The Financial Valuation Group
Forensic Accounting, Business Valuation and Consulting Services

in this issue
MAY 2011

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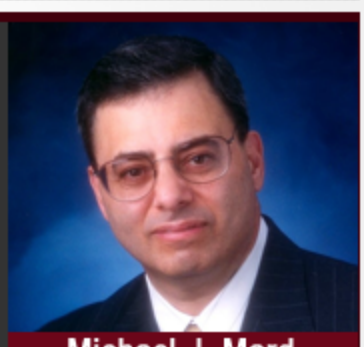

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Transparency in Collaboration

Principles of Transparency Specific to the Asset-based (or Cost) Approach

Part 3 of 7 in a Series
By
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This is the third of a series of articles discussing and setting forth principles of transparency related to business valuations and financial analyses performed in a collaborative process setting. This article discusses methods specific to the Asset-based or Cost Approach.

Summary

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 are summarized here:

- 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.

I propose general and specific principles to assure transparency of the work performed by a financial expert in a collaborative process. There has been much talk about transparency, but most has been quite general. My proposals are preliminary and are intended to form a basis for future discussion and development. Ongoing articles will focus specifically on the application of these principles to a financial expert performing a business valuation.

Asset-based Approach

The Asset-based Approach (also known as the Cost Approach) is based on the economic principle of substitution, which affirms that a prudent buyer would pay no more for a property than the cost to create an asset of equal desirability and utility. Said another way, under the principle of substitution, a willing buyer would pay no more (and a willing seller could not command more) for an asset than for an asset of similar utility.

There are two fundamental types of cost quantified in an Asset-based Approach valuation analyses: reproduction cost and replacement cost. Reproduction cost is the estimated cost to construct, at current prices as of the date of the analysis, an exact duplicate or replica of the subject tangible or intangible asset, using the same materials, production standards, design, layout, and quality of workmanship as the subject tangible or intangible asset. In contrast, replacement cost is the estimated cost to construct, at current prices as of the date of the analysis, a tangible or intangible asset with equivalent utility to the subject tangible or intangible, using modern materials, production standards, design, layout, and quality of workmanship.

Regardless whether the type of cost being estimated is reproduction or replacement cost, the following four components of cost are generally included in the analysis:

1. **Material:** Material costs include costs related to the tangible elements of the tangible or intangible asset development process. This might include, for instance, research and development or the outside fees to register a complex patent. In fact, for intangible assets material costs typically are insignificant in relation to the overall cost of asset development.
2. **Labor:** Labor costs are usually a significant portion of the cost to develop a tangible or intangible asset. Labor costs typically include salaries and wages to employees and all payments to contractors, and can be either direct or indirect. Even though historical records may be used as a basis for estimating labor costs, such costs should reflect current costs as of the valuation date.
3. **Overhead:** Overhead costs typically include employment-related taxes and benefits, management/supervisory costs, support and secretarial costs, and utilities and other operating expenses.
4. **Profit:** A tangible or intangible asset developer expects to earn a reasonable profit on the development of the tangible or intangible asset. This costs element reflects value in the sense that if the tangible or intangible assets were hypothetically developed external to the company, the developer would mark up his or her costs to include a profit element.

Cost and value are usually not the same. Reproduction cost and replacement cost usually exceed actual value because the value of some tangible assets and most intangibles is diminished by the existence of obsolescence.

Obsolescence

When estimating the cost of a new tangible or intangible asset, the analyst should adjust the cost estimate for obsolescence. Since the tangible or intangible asset being valued is not brand new, it is theoretically (although not always) inferior to the brand new asset that is the basis of the cost estimate.

The forms of obsolescence that are generally considered in the Asset-based Approach analysis of tangible or intangible assets are: physical deterioration, functional obsolescence (the reduction in the value due to its inability to perform the task or yield the economic utility for which it was originally designed), technological obsolescence (the decrease in the value of an tangible or intangible asset due to improvements in technology), and external obsolescence (the reduction in the value due to the effects, events or conditions external to, and the current use or condition of, the tangible or intangible asset).

Conclusion

The Asset-based Approach is often a very useful indicator of value for intangible assets, particularly intellectual property. In some intellectual properties, the future economic benefit is not immediately evident, and value is best captured by the Asset-based Approach. In any case, value under the Asset-based Approach is summarized in the formula shown in Figure 1.

Figure 1: Asset Based Approach Components

Reproduction Cost New	LESS	Curable Functional and Technological Deficiencies	LESS	Physical Deterioration	LESS	Economic Obsolescence	LESS	Incurable Functional and Technological Deficiencies	=	Value

An asset's deficiencies are considered curable if the prospective economic benefit of modifying it exceeds the cost of material and labor to change it. Its deficiencies are incurable if the cost to modify it exceeds its future economic benefits.

The quantification of the future economic benefit (where measurable) is often better estimated using the Income Approach, which will be the subject of the next Transparency in Collaboration article. Upcoming articles in this series will also address the Market Approach, applicable discounts and premiums, and suggested checklists for use by nonappraisers.

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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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