The Financial Valuation Group

Forensic Accounting, Business Valuation and Consulting Services

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Transparency in Collaboration

Principles of Transparency Specific to the Income Approach

Part 4 of 7 in a Series
By
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Summary

This is the fourth of a series of articles discussing proposed principles of transparency related to business valuations and financial analyses performed in a collaborative process setting. Collaboration in litigation requires transparency, but little is written or discussed about it. This article discusses methods specific to the Income Approach.

In the first article of this series, I proposed specific principles of transparency applicable to a financial analyst, including a business valuator, working in a collaborative process. The specific principles proposed are designed to allow the verification, reproduction and evaluation of findings and conclusions and include:

- Clarity of scope of roles, responsibilities and objectives,
- Open process for formulating reporting,
- Public availability of information,
- Accountability and assurance of integrity,
- Shared vocabulary,
- Benchmarking or verification of work performed, and
- Fees based on time and materials.

In the second article, I proposed general and specific principles to assure transparency of the work performed by a financial expert in a collaborative process. While my proposals are preliminary, they are intended to form a basis for future discussion and development. The full articles issued to date in this Transparency in Collaboration series are available on our web site at www.fvgfl.com.

Income Approach

The Income Approach measures future economic benefits, discounted to a present value. Discounting is the opposite of interest compounding; that is, simply working the numbers in reverse. If you have $100 earning 10% interest, at the end of one year you will have $110. Discounting is merely starting with the $110 and working in reverse to get to the $100 starting point.

Value is represented by the formula:

$$\text{VALUE} = \frac{\text{Free Cash Flow}}{\text{Cost of Capital} - \text{Growth in Free Cash Flow}}$$

Therefore, value is created when:

- Free cash flow increases,
- Company risk is reduced, and/or
- The growth rate of the free cash flow increases

The Income Approach focuses on two performance measures: 1) the Company's free cash flow, and 2) its return on equity. Growth in free cash flow or improvements in return on equity show that the Company is improving value. These two performance measures reflect the Company's cumulative usage of all its various capital resources. In other words, they reflect the effects of management's decisions and strategies when compared to its last benchmarking period. If the Company is effectively using its resources, it is creating value that will be reflected in the Company's free cash flow and return on equity improvements.

Free Cash Flow

Free cash flow is the cash that's available to the Company's owners after all the cash required for the Company's internal needs has been accounted for. This includes cash for capital expenditures, repayment of debt, and funds for expansion of the Company's operating assets such as inventories and accounts receivable.

Free cash flow is computed as:

Start with:	Net Income
Plus:	Depreciation, amortization and other non-cash charges
Less:	Incremental working capital needs
Less:	Incremental capital expenditure needs
Plus:	New debt principal added this period
Less:	Repayment of debt principal
Equals:	Free Cash Flow

Income Approach Methodologies

Different measures of economic income may be relevant to the various Income Approach methodologies. Some of these measures include the following:

- Gross or net revenues,
- Net operating income,
- Pretax income,
- Net income (after tax),
- Operating cash flow,
- Net cash flow, and
- Incremental income

Most methods that fall under the Income Approach may be grouped into several categories, all of which have similar conceptual underpinnings and similar practical applications, as follows:

- Methods that quantify higher levels of economic income;
- Methods that quantify lower levels of economic cost;
- Methods that estimate a relief from a comparable royalty; and
- Methods that quantify the before and after difference in value of the overall business enterprise as the result of owning versus not owning a particular asset, for instance a specific intellectual property.

Given the different measures of economic income that may be used in the Income Approach, an essential element in the application of this valuation approach is to ensure that the discount rate or the capitalization rate used is derived on a basis consistent with the measure of economic income used.

Derivation of a Capitalization Factor

One method used to derive a capitalization factor is the summation method. The summation method essentially "builds" a capitalization rate using the various components which comprise the total rate of return required on an investment in the Company. These components are: 1) the total return required on a long-term, risk-free investment; 2) the historical premium on small, publicly held stocks over the risk-free investment; 3) the premium for greater risk associated with an investment in the Company versus stocks of small, publicly held companies; and 4) the expected long-term growth rate for the Company in nominal terms. Risk is defined in terms of financial structure (financial risk) and in terms of the Company's markets (business risk). Financial risk refers to the possibility of bankruptcy and the variability of returns to equity investors because of the amount of debt. Business risk refers to the variability of earnings from operations. Thus, the rate of return expected by an investor from an investment is related to:

- The general level of interest rates,
- A premium for perceived financial risk, and
- A premium for perceived business risk.

The build-up method is utilized to compute the required equity return. This method separately identifies and quantifies each of the components of risk associated with an investment. The final result represents the minimum return necessary to cause an investor to invest in assets with financial characteristics similar to that of the Company's stock and represents the cost of equity capital for the Company.

Relief from Royalties Method

The relief from royalties method provides a means of estimating future economic benefits. The benefits are stated as the royalties saved as a consequence of owning the property. Benefits are projected for a number of discrete time periods and converted into a present value using a discount rate reflecting the investor's required rate of return over the expected term of the economic income projection period. The duration of the discrete projection period - and whether or not a residual or terminal value should be considered at the conclusion of the projection period - depends upon the valuator's expectation of the duration of the economic benefit to be generated by the intellectual property. These expectations must be grounded in the context of negotiations for license agreements capturing all terms of the representative agreements. If possible the expectations should not be based upon mere assumptions of a simplified royalty rate.

Critically, the royalty payment negotiated between the subject licensor/licensee must take into account the licensee's ability to pay. For example, a licensee would not pay a 15% royalty for a property that would produce profits of 5%.

Conclusion

This article focused on the particular methodologies utilized by a financial analyst working in a collaborative process applicable to the Income Approach. The remaining articles in this series will address the Market Approach, applicable discounts and premiums, and suggested checklists for use by non appraisers.

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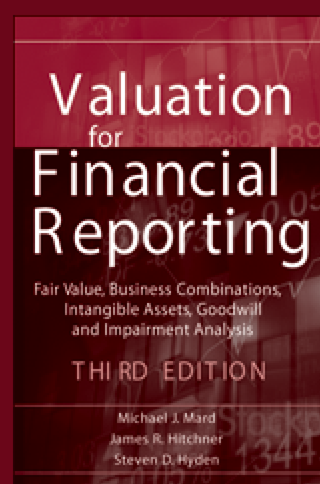
Michael J. Mard is a principal of The Financial Valuation Group of Florida, Inc. Mr. Mard has been a full-time business appraiser and expert witness for over 25 years, specializing in intangible assets, specifically intellectual property. He has developed analyses that have been reviewed and accepted by the Securities and Exchange Commission, major accounting firms, the IRS and the courts. Mr. Mard has provided expert testimony approximately 125 times related to intangible assets, intellectual property, business damages, marital dissolution, shareholder disputes and IRS matters. **Full Bio [PDF]**



Michael Mard, among many others, was involved in the creation and development of SSVS. If you would like an electronic version of SSVS, email info@fvgfl.com and a copy will be provided to you. Please put "SSVS Copy" in the subject line.

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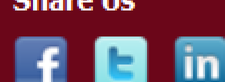

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