particular subject of the valuation (for example, whether or not the valuation involves a controlling interest or a minority interest).³*

If a business is highly leveraged, not taking into account the continued debt service may not be appropriate given the business's capital structure. Additionally, if the purpose of the appraisal is to determine the fair market value of the business's operating assets (which for the financial services industry indicates the

goodwill established with an advisor's clients) in an M&A scenario, then using an after-tax benefit stream to value the company wouldn't necessarily make sense; i.e., what the seller pays in taxes is irrelevant to the transfer of the benefit stream. Finally, valuing a minority interest with no power to enact changes in a company's capital structure, using a benefit stream in which several control-level adjustments have been made in the normalization process may not be appropriate.

Table 13.3 Pre-Tax vs. Post-Tax Capitalization Rates

COMPANY A: CAPITALIZATION RATES		
EBITDA: \$500,000		
Effective Tax Rate=40%		
	Pre-Tax	Post-Tax
Capitalization Rate	20%	33%
Value	\$2,500,000	\$1,500,000
\$ Difference from Proper Application	\$0	(\$1,000,000)
% Difference from Proper Application	0%	-40%

Table 13.4 Application of Pricing Multiples

COMPANY A: PRICING MULTIPLES			
EBITDA: \$500,000			
	Gross Revenue	EBITDA	EBOC
Multiple	2.5	5	3.5
Value	\$1,250,000	\$2,500,000	\$1,750,000
\$ Difference from Proper Application	(\$1,250,000)	\$0	(\$750,000)
% Difference from Proper Application	-50%	0%	-30%

CAPITALIZATION RATES AND MARKET MULTIPLES

As we mentioned in our discussion of the Market Approach on page 14, the selected market multiple must align to the benefit stream from which it is derived. The same is true of capitalization rates. A pre-tax capitalization

³ Trugman, Gary R., *Understanding Business Valuation: A Practical Guide to Valuing Small to Medium Sized Businesses*, 4th Edition. (Durham, NC: AICPA, 2012).

rate shouldn't be applied to a post-tax or tax effected benefit stream. Similarly, a multiple derived from the relationship between a business's EBITDA and the sales price shouldn't be applied to that business's gross revenue. A brief illustration of this concept and its impacts is included in Tables 13.3 and 13.4.

Under the "Company A: Capitalization Rates" header, a pre-tax and post-tax capitalization rate has been applied to a pre-tax benefit stream (EBITDA) using our formula from earlier: $V=B/R$. When tax is considered, the capitalization rate yields a value on the pre-tax benefit stream that is 40% lower than the correct application of the pre-tax capitalization rate to that same benefit stream. Said another way, applying the improper post-tax capitalization rate to a pre-tax benefit stream will cause Company A to be undervalued by 40%.

There is a similar risk with using pricing multiple approaches. Under the "Company A: Pricing Multiples" header, three separate market-based pricing multiples are applied to one benefit stream. If an analyst were to apply the Gross Revenue or EBOC pricing multiple to the business's EBITDA under the Market Approach, the result would be a business that is severely undervalued.

While the numbers and calculations in Table 13.3 have been simplified, they illustrate a critical point when applying any type of capitalization rate, pricing multiple, or discount rate. Regardless of the method selected for valuation, the applied capitalization rate, discount rate, or pricing multiple must be applied to its correlating benefit stream.

CONCLUSION

Understanding the minutia of the Income Approach to valuation can feel daunting, but the simple truth remains: all else being equal, the more profitable a business becomes, the more value the owners of that business can and should realize. Placed in the hands of a qualified appraiser or analyst, the Income Approach is a great tool that can enable entrepreneurs to establish the value of what they have grown and turn their profits into a payout when the time comes to transition ownership within the company.

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